Stanford University School of Medicine and the Predecessor Schools:

An Historical Perspective

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Chapter 1. Introduction

The history of Stanford Medical School begins in 1858 with the founding in San Francisco by Dr. Elias Samuel Cooper of the first medical school on the Pacific Coast, known as the Medical Department of the University of the Pacific. Stanford's School of Medicine is the lineal descendant of this pioneer medical school. [1]

Dr. Cooper (1820-1862), founder of the new school, was a controversial but able surgeon in Peoria, Illinois, when in 1854 at the age of 34, and with premonitions of failing health, he abruptly gave up his flourishing practice to pursue postgraduate studies in Europe. Leaving New York on October 4, he arrived in Liverpool 10 days later on 14 October, and proceeded on to Edinburgh. There he joined his younger brother Jacob, who was engaged in religious studies at the University of Edinburgh.

After his arrival in Edinburgh, Dr. Cooper had time to reflect on his Atlantic crossing. It had been a memorable experience for him. He had never before traveled beyond the Middle West, and this was his first sea voyage. The Cunard Line's wooden steamship, S. S. Arabia, on which he embarked at New York was a 2400-ton side wheeler, said to be fitted with the largest and most powerful steam engines ever put into a vessel. Her accommodations for 180 passengers, all first-class, represented the height of Victorian comfort. Her length of 285 feet provided space below deck for two libraries; sumptuous, steam-heated cabins; a children's nursery; a dining saloon seating 160, and other amenities. The promenade deck extended from stem to stern. [2]

The Arabia was popular in the Atlantic trade because of her agreeable appointments, and these were doubtless favorable to the blooming of those pleasant shipboard friendships that not infrequently spring up naturally during the leisure and confinement of sea travel. Indeed, for Dr. Cooper the most gratifying aspect of the voyage was the companionship of a fellow passenger, Hugh Keenan, who was en route to his post as U.S. Consul in Cork, Ireland. Within a few days of his arrival in Edinburgh, Dr. Cooper addressed the following letter to Mr. Keenan:

> Edinburgh, Scotland 18th October 1854
> To the Honorable Hugh Keenan
> Dear Friend,
>
> There are circumstances that may cause emotions which we do not desire to express, and sentiments which not to disclose would do violence to our feelings. I speak of my own impressions just now. Whether it was owing in any degree to my own weakness and apparent dependence at the time, or altogether to your display of humanity and good sense during our voyage on the Arabia, I shall not puzzle myself to try to define. But certain it is I never before conceived such strong feelings of friendship for any stranger as for yourself, and consider that I have as yet expressed inadequately the obligations under which I feel you have placed me for the pleasure and benefit of your society and kindly attentions during that period. And though I shall not stop here to identify the various points of obligation under which you have placed me, I will state that it will be my own fault if I do not receive benefit by endeavoring to imitate your example of modesty…
>
> As an evidence of the confidence I have in your prudence as well as friendly feelings toward myself, I will inform you of my purpose in visiting Europe. It is this: I desire to obtain information which may be available in carrying out my plans to establish a Medical College in San Francisco at as early a period as circumstances appear to be opportune - a plan from which its magnitude should it obtain publicity and then fail, would excite ridicule; and a plan which though successful, if known long beforehand, would meet with far more mature opposition.
>
> Ever truly, your friend,
> E.S. Cooper

It was only recently that a copy of this letter to Keenan in Cooper's handwriting was discovered among miscellaneous correspondence in the Medical School Archives. We shall probably never learn why he chose to reveal to Keenan (and, as far as we know, only to Keenan) his closely-guarded plan to found a medical school in San Francisco. No doubt he meant the sharing of what had now become his life's purpose to be the ultimate expression of esteem for his new friend. And perhaps a homesick Cooper sought intuitively to lessen the lonely burden of his crucial decision by disclosing it to a sympathetic confidant. [3][4]

Years later Dr. Levi Cooper Lane, Cooper's nephew, wrote that Cooper had as early as 1851 spoken of his interest in establishing a medical school. It was later that Cooper decided on California as the site for his endeavors. It is said that this ambition was inspired in Cooper by the example of his friend and surgical colleague Dr. Daniel Brainard who eight years earlier, at the age of 31, had founded Rush Medical College in Chicago in 1843. Illinois was then on the rapidly advancing frontier of the country. [5][6]

By the early 1850s the frontier had moved to the Pacific Coast, and Cooper astutely concluded that San Francisco, burgeoning seaport and gateway to the gold fields, was a more promising site for a new medical school than the Middle West. Adventurous spirits, aspiring to perform great deeds, must often seek out a place where great deeds are possible. So it was with Cooper who, upon his return to Peoria from Europe and in accordance with his covert plan, joined the westward migration then at full flood. He arrived in San Francisco in 1855, traveling by the sea route from the East Coast via Nicaragua.

After reaching San Francisco, Cooper recalled his crucial decision to leave Illinois in search of his destiny in California, and these were his thoughts:

> While some men are reared amidst circumstances calculated to develop them, others are compelled to wait until the time arrives in which they can place themselves in the midst of circumstances calculated to call forth their energies…. To illustrate, I left a home and friends in Illinois to which and to whom I was most devotedly attached to come among strangers, not that I ever expected to be treated better nor even for a long time as well, but simply because I was living in a small place in a bad climate for protracted mental and physical labor, and in an atmosphere that admitted of dissection at best no more than one half of the year, to come to a

> place where practical anatomy can be cultivated as well in June as in January; where animal life is developed in the highest degree of perfection; where there is flattering prospect of an immense city; and in the centre of what may soon be the world's greatest thoroughfare; and a region of country in which fancy might make the breezes of evening whisper as they pass by: "Great empire to build! Brilliant destiny in future!" [7]

In three years, and in spite of ridicule, professional misadventures and chronic illness, obstacles that would have defeated a lesser man, Cooper succeeded in 1858 in establishing the first medical school in the vast territory between Iowa and the Pacific.

Memorable achievements that determine the course of history are generally traceable to exceptional individuals such as Elias Cooper. Clearly the beginnings of medical education in California, and the existence of Stanford Medical School, are the legacy of Cooper's vision and determination. It will therefore be fitting, in recognition of biography as the essence of history, to begin this chronicle of the School with an account of Cooper's life and work. [8]

The history of Stanford Medical School and its antecedent institutions spans the years from 1858 to the present. During this interval, four distinct chronological periods in the annals of the School can be identified. Because of the length and complexity of the School's evolution, the following Synopsis is provided as an overview of the events to be discussed in subsequent chapters.

The Founding (1858-1870)

It has already been noted that the first medical school in the Far West was founded in San Francisco in 1858 by Dr. Elias Samuel Cooper (1820-1862) as the Medical Department of the University of the Pacific; and that this original medical college was the forerunner of Stanford Medical School.

The University of the Pacific was established in 1851 by the Methodist Church and was the first college to be chartered by the State of California. It was located at that time in the town of Santa Clara, some 48 miles south of San Francisco. In 1871, the school moved to San Jose, and from there to Stockton in 1921. The University of the Pacific had authority from the State to grant degrees, including the MD For this reason Cooper and his colleagues petitioned the Trustees of the University to create a Medical Department with them as the faculty, and their request was granted. [9]

The school and Cooper were both subjected from the outset to virulent criticism from a strong faction of San Francisco physicians. The school would certainly have had a brief and hapless life but for Cooper's vigorous advocacy, and his perceptive choice of five resolute and loyal men who joined him in the enterprise, and with him constituted the original faculty. Providentially, there was soon the addition to the faculty of a new member who was ultimately by his own efforts and personal resources to ensure the survival of the school. This was Cooper's nephew, Dr. Levi Cooper Lane (1828-1902), appointed Professor of Physiology in 1861.

Having just begun to gain acceptance in the region and to award some 5 MD degrees each year, the school entered the most precarious period of its entire existence. Elias Cooper died in 1862, finally succumbing at the age of 41 to the obscure neurological disorder first manifest at the time of his departure from Peoria, Illinois for California. Without his leadership, the school's momentum slackened.

During the first few years of the new School, Cooper's most prestigious surgical rival, Dr. Hugh Huger Toland (1806-1880) perfected his own plan to found a medical school, and constructed a new building for the purpose on Stockton Street near Chestnut in downtown San Francisco. He announced in 1864 that the Toland Medical School would open in the fall. Outclassed and outflanked, the Medical Department of the University of the Pacific suspended operation while Dr. Lane and several key faculty colleagues from the Medical Department accepted the invitation of Dr. Toland to join the faculty of his new school. However, they later regretted their decision and in 1870 withdrew from the Toland School. They then reactivated the Medical Department of the University of the Pacific which had been suspended from 1865 through 1869.

In 1873 the Toland School became the Medical Department of the University of California (now the University of California School of Medicine in San Francisco). And so we see that the sometime competitive relationship between UCSF, Stanford Medical School and their antecedents dates from 1864.

The revival of the Medical Department of the University of the Pacific in 1870 marks the close of the school's hectic, fledgling period, wherein a self-taught and contentious surgeon from Peoria, Elias Samuel Cooper, was the indomitable moving spirit. In a sense, Cooper can be said to be responsible for the founding of not one, but two medical schools in San Francisco. There can be no doubt that the impetus for the Toland School was Dr. Toland's rivalry with Cooper and the craving to trump his hand.

The Advent of Cooper Medical College (1870-1912)

When the Medical Department of the University of the Pacific reopened in 1870 it was located on Stockton Street south of Geary in San Francisco next to the laboratories of University (City) College, a Presbyterian school founded in 1860. The first regular course of medical lectures of the revived school was held in the Chapel of the College. In order to gain permanent access to the conveniently located facilities of the College, the faculty arranged an amicable transfer of the school from University of the Pacific to University (City) College in 1872, and the school then became known as the Medical College of the Pacific. [10]

After 1870 the size and breadth of the faculty increased progressively with the result that the Medical College of the Pacific, an entirely self-sustaining enterprise, competed successfully for students and in other respects with the Medical Department of the University of California. In 1876 each school awarded about 20 diplomas.

When the school was reorganized in 1870, Levi Cooper Lane was designated Professor of Surgery and Surgical Anatomy, a dual appointment formerly held by Elias Samuel Cooper. Lane also assumed the leadership role that Cooper had previously filled in the affairs of the school. At the same time Lane proceeded, quietly and without the knowledge of his associates, to execute his own personal plan for the future of the school.

Lane's plan was divulged in 1882 when he donated to the school an impressive new building, constructed with his own private funds at the corner of Sacramento and Webster Streets in San Francisco. That building, said to have no superior in the world for medical education at the time, was in continuous use as a medical school for the next 77 years (1882-1959). On moving to the new facility, the school was incorporated as an independent institution and the name was changed from Medical College of the Pacific to Cooper Medical College in honor of Lane's Uncle Elias.

In 1890 a handsome new addition, the same size as the original medical school building, was constructed also at Lane's expense and donated to the school. It included a lecture hall, laboratories and other features.

Lane next turned his attention to improving resources for clinical teaching. With this in view, the 200-bed Lane Hospital was constructed during 1893 and 1894 at Clay and Webster Streets adjacent to the medical school, and inaugurated in 1895. Funds for the land and building were provided by various donors, but the major contributor was Dr. Lane who at the same time established the Lane Hospital Training School for Nurses, later to become the Stanford School of Nursing.

The final detail in Lane's grand design for the school was revealed when he announced in 1898 that he and Mrs. Lane had provided in their wills that the residue of their property should be devoted to the purposes of a medical library. Their bequest was the basis for the founding of Lane Medical Library which has proven to be a priceless asset to Stanford Medical School. The Library and the Lane Medical Lectures are the sole operational reminder in the present day of Stanford Medical School's earnest and resourceful forerunners in the century past. [11]

We must tell in a later section of this history how the wording of Mrs. Lane's will, the restrictions of California law, and the perfidy of the President of Cooper Medical College resulted in the Library receiving only one-third of the Lanes' considerable estate, all of which they had intended for the Library.

Levi Cooper Lane died in 1902, but not before he came to realize that medical progress demanded improvements in medical education best attainable within the academic environment of a university. Just prior to his death he made it possible for the Cooper Board of Directors to exercise their own judgment with respect to the future of Cooper Medical College. This they did by arranging in 1908 for the transfer of Cooper Medical College and all its property in San Francisco as a gift to Stanford University for the purpose of establishing a Medical Department in the University. Approval by the Stanford Board of Trustees of this transfer, apprehensive as they were about the future cost of medical education, would never have been granted except for the unwavering support of David Starr Jordan, University President from 1891 to 1913.

The first class of students entered the Stanford Medical Department (now the Stanford University School of Medicine) in September 1909. The last class of Cooper students graduated in May 1912, and Cooper Medical College ceased to exist.

Thus Stanford, like many other American universities, acquired a medical school by adopting an existing independent medical college.

Stanford Medical School in San Francisco (1909-1959)

Throughout most of the 50-year period from 1908 to 1959, instruction in Stanford Medical School consisted of 2 years of basic science teaching on the Stanford campus 35 miles south of San Francisco, followed by 2 years of clinical teaching centered on the San Francisco facilities that Stanford inherited from Cooper Medical College.

Two major additions were made to these facilities by Stanford. In 1912 an imposing new building was completed to house the Lane Medical Library, the finest medical collection west of Chicago. In 1917, the 180-bed Stanford University Hospital was inaugurated.

These developments were accompanied by continuing efforts by the School to keep pace with progress in medical education which, increasingly after World War II, called for a strong cadre of full-time faculty with the capability and resources to advance the frontiers of biomedical research. As for medical education at Stanford, it was distinguished by excellent clinical teaching, and by faculty and students whose dedication and esprit de corps are recalled to this day with pride and affection by alumni.

Nevertheless, aging and outmoded facilities both in San Francisco and on the Campus; lag in the basic science area and in research productivity generally; inertia in the educational program; and other factors caused grave doubts about the School's capacity with existing resources to meet increasingly rigorous national norms. In response to these circumstances, the Medical Faculty and the University, with the indispensable guidance of J.E. Wallace Sterling, University President from 1949 to 1968, carried out a bold and timely plan that consolidated the School in a new medical center on the Stanford Campus in 1959.

Again at a crucial juncture in the affairs of the School, its future hinged on the foresight and intervention of a single individual: first Cooper, next Lane, then Jordan, and now Sterling.

Stanford University Medical Center (1959-1968)

In 1959 the Palo Alto-Stanford Hospital Center (School of Medicine, Stanford Clinics and Palo Alto-Stanford Hospital) opened on the Stanford Campus, and the teaching, research and clinical programs in San Francisco were transferred to these new facilities. Palo Alto-Stanford Hospital (440 beds) was jointly financed by the University and the City of Palo Alto for the purpose of providing teaching, research and clinical resources for the University, and hospital beds for Palo Alto patients.

After its move to the Campus, the School grew steadily in national

stature until it attained and now holds a respected place in the front rank of medical education, scientific achievement and clinical medicine. This remarkable progress was the result of the following strategy:

Recruit a distinguished, research-oriented faculty.
Appoint faculty on a strict full-time basis.
Implement an innovative curriculum.
Attract exceptionally able medical students.
Commit to the relentless pursuit of excellence.

In 1968 Stanford University purchased the City of Palo Alto's entire interest in the Hospital properties and facilities, and its membership in the Hospital corporation. The now 580-bed hospital was renamed the Stanford University Hospital, and it came fully under the management of the University. This critical acquisition made it possible to allocate hospital resources more efficiently in support of the teaching, research and clinical programs that are the raison d'être for the University Hospital.

Since 1968 teaching, research and clinical activities in the School have increased significantly, accompanied by commensurate growth of faculty, student body, postdoctoral trainees and facilities. [12]

This is the last of the four chronological periods in the School's history that began in 1858 with the founding of the first medical school in California and the Far West, and concluded with the hospital purchase and consolidation as Stanford University Hospital in 1968.

Endnotes

1. The only comprehensive history of Stanford Medical School ever written is a thesis submitted to the Stanford School of Education in 1949 by Robert G. Whitfield in partial fulfillment of the requirement for the degree of Master of Arts. Whitfield's excellent survey entitled "Historical Development of the Stanford School of Medicine" has never been published, but photocopies of the original manuscript are available in the School's Lane Medical Library. Whitfield's thesis is included among 25 books and articles that comprise the principal sources of information about Dr. Elias Samuel Cooper and the evolution of Stanford Medical School. Lane Library catalog record
2. For further information about the steamship Arabia see Babcock, F. L. , Spanning the Atlantic (New York: Alfred A. Knopf, 1931), pp. 97-99 ; Bonsor, N. R. P. , North Atlantic Seaway: An Illustrated History of the Passenger Services Linking the Old World and the New (Prescott, Lancashire: T. Stephenson, 1955), pp.15 and 36; Dodman, F. E. , Ships of the Cunard Line (New York: John De Graff, Inc., 1955), pp. 33-36; and Gibbs, C. R. V. , Passenger Liners of the Western Ocean: A Record of the North Atlantic Steam and Motor Vessels from 1838 to the Present Day, 2nd ed. (New York: John De Graff, Inc., 1957), pp. 62-63.
3. The actual dates of Dr. Cooper's departure for and arrival in England in 1854 have been determined as follows. We learn from his letter to fellow passenger Hugh Keenan posted in Edinburgh on 18 October 1954 that they sailed on the S. S. Arabia. At the time of Cooper's voyage, the Arabia was operated by the Cunard Steam-Ship Line whose records are preserved in Liverpool University Archives. Among these records is the Arabia's Passage Book for the period from January to December 1854. According to Liverpool University Archivist Michael Cook, the Passage Book shows that the ship's last three sailings in 1854 from New York to Liverpool were 23 August to 2 September; 4 October to 14 October; and 15 November to 26 November. On 4 December 1854 the Arabia sailed as a Crimean War Troopship with gunpowder to Marseilles where she picked up French troops. No Passenger Lists for the Arabia are available. Assuming that Cooper wrote the Keenan letter as soon as possible after arriving in England, it seems reasonable to conclude that Cooper's Atlantic crossing was from 4 to 14 October 1854.
4. Hugh Keenan was serving as United States Consul at Cork, Ireland, on 30 September 1855 and on 30 September 1857 according to the Register of all Officers and Agents, Civil, Military and Naval, in the Service of the United States, compiled and printed under the direction of the Secretary of State in Washington, D.C.: A.O.P. Nicholson, Public Printer, 1855 and 1857. Keenan is not listed in the Register as being employed in the consular service as of 30 September 1853 or 30 September 1859. He therefore must have taken up his post at some time between September 1853 and September 1855. This would be consistent with his passage on the Arabia in October 1854. Keenan is shown in the Register as a native of Ireland, and a naturalized U.S. citizen. He was appointed to the Consular Service from Pennsylvania. We have no record of a response by Keenan to Cooper's letter of 18 October 1854, and no other reference to Keenan can be found among Cooper's personal papers, many of which have unfortunately been lost.
5. Levi C. Lane , "Dr. Henry Gibbons. In Memoriam," Pacific Medical and Surgical Journal and Western Lancet 28, no. 2 (Feb 1885): 59. Lane Library catalog record
6. Emmet Rixford , "Early medical schools on the Pacific Coast," Pacific Medical Journal 56, no. 3 (Mar 1913): 158. Lane Library catalog record
7. Correspondence, n.d. - Box 1, Folder 5, Elias Samuel Cooper Papers - MS 458, California Historical Society, North Baker Research Library.
8. The quotation from Emerson (1803-1882) is from "Essays: First Series. History" ,[1841] The Essays of Ralph Waldo Emerson, Illustrated Modern Library (USA: Random House, Inc, 1944), p. 7. Thomas Carlyle (1795-1881), a contemporary and friend of Emerson, had originally expressed a similar view of biography in 1830: "History is the essence of innumerable Biographies." ("Essay on History," in Critical and Miscellaneous Essays in Five Volumes, vol. 2 (New York: Charles Scribner's Sons, 1899), p. 86.) Carlyle repeated the same theme in 1840: "The History of the world is but the Biography of great men." ("Lecture on The Hero as Divinity," in Heroes, Hero-Worship and the Heroic in History (New York: The Macmillan Company, 1897), p. 39.)
9. Hunt, R. D. , History of the College of the Pacific, 1851-1951 (Stockton, California: Published by The College of the Pacific, 1951), pp. 1-15.
10. University (City) College, a Presbyterian school, was founded in 1860 under the name of City College. The name was changed to University College in 1868, but was thereafter commonly referred to as University (City) College. It was located at Stockton and Geary Streets in San Francisco in 1872. Because of financial difficulty, the College sold its land at Stockton and Geary in 1875; purchased a frontage of 400 feet at 129 Haight Street; and moved some of its buildings to that location at considerable expense. College classes were essentially suspended after 1875. When fund-raising efforts proved unsuccessful, the College property was sold to a private party in 1879, but the new buyer was never able for financial reasons to open a school at the Haight Street site. For additional details see Clifford Drury , William Anderson Scott - A Biography (Glendale, CA: Arthur Clark, 1967); and Coote RB and Maaga M. , ""Why is San Francisco Theological Seminary in San Anselmo?"" Pacific Theological Review 21, no. 2 (Spring 1988):
11. Addresses by Timothy Hopkins, Emmet Rixford and David Starr Jordan, Dedication of the Lane Medical Library, Leland Stanford Jr. University, San Francisco, November 3, 1912, Leland Stanford Junior University Publications, Trustees Series No. 22 (Stanford University, California: Published by the University, 1912), pp. 8 and 20; Christina Man-wei Li , "The History of the Lane Medical Library, 1912-1967," (A Thesis Presented to the Faculty of the Department of Librarianship, San Jose State College, in Partial Fulfillment of the Requirements for the Degree of Master of Arts, January 1968), 87 pp. Lane Library catalog record; Lane Library catalog record
12. Construction data obtained from "Physical Plant - A Report." Last Revised 25 September 1990. Prepared by Stanford Medical School Facilities Planning Office.

Chapter 2. Elias Samuel Cooper and the American Frontier

“An Historical Perspective.” This, the subtitle of our Book, refers to our special interest in exploring the historical background of individuals, institutions and events related to the origin and evolution of Stanford Medical School and its Predecessor Schools. Accordingly, we shall give in-depth consideration to the following selected themes in medical and world history:

Stanford Medical School owes its existence to Elias Cooper - reason enough to begin the School’s history with an account of his life and work, placed in perspective by commentary on relevant aspects of the 19th century world in which he lived.

Elias Samuel Cooper, destined to be the founder of the first medical school on the Pacific Coast, was born on 25 November 1820. His parents were Quakers and lived on a farm about a mile from the village of Somerville in Southwestern Ohio. The now great city of Cincinnati, 30 miles to the south, was then a town of only 10,000, located on the banks of the Ohio (an Iroquois word meaning “Great River”). Elias’s grandparents, William and Mary Cooper, and his father Jacob, who lived in South Carolina, migrated to the west in 1807 through the Cumberland Gap over the Wilderness Trail blazed in 1775 by Daniel Boone. They traveled in a wagon train with other Quakers who, like themselves, were leaving South Carolina in protest against the introduction of slavery into their district. The Coopers acquired a homestead near Somerville and were among the early settlers at a time when this was the western frontier of the nation.

In 1810, Jacob Cooper (Elias’s father) married Elizabeth Walls and they had nine children — six daughters and three sons. Their three sons were:

Dr. Esaias Samuel Cooper (1819-1893)
Dr. Elias Samuel Cooper (1820-1862)
Professor Jacob Cooper (1830-1904)

Their eldest daughter, Hannah (1811-1863), married Ira Lane in 1827. They had nine children, four daughters and five sons. Their first child was a son, Levi Cooper Lane (1828-1902). He was Elias’s nephew and successor in the medical school that Elias founded.

With tales of the family trek over the Blue Ridge Mountains to the Ohio frontier forever fresh among his childhood memories, Elias no doubt came easily by the decision early in his career to move west in search of opportunity. During his formative years and the beginning of his practice as a surgeon, he lived in several small towns just emerging from the stage of frontier settlement. The last of these was Peoria, Illinois. All these communities were located in the region then known as the Northwest. His later years were spent in the new state of California. Unquestionably, his career was shaped by a singular phenomenon of American Society at the time - the westward movement of people. During the period from 1800 to 1850, in one of the greatest migrations of mankind, the boundaries of the United States were extended from the Alleghenies to the Pacific.

American settlers advanced in wave after wave to occupy newly acquired western territories as soon as they became available. Hunters, trappers and traders were in the vanguard. Alone or in small parties they penetrated the wilderness, avoiding or making their peace with the Indians, often finding a wife among them. These rugged pathfinders were followed by hardy settlers like the Cooper family who cleared land for farming, withstood the rigors of frontier conditions and the perils of Indian hostility. They ultimately formed towns where pioneers with other vocations joined them to create the diverse institutions of urban society.

History Professor Jackson of Harvard has said that the “crucible of the frontier” molded the American character, endowing it with “that coarseness and strength combined with acuteness and inquisitiveness; that practical, inventive turn of mind, quick to find expedients; that masterful grasp of material things, lacking in the artistic but powerful to effect great ends; that restless nervous energy; that dominant individualism, working for good and for evil, and withal that buoyancy and exuberance which comes with freedom”. [1]

This sense of freedom was based on a seemingly boundless expanse of open land without barriers to the ruthless exploitation of its resources. The era of westward migration saw the vast buffalo herds destroyed on the plains, whole regions denuded of their virgin forests and the indigenous populations decimated and dispossessed. The nation’s founders foresaw the day of reckoning that has now arrived. According to Chief Justice John Marshall, Jefferson thought that our government “will remain virtuous for many centuries,” but only, he added with seer-like vision, “as long as… there shall be vacant land in America.” Jefferson concluded that when the people “get piled upon one another in large cities as in Europe, they will become as corrupt as Europe.” [2] Marshall himself predicted that “when population becomes so great that ‘the surplus hands’ must turn to other employment, a grave situation will arise… .As our country fills up, how shall we escape the evils which have followed a dense population?” [3]

Cooper lived and made his contribution to medical education during the great migration and the waning years of the American frontier. Clearly an historical frame of reference is needed if we are to appreciate the significance of his achievements.

The Northwest

Ohio was part of the vast wilderness called the Northwest Territory, lying south of the Great Lakes between the Ohio and the Mississippi Rivers. The region was ceded to the United States by the British in the Treaty of Paris (1783) that ended the American Revolution (1775-1783). At the time of Elias Cooper’s birth in 1820, the Territory was being rapidly populated by immigrants streaming in from the eastern seaboard. Although the states of Ohio, Indiana and Illinois had been admitted to the Union in 1803, 1816 and 1818, respectively, they were nevertheless still sparsely settled and, during Cooper’s early manhood, the future states of Michigan (1837), Wisconsin (1848) and Minnesota (1858) were still an untamed western frontier.

We must digress briefly to pay respects to the Northwest Ordinance of 1787 that defined the organization of the Territory. The Ordinance is justly regarded as one of the great creative contributions of American government. It was adopted on 13 July 1787 by the Congress of the Confederation of the 13 former Colonies convened in New York. On 21 February 1787 this same Congress had authorized the Federal Constitutional Convention which opened in Philadelphia on 25 May 1787. Less than four months later, on 17 September 1787, the Congress completed the draft of the Constitution of the United States.

The stimulus for the rapid drafting and approval of the Ordinance by the Congress was the application from General Rufus Putnam and Reverend Manassah Cutler (forebear of Stanford’s Associate Medical Dean Robert Cutler), to purchase five million acres of government land in the Northwest Territory, just north of the Ohio River. Putnam and Cutler represented the recently organized Ohio Company and Associates, centered in Boston and one of the largest land-purchasing syndicates in the nation at the time. The Company had two telling assets: one was its very considerable capital, and the other was Reverend Cutler, who proved to be a most persuasive agent. Congress, attracted by the prospect of obtaining money urgently needed for the depleted federal treasury, acted promptly and with remarkable foresight to approve the Ordinance in 1787.

The Ordinance, sometimes called a bridge between wilderness and statehood, established principles applicable not only to the Northwest Territory, but to future lands acquired in the westward expansion of the United States. It provided that the region north of the Ohio be divided into not more than five, nor less than three territories, with a purely executive government of officials appointed by the Congress until the free adult male population of a territory reached 5000. At that point, an assembly was to be elected; and when the inhabitants reached 60,000 the territory was to have the right to statehood on the basis of complete equality with the original 13 states. The Ordinance further provided for an equivalent of the bill of rights; freedom of religion; habeas corpus; jury trial; and land reserved in every township for public schools.. Slavery was banned. It is difficult for us to imagine, heirs that we are to American constitutional government, how revolutionary were the concepts of the Northwest Ordinance in 1787. This legislation liberated the enormous potential of an independent American citizenry on the frontier, directing their energy into the productive channels of democratic government and social progress. Thirty-one of the 50 states have come into the Union under the principles of the Northwest Ordinance with the result that the United States today is a federal republic of 50 equal partners. [4]

It is opportune here to avoid confusion by pointing out that the territory designated by the term “northwest” changed as the national hinterland moved west. In time, the Northwest Territory (that we are now discussing) began to be called the “Old Northwest,” and then the “Middle West” or “Middle America.” The Pacific Northwest or Oregon Country was later sometimes referred to as the “New Northwest.”

Returning now to distinctive features of the Northwest Territory where Elias Cooper was born and lived until 1855, we should remember that it was the original homeland and hunting-ground of many Indian tribes including the Chippewa, Fox, Miami, Ottawa, Potawatomi, Sauk, Shawnee, Sioux and Winnebago. The Indians were friendly with the easy-going and tolerant French pathfinders and traders who were the first to explore the upper Mississippi in the 1670’s. And they continued to live on good terms with the French colonists who later established missions, forts and trading posts at strategic locations across the territory from Detroit in the northeast to Kaskaskia on the Mississippi in the southwest.

This Arcadian interlude of benign French dominion in the Northwest was followed by a long, grim period of sporadic Indian rebellion and imperial wars that began in 1754 with the French and Indian War (1754-1763), waged in Europe as the Seven Years War, by which the British wrested control of the Northwest from the French. This protracted conflict was followed directly in 1763 by a general uprising of the Indian tribes led by Pontiac, chief of the Ottawa. During Pontiac’s War there was a reign of terror throughout the frontier which wiped out hundreds of pioneer families and resulted in loss of all the forts in the Northwest except Detroit. Later, the region was a crucial theater in the War of Independence (1775-1783) during which the Indians sided with the British.

After the Coopers’ arrival in Ohio, the Territory was again the scene of bitter conflict during the War of 1812 - “the second war of independence” - between the Americans, and the British and their Indian allies. The Indian tribes who fought (and lost) with the British in that war were a grave danger to settlers like the Coopers whom they sought to drive back across the mountains. The Indians were organized into a formidable confederacy by a visionary and charismatic Shawnee, Tecumseh, for the purpose of putting an end to the sale of Indian lands, and to the ceaseless incursion of white settlers into the Territory. The threat of Indian raids on the Ohio frontier did not subside until after Tecumseh was killed in the battle of the Thames River north of Lake Erie on 5 October 1813. Upon his death, his confederacy dissolved.

According to Shawnee tradition, Tecumseh’s older brother, Chiksika, was a prophet. He, like Tecumseh, died fighting to reclaim the ancestral land from a foe of whom he said: “When we allow one white man to build his cabin, soon there are two, then ten and then more until there is little room left. By then the white man has forgotten that the land is the Indians’ and he has only been allowed to be there. Suddenly he looks upon the Indian as being an intruder on his land and tells the Indian he must move away to make room for more white men….The white race is a monster who is always hungry and what he eats is land.” Prophetic words indeed. [5]

The Black Hawk War of 1832 that terrorized western Illinois (when Elias Cooper was 12 years old) was precipitated by the continuing influx of white settlers. The Indians were badly defeated and were never again able to challenge the settlement of the Territory. Black Hawk’s band of Sauk warriors was virtually annihilated and he and his men were driven west of the Mississippi, removing the last deterrent to immigration by the Americans. Years later, in 1838, an aged Black Hawk, resigned to the fate of his tribe, made a poignant speech at a Fourth of July

celebration shortly before his death at 71. He said: “Rock River (Illinois) was a beautiful country. I liked my town, my cornfields and the home of my people. I fought for it. It is now yours. Keep it, as we did. It will produce you good crops.” [6]

During the Black Hawk War a tall, ungainly man of 23 from Sangamon County in central Illinois named Abraham Lincoln was among the first to respond to the Governor’s call for volunteers, and was at once elected captain of his company. About this time many of the families on the Illinois frontier sought refuge in a small settlement called Peoria, named after the Peoria Indian tribe. The village, consisting of 15 to 20 log cabins and two frame houses, was protected by a local force of 25 men styled the “Peoria Guards.” Twelve years later, in 1844, Elias Cooper set up surgical practice in Peoria. By then the population was about 2000, and frontier conditions were giving way to a bustling community life. [7][8][9]

Such Indian leaders as Pontiac, Tecumseh and Black Hawk bitterly resisted the encroachment of frontier settlements and never accepted the validity of land sales by tribal chiefs to white men or their government. Nevertheless, cessions of land were made by the Indians, sometimes under duress, so that their way of life as hunters, ranging freely over a pristine expanse of forest and prairie, was forced to change. Settlement of the frontier by white Americans, progressing at an incredible pace, ruthlessly displaced Native Americans and forced many of them onto reservations.

In Peoria, Cooper gained an enviable reputation as a surgeon and teacher of anatomy. Nevertheless, by 1855 he had reached a professional plateau and his ambition led him unerringly to follow the “westward course of empire” to California.

The Far West

The innate human craving for land, and the imperial instincts of political leaders, convinced Americans of their “manifest destiny” to expand south to the Rio Grande and west to the sea - that is, to incorporate Texas and the Southwest, and California and the New Northwest into the Union. Conquest of all the land from the Alleghenies to the Pacific, and establishment within that immense domain of a durable social order in the 50-year period from 1800 to the statehood of California in 1850 was an accomplishment unparalleled in history. It can be attributed to the American form of government, the ethos of the people - and the extraordinary resources that fell into their hands.

The human tide that streamed across the country peaked in California following the Gold Rush of 1849. The port city of San Francisco developed at an unprecedented rate, creating the opportunity for which Cooper had been waiting.

Spanish Discovery and Occupation of Alta California

The California stage on which Cooper played the final stormy act of his career was, prior to 1844, little known to the American public by whom it was vaguely perceived as a mysterious and romantic land called Alta (Upper) California. The region was claimed for Spain in 1542 by Juan Rodriguez Cabrillo, a skilled and intrepid navigator of Portuguese origin. He sailed up the Pacific Coast on a voyage of exploration from Baja (Lower) California to as far north as Northwest Cape near Fort Ross, about 70 miles north of San Francisco. He passed Monterey Bay, the Golden Gate and San Francisco Bay without seeing them. Cabrillo’s voyage preceded Francis Drake’s visit in 1579 to the California coast just north of San Francisco Bay by 37 years, and the founding of the first English settlement in North America at Jamestown, Virginia in 1607 by 65 years. [10]

Preoccupied with the southern territories of New Spain, as their American colonies were called, the Spanish initially showed little interest in Alta California. This changed when they became alarmed by rumors that the Russians were planning settlements on the west coast of North America, and by a report in 1767 from the Spanish minister to the Russian court that the Empress was considering expeditions to the area. Furthermore, the British had acquired Canada in the Treaty of Paris (1763) that concluded the Seven Years’ War in Europe (French and Indian War in America). This raised the possibility that the Russians and British might encroach on California from the north.

It was to counter these threats that Spain moved for the first time to begin the occupation of Alta California. For this crucial task, the government was fortunate in the choice of Don Gaspar de Portola (c. 1723-1784), first governor of Las Californias (Baja and Alta), and Franciscan Father Junipero Serra (1713-1784), first President of the California Missions. Portola and Serra set out in early 1769 from Baja California on a combined sea and land expedition to colonize the ports of San Diego and Monterey. San Diego was occupied and the first presidio, military town and mission in Alta California were established there in 1769 in spite of frightful loss of life. Over two-thirds of the men from the San Carlos and San Antonio, supply ships of the expedition, died of disease and malnutrition, chiefly scurvy.

Portola, who was not deterred by this disaster, began the overland trek from San Diego to Monterey in July of 1769 with a force of 64 men. On 5 October his party had reached, according to their reckoning, the location of Monterey Bay which had been chosen as the site for the second colony. To their dismay, they found the shoreline wide open to the sea. They saw no sign of the fine, enclosed harbor sheltered from the winds that early navigators had so graphically described. Believing that Monterey Bay must lie farther to the north, the expedition pressed on.

Their path took them near the future Stanford Campus where a huge Sequoia so impressed them that they named it El Palo Alto (The Tall Tree). Years later the town of Palo Alto took its name from this lofty redwood. Today the scraggly remnant of an ancient, double-trunked Sequoia may be seen in Palo Alto where Alma Street meets San Francisquito Creek, hard by the Southern Pacific Railroad tracks. In the small park that surrounds the base of the tree a bronze plaque was placed in 1926 proclaiming that: “Under this giant redwood, the Palo Alto, November 6 to 11, 1769, camped Portola and his band on the expedition that discovered San Francisco Bay. This was the assembling point of their reconnoitering parties.” However, to the chagrin of Palo Altans, subsequent historical research suggests that the tattered, double-trunked redwood described on the plaque could not be the surviving vestige of Portola’s famous landmark, now believed to have had a single massive trunk. And so we must conclude that the original El Palo Alto somehow perished long ago, leaving not a trace to show where it once stood. [11]

Continuing their northward march, Portola and his sick and exhausted men, eleven of them carried in litters between mules, were on 11 October 1769 astonished to find their path blocked by a great arm of the sea extending inland from the Pacific, and stretching southeastward as far as the eye could see - the Bay of San Francisco. The records of early Spanish navigators imply that several of them may have sighted the entrance to the Bay and even sailed through it for a short distance in search of food and water. But it was Portola who first explored its shores. History therefore credits him with the Bay’s discovery.

On his return journey to San Diego, Portola again looked for the fabled harbor of Monterey Bay, but was once more unable to find it. Undaunted, in the Spring of 1770 he again marched north from San Diego to resume the search. At last, in May of 1770, he had no difficulty in recognizing the beautiful Monterey Bay exactly as it had been described by Spanish mariners more than a century before. Also in 1770 Portola founded in Monterey the second presidio and military town in Alta California, and Father Serra founded the second mission.

It was Spanish policy in colonizing Alta California to accompany the sword by the cross. That is, their military forces were accompanied by priests of the Franciscan order, the Jesuit friars having been banned from all the provinces of New Spain by Carlos III, King of Spain, in 1767. The long-range plan of the Spanish called for selected strategic locations to be occupied by special settlements that were established and supported by the government. These settlements were comprised of a presidio (military compound or fortress), a presidial pueblo (military town) and a Franciscan mission. San Diego (1769), Monterey (1770) and San Francisco (1776) were the first outposts of this type. We have seen how San Diego and Monterey were founded by Governor Portola and Father Serra. In view of our special interest in San Francisco, let us now take note of its origin in Spanish colonial times.

At the recommendation of Father Serra, whose counsel was greatly respected, a new Spanish viceroy in 1775 sent the San Carlos under the command of Juan Manuel de Ayala to explore the unnamed bay accidentally discovered by Portola. Ayala’s report convinced the government that this “great arm of the sea” was of immense strategic importance, and worthy of the high distinction of being dedicated to the patron Saint Francis. Thus it was christened the Bay of San Francisco.

The viceroy assigned high priority to the establishment of a settlement on the Bay, and ordered Juan Bautista de Anza (1735-1788), an able and humane soldier, to lead an overland expedition of colonists (consisting mainly of poor peasants) from Sonora province in Mexico. Lieutenant Colonel Anza set out on 23 October 1775 with a company of 240 men, women, and children and led them in winter through a pass in the San Jacinto Mountains, a southern spur of the Sierra Nevada. This he accomplished without loss of life, a notable feat. The expedition then traveled north, stopping at Monterey while Anza went ahead to reconnoiter the Bay of San Francisco. At the corner of Embarcadero and Middlefield Roads in Palo Alto, a mile from the Stanford campus, there is a bronze plaque that reads: “Lt. Col. Juan Bautista de Anza and party crossed this area in March 1776 en route to select sites for the Presidio and Mission of San Francisco.” Having selected the sites, Anza returned to Mexico, and the colonists proceeded from Monterey to San Francisco Bay where a presidio was dedicated on 17 September 1776 at the location of the present Presidio of San Francisco. A mission was dedicated on 3 October 1776 by Father Francisco Palou, acting for Father Serra, at the location of the present Mission Dolores on Dolores Street near Sixteenth in San Francisco.

The original settlement of Alta California was not accomplished by a voluntary, irrepressible surge of acquisitive, self-sufficient and self-governing pioneers and homeseekers as on the American frontier, but by peasant colonists recruited as described above. These were followed by relatively affluent Spanish colonials who received large grants of land from a government that continued to provide logistical support and administration for the province. As might be expected, the society that evolved in Alta California reflected the Spanish philosophy and method of colonization. In the end, it suffered a fatal collision with free-lance American pioneers.

This outcome was foreshadowed by the predominantly pastoral way of life of the Spanish Alta Californians during the colonial period. The upper class lived on privately owned ranchos acquired through the generous land grants they received to encourage settlement. These ranchos, thousands of acres in size in many cases, were stocked with cattle, sheep and horses to produce hides and tallow for trading, and other products to meet domestic needs. Agriculture was not intensive; manufacturing was minimal; tools, vehicles and farm equipment were antiquated; much of the manual work was done by the Indians; and the country’s resources were not exploited. Hides and tallow were the main items of export and source of foreign exchange in a modest maritime commerce.

Spanish colonial life and the trade in hides and tallow along the California coast are unforgettably portrayed in Richard Henry Dana’s Two Years Before the Mast. In 1834, at the end of his junior year at Harvard, Dana was forced to interrupt his studies because of illness. To regain his health, he served the next twenty-five months as an ordinary seaman aboard sailing vessels. After a voyage around Cape Horn to California he spent a year in 1835-36 making port from San Diego to San Francisco Bay, picking up cargo from the ranchos and missions along the way. Thus he described the Bay of San Francisco where he entered in the winter of 1835 as an ordinary seaman on the sailing ship Alert [12].

> In the prosecution of her voyage for hides on the remote and almost unknown coast of California, (the Alert) floated into the Bay’s vast solitude. All around was the stillness of nature. One vessel, a Russian, lay at anchor there, but during our stay not a sail came or went. Our trade was with remote missions, which sent hides to us in launches manned by their Indians. Our anchorage was between a small island, called Yerba Buena, and a gravel beach in a little bight or cove of the same name… Some five or six miles beyond the landing-place, to the right was a ruinous presidio, and some three or four miles to the left was the Mission of Dolores, as ruinous

> as the presidio, almost deserted, with but few Indians attached to it, and but littler property in cattle. Over the region far beyond our sight there were no other human habitations, except that an enterprising Yankee, years in advance of his time, had put up, on the rising ground above the landing, a shanty of rough boards, where he carried on a very small retail trade between the hide ships and the Indians. Vast banks of fog, invading us from the North Pacific, drove in through the entrance, and covered the whole bay.

The Californians themselves cultivated a relaxed and congenial style of living, devoted to family, friends and their Catholic faith. Their generosity and hospitality were legendary. Circumstances were generally comfortable, the country was normally stable and peaceful, human predators were few, and the martial arts were neglected - although the men did tend to be fiery on points of personal honor. By and large the Californians tended to be aristocratic in temperament, indisposed to arduous common labor, and satisfied with the standards and amenities of the society they had created in their geographic and cultural isolation. The California weather spared them the rigors of less temperate climes, and the economic environment was not competitive. In many ways the Spanish times in California were idyllic (for the dominant class, that is) but clouds were appearing on the eastern horizon. In spite of the laws forbidding immigration, Americans from across the Sierra began to filter into the province - trappers, traders and frontiersmen at first, but soon followed by homesteaders who settled on the land. This was increasingly worrisome to the government, but little was done about it by the local authorities who lacked either the means or the will to enforce the immigration laws. [13]

Imminent, however, was a development more disruptive than immigration to the Californian society. This was the revolution that ended Spanish colonial rule, and founded the Mexican Republic on 19 November 1823. Independence from Spain was followed by chronic instability of the Mexican central government. Political dissent and conflict were thereafter more or less continuous in Alta California except for a temporary respite during the term of the popular Jose Figueroa who was Mexican governor of the province from 1833 to 1835. [14]

Governor Figueroa is credited with founding the town of Yerba Buena on San Francisco Bay in 1835 by inducing William A. Richardson, an English master mariner who had become a Mexican citizen, to settle there. Richardson moved across the Bay from Sausalito and set up a temporary dwelling of rough boards on Yerba Buena Cove, and in return Figueroa made him Collector of the Port. The main attraction of the site, located three miles east of the Presidio, was the good anchorage for ships provided by the small cove. Growth of the little village of Yerba Buena was quite slow, and in 1845 it contained only about 20 buildings and 125 inhabitants, mostly foreigners. The area had long been known as El Parage de Yerba Buena (The Little Valley of the Good Herb) because of the aromatic vine (Micromeria chamissonis) growing there in profusion. This accounts for the town's original name of Yerba Buena. On 23 January 1847, by order of Lieutenant Washington A. Bartlett, first American mayor of the place, the name was changed to San Francisco.

The shoreline of San Francisco Bay is no longer indented by the diminutive Yerba Buena Cove. It has been completely obliterated by an extensive landfill which now supports the financial district of the city of San Francisco. Originally, the Bay entrance to the Cove corresponded to the eight block section of Battery Street from Bush to Broadway, and from there the Cove extended maximally inland to the corner of Montgomery and Jackson, a distance of two blocks. [15][16][17]

As already mentioned, the United States public was poorly informed about the province of Alta California prior to 1844. It was in this year that Second Lieutenant John C. Fremont of the topographical corps of the United States Army published a report of his expedition in 1843-44 to explore that remote territory. In the era before Fremont's visit the province was sparsely populated, as is readily apparent from the following estimates. The native population was possibly 100,000 to 150,000 Indians, some of whom were attached to the 21 Spanish missions established in 1796-1823 and located a day's journey apart from San Diego in the south to Sonoma in the north. In the period between 1810 and 1826 when the Spanish colonies in South America and Mexico were engaged in rebellion against Spain, the Spanish-speaking population in Alta California probably numbered little more than 3,000. Two thousand of these were soldiers and their families, priests, and the people employed at or living near the missions, while less than 1,000 were residents of pueblos (small towns) or private ranches. Increase of Spanish-speaking population occurred chiefly by births rather than immigration. The foreign male population not of Spanish blood (i.e., immigrants) has been given as 150 in 1830, 300 in 1835, 380 in 1840, and 680 in 1845. Small wonder that the wide-open and unguarded spaces of Alta California were an irresistible attraction to land hungry pioneers from east of the Sierra. [18][19]

In recognition of the greater importance of the upper province, Monterey was made the capital of Las Californias (Alta and Baja) in 1775. It was thereafter the seat of government and residence of the Governor (except when transferred temporarily and in name only to its southern rival, the pueblo of Los Angeles, during the regime of interim Governor Guitierrez in 1836 and that of Governor Pico in 1845). Even though it was the center of government, Monterey retained the unhurried, gracious milieu of a small colonial jewel, basking in the California sun on the shore of its incomparable bay. Other towns in the northern province were small and scattered and the missions maintained their separate, ascetic and regimented enclaves under the Franciscan padres. There was no preparation for the gathering storm.

American Immigration

American immigration to California in the early 1840s was slight compared to the flow of settlers to the much better known Oregon Country, an extensive wilderness region that included not only the present state of Oregon, but also Washington, Idaho, part of Montana, and British Columbia. The northern or Canadian sector of this territory was claimed by Great Britain and the southern sector was claimed by the United States. The first exploration of the American sector was ordered by President Jefferson who sent Captain Meriwether Lewis and William Clark of the United States Army to explore the country and, in particular, to determine whether there was a "water communication across the continent." The Lewis and Clark Expedition left St. Louis on 14 May 1804, reached the Pacific coast at the mouth of the Columbia River on 7 November 1805, and returned to St. Louis on 23 September 1806. Jefferson was delighted with their remarkable achievement. They found no water communication through the Rockies to the Pacific (for there is none), but their report provided a description of the territory and of a passable land route across plains and mountains to be followed by the wagon trains of future settlers. [20]

In 1818 the United States and Great Britain began negotiations over partition of the Oregon Country and the boundary between their jurisdictions. Their failure to agree on these issues was a troublesome problem. In frustration the two governments adopted a renewable Convention of Joint Occupation that allowed freedom of trade and settlement for both nations. This did not satisfy either the vocal expansionists in the American public or the prospective immigrants who wanted to know under what flag they would be living. As a result there was enthusiastic support for Senator Tappan when he declared that thirty thousand settlers with their thirty thousand rifles in the valley of the Columbia River would quickly settle all questions of title to the country. [21]

In spite of uncertainty about land titles, enthusiasm for Oregon ran high, and heavy westward migration of land-hungry homeseekers once again became a significant factor in the territorial expansion of the United States. The Oregon Trail became a national highway. Pioneers from the frontiers of Iowa, Missouri, Illinois and Kentucky converged on Independence, Missouri, to join up into wagon trains of as many as a hundred "prairie schooners", as the covered Conestoga wagons were called. With an elected leader in command, an experienced trapper or fur trader as a guide, and perhaps as many as a thousand cattle on the hoof, they set off across the plains in the Spring. The Trail led through the South Pass of the Rockies in southwestern Wyoming, then veered north to Fort Hall in southeastern Idaho near the headwaters of the westward flowing Snake River. From there, and after six months on the Trail, they reached their destination in the valley of the upper Columbia River, or of the Willamette, one of its tributaries in western Oregon. Parties were fortunate to complete the journey without loss of life, and some disappeared without a trace along the way, through starvation after getting lost or Indian attack.

Although there are no accurate records, it is probable that 5000 to 6000 Americans settled in the Oregon Country in 1843-1845. The rapidly growing presence of citizens in the territory, and political clamor for annexation of "All Oregon", hardened the determination of the American government to settle the boundary dispute with the British on conditions favorable to the United States. Finally, after 28 years of intermittent negotiations and increasing tension, the British agreed to the Oregon Treaty substantially on American terms. This agreement fixed the present northwestern boundary of the United States along latitude 49 degrees N to Puget Sound. The Treaty was ratified by the United States Senate on 15 June 1846 during the Administration of President James K. Polk (1845-49). Thus was completed the final section of the 3000-mile transcontinental boundary between Canada and the United States as it exists today.

But the expansionist ambitions of President Polk (shared widely by the public) were not to be satisfied until California was brought into the Union. The settlement of the Oregon Question was but a dress rehearsal for the acquisition of California on which the President was now intent. And there was little time to lose. England and France were rapidly acquiring colonial empires in the Pacific and would take any opportunity to obtain California from the faltering Mexican government, by purchase if possible as the United States had already attempted to do, or by seizure if the occasion presented.

Events in the American southwest were already conspiring to achieve all of President Polk's territorial objectives within his term of office. His predecessor, President Tyler (1841-1845), had succeeded on 28 February 1845, the last day of his presidency, in securing congressional approval for the admission of the Lone Star Republic to the Union as the State of Texas. The political maneuvering in Texas, Mexico and the United States was intense, and Texas' willingness to join the Union hung in the balance from 28 February to 18 June 1845 when the Congress of the Lone Star Republic finally voted to approve annexation of Texas by the United States.

As to the origin and fortunes of the Lone Star Republic, a brief account will suffice. By 1835 American immigrants, chiefly from the South, had gained control in the northern part of the Mexican State of Coahuila-Texas. In that year they seceded from Mexico. In 1836 they set up a provisional government, proclaimed the independence of the Lone Star Republic of Texas, and defeated the forces under Mexican President Santa Anna who tried to retake the territory. In defiance of the laws of Mexico, the Americans had introduced slavery. As a result there was a bitter and lengthy controversy in the United States over admitting Texas to the Union for it would upset the balance of power between slave and free states. This was primarily responsible for the 10-year delay from 1835 to 1845 in admitting Texas as the twenty-eighth state, and for President Tyler's stratagem of securing statehood for Texas on the last day of his term by a joint resolution of both houses of Congress, which did not require a two-thirds vote. The heated debate over the admission of Texas was marked by zealous advocacy of slavery by many otherwise respectable American political leaders at a time when the British had abolished slavery in their empire, and were devoting naval forces to interdiction of the slave trade. After the admission of Texas, sectional antagonisms in the United States over slavery increased, culminating in the national catastrophe of Civil War from 1861 to 1865. We have already seen how slavery affronted the moral principles of the Quakers and caused the Cooper family to emigrate from South Carolina to Ohio in 1807, thus determining where Elias was born and spent his formative years.

Mexico protested the annexation of Texas, severed diplomatic relations with the United States, made a futile military effort to recover the territory, and suffered complete defeat by the American armed forces. This, in a few words, is the history of the Mexican War that was declared by President Polk on 11 May 1846 and concluded by the Treaty of Guadalupe Hidalgo. This highly significant treaty was signed in Mexico City on 2 February 1848, approved by the United States Senate on 10 March, and by the Mexican Congress on 24 May. Morison et al. summarize the provisions of the treaty as follows:

> Mexico ceded Texas with the Rio Grande boundary, New Mexico, and Upper California (including San Diego) to the United States. The

region embraced what would become the states of California, Utah, and Nevada, large sections of New Mexico and Arizona, and parts of Colorado and Wyoming. The victor assumed unpaid claims and paid $ 15 million to boot….

Also according to Morison, the United States rounded out her continental area substantially to the present limits by the "Gadsden purchase" from Mexico in 1853 of the Gila river valley in southern Arizona. This acquisition completed the southwestern boundary of the United States from Gulf of Mexico to Pacific Coast as it now exists.

With the signing of the Treaty of Guadalupe Hidalgo, the United States received more than a third of Mexico's territory and realized the goal of western expansionists. By potentially increasing the number of free states, however, the acquisition also heightened conflict over slavery and moved the nation toward Civil War. [22][23]

The American Conquest of California

Meanwhile in Alta California, the halcyon days of the Spanish colonial period had only a brief revival during the benign administration of the Mexican Governor Figueroa (1833-1835), but were never to return after his death in 1835. On 7 November 1836 the disputation or provincial assembly of Alta California issued a proclamation declaring the province a "free and sovereign state" until such time as the Mexican government would restore the Federalist Constitution of 1824. After this threat of secession, the governors of the province appointed by the Mexican government were forced to contend with a stubborn and increasingly militant demand by the native Alta Californians for "home rule" in their internal affairs. Political confrontations and armed skirmishes occurred repeatedly between the Californians and the Mexican government, and between north and south factions in the province of Alta California. The attendant intrigue and sectional dissension served to demonstrate the military unpreparedness and tenuous authority of the Republic of Mexico in Alta California. These conditions were not lost on the American, British and French navies, each of which was standing by and prepared to annex Alta California on the first convenient pretext.

Commodore Thomas Ap Catesby Jones of the American Navy was the first to move. In the fall of 1842, while keeping a close eye on the movements of French and British vessels, Commodore Jones received information which led him to believe that Mexico and the United States were at war over Texas, and that three British men-of-war were headed north toward Alta California. In light of the instructions he had earlier received to take prompt action under such circumstances, the Commodore entered Monterey Bay with two warships on 13 October and demanded surrender of the post to the United States. Governor Alvarado, citing the futility of resistance against "the powerful force" brought against him, promptly signed articles of surrender, and the American supplanted the Mexican flag over the government house at Monterey. There was no fighting or bloodshed and after a few weeks in Monterey, during which relations between the Californians and Americans were friendly, it was learned that such rumors as war with Mexico, movement of the British fleet, and cession of Alta California to Britain were all without foundation. Whereupon, the Commodore withdrew his garrison from Monterey, apologized to the Governor and, after firing a parting salute to the Mexican flag which had been restored to its rightful place over government house, sailed away. [24]

Commodore Jones' premature conquest of Monterey from the sea in 1842 had all the fanciful airiness of comic opera. Fortunately it did not seriously disrupt American relations with Mexico, yet it did heighten Mexican indignation and apprehension about American designs on Alta California. It was also a reminder to European nations that any intrusion by them would be forcefully rebuffed, as had been declared by President Monroe (1817-1825) in his annual message to Congress on 2 December 1823 (The Monroe Doctrine): "The American continents, by the free and independent condition which they have assumed and maintain, are henceforth not to be considered as subjects for future colonization by any European powers…."

From the standpoint of long range American objectives, immigration of settlers to Alta California now became a potentially critical factor. It was the American view that their presence in sufficient number, as in Oregon and Texas, would have a major influence on the future of the province. We have already referred to the preference shown by settlers for the Oregon Country, but favorable reports in the press began to arouse increasing interest in California. The "First Emigrant Train to California" left Independence, Missouri, on 19 May 1841 and, after incredible hardships, arrived almost six months later on 4 November at the vast Rancho Los Meganos (The San Dunes) purchased in 1837 by John Marsh and located near the base of Mt. Diablo 40 miles east of San Francisco Bay. [25]

This first group of immigrants to travel overland directly to California did so in response to a letter about the magnificent opportunities in California written by Marsh, who gave a detailed description of the route to be taken over the Sierra Nevada (Snowy Range). John Marsh was born in Salem, Massachusetts, in 1799 to an old and respected family with Puritan and Revolutionary roots. He graduated from Harvard with a B.A. degree in 1823. We introduce him here as he fled on horseback down the Santa Fe Trail in 1836 to avoid the creditors of his bankrupt store in Independence, Missouri. He was also seeking to evade arrest by the U.S. Army for selling guns to enemy Indians from his frontier store in Prairie du Chien, Wisconsin, during the Blackhawk War in 1832. En route to California, he was captured by the Comanches, from whom he miraculously escaped. When he arrived at last in the Pueblo of Los Angeles, he was penniless. Undismayed by his predicament, he announced that he was "Doctor John Marsh", and applied for a license to practice medicine and surgery. He had in fact gained some medical knowledge from anatomy courses that he took at Harvard, and a brief apprenticeship with Doctor John Dixwell of Boston, but he had no formal medical schooling and no medical degree. Nevertheless, he obtained a license to practice by submitting his Harvard B.A. diploma to the Mexican authorities. They believed that the inscrutable Latin in which the document was written signified that he had been awarded an MD degree by Harvard. Thenceforth he was known in California as "Doctor Marsh." Through his considerable success in medical practice in Los Angeles, and later in the vicinity of the Pueblo of San Jose and Yerba Buena, he earned enough money to purchase the extensive Rancho Los Meganos in the shadow of Mt. Diablo - after he had first met the requirements of the law by being baptized into the Catholic Church and becoming a Mexican citizen.

John Marsh has been sometimes referred to as the "first American doctor in California." With greater validity, he is credited with having had a major influence on immigration to California by his convincing advocacy of its mild and healthful climate, fertile valleys and other resources. There is much more to tell of John Marsh's life on six frontiers, a story that ended tragically with his brutal murder in 1856 by aggrieved ranch hands, but this will suffice as a glimpse of medical standards and fortune hunting in Alta California about the time of the first immigrant caravan. [26]

California immigrants arriving by the overland route increased yearly and in 1845 at least 250 persons entered the province. The year 1846 saw the entry into California over the Sierra Nevada of over 500 men, women and children, the greatest overland migration to date. The pioneers of '46 included the unfortunate Donner Party that set out from Sangamon County in central Illinois on 15 April to seek new homes in California. They were trapped by early snow for four months in the high Sierra at Donner Lake near Truckee, California. The survivors were rescued in the Spring of 1847 by the heroic efforts of men from Sutter's Fort near Sacramento. The total number of deaths in the Donner Party, mainly from starvation and disease, was 36. Forty-five, including five men, eight women and 32 children finally reached Sutter's Fort alive where John Sutter did all he could to restore them. The Donner experience is often cited as an example of the perils and disasters that threatened the California immigrant trains.

The name of John Augustus Sutter (1803-1880) is remembered not only for his humanitarian aid to the Donner Party, but also for his involvement in many other memorable aspects of California history. Captain Sutter, as he was called, emigrated from Switzerland to the United States in 1834. After spending four years in Indiana and points west, including Missouri where he made his declaration to become an American citizen, Sutter set out in 1838 for the Oregon Territory with a trapping expedition. While in Oregon, he conceived the idea of founding a colony in Alta California, which he eventually reached by a circuitous sea route which took him to Hawaii, thence to Alaska, and eventually to Yerba Buena, where he arrived in 1839. He obtained permission from the Mexican authorities to occupy a tract of land where the American joins the Sacramento River in the environs of the present city of Sacramento. He became a Mexican citizen and received a grant for 50,000 acres of land where he founded a colony known as New Helvetia. He also built a fort which was the center of his increasingly prosperous business and ranching enterprises. Sutter's Fort (now the site of an historic park in Sacramento) was located on the main line of overland migration and became a major trading and rendezvous point for immigrant trains coming down from the Sierra into the valley. Captain Sutter's hospitality and generous assistance earned him the gratitude of the new arrivals, and his sterling qualities of character and leadership secured him the respect of settlers and native Californians alike. Yet, by a cruel twist of fate, an excess of good fortune loosed around the Captain a tempest of lawlessness and greed that swept away his princely holdings, leaving him in his old age a pensioner of the State of California and a futile supplicant to the American Congress. [27]

It is impossible to know with certainty how many American immigrants came over the mountains into California during the years from 1843 to 1846, but Hunt and Sanchez believe that it was a total of about 1500, presumably counting men, women and children. It is significant that most of them were homeseekers who planned to settle permanently and develop the country, whereas itinerant trappers and traders had predominated in an earlier period. [28]

This is an opportune moment for a reminder of the unreliability of California population estimates during the years prior to statehood. It is not possible to reconcile the various reports on this subject. Some data seem to refer to men only, some to adults only, and some to men, women and children. No census in the modern sense was conducted. Some of the available population statistics are the guesses of contemporary observers, and some are the result of later scholarly efforts at retrospective calculation. Let us turn then for help on this question to John Marsh of Rancho Los Meganos with whom we are already acquainted. In 1846 he was regarded as being among "the most prominent men in California" according to a list provided to President Polk by Mr. Thomas Larkin who was American Consul and confidential informant (that is, intelligence agent) of the State Department living at Monterey. Larkin sought Marsh's cooperation in acquainting the American government and people with the natural beauties and resources of Alta California. Marsh obliged by writing a letter in 1846 to his friend and former patron in the Old Northwest, U.S. Senator Lewis Cass of Michigan. The letter included the following estimate of California's population: 7000 persons of Spanish descent; 10,000 civilized or domesticated Indians; 700 Americans; 100 English, Irish and Scotch; about 100 French, Germans and Italians. (These data seem to refer to male population only.) For want of a better estimate for 1846, we will accept Marsh's approximation of California population in that year as a baseline for comparison with later years. Marsh's figures are frequently quoted, and had considerable circulation in the United States at the time since Senator Cass saw that Marsh's letter was widely published. [29]

The fateful year of 1846 was a turning point in the affairs of Alta California. As already pointed out, the political situation in the Mexican Republic deteriorated after independence from Spain in 1823. The unstable central government was ineffectual in maintaining control over the rebellious and essentially self-governing northern province, itself the scene of internal dissension and disorder. As the caravans continued to bring in American settlers, it was forecast in the United States that the immigrants would sooner or later band together and secede - and that Alta California would go the way of Texas. Although the Americans were outnumbered ten to one in the province, predictions were that they could easily overcome the disorganized and quarreling native Californians.

At the same time, Thomas Larkin was on another tack, one presumably favored by the American government. His secret instructions were to cultivate the Californians privately, to impress upon them the political and economic advantages of requesting annexation by the United States, and to assure them that the United States would welcome such a request. We shall never know whether this covert approach would have achieved its goal of peaceful annexation of Alta California

for events took another course, as we shall now relate, but only in the barest outline.

As one might expect, the Californians (i.e. the Mexican citizens of California) were agitated by the rumors of impending war between Mexico and the United States over the annexation of Texas. They were increasingly suspicious of the intentions of the growing number of American settlers who were, in turn, fearful that the Californians were planning to expel them from the province. Tension between the American settlers and the Californians was further heightened when Captain John C. Fremont, who had entered Alta California on his third exploring expedition, built a log fort on Gavilan (Hawk's) Peak not far from Monterey, and on 6 March 1846 raised the American Flag. He abandoned the fort after three days and retired to the north, but only after being confronted with the superior force of General Jose Castro, military commandant of Alta California. [30]

What Captain Fremont intended to accomplish by this provocative maneuver is unclear, but this and subsequent incidents led American settlers in the inland valleys to believe that an attempt by the Californians to expel them was imminent. It was also concluded by the settlers, who had not yet learned of the declaration of war against Mexico on 11 May 1846, that Fremont's presence in the area was a signal that the American government would sanction a revolt by the settlers. There followed the implausible episode known as the Bear Flag Revolution during which a party of 32 or 33 Americans, chiefly roving immigrants and hunters who had the backing of Fremont, seized the small, drowsy pueblo of Sonoma just north of San Francisco Bay on 14 June 1846. At daybreak on this quiet Sunday morning, what appeared to be a band of uncouth and menacing strangers in leather hunting-shirts entered the home of the distinguished General Mariano Guadalupe Vallejo who was arrested, required to give up the keys to public property, and taken as a prisoner to Sutter's Fort. Since the General was the respected former military commandant of Alta California, friendly to the Americans, and among the influential native Californians who favored voluntary entrance of the province into the Union, his haughty treatment during the Bear Flag incident not only inflamed the Californians, but was also an embarrassment to the United States.

The insurgents improvised a crude red, white and blue flag emblazoned with the painted outline of a grizzly bear to serve as the ensign of the Bear Flag Republic which, Texas-fashion, they formally proclaimed. This impetuous filibuster by American settlers, precipitated by the belligerent stance and encouragement of Captain Fremont, was an incredibly disorganized affair. Fortunately, no one was injured. It did, however, undermine the American government's plan being pursued by Larkin to gain the goodwill and voluntary allegiance of the Californians. They were, instead, thoroughly incensed and as a result probably mounted a more determined resistance to American forces during the imminent conquest of California than might otherwise have been the case. On the whole, the practical effect of this colorful episode on the conquest was probably not significant, although there has been considerable speculation on this point among historians. [31][32][33]

As for the Bear Flag Party, they gladly disbanded to join American forces and participate in the general conquest of California which soon followed. Their original flag was lost in the great San Francisco earthquake and fire of 1906, but rose from the ashes on 3 February 1911 when the Bear Flag was adopted as the California State Flag. As for Fremont, his military service in California was marked by further rash and arrogant behavior, leading to his court-martial for insubordination. The remainder of his public service was also attended by controversy. However, it should be remembered that early in his career Fremont was an intrepid and observant explorer of California and the West whose expeditionary reports were of great value. In one of these reports, he compared the entrance of San Francisco Bay to the Golden Horn of Byzantium, and gave the name of Chrysopylae or Golden Gate to the Bay's majestic inlet from the sea. Little did he suspect how vividly the felicity of his classical allusion would be affirmed by future events. [34]

Unwittingly, Fremont and the Bear Flag Party were at least fortunate in the timing of their revolt. On 7 July 1846, three weeks after the Bear Flag Revolution, Commodore John D. Sloat, commander of United States Naval Forces on the Pacific, upon learning that war with Mexico had begun, occupied Monterey, raised the American Flag, and issued a proclamation declaring that "henceforward California will be a portion of the United States". It was in this fashion that the United States took formal possession of California. The Spanish-speaking Californians rose in arms but in spite of their spirited and temporarily successful defensive action in Southern California, they were rapidly overcome by the American forces who took Los Angeles on 10 January 1847, thus completing the conquest of California. Later that year, at dawn on 17 September, Mexico City surrendered to the Americans. This ended the fighting in the Mexican War. As already noted, the Treaty of Guadalupe Hidalgo was signed in Mexico City on 2 February 1848, and was finally approved by the Mexican Congress on 24 May 1848.

The California Gold Rush

In an historic coincidence with the signing of the Treaty of Guadalupe Hidalgo, there now occurred a climactic event in Alta California - the discovery of gold by James Marshall on 24 January 1848 at Captain Sutter's sawmill on the American River.

The Captain had engaged Marshall to build a sawmill on the south branch of the American River 40 miles northeast of Sutter's Fort at a place known by the Indians as Cullomah ("beautiful vale"), now the town of Coloma. To obtain water power for the mill, Marshall and his crew constructed a brush dam across the river. Water from behind the dam was diverted through a sluice gate into a ditch, dug parallel to the river, that carried water through the mill to turn the mill wheel. As it left the mill, the water was returned to the river downstream by a continuation of the ditch, this portion of the ditch being called the "tail race". When the tail race proved to be too small to convey the volume of water required to turn the mill wheel, Marshall set his crew to digging it deeper and wider. Each night, after the day's work, Marshall would open the sluice gate to flush out from the tail race all the sand and gravel accumulated from the day's digging. Each morning, he would close the gate and inspect the ditch to see how the work was progressing. Now in his own words: "One morning in January, - it was a clear, cold morning; I shall never forget that morning; - as I was taking my usual walk along the race after shutting off the water, my eye was caught with the glimpse of something shining in the bottom of the ditch. There was about a foot of water running then. I reached my hand down and picked it up; it made my heart thump; for I was certain it was gold." And more gold was found in the walls and debris of the ditch, and round about. [35][36]

Captain Sutter and Marshall tried to keep the finding secret in order to gain time to complete the sawmill, and to assure land rights to the gold field. But the information was too exciting to contain, and word of mouth carried it at first surreptitiously and then openly in an ever widening circle. Within a few weeks small groups of men began to arrive at the sawmill. They were allowed to search for gold in the area and soon returned to San Francisco with bottles, tin cans and buckskin bags of gold from the American River, its banks and tributaries. As a result, early skepticism regarding the importance of the discovery was dispelled. On 15 March 1848 the Californian, one of the two weekly newspapers then published in San Francisco, ran a brief notice to the effect that gold had been found in considerable quantities at Sutter's sawmill.

Then, in early May (according to one version of the story) Samuel Brennan - flamboyant Mormon preacher, proprietor of a general store at Sutter's Fort and editor of San Francisco's first newspaper The California Star - rode in from Sutter's Fort and strode down the main street of San Francisco, brandishing his hat in one hand and a bottle of gold dust in the other, shouting: "Gold! Gold! Gold from the American River!". By the month of June, all doubts of the existence of a bonanza in the Sierra foothills had disappeared, and gold fever swept through the populace of the Bay area. [37][38]

This is the account in the Annals of San Francisco of the effects on that city and the countryside of reports of gold at Sutter's sawmill:

> In consequence of such representations, the inhabitants began gradually, in bands and singly, to desert their previous occupations, and betake themselves to the American River and other auriferous parts of the great Sacramento Valley. Labor, from the deficiency of hands, rose rapidly in value, and soon all business and work except the most urgent, was forced to be stopped. Seamen deserted from their ships in the bay, and soldiers from the barracks. All over the country the excitement was the same. Neither threats, punishments, nor money could keep the men to their most solemn engagements. Gold was the irresistible magnet that drew human souls to the place where it lay, rudely snapping asunder the feebler ties of affection and duty. [39]

Marshall's discovery occurred just nine days before the signing of the Treaty of Guadalupe in Mexico City, and exactly four months before its final approval by the Mexican Congress. Within months the news of the discovery, duly exaggerated in the telling, leaped the oceans and spread around the world, and from every quarter of the globe the stampede for the gold fields of California was on. The Argonauts came in droves - by wagon train across the plains, by ship from the east coast via the Isthmus or around the 'Horn, and by sea from its farthest shores.

When the United States took over the province of Alta California in 1846, Yerba Buena was still a frontier village with only 25 to 50 buildings, mostly shanties, and 100 to 200 inhabitants. This was the year when its population was more than doubled by the arrival of Sam Brennan and his Mormon brigade of 250 aboard his chartered ship, the Brooklyn. They intended to create a great Mormon empire of disciplined community life on San Francisco Bay, but their goal was preempted by Brigham Young's founding of Salt Lake City in 1847.

In January of 1847, the month in which Yerba Buena's name was changed to San Francisco, the population was about 500. A year later in January 1848, when gold was discovered, the population was about 850. In mid 1848, on the day that Sam Brennan led a cavalcade out of San Francisco and up the Sacramento River to the gold fields, only seven men remained behind in San Francisco. [40][41]

Before taking leave of the legendary Sam Brennan (1819-1898), a contemporary of Elias Cooper, we should relate how he made a fortune not from gold but from real estate. It is said that he at one time owned a fourth of Sacramento and a fifth of San Francisco. He was the latter city's first millionaire, and without doubt the best known man in town. His generosity and public spirit were boundless, as was his contempt for the lawless class that terrorized San Franciscans. He was above all a man of action. When the first Vigilance Committee was formed in 1851, he was one of its founding members. But, in the end, prosperity was the undoing of Sam Brennan. Alcohol destroyed his judgment and his health and speculation depleted his fortune until, deserted by family and friends and bereft of his Midas touch, he moved to Southern California where he died penniless in Escondido at 69. So ended his dream of a disciplined community life on San Francisco Bay. [42]

By the beginning of 1849 San Francisco had become a vortex of heterogeneous people arriving overland and on a myriad fleet of vessels. Hundreds of them were vacated and left swinging at anchor in Yerba Buena Cove, abandoned by passengers and crew alike who decamped for the diggings. Population of the town was placed at 3000 in March 1849; 5000 in July; 15,000 in October; and by the end of the year, 30,000. In 1850 the population was 35,000, and still it grew. San Francisco was mainly an encampment of tents and flimsy shelters improvised of planks, brush or earth, ranked row on row along the hills above the Cove. Open fires were necessary for cooking and warmth. Wildfires kindled by them, and by arsonists, swept repeatedly through the shanty town, that was promptly rebuilt. Supplies and services of every sort were rapidly exhausted and prices quickly rose to fantastic heights. To add to the hardship and peril of the immigrants, there was among the new arrivals, mostly male, a disproportionate representation of the restless and disorderly who created a reign of crime including murders and heinous lawlessness of every kind. The depredations of the criminals, and the corrupt politicians who took over city government, were controlled ultimately only by intervention of the Vigilance Committees of 1851 and 1856 in which, incidentally, several of the original faculty of the Medical Department of the University of the Pacific played important roles, as we shall later see. [43][44]

During the chaotic Gold Rush and its aftermath, achievement of even a modicum of social progress would seem in retrospect an unlikely

prospect. And such might well have been the case had not the polyglot multitude who descended upon California included a strain of citizenry whose experience and values prepared them for just such a challenge. A majority of these were American immigrants who streamed into the province from all walks of life and from all parts of the nation, including the frontier states and territories. Among them were Elias Cooper and his cosponsors of medical education on the Pacific Coast.

As examples of the challenges faced by the new Californians, and how they responded to them, let us briefly consider two major issues of the day - mining of gold and governance of the province.

Gold

Visions of striking it rich were kept alive in a motley host of inexperienced argonauts by two circumstances: first, the extraordinary prevalence in California's gold fields of gold dust and nuggets in strata of sand, gravel and rocks near the surface of the earth and in the beds of streams; and second, the simplicity of placer mining, a process already practiced by prehistoric man. Placer mining was well suited to the California frontier. Tools consist of a shallow pan, a pick and a shovel. A pan full of sand and gravel is shaken gently in running water. The dust and nuggets, which are heavier, sink to the bottom of the pan, while the sand and gravel are flushed away by the water. More elaborate equipment for handling large volumes of sand and gravel may be constructed by those able to afford it, but the principle of separating the gold by gravity from the lighter debris remains the same. Lode mining is a more complex and costly process, used in areas where the gold is found in a vein of quartz. It consists of mining the rock bearing the quartz vein, and crushing and pulverizing the rock in a stamp mill. Mercury, which has a strong affinity for gold, is then mixed with the pulverized material where it forms an amalgam with the gold. In a final step, the amalgam is collected and put through a process that separates the gold from the mercury. [45]

It was the individual freedom to prospect for gold and claim it for themselves that spurred a horde of restless and eager miners to scour the western slope of the Sierra Nevada, establishing innumerable camps, and towns that sometimes sprang up (and sometimes disappeared) overnight. Towns with picturesque names like Angel's Camp, Lazy Man's Canyon, Git-Up-And-Git, Rough and Ready, and Hell's Delight. Through a combination of the mining methods just described, pursued with a fervor that only private enterprise for the noble purpose of personal gain can engender, the gold of California flowed into the channels of commerce in a swelling stream, and financed a new commonwealth in the West

Gold had profoundly adverse effects on California society. The annual yield of the gold fields in dollars was an incredible 10 million in '48; 40 million in '49; 50 million in '50; and an average of 60 million each year from '51 to '57. According to the State census there were 255,000 Californians in '52, about 100,000 or one-third of whom were miners. If the annual yield of gold was 60 million dollars in '52, the average annual earnings per miner would be $600 or about $2 per day - except that some individual miners made fortunes, while the struggling majority averaged little more than a dollar a day at a time when the wages for common labor were four or five times higher. So much for the hopes of striking it rich in the California gold fields. Add the isolation, hardship and dearth of family life to the inadequate and precarious income of most miners, and we can understand how gold mining contributed to the loosening of moral restraint. The result was a plague of vice and crime during the Gold Rush, especially in San Francisco.

Lest one assume that physicians fared well in Gold Rush days, a letter dated 29 October 1850 from Dr. Thomas M. Logan of Sacramento to his brother-in-law, Dr. E.D. Fenner of New Orleans is excerpted here:

I am sorry to inform you that, like many articles of merchandise with which our country has been flooded, we physicians are at the most ruinous discount, and the ancient and time honored doctorate is in most cases held in so low repute that many a worthy physician studiously conceals his title. I have seen M.D.'s driving ox-teams through highways - laboring in our streets like good fellows - serving at bar-rooms, monte tables, boarding houses, etc., and digging and delving among the rocks and stones, to gather together their allotment of California's produce, the precious gold. Labor, however, is honorable to man, and it is not because some are obliged to put their shoulder to the wheel that the profession is rated so low a standard. It is because many, and among them those who assume without any moral or legal right the title of Doctor, in their grasping cupidity, and impatience to amass in the shortest possible time their "pile" have, while taking advantage of the necessities of their sick and dependent fellow creatures, drained the poor miner of all his hard-earned dust, be it more or less, for a few professional visits. These incidents of medical rapacity have become so numerous and aggravated as to create a distrust on the part of the community toward the profession generally and to bring odium on its practitioners. Hundreds who are able to pay a reasonable fee, would rather perish than lose all their means of support in satisfying the exorbitant fees of a physician. I do not suppose that in any part of the civilized world such enormous fees were ever charged and collected, as have been enacted in California…. [46]

We shall later report how in 1855 Elias Cooper sought and gained the cooperation of Dr. Logan, by that time a leading figure in the Sacramento Medical Society, in founding the California State Medical Society.

The good Captain Sutter could have been expected to benefit from his gold field, but this was not to be. After the discovery, his property was at first respected, but felons and trespassers among the immigrants soon moved in like jackals. They forcibly stripped his extensive ranch of wood and forage, stealing his horses, hogs and cattle, and settling on his land. By January 1852 squatters, under the pretext that his ranch was in the public domain, had occupied all his land capable of settlement or appropriation, and all his stock had been stolen except for a small portion he sold himself. Help from the law was insignificant. In retreat, he removed himself and his family to a farm on the Feather River in the county that now bears his name. He was never successful in his legal claims for remuneration for losses suffered at the hands of the immigrants. As already mentioned, this honored citizen was reduced to becoming a pensioner of the State of California in his declining years. [47]

"On the other hand", says Bancroft, eminent California historian:

> On the other hand must be considered the great and enduring good effected by gold-mining, and the movements to which it gave rise; the impulse received by trade and industries throughout the world through the new markets and traffic, besides affording additional outlets for surplus population; the incentive and means for exploring and unfolding resources in adjoining and in new regions and enriching them with settlements…. The United States was at one step placed a half-century forward in its commercial and political interests on the Pacific, as marked by the opening of the sealed ports of China and Japan, partly by steamers which completed the steamship girdle round the world, by the construction of the Panama railway, and by the great transcontinental steam line. The democratic principles of the republic received, moreover, a brilliant and effective demonstration in the equality, organizing skill, self-government, and self-advancement displayed on the Pacific coast. That is to say, at one breath, gold cleared a wilderness and transplanted thither the politics and institutions of the most advanced civilizations of the world. [48]

Governance

With respect to governance, the new Californians were precocious. From the date when Commodore Sloat took possession of California for the United States on 7 July 1846, the province was conquered territory and subject to temporary military control. In accordance with international law, the military announced that the laws of Mexico previously obtaining in California would be continued. But the Americans complained about the inadequacy of the Mexican legal system and began independently to promulgate their own laws which quickly supplanted the obsolete Mexican statutes.

Meanwhile, resolution of the question of territorial governance was repeatedly deferred by changes in the military command; by the requirement to complete the pacification of California by a short military campaign; and by the failure of the U.S. Congress to decide the matter before it adjourned on 14 August 1848. Thoroughly exasperated by these delays, the citizens of California began a movement of their own to organize a suitable government as soon as possible. When General Bennett Riley arrived on 12 April 1849 to be the military commander of California and to serve as acting governor, he learned that Congress had still not provided for a territorial government, and that a citizens' movement to decide the question was afoot. He promptly responded to the public demand for action by issuing a proclamation on 3 August 1849 authorizing the selection of delegates to a general convention which should convene in Monterey on 1 September for the purpose of forming either a State constitution or a plan for territorial government. And, relying on his own common sense, he acted without congressional authorization.

Progress was now rapid. The Constitutional Convention of 1849 met in Monterey on 1 September at the height of the Gold Rush, and was organized by election of officers on 4 September. There were 48 delegates representing the 10 districts (San Diego, Los Angeles, Santa Barbara, San Luis Obispo, Monterey, San Jose, Sonoma, San Francisco, San Joaquin and Sacramento). The delegates were able and earnest men of various nationalities but mostly of American birth, ranging in age from 25 to 53 with an average age of 36. We have already made the acquaintance of several of them. The dignified and sagacious General Mariano G. Vallejo aged 42 of Sonoma was among the seven native-born Hispano-Californian delegates; Captain John A. Sutter, a Swiss aged 47 from Sutter's Fort in Sacramento district, was preeminent among the five European-born delegates; and we remember Thomas O. Larkin aged 47 from Monterey who has gone down in history as "the first and last American Consul to California". [49]

In spite of the widely divergent interests and cultural backgrounds of the delegates, and the intense social and economic pressures created by the transition from Mexican rule in 1846 followed by the Gold Rush in 1849, the task of framing a constitution for the State was accomplished by the Convention with extraordinary proficiency and wisdom, and was signed by the delegates on 13 October 1849 after a session of 43 days. The result of their labors was submitted to the people on 13 November 1849 and was adopted by them as the Constitution of the State of California by a vote of over 12,000 ayes to 800 noes. [50]

Article I.-The Declaration of Rights. Section 18. of the State Constitution reads as follows:

> Neither slavery nor involuntary servitude, unless for the punishment of crimes, shall ever be tolerated in this State.

The exclusion of slavery from the new state was adamantly opposed by Southern members of Congress and was a major stumbling block to the admission of California to the Union. Eventually, after many stormy sessions and weeks of deadlock, the admission bill passed the Congress and was signed into law by President Fillmore on 9 September 1850. California became the 31st State of the Union, and had the distinction of entering the Union without going through the status of an organized American Territory as prescribed in the Northwest Ordinance of 1787 - thanks to the pragmatic and decisive General Riley, and to the American genius for self-government. [51]

Conclusion

With these highlights of California history from Spanish colonial days to the Gold Rush and statehood, we conclude these cursory annals of the advancing American frontier between 1800 and 1850. We have seen how westward migration was an irrepressible impulse in American Society during that crucial half-century when the national boundary was expanded "from sea to shining sea." And now, with the benefit of historical perspective, we can recognize the migration of the Cooper family from South Carolina to the Northwest in 1807, and of Elias from the Northwest to California in 1855, as incidents in the westward movement - incidents of special interest to us because of their relevance to the history of Stanford Medical School.

This self-same westward current also bore Cooper's eminent contemporary, Leland Stanford (1824-1893), from the Northwest to California. Stanford abandoned his law practice in Port Washington, Wisconsin, to open a general store in the California gold country at

Cold Springs, Eldorado County in 1852. Cooper's writings contain no hint that he was personally acquainted with Stanford, who became Governor of the State in 1862, the year of Cooper's death. But time has shown that the finest legacy of each was in the world of learning and, "bent by paths coincident", Cooper's medical school and Stanford's university were one day destined to merge.

We hope to better understand Cooper's efforts and accomplishments for having taken this broader view of the world in which he lived. We shall now consider some vital "intrinsic factors" that influenced the course of events, and shall propose that these factors were ultimately responsible for the initial success and long term survival of his enterprise.

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Chapter 3. Quaker Heritage of Elias Samuel Cooper

Elias Samuel Cooper was descended from early American colonists of English background. The first of the Cooper family line to come to America were William Cooper (1649-1709) and his wife Thomasin Porter. They were married in about 1672, had eight children and lived in High Ellington, Yorkshire, England.

William and his family were members of the Society of Friends (also known as "Quakers"), a religious group then subject to harsh repression in England. Hoping to find religious toleration and a better life in America, they joined one of the expeditions organized by the Quaker William Penn to colonize the Province of Pennsylvania. The Cooper family, including their eight children, sailed for the American colonies from Liverpool aboard the Britannia in 1699, and on their arrival went directly to Bucks County just north of Philadelphia where they settled. The Coopers were soon active in their religious community in the New World. According to family records, the first Quaker meeting in Bucks County was held in their home in 1700. [1][2]

It is generally agreed that the positive influence of Quakers on British and American society has in past generations far exceeded their relatively small proportion in the population. In this regard, it is of interest to note that four physicians of Quaker background (Drs. Elias Cooper, Levi Lane, and Henry Gibbons Senior and Junior) at different periods during the half century from 1858 to 1908 played key roles in founding the first medical school on the Pacific Coast and in assuring its survival. Their success in creating and preserving the institution, under the difficult circumstances of the times, can best be attributed to the shared idealism of their common religious heritage. [3][4]

Such a premise is supported by Dr. Lane's tributes to the Society of Friends in his eulogies of Drs. Cooper and Gibbons, Senior. Of Elias Cooper, Lane wrote that he requested during the last days of his life in 1864 that his obituary consist of only a single brief sentence stating the day of his death; "so, also, in regard to his last resting place, he requested that the simplicity of the Quaker faith, in the principles of which he had been instructed in his youth, and for the tenets of which he ever cherished the warmest admiration, should characterize it … (and) that the spot should remain without grave-stone or epitaph". [5] In a Memorial Tribute to Dr. Henry Gibbons, Sr., after his death in 1884, Lane spoke in detail of the Quaker movement in England and of William Penn's Pennsylvania Colony where the forebears of the Gibbonses, as did those of the Coopers, found refuge from religious persecution, and freedom to live by the unpretentious and disciplined Quaker creed which they imparted to their descendants. [6]

Kinship is another tacit yet enduring bond that was crucial to the outcome of the precarious enterprise in which these physicians were engaged. There is no doubt that the medical school, founded in 1858 by Elias Cooper, would not have survived his death in 1862 were it not for the loyalty of both his nephew, Dr. Lane, and the highly respected Dr. Gibbons, Senior, who together revived the School after its suspension for a period of six years (1864-1870). Their stewardship was soon augmented by the appointment as Dean in 1870 of Dr. Gibbons, Junior, who was one of the earliest graduates of the School. Dean Gibbons served in that office for 41 years as a benign and stabilizing presence until his death in 1911. By that time the bond with Stanford had been sealed.

Pragmatic idealism and strong family ties, as exemplified in the lives of these early leaders of the school, are hallmarks of the Quaker faith. An ultimate embodiment of these values is to be found in the construction by Dr. Lane, at his own expense, of a splendid new medical school building in 1882, and its dedication as Cooper Medical College in memory of his uncle Elias.

Ideals and motivation are among the most potent determinants of outcome in human affairs. Thus we cannot avoid the conclusion that the Quaker heritage of our protagonists, with its undoubted influence on their goals and values, had a decisive bearing on the advent of medical education in the West. We have already described how the westward movement of the national frontier created external conditions full of challenge and opportunity to which Cooper and his closest associates responded with a vision and resolve that were vital to the success of their efforts. Now It seems reasonable to propose that their Quaker faith and ties of kinship were the inner resources responsible for their mutual trust and lasting commitment to the new medical school.

The importance of religion and the role of the Society of Friends in early American history lend support to this thesis, and make relevant the following discussion of religion in America and the contribution of Quakers to American medical education from colonial times to 1900.

Religion in America

Religion was a dominant feature of life in colonial and frontier America. After 1800 the frontier moved rapidly westward from the Atlantic seaboard. Ordained ministers and itinerant preachers of many different sects accompanied the migration, establishing churches, schools and colleges with a missionary zeal that assured the early presence of congregations and educational institutions wherever settlements occurred. In a process repeated over and over during the development of the country, these varied social ingredients were united within a uniquely American frame of government to produce dynamic communities where religion was often an agent of progress. For instance, from 1858 to 1882, the medical school founded by Cooper was the medical department of a sectarian institution - first the University of the Pacific founded by the Methodists, and later the University (City) College established by the Presbyterians. A striking example from modern times of constructive social change fostered by a religious group is the leadership of African American churches and their ministers in the movement for desegregation and equal opportunity.

In contrast to the strife created in Europe by restrictions on religious worship during the Reformation (1500-1700), religious free enterprise in the United States after the founding of the Republic in 1778 led to vigorous competition among the many religious groups with relatively little sectarian conflict. The First Amendment of the Constitution (1791) is responsible for this tolerable state of affairs. Although the Amendment has not entirely eliminated either religious discrimination or political intervention by religious partisans, it has controlled them, and has been an effective bulwark against the harsher forms of religious repression which drove many of America's most resourceful immigrants from the Old World to the New in colonial times.

The spectacle of bloody religious conflict during the European Reformation convinced the framers of our Constitution that government dominated by religion is incompatible with a free society - a principle still widely ignored among nations in today's world. James Madison (1751-1836), in A Memorial and Remonstrance, which he addressed to the General Assembly of Virginia in 1785, made an historic plea for separation of religion and government. He referred to the Reformation era in these words: "Torrents of blood have been spilt in the old world, by vain attempts of the secular arm, to extinguish Religious discord, by proscribing all difference in Religious opinion." [7]

Madison recognized that the question of church-state relationships was one of the most crucial and potentially disruptive issues facing the First Congress of the new American Republic. Resolution of the question was urgent for the reason that, after the War of Independence (1775-1783), establishments of religion had been promptly authorized by six of the original 13 states (New Hampshire, Massachusetts, Connecticut, Maryland, South Carolina and Georgia); and also by Vermont which was admitted to the Union in 1791 as the 14th state. An "establishment of religion" meant that taxes were collectible in each of these states to provide for the public support of one or another Protestant sect chosen in accordance with state law. These arrangements were already in sharp contention among competing religious groups, and European experience during the Reformation foretold divisive escalation of the controversy.

Fortunately for future generations of Americans, and as an example to the world, the First Congress of the United States in 1789 took an unprecedented and definitive step. It mandated separation of church and state by adopting the First Amendment to the Constitution, proposed by Representative James Madison of Virginia. The Amendment reads (in part) "Congress shall make no law respecting an establishment of religion, or prohibiting the free exercise thereof… ."

This statute has been of immeasurable benefit to American society by guaranteeing freedom of religion and erecting a "wall of separation between Church and State". In spite of persistent efforts to breach the wall, the Amendment has served its purpose well. (The first ten Amendments to the Constitution, known as the Bill of Rights, were ratified in 1791). [8]

In spite of the First Amendment, the Americans were incorrigibly religious. Alexis de Tocqueville, an observant young Frenchman who visited America in 1831, wrote: "On my arrival in the United States the religious aspect of the country was the first thing that struck my attention." He also observed: "Religion in America takes no direct part in the government of society, but it must be regarded as the first of their political institutions….". [9]

For another keen observer's view of religion in America at the same period, one may turn to Domestic Manners of the Americans by Mrs. Frances Trollope, British gentlewoman, member of the Church of England and mother of the novelist Anthony Trollope. Her unsuccessful commercial venture in the department store business in Cincinnati in the late 1820's brought her within 35 miles of Elias Cooper, living then as a boy of ten on his family's farm near Somerville, Ohio. The "gossipy pages" of Mrs. Trollope's chapter on Religion are unsparingly critical of the coarseness and arrogance of the society she encountered in the raw New World of the Andrew Jackson era: She wrote: [10]

> I had often heard it observed before I visited America, that one of the great blessings of its constitution was the absence of a national religion, the country being thus exonerated from all obligation of supporting the clergy; those only contributing to do so whose principles led them to it. My residence in the country has shown me that a religious tyranny may be exerted very effectually without the aid of the government, in a way much more oppressive than the paying of tithe, and without obtaining any of the salutary decorum, which I presume no one will deny is the result of an established mode of worship….
>
> The whole people appear to be divided into an almost endless variety of religious factions, and I was told, that to be well received in society, it was necessary to declare yourself as belonging to some one of these. Let your acknowledged belief be what it may, you are said to be not a Christian, unless you attach yourself to a particular congregation. Besides the broad and well known distinctions of Episcopalian, Catholic, Presbyterian, Calvinist, Baptist, Quaker, Swedenborgian, Universalist, Dunker, etc., etc., etc.; there are innumerable others springing out of these, each of which assumes a church government of its own; of this, the most intriguing and factious individual is invariably the head; and in order, as it should seem, to show a reason for this separation, each congregation invests itself with some queer variety of external observance that has the melancholy effect of exposing all religious ceremonies to contempt.
>
> It is impossible, in witnessing all these unseemly vagaries, not to recognize the advantages of an established church as a sort of headquarters for quiet unpresuming Christians, who are contented to serve faithfully, without insisting upon having each a little separate banner, embroidered with a device of their own imagining….
>
> I believe I am sufficiently tolerant; but this does not prevent my seeing that the object of all religious observances is better obtained, when the government of the church is confided to the wisdom and experience of the most venerated among the people, than when it is placed in the hands of every tinker and tailor who chooses to claim a share in it.

Mrs. Trollope's caricature of the uncouth and egalitarian Americans resonated well with public opinion in Victorian England, and it scandalized the Americans. This assured a good market for her book on both sides of the Atlantic, compensating her financially for the bankruptcy of the exotic bazaar she unaccountably built in the riverboat town of Cincinnati. As to her caustic views on religion among the provincials, she clearly did not share their distrust of state religion. For their part, the pragmatic Americans created a religious Babel

which served to prevent any sect from gaining undue influence over government or from enforcing conformity.

The influence of religion on community life in America was more pervasive in the day of de Toqueville and Mrs. Trollope than at present. And it remained so until after the publication of Darwin's On the Origin of Species in 1859 when it began to diminish. Darwin's research was an historic turning point for it materially loosened the hold of religious dogma on the mind of western man, and "pricked the great bubble of belief in which the world of 1859 had its being". [11] He injected a rational view of man, based for the first time on credible scientific observation, into the main stream of secular discourse, and since then religion has been increasingly demythologized. On 12 February 1909, fifty years after publication of Origin of Species, David Starr Jordan, distinguished zoologist and President of Stanford, gave a resumé of the work and influence of Darwin at a symposium in San Francisco honoring the hundredth anniversary of the birth of two of the greatest men of the nineteenth century - Charles Darwin and Abraham Lincoln. Of Darwin he said: "The chief and essential contention of Darwin, that species are formed by natural processes, is now absolutely established. That animals and plants today, man included, are descended from the animals and plants of earlier periods by natural lines of descent with modification, is one of the certainties of modern science". [12]

In the fall of this same year (1909) the first students entered the newly established Medical Department of Stanford University, made possible by the advocacy of President Jordan. We will continue now to pursue the objective of placing the West's pioneer medical school, the precursor of Stanford's Medical Department, within the context of American history of which it is a memorable chapter. We have already told how the westward movement of the frontier swept Cooper and Lane to a fateful rendezvous in San Francisco. We shall next endeavor to throw more light on the religious milieu and Quaker heritage that we have identified as the source of the common ideals that united them and the Doctors Gibbons.

In the above discussion we have referred to religion as a pervasive feature of American life in the colonial and succeeding period, and have alluded to the determining influence of Quakers on the early history of Stanford medical school. For a perspective on these subjects we will now consider the European roots of religion in America, and the English origin of the Society of Friends.

The Reformation in Europe (1500-1700)

In 1517 Martin Luther, a German Catholic priest at the University of Wittenberg, appealed to the Pope to correct abuses in the Roman Catholic Church, about which there was already widespread concern within the church and among the laity. When reforms were not forthcoming, and Luther was excommunicated by the Pope for insubordination, religious dissension and wars erupted in Europe, and continued intermittently for the next 200 years. When, ultimately, a religious "balance of power" emerged, the political face of the continent had been changed.

Historians now refer to these events, in retrospect, as the Reformation. During this period the Catholic Church was reformed and reorganized, and numerous "protestant" sects were separately established. These included Lutheran, Anglican and Calvinist denominations. The Protestants were later subdivided by doctrinal differences into a bewildering number of sects known as Congregationalists, Baptists, Methodists, Presbyterians, Puritans, Quakers and so on. In keeping with the long tradition of deep involvement of the church in political affairs, European states, large and small, adopted either a Protestant sect or Catholicism as the state religion in accordance with the ruler's religious preference (cuius regio eius religio, "whose the region, his the religion").

When each ruler attempted to enforce religious conformity within his domain, religious intolerance, already the norm, was intensified. Special police and courts were set up to investigate and penalize non-conformity. Expulsion, imprisonment, torture, the death penalty, mass executions and massacres were tools of religious repression applied by both Catholics and Protestants. To these afflictions of European society, already inured to centuries of judicial cruelty, were added the destruction and demoralization of the protracted religious wars.

Why was the struggle so bitter, long and deadly? Because the Protestant movement, as it evolved, sought not merely to reform the Catholic Church; it aimed to replace it with a church based on the Protestant interpretation of the Bible, shorn of traditional Catholic sacraments, ritual and ecclesiastical hierarchy for which the Protestants could find no scriptural justification. At stake was the immense and pervasive spiritual and temporal power of the medieval Catholic Church. Finally, after 200 years, either Catholicism or Protestantism had achieved dominance in each European state. Religious strife then gradually waned. However, a state policy of religious toleration was rarely adopted until much later. Catholics and Protestants simply became reconciled to a wary coexistence.

The Catholic Church retained its ascendancy in Spain, Portugal, France, Ireland, and in southern and eastern Europe. Protestant denominations prevailed in central and northern Germany, Holland, the Scandinavian countries and in England and Scotland. Meanwhile, major political realignments and consolidations occurred within the nations of Europe, leading to establishment of strong secular states that progressively reduced the influence of religion in government. [13]

The Reformation in England

With the above outline of the Reformation in Europe as a whole in mind, we can more readily understand how England was affected.

The English Reformation began in 1534 when King Henry VIII (1509-1547) despaired of obtaining a male heir to succeed him on the throne from his existing wife, Catherine of Aragon. Therefore, he requested Pope Clement VII to annul his marriage to Catherine. Since Catherine objected and was, furthermore, the aunt of the Holy Roman Emperor Charles V, the Pope hesitated. Impatient with the delay, Henry acted by repudiating Papal authority and setting up the Anglican Church as the State Church of England with the King as "Protector and Only Supreme Head of the Church and Clergy of England". At the time, Henry did not intend to create a Protestant church along the lines evolving on the continent under the influence of the moderate German, Martin Luther, or more radical reformers such as the Frenchman, John Calvin. He only wanted to be the supreme head of an English Catholic Church.

Nevertheless, Protestant ideas infiltrated England and Scotland, and Protestant churches were organized, thus setting the stage for 150 years of religious conflict between Catholics and Protestants, and between subsets of the Protestants. The details are tiresome, but tragic and of great import to the future American colonies.

Scottish Presbyterian congregations were led by the Calvinist John Knox in the 1550s. About the same time the Puritan movement, also Calvinist in origin, came to notice in England as the result of insistence by Queen Elizabeth I (1558-1603), who was head of the Church of England, on the enforcement of uniformity in the dress of the clergy. Because the Calvinists objected to the prescribed vestments as a remnant of popery, they were called "Puritans". This was the beginning of a long and bitter confrontation between the Puritans and the English monarchs, with the Puritans continuing to press for reforms of the Church of England along Calvinist lines. They had no quarrel with official Anglican doctrine, but they wished to do away with all clergy above the rank of parish priest; abolish set prayers and elaborate rituals; and reorganize the Church as either a hierarchy of councils (Presbyterianism) or a federation of independent parishes (Congregationalism) free from state control.

Throughout the 1600s English monarchs, except for two brief, bloody and unsuccessful attempts to restore Catholicism, sought primarily to assure the supremacy of the State Church of England by enforcing conformity with Anglican doctrine and practice. At the same time, they were engaged in ominous confrontations with a Parliament that increasingly challenged the right of the King to make laws, decide legal cases, enforce religious conformity and levy taxes. Charles I, who reigned from 1625 to 1649, confronted a Parliament in 1640 which by that time had come under the control of the Puritans in spite of his efforts to suppress them.

In the ensuing Civil War Oliver Cromwell, a devout Puritan, emerged as the military leader of the Parliament's army, and Puritan soldiers proved to be the most effective of the military forces. Gradually the royalist followers of Charles I were defeated by the Parliamentary forces, called Roundheads from the close haircuts favored by the Puritans. In 1649 King Charles I was tried and condemned to death by a Parliament which in the course of the Civil War had been reduced to subservience to Cromwell and his Puritan army. The King was beheaded on 30 January 1649.

There followed a turbulent decade of autocratic rule of England, Scotland and Ireland by Cromwell during which the British Isles were declared a Republic. It was known as the "Commonwealth," and Cromwell assumed the title of Lord Protector. Ultimately, the people and the army became disillusioned with the puritanical restrictions and political dictatorship of Cromwell's regime. After he died in 1658, his son proved unable to maintain the Protectorate. As a result, the monarchy, the Church of England and the Parliament were restored in 1660, and with almost universal approval.

These changes inaugurated the period in English history known as the Restoration (1660-1688). The Puritans, while in control of the Parliament, had abolished bishops and otherwise reorganized the Anglican Church. In order to secure the support of the Scottish army, Parliament had agreed to make Presbyterianism the legal state religion of England, Scotland and Ireland. Now these "reforms" were reversed and Charles II (1660-1685), son of the executed Charles I, was proclaimed King. Legally, government and religion supposedly reverted to the status they held in 1640.

Charles II, an Anglican with Catholic leanings, died in 1685 and was succeeded on the English throne by his Catholic brother, James II (1685-1688). When a son was born to James in June 1688 and baptized into the Catholic faith, it foreshadowed a line of Catholic monarchs for England. This being unacceptable to the political leaders of England, they abandoned James and offered the throne to his grown daughter, Mary, a Protestant married to the Dutch William of Orange. James lost the ensuing military struggle and in December 1688 fled to France and the protection of Louis XIV. The English refer to this episode as the Glorious Revolution of 1688.

William of Orange became William III (1689-1702). He and his wife Mary (1689-1694) were offered the crown of England jointly and assumed the throne in 1689, but not until they had acceded to the demand of Parliament for an historic Bill of Rights that assured the preeminence of Parliament over the king in government. The Bill asserted the "true, ancient, and indubitable rights of the people"; and declared that no Roman Catholic could wear the crown. Parliament also passed the Toleration Act in 1689 which legalized Protestant dissent and defined the rights of Nonconformists such as the Quakers, but still excluded them from political activity and public service.

The threat of Counter Reformation through a Catholic monarchy had been kept alive in England for 150 years by French and Spanish intrigue, and by hereditary accession to the throne of two Catholic sovereigns, Mary I (1553-1558) and James II (1685-1688). When Mary I, daughter of Henry VIII and Catherine of Aragon and older half-sister to Elizabeth I, became Queen she restored the Catholic creed and the laws against heresy. Because of her relentless pursuit of heretics, many of whom were hanged and some 300 burned at the stake, she has gone down in English history as "Bloody Mary." Fortunately her reign was short. With the coming of William and Mary, the threat of deadly persecution was virtually eliminated by Parliament, and the Toleration Act greatly reduced the grounds for religious dissent and repression. The Protestant Reformation in England and Scotland was coming to a close. [14][15]

With this essential background, we can now turn to consideration of how religious conflict during the English Reformation spawned the Quaker movement; and how the desire to escape religious repression led to the founding of six of the original 13 English Colonies in North America, including the Quaker state of Pennsylvania.

Six American Colonies Founded for Religious Motives

Five Colonies were established by Puritans in New England: Plymouth (1620); Massachusetts Bay (1630); New Haven (1638); Connecticut

(1639); and Rhode Island (1644). In 1662, Connecticut received a charter from the Crown that included in its boundaries the New Haven Colony, which thereafter became part of Connecticut and ceased to exist as a separate Colony. The other two Colonies founded on a religious basis were Maryland (1633) and Pennsylvania (1682).

Plymouth Colony, 1620

The first to emigrate for religious reasons were Puritan Separatists (known to history as the "Pilgrims") who established Plymouth Colony in 1620.

During the reign of Elizabeth I, certain English Puritan groups called Separatists, despairing of reform and unwilling to compromise, formed voluntary congregations. They broke with the Church of England, chose their own pastors by common consent, and lived as religious communities in accordance with their conception of the original church described in the Bible. They were savagely repressed by Elizabeth. Two laymen were hanged in 1583 for selling Separatist tracts; and three Separatists clerics were hanged in 1593. Severe pressure on these groups continued under her successor, James I (1603-1625), who had the Bible translated into the "Authorized King James Version", and swore that he would "harry the Puritans out of the land".

Seeking to escape persecution and the worldly excesses of English society, a small Separatist congregation from the area of Scrooby, England, fled to Holland in 1607. They lived first in Amsterdam and later moved to Leyden where they formed an English Congregational Church. After 13 years of exile in Holland, they decided to emigrate to America and returned to England in July 1620 to make final preparations for the voyage. They sailed from Plymouth on 6 September 1620 aboard the Mayflower with a company of 102 men, women and children to establish the Plymouth Colony.

Two months later, on 11 November 1620, these Pilgrims disembarked on the shore of Cape Cod Bay. After prospecting the coast for the best place to settle permanently, they chose the site of the present city of Plymouth, Massachusetts. Committed as they were to facing all hardships together, they drew up the historic Mayflower Compact, signed by the forty-one adult males of the company, by which they agreed to the principle of self-government by the majority. They were ill-prepared to face the wilderness and the rigors of the New England winter. By the following spring, half the company had died, yet when the Mayflower set sail for England on 5 April 1621, not one of the survivors elected to return in her. [16][17][18]

Massachusetts Bay Colony, 1630

Under King Charles I (1625-1649) pressure for religious conformity worsened, even for English Puritans who were not Separatists and had remained nominally in the Church of England. When the restrictions became intolerable, a company of 900 to 1000 Puritans decided to emigrate. They sailed in 17 ships to new England in 1630 to establish Massachusetts Bay Colony, a "Godly Commonwealth" based on Puritan doctrine. The Colony included Boston and six or seven nearby towns. Because the Massachusetts Bay Charter was transferred to America with the colonists, the Colony became practically independent of England and was thus able to develop a distinctively American form of representative government. Colonial New England was set on a course significantly influenced by Puritan values which included piety, hard work and learning.

Harvard College and Medical School

More than 100 graduates of Oxford and Cambridge came to Massachusetts in this Puritan migration. Among them was John Harvard (1607-1638) who received an A. B.. degree in 1631 and an M. A.. degree in 1635 from the Puritan Emanuel College of Cambridge University and shortly after his graduation was ordained as a dissenting minister. He arrived in the Massachusetts Bay Colony in 1637 and settled in Charlestown where he occasionally served as a minister. In poor health from tuberculosis, he made his will in 1636 two years before his death and bequeathed half his small estate of 1,700 pounds, and his well-chosen library of 260 volumes, to a new school founded on 28 October 1636 in Newtown (Cambridge), by the General Court of Massachusetts.

A contemporary of John Harvard among the colonists described how this new school received the name of Harvard College:

> After God had carried us safe to New England, and wee had builded our houses, provided necessaries for our livelihood, rear'd convenient places for God's worship and setled the civill Government: One of the next things wee longed for and looked after was to advance Learning, and perpetuate it to Posterity; dreading to leave an illiterate Ministry to the Churches, when our present Ministers shall lie in the Dust. And as we were thinking and consulting how to effect this great Work it pleased God to stir up the heart of Mr. Harvard (a godly Gentleman and a lover of Learning, there living amongst us) to give the one halfe of his Estate …. towards the erecting of a Colledge, and all his Library; after him another gave 300 pounds. Others after them cast in more, and the publique land of the State added the rest; the College was, by common consent, appointed to be at Cambridge (a place very pleasant and accommodate) and is called (according to the name of the first founder) Harvard College. [19]

In 1782, the Harvard Corporation voted to establish a Medical School. Dr. John Warren was asked to draw up a plan for medical studies and was elected Professor of Anatomy and Surgery. By this action, Harvard founded the third American medical school. The second medical school was the Medical Department of King's College in New York, opened in 1767, later to become the College of Physicians and Surgeons of Columbia University. Drs. William Shippen, Jr. and Benjamin Rush (faculty members from America's first medical school established in 1765 by the College of Philadelphia) assisted Dr. Warren in the work of organization. [20]

Society of Friends and Pennsylvania Colony, 1682

The Society of Friends (or Quakers as they are more often called) is a protestant religious sect. It emerged out of English Puritanism in the mid seventeenth century as a radical reform movement under the leadership of George Fox (1624-1691). This was a time of intense religious agitation in England caused by the government's attempt to enforce universal acceptance of the Church of England. The people responded with a proliferation of dissenting groups, foremost of which were the Puritans.

George Fox, the first Quaker, was the son of a weaver in Leicestershire. Although he was raised in a Puritan family, he early became dissatisfied with Puritan ways and beliefs, finding them unfaithful to the tenets of the original Christian church as described in the Bible. Therefore in 1644, when he was only 20 years of age, he founded the Society of Friends for the purpose of reviving primitive Christianity as a way of life. [21]

The distinctive teachings of Fox tended to make the Quakers "a people apart." His cardinal doctrine was that religious authority dwells neither in the Bible nor in a "hireling clergy" but in the mystical "Inner Light" of God which is present in the soul of every person, and is the ultimate source of Truth, Guidance and Comfort. Early Friends worshipped together without preachers or formal church buildings. The worshipers sat in silence unless a member of the congregation felt moved by the Inner Light to pray or testify. During the initial evangelical period of the movement, worshipers would sometimes physically quiver and shake, overwhelmed with emotion as they struggled with self-judgment under the Inner Light. Hence the name of "Quakers."

Early Friends tried, literally, to live by the precepts of Jesus, hoping thus to inaugurate the reign of Christ on earth. They wore simple, drab clothing as a rejection of pride and waste, and used the familiar "thee" and "thou" in speaking and writing. This manner of address was normally reserved for God, familiars and inferiors, and was often considered offensive, particularly by the upper classes.

Consistent with their advocacy of a primal form of Christianity, Friends vigorously opposed the creeds, rituals and hierarchies of the established churches of the day, including the Puritan. They also refused to pay the state-required tithes for the support of the Church of England; to take oaths (because of the biblical injunction that all swearing is evil); to fight in wars ("Thou shalt not kill."); to take off their hats (i.e., to pay "hat-honor") to anyone but God; or to forsake their convictions in spite of repression. These idiosyncrasies were intolerable challenges to church and state at that time and the authorities reacted harshly.

Friends also developed a unique organizational structure for the Society. The Weekly Meeting was primarily devoted to worship and was the basic unit of Quaker Fellowship. Monthly Meetings were made up of the members of the Weekly Meetings within a specific, contiguous area. The Monthly Meetings certified the eligibility of members within the district (i.e., "within the bounds of the Monthly Meeting") for membership in the Society and for marriage; maintained membership records; held title to the funds and property of the Society; and disbursed funds for aid to the poor and other purposes. Several Monthly Meetings were combined to form a Quarterly Meeting; and Quarterly Meetings were in turn combined to form a Yearly Meeting that served all the subsidiary meetings in a wide geographic area, providing advice and assistance on weighty matters of principle and practice. It is from the records of the Monthly Meetings that information can best be obtained about the lives of individual Quakers and their families.

Among the early Quakers there were zealous missionaries who spread out over the British Isles, Europe and the American colonies, making many converts. In the period between 1650 and 1690 the Quakers were a very dynamic sect, likened to a spiritual explosion by Quaker historian, D. Elton Trueblood (Chaplain and Professor of Philosophy of Religion at Stanford in the 1940s). He pointed out that "Quakerism was, for a while, the fastest growing movement of the Western world". [22]

In an era of extreme religious intolerance, the impassioned approach of Quaker missionaries was at times provocative and their suffering severe--witness the execution of four Quaker missionaries by the Puritans of Massachusetts Bay Colony in 1659-60. The Puritan values of the Massachusetts Bay Colonists did not include religious freedom or even toleration. They brought with them to New England a full measure of the religious bigotry and superstition that was nearly universal in the Reformation society from which they sought refuge in America. This was reflected in verdicts handed down in their judicial system. The Colony Court invoked the death penalty against four Quaker missionaries who returned for the third time to preach in the Colony where they denounced the Puritan church and accused the Puritan pastors of being "hirelings of Satan." Two Quaker men and one woman were hanged in 1659, and one Quaker man was hanged in 1660. (King Charles II later issued an order to the Bay Colony forbidding them to put Quakers to death.) The Salem witchcraft trials are a further example of lethal religious fanaticism in the Massachusetts Bay Colony. In 1691 and 1692 a Special Court of the Colony conducted these infamous trials in which 19 persons, including a Congregational clergyman and 14 women, were found guilty and hanged; and one man was pressed to death. During this era in New England, religious toleration existed only in Rhode Island, a colony founded by Puritan dissenters. [23][24]

In England, Quakers in general faced repression. The death of Cromwell and failure of his Puritan Commonwealth was followed in 1660 by restoration of the monarchy and the rule of Charles II (1660-1685) and James II (1685-88). During their reigns, Quakers were persecuted simply because of their form of worship and their refusal to accept Anglican doctrine. At that time there were about 50,000 Quakers in England. It is estimated that as many as 5,000 of them went to prison where almost 500 died.

After Parliament under William and Mary passed the Toleration Act of 1689, Quakers were permitted relative freedom of worship. The manner in which they had shown resistance in previous years gained them many followers, as recorded by Richard Baxter, a famous Puritan preacher who was no friend of the Quakers: [25]

> The fanatiks called Quakers … were so resolute and gloried in their constancy and sufferings that they assembled openly - and were dragged away daily to the Common Gaol, and yet desisted not, but came next day nevertheless, so that the Gaol at Newgate was filled with them. Abundance of them died in prison and yet many

> continued their assemblies still - yea, many turned Quakers because the Quakers kept their meetings openly and went to prison for it cheerfully…

In the course of four decades of repression, Quakers gradually adjusted to the realities of English society. They also achieved social acceptance and even prosperity in the process. Their high ethical standards, self sufficiency, hard work, business acumen and emphasis on family life earned them respect and eventual toleration. Until the nineteenth century they were barred from universities and public office but directed their talents with success in other channels including science, commerce, banking and industry. Later, as eccentric customs of dress and speech lost meaning, their usage was laid aside; and Quaker worship and organization began in some ways to resemble that of Protestant sects such as Baptist, Methodist or Presbyterian. [26]

Pacifism has, in particular, remained a pillar of the Quaker Faith, as originally expressed in their Peace Testimony of 1660: [27]

> The Spirit of God by which we are guided is not changeable; the Spirit of Christ, which leads us into all Truth, will never move us to fight and war against men with outward weapons.

Nevertheless, many Quakers have joined the armed forces of their native countries in time of national need. Another distinctive feature of modern Quakerism is the special emphasis on programs of social welfare, international relief, and peaceful resolution of international conflict. The exceptional achievements of Friends through these philanthropic endeavors are widely recognized, and gratefully acknowledged around the world.

Let us digress here briefly to cite a notable example of the Quaker humanitarian ethos in the person of Stanford alumnus and former President of the United States, Herbert Clark Hoover (1874 - 1964). He descended from a long line of Friends and epitomizes the Quaker ideal of service.

When Stanford opened on 1 October 1891, Hoover was a member of the first or “Pioneer Class” of 559 students to enter the University. He majored in Geology and Mining and graduated with an A. B.. degree in 1895. Ray Lyman Wilbur, first Dean of Stanford Medical School and later President of the University, entered Stanford one year after Hoover. As we shall later see, their lasting friendship, struck up during student days at Stanford, had important consequences for the Medical School and the University.

David Starr Jordan, first President of the University, remembered Hoover as a student and in 1922 wrote: [28]

> Added to the unflinching idealism already foreshadowed in his youth, Hoover has shown in mature years a degree of administrative capacity never surpassed; no other man, moreover, has so broad an outlook on world political and economic relations. The highest motive of his life, withal, is a spirit of helpfulness, and millions now speak his name with gratitude!.

President Jordan was referring to the unprecedented scale of humanitarian relief work that Hoover accomplished during and after World War I (1914-1918). Examples of his remarkable efforts include the following. He served as Head of the Commission for Relief in Belgium and Northern France that fed and cared for some 10 million civilians during the War. After the Armistice of 11 November 1918, the Allied Leaders appointed him Director of relief and rehabilitation in Europe with the result that the organizations under his direction had fed and clothed over 200 million people by 1920. During the famine in the Ukraine from 1921 to 1923, the American Relief Administration, originally established by Hoover for the purpose of feeding the millions of children left undernourished and diseased by the War, also fed millions of Russians, adults as well as children. [29]

Hoover went on to be elected as the 31st President of the United States (1929-1933) in a landslide victory. Unfortunately, the Great Depression, which began with the stock market crash on 29 October 1929, cast a pall over his presidency that often obscures the many constructive policies adopted during his administration. However, nothing can overshadow his peerless record of practical idealism in the public arena where he continued to be active until his death in 1964 at 90 years of age. [30][31][32][33]

We shall have occasion to comment later on Hoover’s relationship to Stanford University as a trustee and benefactor; how his personal intervention at critical junctures saved the Medical School when its very survival was threatened; and how he influenced the choice of Ray Lyman Wilbur for President of the University.

Now that we have some understanding of the origin and beliefs of the Quakers, we can introduce William Penn (1644-1718) who founded the Colony of Pennsylvania. Born to all the advantages of the landed aristocracy of England, he was sent to the finest English schools and on a grand tour of the continent by his father, Admiral Sir William Penn, conqueror of Jamaica. While living on his family’s estate in Ireland in 1667, Penn was converted at the age of 23 to the persecuted Quaker faith, and this gave new meaning and direction to the remaining 51 years of his life. His father at first disowned him, but later relented and left him a considerable fortune. Penn’s outspoken support of Quakerism and opposition to the Church of England led to his imprisonment in the Tower of London in 1668-69, and twice in Newgate (in 1670 and 1671). Next to George Fox, the founder of Quakerism, Penn was the most prolific of the early Quaker writers.

Penn wanted to found an American colony that would be a refuge for the persecuted of every race and religion. The circumstances that made this possible must have seemed truly providential at the time. The Duke of York, who held a large grant of land in North America, had received a loan of 16,000 pounds from the now deceased Admiral Penn. When the Duke was gently reminded that the loan was as yet unpaid, he settled the account by transferring a generous portion of the grant to William Penn, and insisted that the territory be named for Penn’s father, the Admiral. The Duke’s brother, King Charles II, then implemented the grant by issuing a Charter to Penn in 1681 for a proprietary province to be known as Pennsylvania.

Settlement of the Pennsylvania Colony, that Penn called his “Holy Experiment”, began without delay in 1682 at the present site of Philadelphia, an admirable location. Generous terms for land, religious toleration, and a sound frame of government were included in Penn’s careful and pragmatic plan for colonization. As early colonists he mainly attracted “middling” class English, Welsh and Irish Quakers, and other groups seeking freedom of worship. They were mostly farmers, artisans and small merchants who generally came with their families. In many cases whole communities emigrated together. Penn was correct in judging that settlers such as these had the necessary motivation and practical skills to successfully develop the Colony. The Quaker ancestors of Drs. Cooper, Lane and Gibbons were among the early settlers. [34][35]

Medical School of the College of Philadelphia

We should call attention to the career of Dr. John Morgan (1735-1789) (MD Edinburgh 1763) who, although not a practicing Quaker himself, was descended from early Quaker immigrants. Even before the arrival of William Penn in the Colonies, Dr. Morgan’s maternal great grandparents, William and Joan Biles, were prominent Quakers in Bucks County where they owned large estates in 1679. It is said that the first known meeting of the Quakers in Bucks County was held in their home on 2 May 1683 which, if true, would have preceded the meeting in 1700 at the Cooper residence referred to previously. [36]

The achievements of Dr. Morgan were undoubtedly well known to Elias Cooper who must have admired and envied his success in founding the Colonies’ first medical school in 1765, the Medical School of the College of Philadelphia. This College and its Medical School have survived as the University of Pennsylvania which is recognized as having the oldest medical school in the United States.

Morgan, as did Cooper nearly a century later, aspired to establish a medical school and planned ahead for it. By the time he undertook the project, Morgan’s qualifications for the task were outstanding. In 1750 at the age of fifteen he became the medical apprentice of the European-trained and highly respected Dr. John Redmond of Philadelphia. He continued with Dr. Redmond for six years during which he also attended the College of Philadelphia in 1754, ‘55 and ‘56 and was granted a B. A. degree. In 1756 he joined the Pennsylvania Provincial troops as a regimental surgeon. The French and Indian War (1754-1763) was in progress and Morgan was a member of the militarily crucial expedition under the British General Forbes who, with George Washington as his aide, drove the French from Fort Duquesne at the forks of the Ohio River in 1758, renaming the site Pittsburgh after the great British war minister, William Pitt.

In 1760 the American phase of the war was over and the Provincial Forces were disbanded. Morgan then resigned his commission and returned to Philadelphia. While in the army he met British surgeons who impressed him with their ability, and convinced him that only in Europe could he acquire the training that would make him a leader in his profession. On 1 May 1760 his College honored him with a Master of Arts degree, and later that month he sailed for England. Morgan spent the next five years abroad, taking his MD. degree from Edinburgh in 1763, and also studying diligently in well-known centers of medical learning on the continent.

While growing up in Philadelphia, Morgan was a neighbor of Benjamin Franklin who thought highly of the young man. When Morgan arrived in England in 1760 to begin his medical studies, Dr. Franklin was an agent of the Colonies in London and was helpful to him with wise counsel and warm letters of reference to prominent people. He commended him especially to his friend and personal physician, Dr. John Fothergill (1712-1780), a scholarly gentleman and leading Quaker with one of the largest practices in London. This made for an auspicious beginning to Morgan’s European sojourn.

It was while a medical student in Britain that he and William Shippen, Jr., a fellow student from Philadelphia, conceived the idea of together founding a medical school in Philadelphia. In 1765, soon after his return from Europe, Morgan independently and without consulting Shippen presented a proposal for a Medical School to the Trustees of his alma mater, the College of Philadelphia which had been established in 1749 in accordance with a plan drawn up by Benjamin Franklin. On 3 May 1765 the Trustees unanimously approved Morgan’s recommendation to establish the Medical School of the College of Philadelphia; unanimously elected him Professor of the Theory and Practice of Physic; and authorized him to proceed with organizing the School. Thus was medical education inaugurated in the Colonies.

Later that same month Morgan delivered his landmark Discourse upon the Institution of Medical Schools in America at the Anniversary Commencement held at the College of Philadelphia. In this address he laid out his plan for the new Medical School and made the radical proposal that the teaching and practice of medicine should be conducted by those who specialize in and confine their efforts to only one of three fields that he broadly designated as Medicine, Surgery and Pharmacy. Although the concept of specialization was valid and appealing in principle, it was ahead of its time. It drew criticism as being premature and impractical, as Morgan himself later discovered in his own practice. For many decades to come, the great majority of American physicians carried on a general practice as well as preparing and furnishing the medicines they prescribed. Nevertheless, Morgan is the best known early American advocate of the advantages of specialization and is well remembered for it. In his Discourse Morgan called for high academic standards which his School sought to maintain in the years to follow.

Later in 1765, Professor Morgan was joined on the Medical School faculty by his contemporary and fellow Philadelphian, Dr. William Shippen, Jr. (1736-1808) (MD Edinburgh 1761), who was appointed Professor of Anatomy and Surgery. In 1768 Dr. Adam Kuhn (1741-1817) (MD Edinburgh 1767) was appointed Professor of Botany and Materia Medica; and in 1769 Dr. Benjamin Rush (1745-1813) (MD Edinburgh 1768) was made Professor of Chemistry. Dr. Rush, later a member of the Continental Congress and a signatory to the Declaration of Independence, is the most widely known of this original group of four professors, all of whom were Edinburgh graduates. Small wonder that the new Medical School in Philadelphia was modeled as far as local conditions would permit after the Medical School of Edinburgh University, making it therefore reasonable to regard that great University in Scotland as the father of American medical education. [37][38][39][40]

As we have already noted, Morgan established the new Medical School

without including Shippen as co-founder in spite of what Shippen believed was an understanding between them that they would cooperate on the project. In order to understand Shippen's viewpoint on the matter, we must mention some relevant events occurring prior to founding the School and involving Dr. John Fothergill of London, the eminent physician and respected man of science to whom we have already referred. Dr. Fothergill was a prestigious Quaker and as such had significant influence on medical developments in Philadelphia. He was deeply concerned for the success of Penn's Holy Experiment. As young colonials from Pennsylvania, Shippen and Morgan were assured of Fothergill's hospitality and guidance. He invited them to his home and took an interest in their careers, advising them to seek clinical experience and tutelage from his friend Dr. William Hunter (ablest and most famous of the private teachers of anatomy) in London, but to go to Edinburgh for their medical degrees - counsel that they sensibly heeded. It was with Fothergill that Shippen and Morgan, who were in England at the same time during a portion of their medical studies, discussed their dream of co-founding a medical school on their return to Philadelphia.

Fothergill gave them carefully tempered encouragement and when Shippen returned home in the spring of 1762, he brought with him a set of eighteen beautifully executed anatomical drawings of dissections of the human body by Riemsdyk as a gift from Fothergill to the Pennsylvania Hospital. This hospital, precursor of the present University of Pennsylvania Hospital, was the first in the British colonies intended solely for the care of the sick and wounded. It opened in Philadelphia in 1752 as a direct result of the planning and fund-raising efforts of Dr. Thomas Bond and Benjamin Franklin. They were abetted in the project by Fothergill who was a personal friend of both. Fothergill had known Bond since the latter's student days in Europe, and had edited and written the introduction to Franklin's important pamphlet on electricity published in England in 1751. [41] Fothergill maintained an interest in the Pennsylvania Hospital for the rest of his life and, anticipating the needs of America in the future, looked forward to the eventual development of a medical school in connection with it. In a letter accompanying the Riemsdyk drawings, Fothergill wrote to James Pemberton, one of Pennsylvania Hospital's managers, as follows:

> In the want of real Subjects, these (drawings) will have their Use and I recommended to Dr. Shippen to give a Course of Anatomical Lectures to such as may attend. He is very well qualified for the subject and will soon be followed by an able Assistant Dr. Morgan, both of whom I apprehend will not only be useful to the Province in their Employments, but if suitably countenanced by the Legislature will be able to erect a School for Physic amongst you that may draw Students from various parts of America and the West Indies and at least furnish them with a better Idea of the Rudiments of their Profession than they have at present the Means of acquiring on your Side of the Water.

After his return to Philadelphia Shippen organized a course in anatomy based on the Riemsdyk drawings. He opened the course with some fanfare by a public lecture in the State House on 16 November 1762. Shippen maintained that this lecture (there is no surviving copy of it) included a plan for establishing a medical school in Philadelphia to which the course in anatomy would serve as the introduction. He continued to offer lectures and demonstrations on anatomy at the Pennsylvania Hospital, utilizing the Riemsdyk drawings, so that when Morgan arrived from Europe in 1765 Shippen had already been teaching anatomy for three years, thinking that he was laying the groundwork for the new medical school which they had agreed to collaborate in founding. Imagine his chagrin when Morgan stole a march and obtained the approval of the College of Philadelphia for a Medical School in 1765 without sharing with him either the planning or the glory. Morgan's apparent duplicity was deeply resented by Shippen who nevertheless decided to join the faculty of the new school and bide his time.

For a period of two years after inauguration in 1765 of the Medical School by the Board of Trustees of the College of Philadelphia, and the appointment of Morgan and Shippen as Professors, Morgan delivered an annual series of lectures on Materia Medica and Shippen an annual series on Anatomy under the auspices of the College. Their lectures included a broad range of other medical subjects, and in 1766 Dr. Thomas Bond, still one of the physicians at Pennsylvania Hospital, commenced an annual course of Clinical Lectures in that institution, the first such lectures in an American Hospital. Since Bond was a trustee of the College of Philadelphia, it was considered unethical to give him an appointment to the faculty of the Medical School in spite of his significant contribution to its teaching program. [42][43]

By 1767 it was time to adopt a more thorough organization of the Medical School. Accordingly, the following code of rules was approved by the Board of Trustees of the College on 12 May 1767, and published in the Pennsylvania Gazette: [44]

> At a meeting of the Trustees, held the 12th of May last, it being moved to the Board that conferring the usual degrees in Physic on deserving students will tend to put the Practice of Physic on a more respectable footing in America; the motion was unanimously agreed to; and the following Course of Studies and Qualifications, after mature deliberation, was fixed on and enacted as requisite to entitle physical students to their different degrees.
>
> **For the Bachelor's Degree in Physic:**
>
> It is required that such students as have not taken a Degree in any College shall, before admission to a degree in Physic, satisfy the Trustees and Professors of the College concerning their knowledge in the Latin tongue, and in such branches of Mathematics, Natural and Experimental Philosophy as shall be judged requisite to a medical education.
>
> Each student shall attend at least one course of lectures in Anatomy, Materia Medica, Chemistry, and the Theory and Practice of Physic, and one course of Clynical (sic) Lectures, and shall attend the Practice of the Pennsylvania Hospital for one year, and may then be admitted to a Public Examination for a Bachelor's Degree, provided that on previous examination by the Medical Trustees and Professors, and such other Trustees and Professors as choose to attend, such Students shall be judged fit to undergo a public examination without attending any more courses in the Medical School.
>
> It is further required that each student, previous to the Bachelor's Degree, shall have served a sufficient apprenticeship to some reputable Practitioner in Physic, and be able to make it appear that he has a general knowledge in Pharmacy.
>
> **Qualifications for a Doctor's Degree in Physic:**
>
> It is required for this Degree that at least three years have intervened from the time of taking the Bachelor's Degree, and that the Candidate be full 24 years of age, and that he shall write and defend a Thesis publicly in the College, unless he should be beyond seas, or so remote on the continent of America as not to be able to attend without manifest inconvenience; in which case, on sending a written thesis, such as shall be approved of by the College, the candidate may receive the Doctor's Degree, but his thesis shall be printed and published at his own expense.
>
> This scheme of a medical education is proposed to be on as extensive and liberal a plan as in the most respectable European Seminaries, and the utmost provision is made for rendering a Degree a real mark of Honor, the reward only of distinguished learning and abilities. As it is calculated to promote the Benefit of Mankind by the improvement of the beneficent Art of Healing and to afford an opportunity to students of acquiring a regular medical education in America, it is hoped it will meet with public encouragement, more especially as the central situation of this city, the established character of the Medical Professors, the advantages of the College and of the public Hospital, all conspire to promise success to the Design.

The courses of lectures were advertised to last for a period of six months, beginning on the first Monday of November and finishing around the first of May. Few candidates returned to take the Doctor's Degree in Physic (the MD degree) so that ultimately the Bachelor's Degree was discontinued and the M. D.. degree substituted for it, as is now the normal practice in American medical schools. At the first Commencement of the new School on 21 June 1768 the Bachelor's Degree in Physic was awarded to ten graduates. The secretary of the board wrote in his minutes that "This day may be considered the Birth-day of Medical Honors in America." The second Commencement was held on 30 June 1769 and the Bachelor's Degree was conferred on eight candidates. [45]

The life of the Medical School of Philadelphia College was hectic during its first few decades, including as they did the American Revolution (1775-1783) and the founding and early years of the Republic. Much of this historic conflict and lawmaking took place in and around Philadelphia. The Medical School suspended operation during the Revolution, and it was in this period of great national stress that Morgan, Shippen and Rush became involved in a personal vendetta that sorely tried the patience of General Washington, Morgan's former comrade-in-arms, and the United States Congress.

The rift between Morgan and Shippen over Morgan's failure to include Shippen in the founding of the Medical School never healed and was doubtless an underlying factor in their bitter legal confrontation on the national stage. The events leading up to the dispute were as follows. On 17 October 1775 Morgan was appointed Director-General of the General Hospital and Chief Physician of the Revolutionary Army to replace Dr. Benjamin Church of Boston who was discovered in treasonable correspondence with the British. Shippen was appointed to Morgan's staff. When Morgan was summarily relieved of his post in 1776 without formal charge or opportunity to defend himself, and Shippen was appointed in January 1777 to replace him as Director-General, Morgan suspected that machinations of Shippen were the cause of his dismissal. Morgan appealed to Congress for redress. Finally, after a delay of three years, Morgan received a perfunctory communication from Congress on 12 June 1779 absolving him of any wrong-doing.

Three days later, on 15 June 1779, Morgan counterattacked. In a formal statement to Congress, he charged Shippen with "Malpractice and Misconduct" in the Office of Director-General. Furthermore, Morgan offered to be a prosecution witness in Shippen's Court Martial. Benjamin Rush was Morgan's principal witness against Shippen whom they described as a "monster of public iniquity," cowardly, treacherous and false. They characterized a Shippen aide as "one of those insects who have been hatched in the sunshine of his corrupt administration." Shippen replied with similar invective to complete a thoroughly unseemly performance all around. Shippen escaped conviction, and then resigned the post of Director-General on 3 January 1781, without doubt to the great relief of Congress. But the Morgan-Shippen feud continued for years to disturb the tranquility of the faculty of the Medical School. [46][47]

In regard to the offensive tone of the public debate in the court martial of Dr. Shippen, it should be remembered that the exchange of scathing epithets between adversaries was common in those days, and we shall learn that Elias Cooper was himself formidable in waging war with words. Cooper subscribed to Morgan's views on specialization, generally limiting his practice to surgery and fiercely defending his right to inform the profession and the community through the public press that he offered specialized services - for which he was accused of "advertising" and severely castigated by his professional colleagues. But more of this later.

Unfortunately, most American medical schools in the nineteenth century failed to sustain the commitment to high academic standards implicit in the College of Philadelphia's original "code of rules." By the end of the century, large numbers of doctors were being graduated annually, but overall quality was at a low ebb, brought down by the proliferation of inferior proprietary schools. All this was convincingly documented in the Flexner Report of 1910. [48]

This is an appropriate juncture to consider the medical renaissance initiated by Johns Hopkins Medical School, founded in Baltimore in 1893. We shall introduce the subject with some remarks on the Colony of Maryland and the Quaker family of Johns Hopkins.

Colony of Maryland, 1633

Baron Baltimore, a Catholic, received a charter for the Colony of Maryland in 1632 from Charles I, and settlement began in 1633. Although the colony was named for the Virgin Mary, and was intended

as a refuge for English and Irish Roman Catholics, Maryland was never predominantly Catholic.

Gerard Hopkins, of English background and member of the Church of England, was among the early colonists. Between imprisonments in England George Fox, founder of the Society of Friends and great preacher, came to America in 1671 on a mission to spread the Quaker doctrine. While in the Colonies he visited Maryland where he converted many to his belief including Gerard Hopkins. In due course Gerard married Margaret Johns, also of the Quaker persuasion, and they became the great grandparents of the wealthy Baltimore merchant and banker, Johns Hopkins (1795-1873), who endowed the Johns Hopkins University, Hospital and Medical School.

Johns was one of eleven children. There were six sons, of whom he was the second, and five daughters. The family lived comfortably on a tobacco plantation operated by slave labor until the local Quaker Meeting declared that slavery was unacceptable to their creed. Whereupon in 1807, when Johns was 12 years of age, his father freed all their slaves while continuing to provide for those who were young or old and still dependent. Life changed drastically for the Hopkins family, parents and children alike, all of whom now took up the considerable manual labor and other homely tasks required to tend the farm and make themselves completely self sufficient. This change brought to Johns and the other children the blessings of a disciplined life of hard work, frugality and sharing, with parents who imparted an uplifting faith and a love of learning. We may be sure that Johns's attitudes and ideals were influenced by the experiences of his youth. "Just as the twig is bent, the tree's inclined."

When Johns Hopkins' uncle would not give his daughter permission to marry Johns because of Quaker disapproval of consanguineous marriage, they both remained single. Later in life the childless Johns Hopkins, who was highly successful in business in Baltimore, looked upon his wealth as a trust and began to consider how he could best dispose of it for the benefit of humanity. After much thought and consultation he "was given to see", as the Quakers say, the course that he should follow: found a University, a Hospital and a Medical School in Baltimore. The Johns Hopkins University was opened in September 1876; the Johns Hopkins Hospital on 7 May 1889; and the Johns Hopkins University School of Medicine in October 1893. When Hopkins named the twelve-member Board of Trustees of the Hospital in 1867, he appointed his personal friend and fellow Quaker, Francis T. King, as President of the Board. Quite a few other members were also of the Society of Friends so that Quaker influence permeated the Board. [49]

In his Address at the opening ceremonies of the Hospital in 1889, Francis King had this to say about Johns Hopkins: [50]

> What were the motives that led him to found his two great trusts (for the University and the Hospital), each with an endowment of nearly three million and a half dollars? Was it the act of a man of great wealth without children, who near the close of life wished to build a monument to his memory? No, not at all; it was done conscientiously, with all the deliberation, judgment and grasp of subjects which characterized him through life, first as a successful merchant, then as a banker.
>
> I remember, many years ago, while spending an evening at Clifton (the country home of Johns Hopkins), I heard (him) say, in reply to a question put to him by an intimate friend of his own age, why he had never made a will, that he looked upon his wealth as a gift, for which he was accountable; that it grew and piled up from a small beginning, he hardly knew how; but he was sure it was given to him for a purpose, and he did not believe he would die before he was given to see how he should dispose of his estate. "This wealth," he repeated, "is my stewardship."

During the same period another prominent financier, Leland Stanford, and his wife were led by a personal tragedy, the death of their only child, also to devote their fortune and the remainder of their lives to the founding of a university on the other side of the continent from Maryland. Leland Stanford, Jr., died in Florence, Italy, from typhoid fever on 13 March 1884, a few weeks before his sixteenth birthday. "In the shadow of a great sorrow" Mr. Stanford, one of the builders of the first transcontinental railroad and former Governor of California, and Mrs. Stanford were guided by deep religious and humanitarian sentiments in their resolve that, in memory of their son, "the children of California shall be our children." The cornerstone of Leland Stanford Junior University was laid on the outskirts of Palo Alto, California, on 14 May 1887, the nineteenth anniversary of Leland Junior's birth. Opening exercises of the new University took place on 1 October 1891. Seventeen years later, in 1908, the University acquired the medical college founded by Elias Cooper. [51][52][53]

Johns Hopkins Medical School

The Medical School of Johns Hopkins University was the harbinger of change in many important respects. It was the first American medical school to require a bachelor's degree for admission and the first to be of the "university type" on the German model, as opposed to the clinically oriented schools and the large number of inferior proprietary establishments that characterized nineteenth century medical education in the United States. As late as 1871 Henry J. Bigelow, the influential Professor of Surgery at Harvard, referring to the commercialization of medical schools in order to maximize income from student fees, wrote: "It is safe to say that no successful school has thought proper to risk large existing classes and large receipts in attempting a thorough education". The Hopkins school was prepared to take the risk. [54]

Johns Hopkins was a medical school, albeit on a small scale, with something approaching an adequate endowment; it had well equipped laboratories conducted by modern teachers committed equally to medical investigation and instruction; and it had its own hospital where clinical research and teaching were combined with patient care. It is true that Harvard, Pennsylvania and a few other schools were evolving along similar lines but Hopkins made the first definitive move and became the national paradigm. It was held up as an example for emulation by Abraham Flexner whose critiques of medical education in 1910 and 1925 are the most influential writings on the subject ever published in the United States, and are justly credited with spurring much needed reforms. [55][56]

The fact is that the innovations at Johns Hopkins Medical School, which were the original manifestation of the so-called Flexnerian reforms, placed it in the forefront of medical education at the time. Similar developments were also in progress at Harvard and some other institutions, but to a lesser extent. Far from deterring students, Hopkins' high admission and other standards brought them flocking. The School's program was initiated under the guidance of Johns Hopkins University's first President, Daniel Coit Gilman (who resigned as President of University of California, Berkeley, to take the post), and William Welch, first Dean and Professor of Pathology. In addition to Dr. Welch, 34 years of age at the time of his appointment, the original Hopkins faculty included a stellar group of relatively young professors whose names are inscribed in the annals of American Medicine: Anatomy (Franklin Mall, aged 31); Pharmacology (John Abel, 36); Physiology (William Howell, 33); Gynecology (Howard Kelly, 31); Medicine (William Osler, 40); and Surgery (William Halsted, 37). [57]

The issue of full-time appointment of faculty in Clinical Departments arose early in the life of the new medical school. Here, as in numerous other aspects of medical education, Hopkins set an important precedent. Full-time appointment meant that the faculty member was employed full-time by the University and was not permitted to hold any outside paid position or, in the case of a physician, to engage in private medical practice for personal gain. The purpose of the full-time system is, of course, to encourage the faculty member to devote full effort to teaching, research and related activities, and to prevent diversion from these pursuits by outside commitments and the prospect of additional income from private practice.

Full-time appointment of basic science faculty was the policy at Johns Hopkins Medical School from its inception because basic science departments were analogous in function to the academic departments of the University at large where full-time appointments were already the norm.

However, full-time appointments did not exist in the Clinical Departments at Hopkins or, on an organized basis, in any of the other American medical schools at the time. The professors in Clinical Departments in these schools and at Hopkins were free to engage in private practice and keep the income, thereby earning some or all of their salaries and relieving the School of a major expense. In fact, few if any American medical schools in the late nineteenth century could have existed without freedom of the professors in the Clinical Departments to support themselves by private practice.

Nevertheless, the Hopkins faculty concluded, with the urging of Flexner, that earnings from medical practice by members of Clinical Departments, as well as the demands of patient care, represented a potential distraction from their responsibilities in teaching and research.

As a result, Hopkins furthered the revolution in medical education by becoming the first American medical school to effectively introduce a full-time system in the Clinical Departments. That is, the professors and their staffs in these departments received a regular salary in full payment for their services. They held their posts on the condition that, while employed by the university and hospital, they would be free to engage in any medical practice required by humanity or science; but that the fees for these services would not be collected by the faculty member but by the medical school which would use them as it saw fit in support of the school's program. [58]

Installation of the full-time system for appointments in Clinical Departments was the most controversial feature of the Hopkins program. In 1911 Welch wrote: "I am sorry to say that Dr. Osler is strongly opposed to the plan, going so far in a letter received today as to say that it will wreck the hospital if we attempt it, at least on the basis of $7500 salaries for the chief physicians and surgeons. I am myself equally strong on the other side of the question….". [59] (Some years later Sir William Osler changed his view of the full-time system and supported the concept in principle.) Many voices within the medical profession, including the American Medical Association, were also critical. They predicted that the very physicians, surgeons and specialists best qualified by motivation and experience to teach clinical subjects in a medical school could not be adequately supported by the school on a full-time basis; that these practitioners would be reluctant to forego the income associated with private practice; and that full-time faculty would tend to give insufficient priority to patient care and clinical problems. These same caveats regarding the full-time system are not without substance and they are still heard today. As we shall see, the full-time question was warmly debated and proved to be a divisive issue when the Clinical Departments of Stanford Medical School were moved from San Francisco to the Campus and the full-time system was adopted in 1959.

Indeed, Hopkins had considerable difficulty in recruiting for the first full-time professorship in the Department of Medicine. The circumstances were these. Dr. Lewellys F. Barker, in a notable address in 1902, was the first American physician to make the case for full-time appointments in the Clinical Departments of medical schools. [60] In 1905, when William Osler departed for Oxford to become the Regius Professor of Medicine, he was replaced as Professor of Medicine at Hopkins by none other than Dr. Barker, an early exponent of the full-time system. However, in 1913, when Barker was invited to become the first full-time Professor of Medicine, he declined the offer and stepped aside to become a Professor of Clinical Medicine (which allowed him to continue in private practice and retain the fees) because he believed that he could not make adequate provisions for his family on the income from the full-time appointment. The next in line at Hopkins, William Thayer, then a clinical professor of medicine, also refused the full-time professorship and it became necessary to seek an outside candidate for the post. An intensive recruiting effort finally culminated in the appointment in on 1 July 1914 of Theodore Janeway from the Columbia University College of Physicians and Surgeons in New York as the first full-time Professor of Medicine at Hopkins. [61][62]

Implementation of the full-time system at Hopkins was made possible (1) by a grant on 23 October 1913 of $1.5 million from the General Education Board (established in 1903 by John D. Rockefeller, Sr.) from which funds were obtained to support full-time salaried "University" appointments in Clinical Departments; and (2) by the decision to augment the full-time staff by offering unpaid "clinical" appointments (e.g., Professor of Clinical Medicine, etc.) to professors who chose to remain in private practice and donate their services as teachers. The

full-time system was thus finally installed in 1914 with the following as the first group of full-time faculty in Clinical Departments: Professor of Medicine Theodore Janeway; Professor of Pediatrics John Howland; and Professor of Surgery William Halsted. The importance of some full-time appointments in Clinical Departments is now well recognized, and such appointments are a normal component of American medical faculties. However, many medical schools (Stanford included) find it necessary to continue experimenting with various titles and financial and procedural arrangements in an effort to maintain, in the face of changing conditions, an appropriate balance of "University" and "clinical" appointments. We shall return to this subject when discussing Stanford's faculty policy. [63]

We are also indebted to the Hopkins faculty for other innovations that have since become standard components of undergraduate and graduate medical education. These now-familiar features are the clinical clerkship for medical students and residency training for graduate physicians.

The father of the clinical clerkship is William Osler, world-renowned physician and medical educator, author of The Principles and Practice of Medicine (first edition, 1892), the most respected medical textbook of his day. It was in the autumn of 1896 that he brought fourth year medical students into the wards, outpatient department and clinical laboratory of the Johns Hopkins Hospital to take histories, examine the patients, and participate in their diagnosis and treatment. He did so with many misgivings at the time for he feared that there would be a hostile reaction. On the contrary, under his auspices the experiment was a resounding success, and the clinical clerkship is now an essential ingredient of medical education. Indeed, introduction of medical students into the wards and outpatient clinics as an integral part of a hospital's machinery for the care of patients is considered by some to be Osler's most lasting contribution to medicine. The overall reform in clinical teaching for medical students introduced at Hopkins consisted mainly in the reduction or abandonment of didactic lectures as the principle mode of instruction in clinical subjects, and the substitution of practical, supervised training experiences such as the clinical clerkship. Involvement of students in research was an additional invigorating aspect of the Hopkins teaching program. By 1896 senior medical students all had a research project of one kind or another which overlapped or supplemented their work in the clinic and laboratory. The students presented their findings in papers read at Hopkins' meetings, and many notable contributions by medical students were published in the Johns Hopkins Hospital Bulletin. [64][65][66]

For a personal reminiscence of Sir William Osler (who was created a Baronet in 1911), and a nostalgic commentary on the inauguration of the clinical clerkship at Hopkins, we are indebted to a distinguished Stanford alumnus, Dr. Emile Holman (1890-1977), Stanford A. B.. 1911, who was Professor and Executive Head of the Department of Surgery at Stanford from 1926 to 1955. As a young man, Holman entered Oxford University on a Rhodes Scholarship in 1911 where for three years he studied medicine and came to greatly admire Dr. Osler, the Regius Professor. After returning to America Holman received an MD in 1918 from Hopkins. He continued there for five more years as a surgical resident under Dr. Halsted before completing his surgical training with a year at Harvard in the Peter Bent Brigham Hospital under Dr. Harvey Cushing (who had himself spent fourteen years at Hopkins). It is not surprising that the Hopkins educational ideals accompanied Dr. Holman when he finally returned to his alma mater in 1925 as a member of the Stanford medical faculty. In 1964 Dr. Holman wrote as follows of Dr. Osler and the clinical clerkship: [67][68][69]

The claim of Sir William Osler to enduring fame may well rest on one simple fact: Said he, "I hope my gravestone will bear only the statement: 'He brought medical students into the wards for bedside teaching' ". As early as 1896, students at Johns Hopkins Hospital were assigned the duties of recording the patient's past medical history and present illness, of making a complete physical examination, and of doing the simpler laboratory examinations. To us, now, all this seems quite commonplace, but at that time it took vision, courage, and faith to assign such important tasks to "mere" students. As Iris Noble reports, Osler himself was beset by the haunting fear that these radical innovations would be fought by the public and spurned by the medical profession. To his genuine relief, their acceptance was immediate and general, and they survive today as important keystones in medical education.

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Residency training, in a modern sense, was introduced at Hopkins. Simply stated, this type of training is a supervised program of study and experience, usually in a hospital, for a physician who has already graduated from medical school. It should be pointed out that hospital training for doctors wishing further experience after graduation has a diverse history extending back over many centuries in Europe, and since colonial times in America. Various arrangements evolved whereby the doctor seeking additional training before entering practice or other medical work served in a hospital under such titles as dresser, walker, intern, resident, house pupil, house physician, Assistant to the Professor (in Germany), etc. On the American scene in the 1800s, hospital-based training during the first year or two after graduation from medical school was usually known as an "internship", and generally amounted to an inpatient apprenticeship. The growing need in American medicine for advanced training beyond the internship, leading to maturity and clinical specialization grounded in medical science, was first met in a systematic fashion by the Hopkins residency training program.

In its original form the Hopkins program began after the internship and consisted of an indefinite number of years (reduced in modern times to an average of three or four) of hospital-based clinical and scientific work in a specific field, such as medicine or surgery, during which an optimum balance of supervision, responsibility, service and education was achieved. The Johns Hopkins Hospital was completed in 1889 and a resident staff in medicine and surgery could begin their work in the next year because John Shaw Billings who planned the hospital had, with keen foresight, included a unique facility: ample living quarters for a resident staff in a dignified setting in the front building of the hospital. These accommodations made it possible for a relatively large number of carefully selected medical graduates to live in the hospital and obtain long periods of training under professorial guidance, bringing them to levels of competence rarely attainable under other conditions. Osler in Medicine and Halsted in Surgery, influenced by their knowledge of the German Assistantships, designed and in 1890 installed training programs that presaged present-day residencies, and prepared an unparalleled number of academic and scientific leaders in their respective fields. The joint statement of residency training objectives by Osler and Halsted was brief and to the point: "Clinical training, to be truly graduate training, should discipline the resident in scientific attitudes toward health and disease, and should enable the graduate to begin the practice of a clinical specialty in a scientific manner without supervision." Dr. Welch was later to say that the residency training system introduced into American Medicine by the Johns Hopkins Hospital was "the most important contribution which Johns Hopkins made to medical education". [70][71][72]

Graduates from Johns Hopkins Medical School and physicians who had served in the Hopkins residency training program went forth in unprecedented numbers to become influential faculty members in medical schools across the country.

The following Hopkins graduates held full professorships at Stanford Medical School:

Arthur Meyer, MD (JHMS 1905) Professor of Anatomy
Wilfred Manwaring, MD (JHMS 1904) Professor of Bacteriology
Edward Schultz, MD (JHMS 1917) Professor of Bacteriology
Albion W. Hewlett, MD (JHMS 1900) Professor of Medicine
Arthur Bloomfield, MD (JHMS 1911) Professor of Medicine
John Luetscher, Jr. MD (JHMS 1937) Professor of Medicine
Ernest Martin, PhD (JHU 1904) Professor of Physiology
Emile Holman, MD (JHMS 1918) Professor of Surgery
Frederick Reichert, MD (JHMS 1920) Professor of Surgery

Other Stanford professors who had Hopkins experience include Dr. Emmet Rixford, Professor of Surgery from 1898 to 1930, who worked in Welch's laboratory during the summer of 1892, a year before admission of the first class of students to the Hopkins medical school. There was Dr. Ernest Dickson who served as an Assistant Resident Physician at Johns Hopkins Hospital from 1907 until 1908 when he became a Fellow in Pathology with Dr. Welch. Soon after beginning his fellowship Dr. Welch called him into his office to tell him that Dr. William Ophüls, Professor of Pathology at Cooper Medical College and a brilliant young German-trained pathologist whom Dr. Welch held in high regard, needed an assistant. With Dr. Welch's blessing, Dickson was accepted by Dr. Ophüls and in 1908 moved to San Francisco to take up his new post. Dr. Dickson continued on the faculty when Stanford took over Cooper Medical College, and from 1926 until his death in 1939 he was Professor and Chairman of the Stanford Department of Public health and Preventive Medicine. For his outstanding research on botulism he earned worldwide recognition. Dr. Windsor Cutting (Stanford AB,'28; MD, '32), after two years as a Fellow in Pharmacology and Medicine at Hopkins from 1936 to 1938, joined the Stanford faculty in 1938 where he rose to the rank of Professor of Pharmacology in 1950, and was Dean of the School of Medicine from 1953 to 1957. [73][74]

We have seen how the program of the nation's oldest medical school, founded in Philadelphia in 1765, was based on the Edinburgh model. Similarly, the evolution of medical education at Stanford strongly reflects the influence of Johns Hopkins. And in the early history of all three of these important American schools, we can discern a relationship to the Society of Friends.

Conclusion

When casting about for an explanation of the tenacity with which the first medical school on the Pacific Coast clung to life against the odds, it seemed obvious that the legacy of Elias Cooper, significant as it was, could not account for the school's survival. Social conditions were unsettled in San Francisco, as we have seen, and far from ripe for medical education. The faculty of his new school were innocent of academic credentials, and their pretensions were resented and ridiculed by the old guard of physicians. To make matters worse, Cooper himself was the focal point of one controversy after another, as we later describe. Finally, the most devastating blow to the school's prospects was Cooper's untimely death from a lingering illness at the age of 41, only four years after his founding of the school. As a counterpoise to these unfavorable circumstances, there must have been factors intrinsic to the project that saved it from extinction.

All quests for sustaining factors indispensable to the life of the school have led invariably to the same conclusion: the school owed its survival, during the half-century from its founding in 1858 to its adoption by Stanford in 1908, to the commitment to learning and to each other shared by Elias Cooper, Levi Lane and the Doctors Gibbons. Their unwavering personal loyalty, and devotion to an institution that epitomized their common purpose, seem best explained by the bonds of kinship and the unifying source of values we have broadly referred to as their "Quaker heritage."

Lest it seem unwarranted to attribute decisive influence on the destiny of the school to ephemeral considerations such as these, we have sought to define the singular nature of the Society of Friends by following a meandering course through religious history from the time of the Reformation. This has given us the opportunity to place the origin and beliefs of the Society in perspective, and to cite the substantial Quaker influence on the inauguration of American medical education in colonial times, and on its renaissance at the close of the nineteenth century. In the process we have broadly sketched the religious aspects of the historical matrix within which Cooper's school was founded and evolved.

It should be added that the special interest here shown in the Quakers is occasioned only by the accident of history that brought a few of them together in San Francisco, thus making the Society of Friends directly relevant to a sequence of events that might well have featured some other sect, or none at all, had chance so decreed. Yet we should pause to reflect, as we leave this subject, what would have been the consequences for medical education at Stanford and in the West but for the power of the Quaker faith as a "tie that binds".

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Chapter 4. Elias Cooper & Medical Schools West of the Alleghenies

No sooner had the American frontier swept from the Alleghenies to the Mississippi following the Revolution, leaving permanent settlements in its wake in Kentucky and the Northwest, than medical colleges began to spring up. To establish a medical school in the hinterland appealed to the pioneer spirit and brought national recognition and personal satisfaction to the founder. Small wonder that Elias Cooper whose medical education, such as it was, took place in the setting of these nascent schools, should be attracted by the challenge of founding a school himself. Therefore, in addition to the following account of his formative years, we will also describe some of the regional schools that served as examples to him.

Early Life

From the outset, our review of the early life of Elias Samuel Cooper must also include that of his nephew, Levi Cooper Lane , whose name is inseparably linked with his in the history of Stanford Medical School. Elias was like an older brother to Levi who was eight years younger and the son of Elias’s sister Hannah. Growing up on neighboring Ohio farms, they were boyhood companions and explored the still-wild countryside together. The bond of loyalty, developed between them during this period and strengthened by the Quaker traditions of their close-knit families, was crucial to the survival of the Medical School in San Francisco after the death of Elias in 1862.

The merging streams of Quakers, fleeing the spread of slavery in the South, brought the Cooper and Lane families together in Southwestern Ohio. The Lanes arrived from North Carolina in 1806, the Coopers from South Carolina in 1807. The Cooper farm lay just outside Somerville in Butler County, and the Lane farm only five miles distant in adjacent Preble County, close to the present town of West Elkton. Being Quakers, both families attended the Weekly Meeting in West Elkton, and there Jesse Lane’s son Ira met Jacob Cooper’s oldest daughter Hannah. Ira and Hannah were married on 7 June 1827 and remained in Preble County 13 years, during which five of their nine children were born. Their first child, born 9 May 1828, was named Levi Cooper Lane. [1]

Dr. Levi Cooper Lane, 1828-1902
Cousin, co-worker, and successor to E. S. Cooper in medical education

Elias Cooper left no personal account of his early life, education, and medical practice for the period prior to his move to Peoria, Illinois, in 1844. Until now, the only sources of information about these years have been the following two articles published by Dr. Levi Cooper Lane: (1) an obituary of Cooper in 1862 [2] and (2) a biographical sketch of Cooper in 1870. [3]

All previous authors have relied on these two articles for facts regarding Cooper’s youth and early manhood. They have thus perpetuated inaccuracies, particularly as to dates, contained in the articles. Recently an important new source of personal observations regarding both Elias Cooper and Levi Lane has been made available to us, i.e., the eight-volume Diary of Elias’s brother, Professor Jacob Cooper (1830-1904), covering the years from 1847 to 1902. [4] Professor Cooper’s meticulous Diary provides considerable additional information about the lives of Elias Cooper and Levi Lane and also allows us to correct certain misconceptions. For example, the date of Cooper’s birth was reported in Lane’s articles to be 1822. However, the well-kept family records found in Professor Jacob Cooper’s Diary list the birth date of Elias as 25 November 1820. We believe this source to be more reliable than Dr. Lane’s memory and therefore propose to designate 1820 as the correct year of Elias Cooper’s birth. We should add that birth dates in Cooper’s day were often inaccurate. In fact, the date of Dr. Lane’s birth was uncertain according to Dr. Emmet Rixford, Stanford Professor of Surgery who, early in his career, was an assistant to Dr. Lane. [5][6]

Lane’s misunderstanding as to Cooper’s birth date led him to exaggerate the youthful precocity of his uncle who, irrespective of his actual age, was an uncommonly able and resolute young man. With this mild caveat we quote from Lane’s warmly partisan memories of his Uncle Elias, written in 1870 in the florid style familiar to the time: [7]

> From the example of an older brother (Esaias Samuel Cooper) who had entered the medical profession, in which he has won and now holds an enviable position, the younger brother was led naturally to embrace the same calling. The selection of this profession was his own choice, and having once chosen it, he gave himself to its study with all the passionate ardor of youthful enthusiasm. The leading textbooks - especially those upon Anatomy - he almost committed to memory; for this branch of medical science he early exhibited a strong predilection, and its almost endless details, which are tiresome and difficult of acquirement by most students, were mastered by him with that pleasure and eagerness which love for a science always lends to its study. A fondness for Human Anatomy can scarcely exist alone - it naturally leads to Comparative Anatomy, its kindred science; hence, we find our young student soon pushing his investigations in the latter quarter, and learning there those laws which, in the humbler grades of animated nature, do not differ from those existing in the “paragon of animals.” With no other guide than his own original and all but intuitive genius, he instituted a series of most interesting and instructive experiments in the ligation of veins and arteries in reference to the mechanism and functions of the various valves; and the observations then made by him, he found subsequently of great value in operative surgery.

There is much more in the same elegiac mode, but this excerpt is sufficient to convey Lane’s expansive view of Elias’s intellectual

promise, sterling character, and early vocation for medicine as his life's work.

We can find no specific information regarding Elias's early schooling. We assume that he attended one of the country schools in Butler County but where and for how long is unknown. Years later, in an Introductory Lecture to medical students, he stated that he taught school and at the same time pursued independent study including animal experimentation. It is probably to this interlude of independent study that Lane referred above in such glowing terms.

Apprenticeship

The next stage of Elias's preparation for a medical career would in his day have been an apprenticeship with a practicing physician. Although Elias never mentions having served an apprenticeship, Volume 1 of Jacob's Diary contains the following entry:

My brothers Esaias and Elias began their professional studies early; the former went to study with Dr. Waugh in 1835 and Elias in 1838.

On the basis of this information, it is reasonable to conclude that Elias began an apprenticeship in 1838 at the age of eighteen with a Dr. Waugh and probably served through 1839. We have been unable to find Dr. Waugh listed among the physicians practicing in southwestern Ohio. In view of the fact that both Esaias and Elias later began their practice of medicine in Indiana, it seems likely that Dr. Waugh practiced there and introduced them to the state.

As we shall later mention, it is probable that Elias also served as an apprentice or as a partner with Esaias in Greenville, Indiana, from 1840 to 1843 when Elias moved and began to practice independently.

Medical Department of St. Louis University

Lane was correct in stating that Elias received his medical degree from St. Louis University in St. Louis, Missouri. After considerable difficulty in deciphering the records of that school, due to the fact that Esaias was also a graduate of it, we have determined that Elias was awarded the degree of MD ad eundem by the Medical Department of St. Louis University in 1851. [8]

Esaias received a similar MD ad eundem degree in the previous year of 1850. Thus both Elias and Esaias received their MD degrees qualified by the suffix ad eundem. The literal English translation of this Latin phrase is "in or of the same rank". [9] When suffixed to an academic degree as, for example, in "M.D. ad eundem", it means that some or all of the work on the basis of which the degree was granted was done elsewhere, but was recognized as being of equivalent rank or quality to that provided by the degree-granting institution. Ad eundem medical degrees were introduced in colonial America and were awarded by American medical schools during the nineteenth century, but their use has been discontinued. [10]

Requirements for the degrees of MD and MD ad eundem, as published in the Annual Announcement of the Medical Department of St. Louis University for 1850-51, were: [11]

> That the candidate be twenty-one years of age, of good moral character and have been engaged in the study of medicine for three years (courses of lectures included).
>
> That he shall have attended two full courses of lectures in this Institution (duration of course, 4 1/2 months: 15 October through February). Attendance on a regular course in some respectable and generally accredited medical school, or four years of reputable practice will, however, be considered as equivalent to one of the courses above specified.
>
> That he shall undergo a satisfactory examination on all the branches taught in this College, and write an acceptable Thesis, either in the English, Latin, French or German language, on some subject connected with medicine.
>
> Candidates, applying for the degree ad eundem, must show written and satisfactory testimony that they are graduates of a generally acknowledged school of medicine - that they have been engaged in practice at least two years, without having followed, during that time, any other occupation.
>
> Fees for the whole course amount to $105. The Matriculation ticket (paid but once) is $5; that of the Demonstrator, $10; the Hospital tickets are gratuitous; and the graduation fee is $20.

It is apparent from the above outline that, if the candidate received credit for "four years of reputable practice", it would be possible to qualify for an MD degree from St. Louis University in a period of four and a half months; that is, the length of one course of lectures. We assume that both Esaias and Elias exercised this option.

In summary, as far as we can determine, Elias Cooper's total medical college education consisted of only one series of lectures lasting four and a half months in the Medical Department of Saint Louis University in 1850-51. We should keep in mind that at mid-century many American practitioners of medicine had attended no medical school at all, receiving their training (if any) through apprenticeship. It was an objective of American Medical Societies, to which we will later refer, to exclude these "irregular" physicians from the practice of medicine.

These findings regarding Elias's limited medical education make his considerable accomplishments more noteworthy rather than otherwise, reflecting as they do his native ability, self discipline, and personal commitment to independent study. He was from the earliest stage of his career imbued with academic aspirations. He was no doubt well aware of the usefulness of "academic credentials" in the furtherance of his ambition, and felt keenly his lack of them.

Before leaving this subject we should take passing note of an instance in which Cooper's use of the M. D. degree was premature. Elias designated himself as an M. D. on the following article in a medical journal in 1849.

"Remarks on Congestive Fever by E.S. Cooper, M. D., of Peoria, Illinois". St. Louis Medical and Surgical Journal. 1849 Jan and Feb; 6 (4): 323-27.

This was the first medical paper ever published by Elias. We know that he did not hold an MD at the time. Therefore, we must conclude that the MD he used on the paper was "self awarded." Given the lax attitude toward such matters at the time, and the absence of legal requirement for a medical diploma in order to practice, it was not unusual for medical practitioners to put the MD after their name even though they had never attended a medical school.

The Illusory AM Degree of Elias Cooper

Unaccountably, Cooper began in 1855 to sign himself: "E. S. Cooper, A. M., M. D." This raises a further question with respect to his education. That is, when and where did he receive an AM degree?

On 10 July 1855, about six weeks after his arrival in San Francisco, he printed a circular entitled: Announcing a Course of Medical Instruction. He invited the Medical Profession of California and Oregon to attend a series of lectures and demonstrations on anatomy and surgery which he would provide. His name was printed on the circular as follows: "E. S. Cooper, A. M., M. D." As far as we can determine, this was the first time that he listed an AM degree after his name.

About a year after his arrival in California, Elias published the following article:

E.S. Cooper, A.M., M.D., of San Francisco. "Remarks upon the practicability of obliterating the abdominal aorta by gradual pressure, illustrated by vivisections." California State Medical Journal 1856 Jul 1 (1): 69-72.

The notable feature of this citation is the appending of "A.M." to his name for the first time on a scientific publication. From 1855 onward for the rest of his life, he continued to sign himself as "E.S. Cooper, A.M., M.D."

There is no information on the origin of this Master of Arts degree either among Elias's personal papers or in the various biographical commentaries that cover his professional career. Hoping to identify the institution that granted the Master of Arts degree, we contacted some likely prospects. in the Northwest including Knox College in Illinois; Hanover College in Indiana; Miami University in Ohio; and Union College in New York. None had a record of awarding an A.M. degree to Elias Cooper.

Thus, the source of Elias's A.M. degree remains a mystery. We have no documentary evidence that he ever earned such a degree. There is no other college in the Northwest that seems a likely prospect as grantor of the degree which he appended to his name beginning in 1855, and he certainly could not have received it from a school in California. Why Elias first added the A.M. to his signature in 1855 just after he arrived in San Francisco is puzzling. We shall return to this interesting question when we have followed him to California.

Now that we have provided all the information available on Elias Cooper's early life and education, it is an opportune point to become better acquainted with three devoted relatives to whom we shall later refer frequently. They are Elias's brothers Esaias and Jacob and his nephew Levi Cooper Lane, each of whom made a distinctive contribution to the favorable outcome of his efforts.

Esaias Samuel Cooper, MD (1819-1893)

Esaias Samuel Cooper, Elias's older brother, was also born near Somerville, Ohio, on the family farm where he worked during his youth. Otherwise we know little of his early years except that he was a diligent and precocious young man. It was said that he studied at Miami University in Oxford, Ohio, only six miles from his birthplace. However, the records of the University covering the period of 1809 to 1855 do not show a registration for Esaias or either of the other two Cooper brothers. [12][13]

We have already reported that Esaias left home in 1835 to begin his medical studies, presumably an apprenticeship, with a Dr. Waugh in Indiana. We have seen that he attended Ohio Medical College for two four-month terms, the first in 1838-39 and the second in 1839-40. Upon completion of his first term in 1839, at the age of twenty, he probably either resumed his apprenticeship or began the general practice of medicine in Greenfield, a small town in central Indiana about 20 miles east of Indianapolis. He had no medical degree at the time but, as we have noted, this was no bar to practicing medicine in those days.

In 1843 he married and moved from Greenfield, Indiana, to Henderson near Galesburg in Knox County, Illinois (just east of the Mississippi River). There he continued general practice and cultivated the scholarly interests he developed as a boy. These included botany (he was familiar with the name and properties of almost every plant in North America), and the sciences of mathematics and astronomy (he calculated all the eclipses of the century at the age of 17). He was deeply read in the holy scriptures and well versed in the Latin tongue. [14]

As a result of his industrious efforts, he was awarded an AM degree by Knox College in 1849 and in 1850 was granted additional academic honors: an MD degree ad eundem from the Medical Department of St. Louis University and an AM degree from Hanover College. Also in 1850 he received an honorary MD degree from Rush Medical College in Chicago. [15] Later, the Thirteenth Annual Catalogue of Rush Medical College carried the announcement that in 1855 "an excellent Thesis, written in Latin, was received from Dr. E. S. Cooper of Henderson, Illinois."

Both Elias and Levi Cooper Lane served medical apprenticeships with Esaias. He had seven children, three of whom became doctors and served apprenticeships with their father. [16]

Professor Jacob Cooper (1830-1904)

Jacob was the youngest of the Cooper brothers and, like his two older siblings, was noted for his devotion to hard work and intellectual pursuits. He too was born on the family farm near Somerville, Ohio. We may infer from the following comment on Jacob's preparation for Yale that conditions in the Cooper family were conducive to self-reliance and self-improvement.

With a BA Degree from Yale in 1852, Jacob was of delicate health during his childhood and early adolescent years. Instead of attending preparatory school as he had wished to do, he worked on the farm by day and studied at night. With increasing years his health grew more robust and in his sixteenth year he began the study of Latin, Greek and mathematics with first one and then another of the local clergymen.

For some portion of the 1848-49 academic year he enrolled in Hanover College in nearby Hanover, Indiana, but received no degree.

Finally, in September 1850 at the age of twenty he was able to enter the Junior class at Yale where he graduated in July 1852, receiving the BA degree with the highest honors allowed to one who entered as late as the junior year. While at Yale he was a member of Phi Beta Kappa and other honor societies.

One of Jacob's classmates at Yale called him "an honor to the college, his class and his age", and added:

> His coming among us made more stir in another direction than any other new comer did in our college days … He was made fun of to an extent that would rouse the ordinary recipient to wrath … It was his clothes … They were of wool raised on his father's farm, spun, dyed, loomed and tailored by his own family… Cooper's appearance should not have attracted unwelcome and derisive attentions but it made no difference to him. Unruffled, he calmly wore his genuine home made woolen suit.

Ordained as a Presbyterian Minister in 1853. During the year following his graduation from Yale, Jacob studied theology and philology at home and was licensed in the Presbyterian ministry. Like so many brought up in the Quaker faith, Jacob (and Esaias, Elias and Levi Cooper Lane as well) ultimately departed from a strict observance of Quaker discipline while continuing to be influenced by the imbedded moral precepts of their rigorous native religion.

MD Degree from Medical Department, Saint Louis University in 1853

We were unaware of Jacob having received an MD degree until we found a brief entry in his Diary made on 5 June 1855 clearly stating that he was "a regular M. D." Spurred by this notation in the handwriting of the unimpeachable Jacob, we searched the Annual Announcements of the Medical Department of Saint Louis University. In the Announcement for 1853-54 Jacob Cooper of Ohio is listed as being awarded an MD ad eundem degree on 1 March 1853. He is also listed in later rosters of alumni as an MD graduate of the Medical Department in 1853. We have no evidence that he ever practiced medicine. Instead, he pursued an academic career in classical languages and religion. For the record, however, we can report the interesting detail that each of the three Cooper brothers received an MD ad eundem from the Medical Department of Saint Louis University: Esaias in 1850, Elias in 1851 and Jacob in 1853. [17][18][19]

PhD Degree from Berlin University in 1854

Jacob entered the University of Berlin in 1853 and earned the degree of PhD in 1854. Also in 1853, he was elected to membership in the Philosophical Society of Berlin at the age of 23.

MA Degree from Yale In 1855

With the acquisition of a Master's degree from Yale, Jacob was at the age of twenty-five finally prepared for a promising future in academia.

Professorial Appointments

Jacob began his teaching career in April 1855 upon his election as Professor of Greek at Centre College, Danville, Kentucky. In 1866, he was appointed Professor of Greek at both Miami University in Oxford, Ohio, and at Rutgers College, New Brunswick, New Jersey. He chose to go to Rutgers where he held the Chair of Greek until 1893 when he became the Collegiate Church Professor of Logic and Mental Philosophy. He remained at Rutgers until his death in 1904. Because of his prodigious erudition and good works, he was memorialized at Rutgers in prizes, gifts, plaques and buildings.

Honorary Degrees awarded to Professor Cooper by other universities were:

Doctor of Civil Laws (F.C.L.) by University of Jena in 1873
Doctor of Laws (LLD) by Tulane University in 1895.

The Benign Intercessions of Jacob Cooper

Jacob was deeply attached to Elias to whom he wrote periodically with news of the family, always including encouraging words and expressions of affection for his brother such as these: [20]

> My firmness is not enough to bear up when I recollect the dear days of childhood, the days when we were together on those quiet hills and sported with no care on our youthful hearts, happy in our dear sweet home and as yet having no experience of sorrow. And when we turned our feet homeward we found a house unstricken by the dread destroyer.

We shall later relate how Jacob, who was studying in Europe in 1854, was of great moral support and practical assistance to Elias when he arrived there to visit hospitals and observe the work of prominent surgeons.

Following their return together from Europe in December 1854, Jacob received his appointment to a professorship at Center College. This made it possible for him to marry his fiancée, Caroline Macdill of Oxford Ohio, on 31 May 1855. Elias brought her a beautiful wedding dress from Paris. There was a hint of shyness as well as pride in the warm letter she wrote to Elias to thank "my dear brother" for her wedding dress "pronounced by all to be the most splendid article that ever has been exhibited in the town." [21]

On 13 June 1857, Carrie gave birth to a daughter who was named Caroline. During that summer and fall Jacob took great satisfaction in his little family and his teaching at Centre College. The entry in his Diary for 24 November 1857 reads: "My dear Carrie (is) so well at this time and also the baby… Joy fills my household. Surely no one could be more happy in their life."

Four days later Carrie became ill with vomiting, fever and weakness. While her condition worsened, her doctor insisted that she was not sick but "that all these symptoms (are) occasioned by her constitutional make-up." The implication that Carrie was exaggerating her complaints disturbed Jacob immensely. He was convinced that she had typhoid fever. Devastated by the inability of her doctor to provide relief, Jacob filled page after tear-stained page of his Diary with words of helpless anguish and urgent prayers for divine intervention. At last, utterly depleted by overwhelming infection, Caroline died on the twenty-second day of her illness. At mid-century, sickness and death from infectious disease stalked young and old They could expect little help, and often suffered much harm, from their physicians - a subject to which we will shortly return. [22]

Jacob was no less attached to his nephew, Levi Cooper Lane, than to his brother Elias. In 1902, when Jacob was seventy-two, he reappeared on the scene at a crucial juncture in the affairs of Cooper Medical College. Dr. Lane had recently died and Mrs. Lane, who inherited a large estate from Dr. Lane, sought Professor Cooper's counsel on the terms of her own will. Through no fault of Professor Cooper, the episode that followed had appalling repercussions for the College.

Jacob outlived both his brothers, Esaias and Elias, and his nephew, Levi. In view of the educational and economic limitations of their parents, it is remarkable the degree to which these three brothers, and their nephew, each in his own way, had an exceptional commitment to learning. The following resume of the early stages of the career of the nephew, Levi Cooper Lane, will show that he shared their determination to approach the future with a prepared mind.

Levi Cooper Lane (1828-1902)

Having already referred to Levi Cooper Lane's birth to Quaker parents on a farm in southwestern Ohio, and to the early camaraderie with his Uncle Elias, we now turn to his education and other relevant activities during the period up to 1861 when he joined his uncle on the faculty of the new medical school in San Francisco.

Levi's first instruction came from his mother Hannah, and his Aunt Ruth Cooper. Both were sisters of his Uncle Elias. In 1840, when Levi was 12 years of age, his parents moved the family from Preble County, Ohio, to Wayne County in southeastern Indiana, where they bought a farm at Greens Fork near Richmond. By this time five of their nine children had been born. In 1853 they moved to Knox County in northwestern Illinois where his father purchased land near Henderson, the home of Dr. Esaias Cooper.

Farmers' College

The Lanes had few luxuries and little money, so Levi began teaching in rural schools when sixteen years of age to earn money for his college education, which he is said to have begun at the now extinct Farmers' College. In seeking to confirm his college attendance, we learned that a highly regarded preparatory school, located in Hamilton County about six miles north of Cincinnati and known as Pleasant Hill Academy, was founded in 1833. In February 1846, the Academy was chartered as Farmers' College, being then the only one of the 120 colleges and 42 seminaries in the United States organized especially for the sons of farmers. Catalogues of Farmers' College from 1847-48, its first year of instruction, through 1851-52, are held in the Archives of the Cincinnati Historical Society Library. The Farmers' College Catalogue for the academic year 1847-48 lists "L. Lane, Butler County, Ohio" as a student, and the listing occurs in no other year. We assume that this "L. Lane" is Levi Cooper Lane and that he is using his grandparents' address in Butler County. Thus we can only document Lane's attendance at Farmers' College during part of one academic year, 1847-48, and there is no record that he received a diploma from the school. [23][24]

Union College

Founded in 1795, Union College in Schenectady, New York, is the first and now the oldest non-denominational college in the United States. Levi Cooper Lane is said to have attended Union in the autumn and winter of 1849-50. [25] An archivist at Union College has found records showing that Levi Cooper Lane attended Union for only four months, from September through December, in 1849. He was a member of the Class of 1851 for that brief period but did not graduate. There is no evidence that he received either an A. B. or an A.M. degree (honorary or otherwise) from the school which did, however, award him an Honorary LL.D. degree in 1887.

Professor Emmet Rixford reported that Lane's Uncle Jacob was at Union College with him, and that they shared a room as well as a devotion to the classics. According to Rixford: [26]

> They had an arrangement with each other that their daily conversation should be in Latin. Doctor Lane would tell with much gusto how one day, when approaching the building in which they lived, he saw his Uncle Esaias leaning out of the window in his shirt sleeves, wildly gesticulating and shouting at the top of his voice, "ignis, ignis." The building was on fire.

With regard to Jacob, if he was at Union College with Levi in 1849, as the above anecdote infers, he was not registered as a student. There is no record at the College that any of the Cooper brothers - Esaias, Elias or Jacob Cooper - ever attended the school. [27]

At best, Levi would appear to have had minimal formal education at the college level. Nevertheless, from his impressive command of Latin, Greek and other languages, and the breadth of his knowledge of classical literature and history, we can conclude that he acquired a remarkable liberal education, and largely through independent or tutorial study. Emmet Rixford (1865-1938), Professor of Surgery at Stanford, was Dr. Lane's assistant and knew him better than anyone e lse. He had this to say about Dr. Lane's intellectual attainments, and how he acquired them: [28]

> Dr. Lane was a highly educated man. With a fair preliminary education, he continued to be a student throughout his long life. Never robust, it was by sheer force of will and self-discipline, and by dividing his sleep, that he formed the habit of using six or seven hours in the middle of the night for study. Six nights in the week he read medicine and did his writing, the seventh night he read in general literature. Thus he was widely read, especially in the literature of surgery in the nineteenth century. He was fond of the classics, read Greek and Latin, also French, German and Spanish. He translated Billroth's Surgical Pathology for his students, laboriously writing it out in longhand in blank books, finishing this or that chapter at three or four in the morning. He read Hippocrates once a year in the Greek.

Lane's massive compendium of 1180 pages entitled Surgery of the

Head and Neck, published by him privately in 1896, was the first American textbook on the subject, and the culmination of a life devoted to the study of surgery and the classics. As an introduction to this impressive work, he wrote the following preface evocative of his classical perspective: [29]

> It has been the custom of authors in separating from their books to say a parting word to them; this, by some, has been a dedication to a father, brother or friend, and in one case to the Author of Nature. Horace warns his of coming abuse and final neglect; Martial hints to his scroll that it may serve the base use of wrapping fish, or the worse one of becoming a flaming festoon to illuminate and torture the criminal; but Ovid, more ambitious and hopeful, announced in advance the salutations of immortality with which the coming years would greet his Metamorphoses; but the medical writer of today, warned by the fortune of his contemporaries, may prudently contract the horizon of his expectation, and reckon on but a brief life for his book. He who thinks otherwise, reckons ill with Futurity. Thus warned, with limited hope, should a few years of existence be granted to the following pages, the writer's expectations will be fully realized.

Time and the advance of science have indeed long ago made obsolete Lane's extensive treatise, but one cannot scan its contents without recognizing it as scholarly and comprehensive It was the author's definitive contribution to the field of surgery.

Apprenticeship

Returning to our chronological tracking of Lane's career, we next find him recorded as "L.C. Lane, Student" in the 30 October 1850 census of Hendersonville (later known as Henderson), Knox County, Illinois. Dr. Esaias Cooper is listed on the same page of the census document along with his wife and three children. Lane, who was 22 at the time, had doubtless come to Hendersonville to serve a medical apprenticeship with his Uncle Esaias. [30] Later, in 1853, Lane's family bought land near Henderson and moved there from Indiana. We do not know the duration of Lane's apprenticeship with his Uncle Esaias, which could have also included some time with his Uncle Elias who was then practicing in nearby Peoria. We believe that the apprenticeship encompassed an overall period of three years (possibly 1848 through 1850).

Jefferson Medical College

Levi Cooper Lane was awarded an MD degree by Jefferson Medical College at Philadelphia in 1851, the same year in which Elias Cooper received his MD from St. Louis University.

The Jefferson Medical College Student Register, a log book in which all students are registered in their own handwriting, includes this entry:

E. L. C. Lane, M.D., Henderson, Illinois, October 9, 1850

Attended Rush Medical College 1849-50

We believe that the above entry was made by Levi Cooper Lane. He registered as an "M.D.", a degree he did not then hold but probably used during apprenticeship with his Uncle Esaias in Henderson. In order to determine whether Lane did in fact attend Rush Medical College an archivist at Rush was consulted, but could find no evidence that Lane registered there as a student or received a degree. However, important Rush records from the period in question were destroyed when the School burned down in the great Chicago fire of 1871.

The Annual Announcement for Jefferson Medical College for the Session of 1850-51 gives the following requirements which were fairly standard for the MD degree in American medical schools at the time:

> The Candidate must have attended two full courses of lectures in some respectable medical school, one of which shall have been in this college (duration of each lecture course, 4 months);
>
> must have at least one course of clinical instruction;
>
> must present to the Dean of the faculty a thesis of his own composition correctly written and in his own handwriting on some medical subject; and
>
> must have studied medicine for not less than three years.

Authorities at Jefferson Medical College appear to have accepted Lane's claim of attendance at Rush Medical School in fulfillment of requirement (1) above. In fulfillment of requirement (3), Lane exhibited his classical learning by submitting the following thesis in Latin: [31]

"De Febribus Miasmaticus in Illinois Septentrionali (Of Miasmatic Fevers in Northern Illinois) "

Lane's apprenticeship with his Uncle Esaias satisfied requirement. (4).

Medical Practice in Henderson

Biographical sketches of Levi Cooper Lane frequently include a statement such as the following: [32][33][34][35]

> He was graduated in medicine from Jefferson in 1851, and spent the following four years as interne and house officer at Ward's Island, New York.

However, we have determined that Instead of taking an internship at Ward's Island immediately after graduation from Jefferson in 1851, Lane went to Peoria where he entered practice, doubtless in association with his Uncle Elias. The evidence for this is found in Transactions of the Illinois State Medical Society, Minutes of the Second Annual Meeting, Jacksonville, Illinois, 1-3 June 1852.

In a paper on "Treatment of incomplete anchylosis of the knee joint" read before the Society on 2 June 1852, Elias Samuel Cooper describes a patient treated for anchylosis during the period from 26 January to 20 May 1852. In this paper he remarks that the progress and cure of the patient were "frequently noticed by Drs. John L. Hamilton, J.T. Stewart, W.R. Hamilton, and L.C. Lane of Peoria."

On the same day at the Society, Cooper read another paper entitled "Remarks on transforming lacerated and contused, into incised wounds" written by "L.C. Lane, M.D., of Peoria." Finally, L.C. Lane is listed in the Minutes of that meeting as elected to be a Permanent Member of the Society, proposed for membership by E.S. Cooper.

Here Lane's address is given as "Henderson." From these citations, we can deduce that Lane practiced in Peoria from mid-1851 to mid-1852. As we shall later see, Lane refers in his obituary on Cooper to having personally witnessed his uncle's devotion to dissection and medical practice, thus confirming that he was associated with him in Peoria. [36]

In mid-1852 Lane moved from Peoria to Henderson (near Galesburg in Knox County, Illinois) where he resumed medical practice with his Uncle Esaias. We are confident of this because of the following information. On 26 June 1852 a group of Knox County physicians met at Galesburg, Illinois, for the purpose of organizing the Knox County Medical Society. The group chose E.S. Cooper, MD, from Saint Louis University, to serve as President and L.C. Lane, MD, from Jefferson Medical College to serve as Secretary. [37] The "E.S. Cooper" here named is undoubtedly Esaias Samuel Cooper who practiced in Henderson near Galesburg in Knox County and "L.C. Lane" is his nephew, Levi Cooper Lane.

Due to the fact that Elias Samuel Cooper was also known as "E.S. Cooper", some biographers have erroneously credited Elias, who practiced in neighboring Peoria County but never in Knox County, with being the founder of Knox County Medical Society. When Knox County Medical Society met at Henderson on 9 October 1853, Dr. Lane was still serving as Secretary. [38] When the Society met at Galesburg on 1 July 1854, Dr. Esaias Cooper was named a Censor, but Dr. Lane was no longer listed as Secretary, and there was no mention of him in the published proceedings. By this time Lane had left Henderson. [39]

From the above evidence, we conclude that Dr. Lane was engaged in medical practice in Peoria with his Uncle Elias for a year from mid-1851 to mid-1952; and that he practiced in Henderson with his Uncle Esaias for two years from 1852 to 1854.

Ward's Island

Tiring of the country practice in which he had been engaged in Peoria and Henderson for the previous three years, Lane moved to the East Coast in 1854 to become House Surgeon to the Lying-in Department of the New York Emigrant Hospital. The hospital was located on Ward's Island, New York City, and at the time contained never less than 3000 inmates. When Elias and Jacob Cooper stopped for a few days in New York on their return from Europe in 1854 they visited with Dr. Lane on 27 and 28 December before proceeding by rail to Somerville, Ohio. [40]

Surgeon on a Merchant Vessel

Lane served at Ward's Island until 24 March 1855 when he sailed for England as surgeon on a merchant vessel plying between New York and Liverpool. While his ship was lying in port at Liverpool, he went to London and Paris and was greatly delighted with his visit. Upon his return to New York he embarked on a second voyage in the same ship and returned to New York about 1 December.1855. [41]

Navy Surgeon

In December 1855 Lane applied for a commission in the United States Navy. [42] He was highly successful on the entrance examination, the Navy Examining Board awarding him the first place on the merit-roll, over the entire list of successful candidates. His record remained the highest in Navy Examinations for many years. It is said that he astounded the Board by submitting, as part of his examination, an essay on "External Urethrotomy" written in Latin. For a time after entering the Navy he was stationed at the great Naval Hospital at Quarantine, Staten Island, New York, where, he always said, he learned to know typhoid fever. In fact, he himself was desperately ill with it. Indeed, his sister Catherine and his mother both died of the disease in 1863. [43][44]

In due course, Lane was assigned to a navy ship. While on sea duty his ship was stationed for a time off the coast of Central America where he learned Spanish and, in 1859, performed a thyroidectomy for goiter on a Nicaraguan woman. He had never previously undertaken such an operation, recognized as requiring major technical skill even under the best of conditions. The procedure, done before the days of asepsis and the hemostatic forceps, is graphically described by Lane in his monograph on Surgery of the Head and Neck to which we previously referred: [45][46]

> This operation was performed on a woman in Chinandega Nicaragua; and as aids were a German and an American physician, residents of that city. As it was thought possible that the woman might die during the operation, the priestly official with his tapers and other appanage in use there in the death ceremonial, stood near by to perform the last offices, should the knife render them necessary. The Patio of the Spanish house, and the street in front, were crowded with curious spectators of the bloody drama which was to be enacted: a scene in which the operator and patient played parts as interesting to that motley company of witnesses, as did the gladiators of old to the Roman corona, which once filled the Coliseum. The operation was a very bloody one, and midway in the work, the bleeding was so profuse that one of the assistants was seized with panic, and begged that the work should cease there. These remonstrances were not heeded; the patient could not have run more risk from concluding the work than from leaving the half-enucleated tumor in her neck. By the careful ligation of vessels, and dissection of the growth from the parts to which it was attached, the work of removal was brought to a fortunate issue. The patient soon recovered, and was amply repaid for the risk of submitting to an operation which had rarely been done, risks here augmented through submitting to a knife which had been disciplined by but little experience.

Incidentally, while Lane's ship was off the coast of Central America, it became the temporary refuge of members of the filibustering expedition of the infamous William Walker who sought to control Nicaragua and reintroduce slavery, the detestable institution which had already been outlawed by the Nicaraguan authorities for a generation. Walker's erratic and violent career in California and Central America, which attracted international attention at the time, was finally terminated by a Honduran firing squad. [47]

Shore Leave in San Francisco

Later in 1859 Lane was aboard the U.S. sloop-of-war Decatur when

it steamed through the Golden Gate to anchor at the port of San Francisco. There was a joyous reunion with his Uncle Elias Cooper who had in the previous year fulfilled his dream of founding a medical school on the Pacific Coast. Cooper induced Lane to resign his commission in the Navy in 1859 with the offer of a Professorship of Physiology in the new school, and an association with him in surgical practice. In the San Francisco Medical Press, the journal established in January 1860 by Cooper as an outlet for his own viewpoint in a community hostile to the new school, he published editorials in 1860 and 1861 describing Lane as a gentleman of intelligence and suavity of manners who would work for the elevation of the profession, and be a valuable addition to the school's faculty - an understatement, as time would tell. [48]

European Study

Following his resignation from the Navy, and in order to prepare himself for professorial duties in the Medical Department of the University of the Pacific, Lane spent over a year in Europe. At the University of Göttingen in Germany he took a Special Course of Vivisections with Rudolph Wagner; and also a Practical Course of Physiological and Toxicological Chemistry in the Laboratory there, under the supervision of Professors Boedeker and Woehler. At Paris, besides attending some of the principal hospitals, he attended a Course of Vivisections with Flourens; and also a Course of Chemical Lectures by Fremy and Chevreul. [49]

Professor Lane

In the July 1861 issue of the San Francisco Medical Press Cooper wrote:

> At a recent meeting of the Trustees of the University of the Pacific, at Santa Clara, Dr. L.C. Lane, late of the U.S. Navy, was appointed to the Chair of Professorship of Physiology, in the Medical Department that is located in San Francisco.

Upon taking up his position on the faculty, Lane immediately became a source of much needed relief and solace for his Uncle Elias who was then approaching complete exhaustion from failing health, worsened by the professional and medicolegal harassment he had endured since his move to San Francisco. In the months that followed, Lane found it necessary to assume increasing responsibility for his uncle's affairs, including acceptance of the editorship of the San Francisco Medical Press in July 1862. By this time Cooper's illness was terminal, and his death in October at the age of 41 signaled the impending close of the stormy fledgling era of the school. Had not Lane appeared on the scene when he did, there is little doubt that the school would never have recovered from the premature loss of its founder. In retrospect, there is something eerily providential about the impulse that prompted Lane, born and bred in the pacifist Quaker creed on a farm in Ohio, to join the Navy whose sloop-of-war, at a crucial stage of events, delivered him to the port of San Francisco for a fateful rendezvous with his Uncle Elias and his destiny.

In summary, let us again note that Elias Cooper's personal papers contain virtually no record of his early schooling, apprenticeship and medical education. Therefore, we have gleaned as many facts on this subject as possible from collateral sources and combined them with biographical sketches of the Cooper brothers and his nephew, Levi Cooper Lane. The purpose of this compilation is to provide background for the ensuing chronological account of Elias Cooper's medical career, including related developments in medical science and education. We shall rejoin him now as he begins a general medical practice.

Elias Cooper, Danville Surgeon

In 1843 Elias completed his apprenticeship with Esaias in Greenfield, Indiana, and moved to Carrol County in northwest Indiana. There he intended to enter the practice of medicine but was soon dissatisfied with the prospects and, within a few months, moved west to the town of Danville, Illinois, on the Illinois-Indiana state line. [50]

Elias met with remarkable success in Danville as a medical practitioner. He at once acquired a large practice, from the proceeds of which he realized near $800 per month, an amount which was enormous for a western country practice. It was the surgical cases that interested him most, and among them was a young man with a lesion that required the removal of a large portion of the lower jaw. Elias performed the operation with such poise and skill as to reveal to himself and others his talent, indeed his true vocation, as a surgeon. [51]

We have no details of this operation, but such a procedure, involving the complex and highly vascular terrain of the face and neck, would demand skill in dissection and experience in the control of bleeding. Strong assistants would be required to restrain the limbs and head of the patient, for anesthesia was still undiscovered. We need not dwell on the starkness of the room in the patient's house where the operation probably took place on an ordinary table with elementary, unsterilized instruments. Infection, its cause yet unknown, was inevitable. In such circumstances, a crowd often gathered outside to await the outcome of the operation, and the surgeon could never predict their mood in case of failure. We shall later further illustrate the status of surgery in the early 1800's by referring to an historic operation performed by Dr. Ephraim McDowell in a neighboring state, an operation that must certainly have kindled yearnings in Elias to become a surgeon.

At the time of the Danville procedure, Elias was 23 years of age and, as far as we can determine, almost entirely self-educated in anatomy and self-trained in surgery. He had never attended a medical school and was thus without formal medical education and credentials. He may have had some surgical experience during his apprenticeship but, if he did, there is not the slightest hint of it in the available records. His decision to undertake and his success in carrying out this difficult operation showed him to be unusually capable and self-assured, qualities he displayed throughout the remainder of his life. Encouraged by his accomplishments in Danville, and seeking a more promising field for the pursuit of his ambitions in surgery, Elias moved to Peoria, Illinois, in 1844 - a phase of his career to which we shall return after a consideration of medical education and practice in the region.

Medical Education West of the Alleghenies

We have now followed Esaias, Elias and Levi through their premedical and medical education and seen them all enter medical practice in their native Northwest. Preceding them in the region were pioneer physicians who recognized that there were only three medical schools in the entire United States when the Territory was opened to settlement in 1787, and all were east of the Alleghenies:

University of Pennsylvania Philadelphia 1765
College of Physicians and Surgeons New York 1767
Harvard Medical School Boston 1782

To found the first medical schools west of the mountains became an irresistible challenge and those who responded to it made medical history. We will now look to the origins of these new schools as a further means of tracing the evolution of medical education in America, and of defining the setting in which Elias's aspirations were awakened. But first an introduction to the outstanding medical figure in the Northwest during its pioneer era - Daniel Drake.

Daniel Drake (1785-1852), Medical Educator

Isaac Drake, the father of Daniel, served in the Revolutionary Army. After the war he returned home in 1781 to a devastated New Jersey countryside, and went to work in a grist mill on his father's farm located near Plainfield. In 1782 Isaac married Elizabeth Shotwell of a Quaker family who lived on a farm four miles from his father's place. As a Quaker, Elizabeth was "disowned" by the Society of Friends for marrying Isaac who was a Baptist and therefore "outside the faith." Isaac and Elizabeth moved to a log cabin close to the grist mill on Bound Brook. There Daniel was born on 20 October 1785, and a sister in due course thereafter.

Times were hard and prospects poor in New Jersey, but there were glowing accounts of cheap land and a promising future in Kentucky. And so, in the Spring of 1788, the two and a half year-old Daniel, his parents, baby sister, and unmarried Aunt Lydia Shotwell, with all their furniture and other possessions, set out for Kentucky in a two-horse wagon. The company of emigrants also included Isaac's two brothers; two of Elizabeth's cousins, David Morris and John Shotwell; and their families. After an exhausting and dangerous journey of 400 miles over rough roads across the Appalachians they reached the upper Ohio River. Here the Drake party joined up with other homeseekers and floated downstream on flatboats to Limestone (now Maysville), Kentucky., their horses and loaded wagons secured amidships. Among those aboard the flatboats was "Dr." William Goforth who, impressed by the sprightly two year old Daniel Drake, implanted in his parents' minds the thought that he should become a physician.

Isaac Drake sprained his ankle so severely during the journey down river that on arrival at Limestone on 10 June 1788 he had to be carried ashore. Daniel, in later years, wrote that his father "was not very heavy for he had in his pocket but one dollar and that was asked for a bushel of corn." From Limestone, Isaac took his family to Washington, Kentucky (four miles south of Limestone), where their first residence was a covered pen built for sheep. There they stayed while Isaac was negotiating for land in a frontier tract called Mayslick, 12 miles southwest of Limestone. He finally secured 38 acres in the tract, subsequently increased to 50, and built a rude log cabin. This was the family's home for the next six years until, in the autumn of 1794, Isaac purchased another farm of 200 acres in an unbroken forest that had to be cleared and a log cabin built. Daniel Drake, then a boy of nine with a father who was not in vigorous health, spent the remainder of his childhood years in the hard but unfettered life of a backwoods outpost. His early education was by itinerant teachers in a one-room school from November to March. During the remainder of the year he helped his father to clear and fence the farm, cultivate the land, and care for the livestock. [52][53]

Drake's parents were struggling settlers, "to fortune and to fame unknown, but they possessed the great merit of being industrious, honest, temperate and pious." [54] From them Drake acquired priceless intangible assets - natural endowments, moral precepts and example, the discipline of work, and a reassuring family life. Although he had only the barest of material advantages, he overcame this handicap, thus proving himself to be of the rugged species Homo americana, sprung from the "crucible of the frontier", now epitomized by Abraham Lincoln in American folk tradition. Drake's limited opportunities, contrasting with his exceptional later accomplishments, demonstrate the role of personal responsibility and effort in giving direction and meaning to life. The idealized view of our national antecedents as intrepid pioneers, self-taught and self-sufficient, is a source of American pride and identity as a nation. Although this perception is often exaggerated, history records that a host of such distinctive men and women did indeed exist in all walks of life - Drake was one, and Elias Cooper was another - and their image may be fairly invoked as an inspiration to contemporary society.

In 1800, at age 15, Drake moved to Cincinnati, then a town of about 600 inhabitants (exclusive of the garrison) founded on the banks of the Ohio in 1788 under the original name of "Losantiville". Drake's purpose in going to Cincinnati was to become an apprentice to the long-time family friend from flatboat days, "Dr." William Goforth (1766-1817), who was so pleased with Drake's progress that he made him his partner in practice in 1804., when Drake was just 19. He later issued to Drake the following "diploma": [55]

> I do hereby certify that Mr. Daniel Drake has pursued under my direction for four years, the study of Physic, Surgery and Midwifery. From his good Abilities and marked Attention to the Prosecution of his studies, I am fully convinced that he is well qualified to practice in the above branches of his Profession.

Resurrectionists and the Doctors Mob

Although Goforth had served two successive apprenticeships with well- qualified practicing physicians, he did not attend medical school and hold a medical degree. He was a native of New York City where, according to Drake, he was engaged in medical studies in 1788 at the time of "The Doctors Mob." Because of life-threatening danger to physicians and medical students during this episode, Goforth fled to New Jersey where he decided to join his brother-in-law, John S. Gano, the Drakes and others of the party preparing to migrate to Kentucky. [56]

The Doctors Mob, one of the most violent outbreaks of civil unrest in early American history, was a furious response to the common practice of obtaining cadavers for anatomical dissection by robbing graves.

This hazardous and loathsome business, made necessary by the gross inadequacy of legal provisions for obtaining cadavers for medical instruction, was carried out by a disparate group, generally referred to as “resurrectionists.” Medical students and teachers of anatomy were frequently involved in grave robbing, and there was a more or less disreputable assortment of entrepreneurs who sold cadavers to medical schools or private teachers of anatomy.

Resurrectionists preferred to rob the graves of the poor, the unknown, and enslaved Blacks as least likely to be noticed and cause public outcry; but no graves were exempt unless there was some protection such as an iron coffin, a vault, or a watchman standing guard with a shotgun from dusk to dawn for two weeks, after which the corpse was so decomposed as to be of little use for dissection.

Grave robbing at its best was a complicated and dangerous undertaking that required careful planning to avoid detection, and considerable skill to complete the task with dispatch. Two strong men, two large canvas tarpaulins, digging tools, and a dark lantern to light the scene but invisible from a distance, were the essentials. Dirt was removed from only the head end of the coffin and placed on one of the tarpaulins. After silently breaking through the lid of the coffin, weakened by a row of holes bored across it, the corpse was hauled up by a hook inserted under the chin or, alternatively, by a rope attached to a ring on the back of a harness strapped under the arms. The body was then stripped of all clothing and wrapped in the other tarpaulin. The clothes were thrown back into the coffin, the excavated dirt returned to the grave, and its surface restored exactly to its prior appearance to disarm suspicion of tampering.

In the hands of experts, the over-all job required about an hour. The deceased, wrapped in the tarpaulin, was placed in a wagon, whose inconspicuous drive past the graveyard was carefully timed to coincide with the completion of the disinterment, and thence the cadaver was delivered to the medical school through a clandestine entrance. Bodies were usually procured during the cool season from November to February when anatomy courses were given, and were dissected immediately because embalming was not in use, putrefaction progressed rapidly, and discovery was always to be feared. [57][58]

Elias Cooper’s obsessive commitment to anatomical dissection as the basis for his surgical teaching and research brought him repeatedly into conflict with the community over the issue of obtaining anatomical material. This exposed him to a degree of condemnation and personal risk that one can best understand in light of the riot, ambiguously referred to as “The Doctors Mob,” that erupted in New York in 1788 in response to a grave robbing incident. Accounts of the tumultuous event vary, but the facts are probably about as follows.

In a building that was later to be used as the New York Hospital, there was a laboratory used by medical students and physicians for anatomical dissection. Here, at 3 o’clock on the afternoon of Sunday, 13 April 1788, several medical students or physicians with at least one instructor were dissecting a cadaver. Outside some small boys were playing and one of them, the son of a mason, placed a ladder laying nearby up to the window of the dissecting room and peered inside. Surprised and annoyed at the apparition in the window, one of the dissectors brandished a dismembered arm in the boy’s face and told him that it was the arm of his mother. It so happened that the boy’s mother had recently died, leading him to flee in terror to his father who was at work on masonry in the neighborhood. The enraged father quickly gathered his fellow workers and broke into the dissecting room where the finding of some partially dissected and some fresh bodies put them in a frenzy during which they wrecked the laboratory before carrying off the bodies in carts to be buried the same day.

A mob rapidly formed and reentered the premises bent on further destruction and determined to capture the physicians, all of whom escaped except for four whose lives were doubtless saved by the city officials who put them in jail for safe keeping. Over the next four days, rampaging mobs invaded and vandalized the homes of many local doctors who fled for their lives (as did the medical students, including Goforth); besieged the jail seeking to apprehend the dissectionists; and remained generally uncontrollable until sufficient militia could be mobilized to confront the rioters. Then, hard pressed and bombarded with rocks and paving stones by the surging rabble, the militia fired several volleys into the crowd, resulting in seven killed and eight injured, according to reports the accuracy of which cannot be verified. It is amazing that no doctors or medical students were killed or injured during the turmoil. [59][60]

Elias Cooper introduced resolutions before both the Illinois State Medical Society and the California State Medical Society calling for the legalization of dissection and of the procurement of bodies for that purpose, but favorable legislation in those states was not to be enacted until years after his death. Between 1765 and 1852 there were at least 13, and possibly more, anatomy riots in the United States, taking place in Illinois, Maryland, Massachusetts, New York, Ohio, Pennsylvania and Vermont. We shall have occasion to refer later to the riot in Illinois. [61]

Medical Practice without a Medical Degree

The practical effect on Dr. Goforth of his having been diverted by the Doctors Mob from his goal of obtaining a medical degree was not disastrous under the circumstances of the day. As already mentioned it was commonplace at the beginning of the nineteenth century in America to practice medicine with no other training than apprenticeships such as Goforth completed in New York before the riot, and as Drake completed under Goforth’s preceptorship in 1804. In his comprehensive Contributions to the Annals of Medical Progress, J.B. Toner has the following commentary on medical practice at the time of the Revolution: [62]

> It is probable that at the time of the Revolution there were not living in all the colonies 400 physicians who had received medical degrees; and yet …. there were presumed to be over 3,500 practitioners. The American colleges had up to 1776 in the aggregate issued but fifty-one degrees, including that of bachelor of medicine. At the close of the century, those who had received degrees from American institutions did not number 250, but probably five times this number had attended one course of lectures at the different colleges, and who were then in practice. ….(Up) to the beginning of the revolutionary war but two medical colleges had been organized in the United States. …. During the period from the close of the Revolution to (1800), …. there was a marked increase of medical students in the country, and no less than five additional colleges, or rather medical faculties, organized; but in 1800 we find only four of them still in existence, welcoming within them the medical students of America.

Drake, however, was not content to continue medical practice without formal medical studies and an MD degree. He traveled 18 days by horseback to Philadelphia to take the course of lectures at the University of Pennsylvania School of Medicine in 1805-1806 when Benjamin Rush was in his heyday. Drake returned to Philadelphia in the fall of 1815 for further study, and received his MD degree from the University in 1816 at the age of 30. By this time he had become well established in medical practice in Cincinnati and had written two books in 1810 on the Climate and Topography of Cincinnati and the Miami Country that earned him a national reputation as an author.

Drake at Transylvania Medical College

New horizons then beckoned Drake in academia. He was offered an appointment as Professor of Materia Medica and Medical Botany on the faculty of the Medical Department of Transylvania University in Lexington, Kentucky. This was the first medical school west of the Allegheny Mountains. It had been authorized by the Board of Trustees of Transylvania University in 1799, but regular instruction in the Medical Department did not begin until the fall of 1817. It was at this time that Drake took up his appointment. “Thus Drake, the first medical student of medicine in Cincinnati, the first Cincinnatian to receive a diploma in medicine, and the first medical author in the West, also became a member of the first accredited faculty of the first medical institution west of the Alleghenies.” [63]

The 1817-18 session was the first recognized medical course conducted by the Transylvania Medical School, and 20 students were enrolled. Of this first class, there was only one successful candidate for the MD degree. Drake acquitted himself admirably of his teaching responsibilities, consisting almost entirely of lectures. An example of his earnest eloquence is to be found in his lecture to the departing class at the end of the year. In this final lecture he addressed the perennial theme of “medicine as a life-long study,” and did so in the ornate language then much admired: [64]

> When you leave the medical school, your studies are merely begun. The germ of your future professional knowledge is yet a tender seedling, which neglected by you must inevitably perish. Watch over it then unceasingly - foster it with tenderness - supply it with liberality, and you will elevate it in time to a magnificent tree. Its balmy exhortation will diffuse health and comfort among the wretched victims of disease; - the golden fruit of its wide spreading branches will supply your numerous wants, and in the shade of its ever green foliage you will glide serenely down the vale of declining life ….. .

Dudley-Richardson Duel

When he joined the Transylvania faculty, Drake was unprepared for the academic polemics, and worse, that he encountered. But he later demonstrated a natural aptitude for the art of invective.

Dissension had erupted during the organizational meeting of the medical faculty at the beginning of the year, and continued throughout the session. Controversy was stirred when Benjamin Dudley, Professor of Anatomy and Surgery, objected to the presence on the faculty of William Richardson, Professor of Obstetrics, who held no degree in medicine. Tension remained high after the session ended in early March 1818 and a conflagration, to be ignited, needed only a spark.

This was provided by Drake’s letter of resignation from the faculty in late March of 1818. Dudley openly accused Drake of breaking a promise to remain on the faculty two years, and of trying to destroy the Transylvania Medical College. In the ensuing correspondence with Drake, Dudley made insulting references to Richardson who became incensed when they came to his attention, and challenged Dudley to a duel. Although illegal in Kentucky, duels were still countenanced in defense of a “gentleman’s honor”, broadly construed. Dudley accepted the challenge and chose pistols as the weapons. To avoid intervention by the authorities, the duel took place in secrecy in the summer of 1818. Dudley’s shot struck Richardson in the groin, lacerating a major artery, presumably the femoral. He would probably have bled to death from the wound had not Dudley rushed to his side and made pressure with his thumb on the artery proximally, thereby preventing further blood loss while Richardson’s surgeon tied the vessel - without the benefit of either anesthesia or asepsis, both then unknown to medicine as we have already mentioned. All hail to the surgeon who performed this difficult operation on a patient stretched on the ground in a remote forest clearing.

Dudley recovered and, according to some versions of the affair, he and Richardson later became “fast friends.” Although questionable, this outcome gains some credibility from the fact that they were both Past Masters of the Grand Lodge of the Fraternal Order of Masons in Kentucky. The Grand Lodge first suspended the duelists, and then reinstated them as a result of “the reconciliation which has happily taken place between said brothers.” [65]

Dudley-Drake Confrontation

In his dispute with Dudley, Drake took a different approach from that of Richardson. He refuted Dudley’s accusations against himself by publishing two pamphlets addressed to the citizens of Lexington that thoroughly demolished Dudley’s arguments, and directed at him the following barbs:

> How far the preceding facts are adequate to (prove all my conduct relative to the University to have been correct and honorable) is not for me to decide. But I may be permitted to remark, that in proportion as they establish my innocence, they inevitably demonstrate Dr. Dudley to be a base and unprincipled villain, who has wantonly and wickedly sought to destroy my reputation. For this outrage, my feelings require no other, and can have no higher satisfaction, than the favorable award of an impartial and intelligent public.
>
> I have now finished a necessary but disgusting task, and shall with great difficulty be re-excited to another of the same kind. Although

> I cannot, like the Grecian Hercules, boast of having vanquished a monster, I may at least claim some praise for having ferreted out one of the vermin which infest our modern Attica.

In a final scornful thrust at his adversary, Drake let it be known publicly that if Dudley committed the further outrage of challenging him to a duel, he would accept it. Nothing more was heard from Dudley, and Drake departed the field of his first major academic encounter with a clear victory. He was not in future to fare so well. [66]

The unfortunate Richardson had in Drake at least one forthright and effective advocate. Recognizing the importance to Richardson of obtaining medical credentials if he was to survive in the academic arena, Drake on 31 December 1817 wrote to David Hosack, MD, at the College of Physicians and Surgeons in New York requesting that Richardson be given an honorary MD degree. The Honorary degree of Doctor of Medicine was awarded to Richardson on 6 April 1819, thus bespeaking Drake's already considerable stature in the medical profession at the age of 33. The cause of the delay in awarding the degree is unknown but was probably related to the complicated process by which such degrees were conferred, not by the College but by the Regents of the University of the State of New York. [67]

Drake's Contributions to Medical Education

The Cincinnati newspapers expressed regret that Kentucky was ahead of Ohio in establishing a medical school. In spite of his Transylvanian experience, Drake was eager to respond to the local desire not to be outdistanced by Kentucky in the field of medical education. The fruits, and disappointments, of his efforts to found a medical school in Cincinnati are relevant to our interest in identifying problems that Elias Cooper might encounter when starting a medical school.

The Medical College of Ohio was, on Drake's personal appeal, chartered by the Ohio General Assembly on 19 January 1819, naming him as President, and Professor of Institutes and Practice of Medicine. While it was the second medical college to be opened west of the Allegheny Mountains (the first being Transylvania in Lexington, Kentucky, in 1817), it was the first medical college to be founded in the Northwest Territory. Drake's early success with the Assembly was soon followed by a severe setback. Faculty disunity broke out even before the school opened, and he also had a Town-Gown problem. Local physicians, critical of the projected school, precipitated an incredibly rancorous clash with Drake during which he was convicted of assault on one of his critics, and a formerly close associate in practice challenged him to a duel (an invitation he declined). He was lampooned and christened "Dr. Pompous" in newspapers that became disgusted with the doctors' squabbles. Not unexpectedly, the first course of medical lectures, planned for the fall of 1819, had to be postponed for a year. To say the least, these were ominous signs. The first term finally opened in November 1820 with 24 students and ended with commencement exercises for seven students on 4 April 1821.

Although the surface was calm, faculty resentment against Drake was growing due, according to him, to their jealousy of his prominence and popularity in the city. At the second commencement on 4 March 1822, seven students graduated while the rival school in Lexington had 37 graduates in that year. Two days later, on 6 March, the climax occurred. Two of the school's five-member faculty resigned, leaving only two members in addition to Drake. When he convened them in a faculty meeting to transact some routine business, they both voted to dismiss him from the faculty. Thus President Drake was summarily deposed from the school that he had founded only two years before. [68]

That he was bitter over this turn of events can be easily understood. His only recourse, however, was to write a scathing satire of the whole affair entitled "Narrative of the Rise and Fall of the Medical College of Ohio" which he published himself and dedicated to the General Assembly of the State that had chartered the school. Regarding the manner of his expulsion and the reasons for the outrageous behavior of his erstwhile colleagues, he said: [69]

> The faculty were … reduced to Dr. Smith, Mr. Slack and myself … We met according to a previous adjournment, and transacted some financial business. A profound silence ensued, our dim taper shed a blue light over the lurid faces of the plotters, and everything seemed ominous of an approaching revolution. On trying occasions, Doctor Smith is said to be subject to a disease not unlike Saint Vitus' Dance; and on this he did not wholly escape. Wan and trembling he raised himself (with the exception of his eyes) and in lugubrious accents said, "Mr. President - In the resolution I am about to offer, I am influenced by no private feelings, but solely by a reference to the public good." He then read as follows: "Voted that Daniel Drake, M.D., be dismissed from the Medical College of Ohio." The portentous stillness recurred, and was not interrupted till I reminded the gentlemen of their designs. Mr. Slack, who is blessed with stronger nerves than his master, then rose, and adjusting himself to a firmer balance, put on a proper sanctimony, and bewailingly ejaculated: "I second the motion." The crisis had now manifestly come; and, learning by inquiry that the gentlemen were ready to meet it, I put the question, which carried, in the classical language of Doctor Smith, "nemo contradicente." I could not do more than tender them a vote of thanks, nor less than withdraw, and, performing both, the doctor politely lit me downstairs…
>
> The real objects which the gentlemen proposed to themselves in my expulsion were: First - To drive me from Cincinnati and succeed to my professional business. Second - To reorganize the school in such a manner as would give it a new aspect, and dissolve, in the public mind, a connection it had with my name, so intimate as to be painful to them. The former would feed their avarice, the latter their vanity.

The community was outraged at the eviction of the founder of their medical school. Drake was immediately reinstated, and he as promptly resigned - refusing to be again associated with those who had subjected him to such an indignity. But he was still determined to put how own stamp on medical education in Cincinnati. [70]

Drake Plans a Medical Department for Miami University

The decade following his expulsion from the Medical College of Ohio in 1822 was a hectic period for Drake who continued to be involved in a wide range of activities related to medical education. He held professorships at Transylvania (1823-27) and Jefferson Medical College in Philadelphia (1830-31). [71]

By 1831 he was ready to challenge the Medical College of Ohio, still the object of his criticism as an inferior institution, his judgement in the matter being well justified. He proposed to the Trustees of Miami University of Oxford, Ohio, that the University establish a Medical Department in Cincinnati with Drake as Professor of Medicine and Dean. His proposal was promptly accepted by the Miami Trustees, and on 22 February 1831 Drake and other faculty members of his selection, including his brother-in-law Joseph N. McDowell, were appointed to the Miami Faculty.

The prospect of a rival medical school in Cincinnati threatened the very existence of the Medical College of Ohio whose Board of Trustees and Faculty rightly concluded that the College would be doomed by the competition of the superior Faculty organized by Drake. On the brink of success, however, Drake's well-laid plan was shrewdly frustrated by the Medical College of Ohio through a combination of delaying the opening of the new school by court action, and hiring away some of Drake's faculty by offering them appointments in a reorganized Medical College of Ohio. Before any students had been admitted to the Medical Department of Miami University, these maneuvers forced its consolidation with the Medical College of Ohio, thus eliminating the Medical Department of Miami University and saving the Medical College of Ohio from extinction. By 13 July 1831 the College faculty had been reorganized to incorporate some members from the now defunct Miami school, including Drake himself. Expecting to participate in reform of the Medical College by joining its faculty, Drake accepted an appointment as Professor of Clinical Medicine in the College.

Drake's expectations for improvement in the College, and a leadership role for himself in the process, were soon dashed. He learned that the chair of "Clinical Medicine" to which he was appointed had been stripped of the responsibilities he had wished it to entail. On 19 January 1832, six months after accepting the post, he resigned it. As on the occasion of his previous abrupt departure from the Medical College of Ohio, Drake stated his grievances. In a letter to the Board of Trustees of the College, couched in diplomatic but unmistakable terms, he implied that the Trustees had dealt with him in bad faith with respect to his professorship, and that the standards of the College were still deficient. He was promptly accused of attempting either to rule or ruin the College, his resignation setting off a chain reaction of spiteful reprisals and recriminations too convoluted for recounting here. [72]

Drake Founds the Medical Department of Cincinnati College

During the three years following his second resignation from the Medical College of Ohio in 1832, Drake busied himself very productively, enhancing his regional and national stature by medical and editorial activities in Cincinnati where he maintained his home base.

By 1835, he was ready to turn his attention again to medical education, drawn irresistibly by his abiding interest in the field, and his exasperation with the continuing mediocrity and discord at the Medical College of Ohio. His strategy was the same as before - to establish a rival medical school in Cincinnati, this time as the Medical Department of Cincinnati College. On 22 May 1835 the Trustees of Cincinnati College passed the following resolution: [73]

> Whereas the recent attempt of the medical profession and the General Assembly of Ohio to reorganize and improve the conditions of the Medical College of Ohio, have, as we are informed been unsuccessful … and whereas there is the utmost danger that Ohio will lose the advantages of a Medical institution, unless immediate measures be taken to organize a substitute for said College, therefore be it
>
> Resolved, that the Board will proceed forthright to establish a medical department of Cincinnati College.

The first session of the Medical Department of Cincinnati College opened in the fall of 1835. Drake's purpose was two-fold. First, he desired to found a medical college that would reflect the high educational standards to which he was devoted; and second, he wanted finally to drive out of existence the failing Medical College of Ohio whose faculty and program he ridiculed openly. Accomplishment of the latter goal would also avenge his summary dismissal from the College 13 years before. Since then, faculty dissension and inadequacy had thoroughly discredited the College, and embarrassed the Ohio Assembly that in 1825 had made it a state-supported institution.

For his new school Drake assembled a faculty comparable to that in the better American schools and distinctly superior in teaching and literary ability to their counterparts in the Medical College of Ohio. The following list of chairs and professors shows the range of subjects making up the curriculum:

- Theory and Practice of Medicine: Daniel Drake, MD, Dean of the Medical Faculty of Cincinnati College
- Special and Surgical Anatomy: Joseph N. McDowell, MD
- General and Pathological Anatomy, Physiology and Medical Jurisprudence: Samuel D. Gross, MD
- Surgery: Horatio G. Jamison, MD
- Obstetrics and the Diseases of Women and Children: Landon C. Rives, MD
- Chemistry and Pharmacy: James B. Rogers, MD
- Materia Medica: John P. Harrison, MD
- Adjunct Professor of Chemistry and Lecturer on Botany: John L. Riddell, MS

The school's progress during the first four years was remarkable as reflected in the annual enrollment of 66, 85, 125 and 112 students. As might be expected, certain local factions opposed the school from the outset, and rivalry with the Medical College of Ohio was bitter, even to the point of involving students of the two schools in fisticuffs. Unfortunately, lacking the facilities and support commanded by the Medical College of Ohio as a state school, the medical faculty of Cincinnati College were one by one lured away to better positions

elsewhere. In 1839, after a brilliant four years, the Medical Department of Cincinnati College (the third medical school to be opened west of the Alleghenies) was forced to close. [74]

Drake's Valediction

The school had hardly disbanded when Drake received an invitation from the University of Louisville to become Professor of Clinical Medicine and Pathological Anatomy. He accepted the position and held it from 1839 until 1849 when he resigned. While at Louisville he completed his magnum opus, the medical classic for which he is best known, entitled: A Systematic Treatise on the Principal Diseases of the Interior Valley of North America. [75]

In 1849, nostalgic and still hopeful, Drake once again accepted a professorship in the Medical College of Ohio, the school that he had founded in 1819, thirty years before. To the students attending his Introductory Lecture at the Opening of the Thirtieth Session of the College, Delivered at the Request of the Faculty on 5 November 1849, he said:

> (Over the past thirty years) my heart still fondly turned to my first love, your alma mater. Her image, glowing in the warm and radiant tints of earlier life, was ever in my view.

At the end of the year, again disillusioned by faculty intrigues and dissension, he resigned from the Ohio Medical College for the third time to resume a professorship at the University of Louisville.

Finally, in the spring of 1852 and toward the end of his life, Drake resigned his professorship at Louisville to again accept a position at the Medical College of Ohio. The Founding Father was united for the last time with the prodigal son. Just at the opening of the fall session on 5 November 1852 he died at the age of 67, full of renewed hope for the institution that had survived in spite of his determined efforts either to reform, or to destroy it. At the time of his death Drake was one of the most widely known and highly respected physicians in the United States. [76][77]

In 1832 in his Practical Essays on Medical Education and the Medical Profession, Drake spoke from the depth of his long experience and made the following prophetic statement: [78]

> The establishment of medical schools is a prolific source of discord in the profession.

Medical Education in St. Louis

Both Esaias and Elias Cooper practiced medicine and appended "M. D." to their signatures for some years before acquiring their medical degrees from the Medical Department of St. Louis University in 1850 and 1851, respectively. . Hence our interest in the origin of the school that they attended.

Purchase of the Louisiana territory from the French for $15 million in 1803 during the administration of President Jefferson almost doubled the size of the United States by moving its western border from the Mississippi River to the Rocky Mountains. This acquisition, the greatest bargain in American history and basic to the rise of the new republic as a world power, brought vast western lands, including the present State of Missouri and the site of the city of St. Louis, under United States control. St. Louis was then an isolated French trading post located on the west bank of the Mississippi River, just across from Illinois country of the Northwest Territory. As center of the trans-Mississippi fur trade, the post had acquired a population of about 1000. The first steamboat to reach St. Louis, the paddle-wheeler Zebulon M. Pike, docked in 1817 to usher in an era of increasing commercial and passenger traffic on the river. In 1821, when Missouri was admitted to the Union as the 24th state, St. Louis was still only a town of 5, 600 inhabitants. During the next several decades, however, St. Louis came into its own as a vital way station between the Northwest and the advancing western frontier. [79]

As gateway to the Far West, St. Louis attracted settlers in increasing numbers, including a contingent of trained and untrained American doctors. Among them were those who foresaw the opportunity in a dynamic, evolving community to realize their professional ambitions. For a physician caught up in the general westward migration then in full swing, few goals could be higher than to found a medical school, and St. Louis was as inviting a location for that purpose in the 1830's, as was San Francisco to Elias Samuel Cooper two decades later.

Medical Department of Kemper College in St. Louis

When the Medical Department of Cincinnati College closed in 1839, Joseph Nash McDowell (1805-1868), Professor of Special and Surgical Anatomy, moved to St. Louis. Already an experienced teacher, he immediately set about organizing a medical faculty with four other St. Louis physicians. Under the authorization of an Episcopal institution known as Kemper College, he founded the Medical Department of Kemper College, the first medical school west of the Mississippi. The first course of medical lectures was presented during the winter of 1840-41. McDowell taught anatomy and divided the other subjects among his four associates. It was his flamboyant leadership that held the school together when failing financial support made necessary the transfer of its sponsorship from Kemper College to Missouri State University in 1847. The school then became the Medical Department of Missouri State University (also called Missouri Medical College) with faculty in 1847-48 of six professors: McDowell in anatomy and other chairs in medicine; physiology and materia medica; obstetrics and diseases of women and children; pathology and clinical medicine; and chemistry and pharmacy. So closely were these early medical schools identified in the public mind with McDowell as their founder and colorful advocate that they both were generally known as McDowell Medical College. [80]

Regarding McDowell's personality and ability, he may be charitably described as a brilliant eccentric. A native of Kentucky, he was married to the girl who had been his playmate when he was a young boy, Amanda Virginia Drake, the sister of Daniel Drake. After receiving his MD degree in1825 from Transylvania University in Lexington, Kentucky, he served as Professor of Anatomy at Transylvania and at Jefferson Medical College before joining the faculty of the Medical Department of Cincinnati College from 1835 to 1839.

As a lecturer in anatomy, he was truly gifted, with a marvelous power to entertain while driving home the subject. In the words of a student, he "made even the dry bones talk". He was wonderfully eloquent as a speaker, and a master of extemporaneous invective, abuse and vilification when his ire was aroused, which was easily done. While a member of the medical faculty of Cincinnati College during Drake's campaign against the Medical College of Ohio, McDowell enthusiastically joined the fray by attacking the professors of the Ohio College openly in offensive language, vowing that given a year's time he would blow the damned Ohio Medical College to hell. In St. Louis he used similar tactics and exhibited a fanatical streak as well in his opposition to a rival medical school as we will shortly relate. His objectionable traits were at least partially, if not fully, offset by his devotion to family, friends and patients; by his consistently effective leadership of the medical school he founded; by his democratic relationship with students (frowned upon by his peers as unseemly fraternization); and by his ability as a surgeon which was comparable to his proficiency in anatomy. [81]

Anecdotes of McDowell's unconventional attitudes and behavior abound. He was either genuinely superstitious or, more likely, pretended to be. As an anatomist he was often involved in the dangerous business of colluding with resurrectionists who provided his school with material for dissection. He told his cousin, the author Mary Ridenbaugh, of the following narrow escape which he ascribed to the intervention of his mother's spirit: [82]

> Said Cousin Mary, "I see that you listen to the spirits sometimes." "Yes," was Dr. McDowell's reply, "there is a great deal more in the matter than a man can express without being thought a d--n fool"
>
> "You are right," she added. "But have you ever had an experience or seen any manifestations?" "Yes; confounded sight more than I tell people" ."However," he continued, "I will tell you what I know, and how I was saved by my mother's spirit."
>
> "A German girl died with a very unusual disease, and we were determined to get her body for dissection. We got it and laid it in the College. The secret leaked out, and the Germans got their backs up and made things lively for us. (There was a large community of Germans in St. Louis.) It was planned by them to come one night and hunt over the College to see if the body was there to be dissected. "I received a note at my house at 9 o'clock of an evening warning me that the visit was to be that night.
>
> "I went down to the College about 11 o'clock, thinking to hide the corpse. When I got there all was quiet. I went through the dissecting room, with a small lantern in my hand, in the direction of the body. I picked the cadaver up and threw it over my shoulder to carry it to the top loft to conceal it between the rafters, or place it in a cedar chest that had stood in the closet for years.
>
> "I had ascended one flight of stairs, when out went my lamp. I laid down the corpse and re-struck a light. I then picked up the body, when out went my light again. I felt for another match in my pocket, when I distinctly saw my dear, old mother standing a little distance off, beckoning to me.
>
> "In the middle of the passage was a window; I saw her rise in front of it. I walked along close to the wall, with the corpse over my shoulder, and went to the top loft and hid it. I came down in the dark, for I knew the way well; as I reached the window in the passage, there were two Germans talking, one had a shotgun, the other a revolver. I kept close to the wall and slid down the stairs. When I got to the dissecting-room door, I looked down the stairs into the hallway; there I saw five or six men lighting a lamp. I hesitated a moment as to what I should do, as I had left my pistols in my pocket in the dissecting room where I took the body. I looked in the room, as it was my only chance to get away, when I saw my spirit mother standing near the table from which I had just taken the corpse. I had no light, but the halo that surrounded my mother was sufficient to enable me to see the table quite plainly.
>
> "I heard the men coming up the stairs. I laid down whence I had taken the body and pulled a cloth over my face to hide it. The men came in all of them being armed, to look at the dead. They uncovered one body, it was that of a man, the next a man; then they came to two women with black hair - the girl they were looking for had light flaxen hair. Then they passed me; one German said: 'Here is a fellow who died in his boots; I guess he is a fresh one.'
>
> "I laid like marble. I thought I would jump up and frighten them, but I heard a voice, soft and low, close to my ear, say, 'Be still, be still'. The men went over the building and finally down stairs. I waited awhile, then slipped out. At the corner of Gratial Street, I heard three men talking German; they took no notice of me, and I went home.
>
> "Early in the morning I went to the College and found everything all right. We dissected the body, buried the fragments and had no further trouble."
>
> "Then, Doctor, you feel satisfied that the spirit of your mother saved you from that trouble?
>
> "I know it," he replied. "I often feel as though my mother is near me when I have a difficult case of surgery. I am always successful when I feel this influence. Well, let me stop here. I have a boy to attend to with a broken leg, so good-bye." And with his characteristic manner of always being in a great hurry, he glided out the door and into his buggy.

Joseph McDowell was the nephew of the celebrated Kentucky surgeon, Dr. Ephraim McDowell, a relationship which doubtless eased his early acceptance into the highest medical circles. He is said to have harbored a smoldering resentment against his uncle because of a misunderstanding that arose during his youth. Joseph spent much of his time in his Uncle Ephraim's home and there formed an ardent attachment for his cousin Mary McDowell, the daughter of his uncle. She informed Joseph that she did not share his more than cousinly affection and confided in her father who kindly but firmly emphasized to Joseph the finality of her decision. The nephew then charged his uncle, no doubt unjustly, with influencing his daughter against him, and left his uncle's house never to return, nor did he ever forgive him. [83] In later life he even sought to discredit his uncle's remarkable surgical achievement by charging that the operation of ovariotomy for which Ephraim McDowell won acclaim was actually performed by James McDowell, another nephew, who was fresh from medical school and actually only served as an assistant. [84]

Circumstances attending that famous operation by Ephraim McDowell shed much light on the realities of medical care in the early 1800's, and on the conditions under which Elias Cooper practiced surgery in Illinois a few decades later. [85]

Ephraim McDowell, Pioneer Surgeon

Dr. Ephraim McDowell of Danville, Kentucky, became in 1809 the first surgeon world-wide to successfully remove an ovarian tumor. It is difficult for us to understand that performance of an operation, done today routinely with minimum risk, was in 1809 a singular contribution to medical progress, but such was the case. Until then, ovarian tumor was an incurable and frequently fatal disease, and was thought to be unapproachable surgically. Indeed, opening the abdomen for treatment of any internal disorder was not considered feasible by the savants in European medical centers where medicine and surgery were the most advanced. As a result, the report by a backwoods American physician of the first ovariotomy was at first disparaged by disdainful British surgeons. Nevertheless, McDowell is now universally recognized as the first to demonstrate the feasibility of the operation and, being from the neighboring state of Kentucky, would surely have been among the pantheon of eminent surgeons who inspired the efforts of the young Dr. Elias Cooper in Illinois. This is an additional reason why Dr. McDowell deserves our respectful notice here.

Dr. Ephraim McDowell (1771-1830) served an apprenticeship in his native state of Virginia for about two years under Dr. Alexander Humphreys of Staunton who was an MD graduate of Edinburgh University. McDowell then spent two years (1783-85) at Edinburgh, but did not graduate; nor did he hold a medical degree from any institution until he was awarded an unsolicited Honorary MD degree by the University of Maryland in 1825. By 1809, in spite of his lack of medical credentials, he had become one of the most highly regarded surgeons west of the Allegheny Mountains. [86][87]

The patient from whom Dr. McDowell removed a huge ovarian tumor in 1809 was a courageous Kentucky woman of about 46 named Mrs. Jane Todd Crawford. He described her as a woman of small stature whose abdomen had become so pendulous with the tumor as to reach almost to her knees. During the few days before the operation she rode 60 miles by horseback, resting the tumor on the horn of the saddle, to reach Danville, then a frontier town of possibly a thousand. [88]

The procedure was carried out in Dr. McDowell's house. He was assisted in the operation by one of his nephews, Dr. James McDowell, who had graduated in Philadelphia a few months previously and who, from the time of Mrs. Crawford's arrival in Danville, made frequent attempts to persuade his uncle from operating on her. Several other attendants were present to observe the operation and to help restrain the patient who was operated on without anesthesia. In this pre-anesthesia era, an alcoholic or narcotic potion was commonly administered before an operation, yet the utmost fortitude was still required by the patient. Mrs. Crawford is said to have diverted her thoughts during the procedure by repeating the Psalms. Under such circumstances speed, deftness, self assurance and a precise knowledge of anatomy were essential qualities of a surgeon. Antisepsis and asepsis were unknown, and postoperative infection usually occurred.

In an otherwise bare room in McDowell's home in Danville, the patient was placed on an ordinary table. Equipment consisted of scalpel, scissors, forceps, needle holder, ligature passer, heavy thread and an assortment of household items such as basins, towels and other dry goods, all laid out on a small nearby stand. The following are the important features of the operation.

> A long incision was made to the left of the midline, extending from the rib margin above to the pubis below.
> The tumor then came into full view. It was freely movable with a pedicle of sufficient length so that a strong ligature could be tied around the fallopian tube and other tissues containing the tumor's blood supply.
> The tumor, being so large that it could not be delivered from the abdomen, was then opened and its gelatinous contents were evacuated - whereupon the intestines rushed out of the abdomen and remained exposed until the remaining solid portion of the tumor was cut off from its pedicle and removed.
> The patient was turned briefly onto her side to permit escape of accumulated blood from her abdomen.
> The operation to this point had taken 25 minutes. Another five minutes were required to replace the intestines and close the abdomen with large interrupted sutures, the long ends of the ligature on the tumor pedicle being brought out through the lower end of the wound for later withdrawal from the abdomen after it had cut through the pedicle. Altogether the procedure took about a half an hour.
> The tumor was partly cystic and partly solid, the cystic portion weighing 15 pounds and the solid portion weighing 7 1/2 pounds, a total of 22 1/2 pounds.
> Postoperative course was exceptionally smooth. She did not develop either of the two most feared and frequent complications of abdominal operations - peritonitis and wound infection. In five days she was up and making her bed, and in 25 days she returned home. Mrs. Crawford was in apparently good health for the next 33 years until her death in 1842, outliving her surgeon by 12 years. [89][90]

Dr. McDowell told Mrs. Crawford that the operation he proposed to her would be "an experiment" - as indeed it was at the time. Recognizing that she had no other alternative if she wished to live, she promptly agreed. Before publishing the Crawford case in 1817, McDowell performed his "experimental operation" on two additional patients, both of whom survived the procedure and were included in his original report. [91] However, it was not until mid-century, and after the advent of anesthesia, that ovariotomy gained general acceptance in the higher echelons of British and French surgery. The prolonged delay in the adoption of this life-saving procedure in Europe led Schachner to attribute McDowell's earlier initiative and success to the spirit of independence nurtured by the American frontier, and to his freedom from the constraints of an entrenched professional elite such as existed in Europe. [92]

Ephraim McDowell's unprecedented operation demonstrated for the first time the curative potential of surgery in the previously hopeless condition of ovarian tumor. Equally important, it proved that the abdominal cavity, formerly off-limits to the surgeon, could be safely explored. By these memorable achievements, McDowell became not only "Father of Ovariotomy", but also "Founder of Abdominal Surgery". [93]

Medical Department of St. Louis University

Just as the Medical College of Ohio fought hard to prevent the opening of a rival school in Cincinnati in 1835 by Daniel Drake, so Joseph McDowell reacted furiously to a similar challenge to his medical college in St. Louis. As early as 1836, three years before McDowell's arrival in the city, St. Louis University, founded by the Jesuit Order of the Catholic Church in 1818, had adopted a plan to establish a Medical Department. For various reasons, steps to put the plan in operation were delayed until after McDowell had established his school. When the University finally enacted a constitution for its Medical Department on 14 October 1841, McDowell assailed the plan in vitriolic anti-Catholic speeches, specifically attacking the Jesuit Order. Nevertheless, a medical faculty was appointed by St. Louis University and lectures were begun a year later on 8 October 1842. The faculty consisted of a Dean and four associates. During the next seven years, in spite of McDowell's fulminations and the vigorous competition of his College, the Medical Department of St. Louis University prospered and capacious new quarters were constructed. [94]

In addition to Joseph McDowell's move to St. Louis, repercussions from the late Medical Department of Cincinnati College were felt in other ways on medical education in St. Louis. One of Dr. McDowell's able students at Cincinnati Medical College during 1837-38 was a young man from Huntsville, Alabama, by the name of Charles Alexander Pope (1818-1870) who transferred to the University of Pennsylvania Medical School in the following year and there earned his MD degree in 1839. After a Wanderjahr in Europe where he spent most of his time in Paris, but also visited other great medical centers on the continent and in Great Britain and Ireland, Dr. Pope returned to the United States to settle in St. Louis in 1841. He too was interested in starting a medical school in the rapidly growing city which now had a population of about 20,000. He took part in the organization in 1841 and activation in 1842 of the Medical Department of St. Louis University, in spite of the implacable opposition of his former teacher. [95]

In his pursuit of an academic career, Pope had a powerful advocate in Dr. Samuel Gross, Professor of General and Pathological Anatomy in the Medical Department of Cincinnati College where he had been a faculty colleague of Joseph McDowell. Gross considered McDowell to be an incomparable teacher of anatomy, but otherwise something of a crank. For McDowell's Uncle Ephraim, however, Gross had the utmost respect and was chosen to deliver the Memorial Oration at the dedication of a monument to the ovariotomist at Danville, Kentucky, in 1879.

After leaving Cincinnati, Gross rose to national prominence as a surgeon and served for 26 years (1856-1882) as Professor of Surgery at Jefferson Medical College. He well remembered Pope's studious habits and moral and intellectual attributes while a student at Cincinnati Medical College, and ever retained a kindly disposition toward him. It was upon Gross's strong recommendation that St Louis University chose Pope as Professor of Anatomy in 1843. Later, in recognition of his special interest and ability in the field of surgery, the University transferred Pope to the professorship of Surgery in 1847. He was given the additional appointment of Dean of the medical school in 1849, a position he filled with such distinction for the next 15 years that the Medical Department of St. Louis University was commonly referred to as "Pope's College". This was particularly galling to the head of "McDowell's College". Elias later referred gratefully to Dr. Pope as a benefactor during his student days. [96]

As for the controversial McDowell, he lives in memory as the most colorful character in the history of medical education in Saint Louis. He never lost his antipathy for the rival Jesuit school, or overlooked an opportunity to ridicule it. Medical students looked forward with relish to the commencement exercises of McDowell's College when he was sure to have something caustic and irreverent to say about Pope's College. On one such occasion McDowell, who was an avid amateur musician,

> . . slowly sauntered down the aisle with violin and bow in his hand. Seeing so many students sitting sideways he commandingly said: "Gentlemen, I pray you, sit straight and face the music." After scraping off a few tunes he very gravely laid aside his violin and bow and said: "Gentlemen, we have now been together for five long months and we have passed many pleasant and delightful moments together, and doubtless some sad and perplexing ones, and now the saddest of all sad words are to be uttered, namely, "Farewell'. . .In after years one of your number will come back to the City of St. Louis, with the snow of many winters upon his hair, walking not on two legs, but on three, as Sphinx has it, and as he wanders here and there upon the thoroughfares of this great city, suddenly, gentlemen, it will occur to him to ask about Dr. McDowell. Then he will hail and ask one of the eager passersby: "Where is Dr. McDowell," he will say: "What Dr. McDowell." "Why, Dr. McDowell, the surgeon." He will tell him, gentlemen, that Dr. McDowell lies buried out at Bellefontaine. Slowly and painfully he will wend his way thither. There he will find amidst rank weeds and seeding grass a simple marble slab inscribed, "J.N. McDowell, Surgeon." As he stands there contemplating the rare virtues and eccentricities of this old man, suddenly, gentlemen, the spirit of Dr. McDowell will arise upon ethereal wings and bless him. Yes, thrice bless him. Then it will take a swoop, and when it passes this building, it will drop a parting tear, but, gentlemen, when it gets to Pope's College, it will expectorate." [97]

To the Medical Students, the sardonic humor of the irrepressible McDowell during commencement services was a welcome alternative to the weighty sermons usually delivered on such occasions.

During his final years this "erratic genius", estranged from his children because of a second marriage of which they disapproved, and in a state of utter bankruptcy, turned in the end to the Roman Catholic religion and received in death the blessing of his spiritual comforter and companion, a Jesuit priest. [98][99] This brief account of the birth of medical education west of the Mississippi, presaging as it does later San Francisco conflicts in which we have a special interest, lends support to Drakes' postulate that medical schools are a fertile source

of discord within the profession.

Perspective

The historical roots of Stanford Medical School are deeply planted in American medicine of the 1800's. If we are to understand and appropriately evaluate the contributions of the men, women and institutions of these earlier days we must know the conditions under which they labored.

It is for this reason that we have referred in this and preceding Chapters to aspects of American society that affected the careers and achievements of Elias Samuel Cooper and Levi Cooper Lane. We have also attempted an overview of American medical education from its beginning in Philadelphia in 1765, through some pioneer schools west of the Alleghenies, to the advent of the modern era at Johns Hopkins. In the following Chapter we complete our "environmental impact study" by noticing the condition of medical science and practice in the 19th century as experienced by Cooper and Lane.

It is hoped that this approach will lead to broader insight, and a deeper appreciation of the challenges overcome by the Faculties of Stanford's predecessor institutions for, to paraphrase Macauley, Medical Schools that take pride in the achievements of remote antecedents are more likely to be remembered with pride by remote descendents.

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Chapter 5. Elias Samuel Cooper and 19th Century Medicine

From the time when Dr. Elias Cooper began to practice medicine in Illinois in the early 1840's, his professional outlook and actions reflected the medical environment within which he pursued his career. Therefore, if we are to assess his limitations and achievements, and those of the medical college he founded, we must be familiar with the state of medical knowledge and the public health in his day.

As to the public health, It is well to remember that throughout the period of colonization and westward migration, infectious diseases were a more serious menace to the early settlers than all other hazards of their rigorous lives. For example, immigrants from England to America in the 1600's were nearly driven out by disease before they gained a foothold on the eastern coast of the continent. The first permanent English colony, established at Jamestown, Virginia, in 1607, consisted of 104 men and boys. Within six months 51 had died of disease and starvation. [1] As previously mentioned, the second permanent English colony was founded by the Pilgrims who landed at the present site of Plymouth on the shore of Massachusetts Bay in 1620. They were a party of 102 men, women and children. Soon after their arrival "the great sickness" descended upon them and within six months 62 had died. [2] The principal cause of the high rate of illness and death among these and later settlers was rampant infection that spread rapidly because of poor sanitation, inadequate shelter and malnutrition. No one then knew that microorganisms or "germs" existed and were the cause of infection, and there were of course no effective preventive or treatment measures.

Furthermore, the cause of infection and the principles of prevention and treatment were still unknown 200 years later when immigrants, including the Cooper and Lane families, poured into the Northwest Territory in the early 1800's. Soon thereafter it was recognized that a mysterious and often lethal fever was prevalent among the settlers, especially in Illinois but also throughout the Ohio and Mississippi Valleys. Reliable statistics are not available but contemporary reports of widespread febrile illness are convincing. In the fall of 1823 Ohio newspapers reported that more than half of the 165,000 people living within fifty miles of Columbus were ill. James Flint, an English traveler, wrote that in the fall of 1820 one-third of the inhabitants of Vincennes, Indiana, and the neighboring countryside were sick in bed. Fevers of one kind or another were so frequent and severe around Indianapolis, Indiana, in the summer and fall of 1821 that an estimated one eighth of the population died. Six months later, the Indianapolis Gazette stated that 900 of the 1000 townspeople were or had been sick. [3] In Pike County Illinois, located on the Mississippi River, a fierce epidemic of fever killed 80 percent of the earlier settlers during the 1820s. [4]

Gershon Flagg, an English immigrant writing in 1819 from Edwardsville in southwestern Illinois about ten miles east of the Mississippi, echoed the sentiments of many settlers in the river valley: [5]

> The principle objection I have to this Country is its unhealthiness. The months of Aug. and Sept. are generally very sickly. I was taken sick with the fever and ague 15 Sept which lasted me nearly two months. I shall try it one season more and if I do not have my health better than I have the season past I shall sell my property and leave the country.

A letter from a correspondent in the fertile valley of the Sangamon River in central Illinois not far south of Peoria, written in about 1825, included the following comment: [6]

> In this country, life is at least fifty per cent below par in the months of August and September. I have thought that I ran as great a risk every season which I spend here as in an ordinary battle. I really believe it seldom happens that a greater proportion of any army falls victim to the sword during a campaign than there has of the inhabitants of Illinois to disease during a season I have been here.

Daniel Drake (1785-1852) on Autumnal Fever (Malaria)

This "fever", so baffling to the doctors of the region, occurred chiefly in marshy locations along the many rivers and creeks where there were clouds of mosquitoes. The illness struck mainly in the fall of the year and was characterized by episodes of chills (ague), fever and sweating that tended to recur at regular intervals of from daily to every 48 or 72 hours (i.e., quotidian, tertian or quartan). Although usually subsiding spontaneously within a few weeks or months, it often followed a chronic, debilitating and sometimes fatal course with intermittent seasonal relapses over a period of years, reducing the patient to a pale, wasted and lethargic invalid. Malignant, fulminant variants of the fever were also not infrequent, resulting in prostration, coma and death within a few days. [7][8]

The menacing fever to which we refer was malaria. It was the scourge of the Northwest until late in the 1800's, and the most important endemic disease from the standpoint of prevalence the world has known from antiquity to the present day. Ancient writers described its typical intermittent episodes of chills and fever. A Chinese scholar spoke of its recurrent paroxysms three thousand years ago. Hindu sages in India recognized the disease. Hippocrates (460-370 B.C.) wrote of it as common in Greece in the fifth century B.C. Alexander the Great (356-323) died of a fever in Babylon at the age of 33. It was probably malaria. [9][10][11][12]

Although present as a devastating pestilence throughout Eurasia and Africa from the earliest historic times, the New World was free of malaria until around 1500. At about this time it was brought to the Americas from Europe and Africa by the Spaniards and their slaves whose red blood cells, infected with the malarial parasite, were taken up by the bite of the ubiquitous Anopheles mosquitoes and transmitted thereby to an endless chain of human carriers. [13] The disease was unknown among the Indians in the Ohio Valley and the Northwest until after the arrival there of European immigrants. In Illinois, the incidence of malaria was at a low level from the first settlements in about 1700 until 1760 when it rose within a decade to epidemico-endemic proportions and held that position for about 80 years. It then began a slow decline in the 1850's, and virtually disappeared from the state by 1900. [14]

From this brief introduction to malaria as the major health problem in Illinois and the Northwest in the 1840's, we can turn for further insight into the contemporary state of medical knowledge to Drake's discourse on Principal Diseases of the Interior Valley of North America, 1850. [15] In this comprehensive, landmark study which we cited earlier, Drake states that the common endemic fever of his day (which we now know as malaria) was variously called autumnal, bilious, intermittent, remittent, congestive, miasmatic, malarial, marsh, malignant, chill-fever, ague, fever and ague, dumb ague or , simply, "the Fever". The number of names for the disease reflects the confusion over its etiology and behavior. Drake prefers to call it "autumnal fever." [16]

Keeping in mind that it was still unknown in Drake's time that microorganisms were the cause of infectious diseases, we can appreciate his problem in trying to explain the origin of this troublesome fever. He calls attention to the following three possibilities. He first mentions the Meteoric Hypothesis whose advocates ascribed the disease to the combined action of a hot, humid and electrical atmosphere. They claimed that these conditions alone were sufficient to cause the fever, and they did not accept the idea that a "special agent" of some kind was involved in its induction or spread. Drake himself rejected the meteoric concept. [17]

He next discusses the Malarial Hypothesis which was based on the commonly held opinion that the agent responsible for the fever was a noxious gas (malaria in Italian) exuding from decaying organic matter such as found in swamps and other wetlands. In support of this view Drake points out that "heat, water, and dead vegetable and animal forms" have been shown always to be present wherever autumnal fever prevails. Yet, he cautions, "while the conditions under which autumnal fever appears are sufficiently clear to observation, the existence of a special gaseous agent, resulting from them, remains to be proved." [18]

Finally, Drake presents his own Vegeto-Animalcular Hypothesis, explaining that: [19]

> I have united two words to express an hypothesis which ascribes autumnal fever to living organic forms, too small to be seen with the naked eye; and which may belong either to the vegetable or animal kingdom, or partake of the characters of both…
>
> The microscope has revealed the existence of a countless variety of organic forms which surround and penetrate the bodies of larger animals and plants, whether living, or dead and decaying, inhabit all waters, salt and fresh, and swarm in the atmosphere; buoyed up and moving by their own organs, or sustained by their levity, and wafted about by currents of the air.… The power of reproduction of these microscopic creatures, is still more wonderful than their minuteness.…

Being aware that microscopists were then describing a variety of tiny life forms, Drake goes on to postulate that the fever results when these microscopic "animalcules" or vegetable "germs" are introduced through the lungs into the blood. There they act as a noxious agent on the solids of the blood and on the vast internal surface of the circulatory system to produce an irritability or inflammation manifested in the patient by the characteristic symptoms of the disease.

He concludes by saying: [20]

> I think that the etiological history of autumnal fever can be more successfully explained by the vegeto-animalcular hypothesis than the malarial. But both, in the present state of our knowledge, must stand as mere hypotheses. Neither can claim the rank of a theory; nor will it be entitled to the confidence of the profession until many additional facts are brought to its support.… Ignorant, however, as we are of any definite, efficient cause for autumnal fever, I am a full believer in its existence, and shall speak of it as a specific agent, known only by its effects on the living body.

Perspective on 19th Century Medicine

These speculations of Drake in 1850 regarding the cause of malaria, although very astute for his day, are evidence of the limited scope of medical knowledge only 150 years ago with respect to infectious disease, the major cause of illness and death worldwide. The 1850's were also the period when Elias Cooper practiced surgery in Peoria and planned his move to San Francisco where he inaugurated medical education on the Pacific Coast.

In retrospect, it is clear that Drake's work on malaria and Cooper's Peoria interlude coincided with a mid-century watershed in medical history. In so far as one can determine the chronology of such an occurrence, it was at about this time that medicine entered its Modern Era. European and American medicine were emerging from their preoccupation with baseless medical systems and useless traditional remedies. Theoretical doctrines were being subjected for the first time to scientific scrutiny. Conventional therapy such as blood-letting was being evaluated by objective clinical studies, often involving the correlation of bedside and autopsy findings, a process then diligently pursued in the large urban hospitals of Europe. Most importantly, there was an increasing flow of information and discoveries from the new basic sciences of microscopic anatomy, physiology, pathology and pharmacology. [21][22]

As a means of shedding further light on this momentous change, now recognized as the renaissance of medicine, we shall review that breakthrough which had the greatest significance for mankind - conception and verification of the germ theory - a subject to which we have already been introduced by Dr. Drake. How better to demonstrate the slow progress of medicine, and the humble state of medical knowledge in 1850, than to trace the evolution of the germ theory from Fracastorius in the 16th century to Pasteur, Lister and Koch at the end of the 19th, 300 years later? Certainly Cooper's contributions will be more fully understood and appreciated when viewed against the backdrop of historic medical events that had boundless implications not only for the public health, but also for medical education.

The vegeto-animalcular hypothesis was not original with Drake but evolved through a succession of observations beginning with those of Heironymus Fracastorius of Verona. Educated at Padua, he was a renaissance man of many talents, and was acclaimed as an astronomer, geographer, botanist, mathematician, philosopher, poet and physician. It is from his poem on Syphilis that the name of that disease is derived. In his greatest work on Contagion, dating from 1546

and before the invention of the microscope, he advanced the theory that many diseases are caused by transmissible, self-propagating entities called “germs”. He conceived of these “germs” not as living organisms but as chemical substances that could evaporate or diffuse in the atmosphere, and spread from person to person by direct contact, by fomites or by transmission at a distance. He postulated that each disease is specific and is caused by a specific “germ” that propagates itself in the tissues of the infected host, causing the disease by setting up chemical, putrefactive changes in those tissues. These and other features of Fracastorius’s theory of contagion are remarkably modern except for his idea that “germs” were chemical substances rather than living organisms. [23]

Athanasius Kirchir (1602-1680)

The invention of the microscope by Galileo in 1609 revealed a previously invisible world full of tiny objects which fascinated the scientists of the time. Athanasius Kirchir, a German-born Jesuit priest, had a primitive microscope with which he thought he found living organisms or “worms” not visible to the naked eye in fluid from the dead bodies of plague victims. Since his microscope could not possibly have visualized bacteria, the swarming microscopic animals (animalcules) which he described as “worms” were probably insect larvae or rouleaux of red blood-corpuscles. Nevertheless, it is significant that Kirchir went on to conclude (erroneously) in his treatise Scrutium Pestis of 1658 (On the Origin, Causes and Behavior of Plague) that plague was transmitted from person to person along lines already laid out by Fracastorius, but with the altered premise that the infecting agent was living effluvia rather than a chemical substance (It was not until the 1890’s that the plague bacillus was identified and its transmission by rat fleas demonstrated.) [24] In any case, Kirchir may be credited with the first really effective presentation of the theory that living organisms are the primary cause of infectious disease. There is, however, yet another major flaw in Kirchir’s concept of contagium animatum (living contagion). He believed that the living germs of disease were spontaneously generated in decomposing organic matter - a question not resolved until the theory of spontaneous generation was ultimately demolished by Pasteur late in the 1800’s. [25]

Francesco Redi (1620-1698)

The widely held concept of spontaneous generation was at least questioned but by no means seriously challenged by the experiments of the Italian Francesco Redi. Born at Arezzo, he graduated at Pisa in medicine and philosophy in 1647, and practiced with great success as a physician in Florence. He was also a poet, philologist and naturalist of note. His major contribution to science was Experiments on the Generation of Insects (1668) in which he reports that when flies are allowed to swarm on meat in a jar, maggots appear in the meat as if by spontaneous generation; whereas, when a gauze is placed over the mouth of the jar, forcing the attracted flies to swarm on the gauze, they lay eggs on the gauze and there the maggots form. Meanwhile the meat within the jar putrefies but produces no maggots. These and similar experiments led Redi to conclude that in all cases where living matter is apparently produced from dead matter, the real explanation is that seeds of the animals or plants generated in the dead matter have been introduced from the outside. The doctrine of biogenesis broached by Redi’s simple experiments began thereafter to gain some acceptance. Nevertheless, majority opinion for the next 200 years continued to favor the dogma of spontaneous generation of putrefaction and infection, thus bearing witness to the glacial pace of change in the scientific world prior to the mid 19th century. [26]

Antony van Leeuwenhoek (1632-1723)

It remained for Antony van Leeuwenhoek, a draper by trade in Delft, Holland, with superior microscopes of his own construction, to discover the entirely new world of bacteria, and provide for the first time an objective basis for the theory of a “living contagion”. This self-trained amateur microscopist, who created microscopes surpassing all those hitherto devised, regularly communicated his findings to the Royal Society of London. His Letter 18 (October 9, 1676) to the Royal Society is the classic document in which not only were protozoa described, but bacteria were also clearly seen and unmistakably identified as “incredibly small; nay, so small in my sight, that I judged that even if 100 of these very wee animals lay stretched out one against another, they could not reach to the length of a grain of coarse sand”. Although Leeuwenhoek himself did not associate these “wee animals” with the causation of disease, others began to do so, but only in theory. [27]

We can now see that both the concept of contagion by living organisms (the germ theory of disease), and a promising direction for basic research into that vital issue (by use of the microscope), had emerged by 1700. Nevertheless, proof of the germ theory was delayed for over 150 years until the microbial origin of infection was conclusively established by the work of Pasteur, Lister and Koch.

Meanwhile, during the long century and a half between Leeuwenhoek and Pasteur, physicians like Drake continued to search for an explanation of contagion and for a method to control it. Among these physicians were two whose contributions have earned them the distinction of being considered forerunners of Lister in their successful clinical approach to the prevention of an infection. They were Oliver Wendell Holmes of Boston and Ignaz Philip Semmelweis of Vienna. Their deductions about the contagiousness of puerperal fever brought them to the threshold of affirming its microbial origin - a threshold that Lister was later able to cross as a result of Pasteur’s discoveries.

Oliver Wendell Holmes

In 1834, at the age of 34, Oliver Wendell Holmes wrote a paper on The Contagiousness of Puerperal Fever in which he convincingly argued that the infection was often transmitted to the patient by her attendants. In addition he laid down sound procedures for preventing the spread of the contagion. In retrospect, his treatise stands as an historic landmark, not because of any original observations, but because of the clarity and forcefulness with which he addressed both the transmission and prevention of this devastating disease - a disease now known as “postpartum endometritis”, and so well controlled by asepsis and antibiotics as to be rarely life-threatening. In modern form it bear no resemblance to the fierce and consuming pelvic sepsis of the pre-Listerian era. Then it was usually an overwhelming infection, commonly sudden in its onset within a few days after delivery with chill, fever and prostration, and often as rapidly lethal. It occurred both sporadically and in epidemics, mortality reaching near 100 percent in small clusters of “malignant” infection, and up to more than 35 percent in some epidemics. As a threat to all young mothers it was the destroyer of families, and a most dreaded pestilence. [28]

Holmes’s interest in puerperal fever came about by chance. He graduated from Harvard Medical School in 1836 and served as Professor of Anatomy and Physiology at Dartmouth College from 1838 to 1840. He then returned to Boston where he went into general practice and became a member of the Boston Society for Medical Improvement. At one of the Society’s meetings a report was read that concerned a physician who did a post mortem examination on the body of a woman who had died of puerperal fever. The physician himself died of infection in less than a week, apparently in consequence of a wound received while doing the autopsy. During the interval between receiving the wound and dying from it, the physician delivered several women, all of whom developed puerperal fever.

Based on his conviction that the physician had transmitted the contagion of puerperal fever from the deceased woman to the women he delivered, Holmes stated the following general principle: [29]

> The disease, known as Puerperal Fever is so far contagious as to be frequently carried from patient to patient by physicians and nurses.

This concept was by no means new, as Holmes illustrated by citations from the medical literature, mainly British journals, which he reviewed thoroughly. He found numerous accounts of epidemics of puerperal fever, and many reports of multiple cases of puerperal sepsis occurring in the practice of a specific doctor, midwife or nurse. Frequently, the presumed carrier of the contagion had an immediately prior exposure to puerperal sepsis in another patient or at an autopsy, or to a patient with erysipelas or peritonitis. In addition to reviewing the literature, Holmes consulted older and more experienced practitioners in Massachusetts who informed him of similar outbreaks of puerperal fever in the practice of individual physicians in their areas.

As an example of the spread of puerperal fever by contagion, Holmes referred to a paper widely quoted in the medical literature of his day: “A Treatise on the Epidemic Puerperal Fever of Aberdeen” published in 1795 by Dr. Alexander Gordon who treated 77 cases of puerperal fever (with 28 deaths) in Aberdeen, Scotland, during the two year period from December 1789 to March 1792. Dr. Gordon wrote: [30]

> (T)his disease seized such women only as were visited, or delivered, by a practitioner, or taken care of by a nurse, who had previously attended patients affected with the disease. I had evident proofs of its infectious nature, and that the infection was as readily communicated as that of the small-pox or measles and operated more speedily than any other infection with which I am acquainted.
>
> I had evident proofs that every person who had been with a patient in the puerperal fever, became charged with an atmosphere of infection, which was communicated to every pregnant woman who happened to come within its sphere. This is not an assertion, but a fact, admitting of demonstrations, as may be seen by a perusal of the foregoing table (referring to a table in his paper of 77 cases in which the channel of propagation was evident).
>
> (He adds.) It is a disagreeable declaration for me to mention, that I myself was a means of carrying the infection to a great number of women. (He then enumerates a number of instances in which the disease was conveyed by midwives and others to neighboring villages, and declares that) these facts fully prove, that the cause of puerperal fever, of which I treat, was a specific contagion, or infection, altogether unconnected with a noxious constitution of the atmosphere. . . .
>
> (But his most terrible evidence is given in these words,) I arrived at that certainty in the matter, that I could venture to foretell what woman would be affected with the disease, upon hearing by what midwife they were to be delivered, or by what nurse they were to be attended, during their lying-in: and, almost in every instance, my prediction was verified.

In support of his thesis that puerperal fever is contagious Holmes also made reference to more than twenty other authors whose views conformed with his own and those of Dr. Gordon. [31] Among them was the distinguished James Blunder, Professor of Obstetrics and Lecturer on the Diseases of Women at Guy’s Hospital. The following excerpt from Blundell’s Lectures on Midwifery, as quoted by Holmes, reflects the lingering uncertainty in the 1840’s, even among some of the highest authorities, as to the contagiousness of puerperal fever: [32]

> Those who have never made the experiment, can have but a faint conception how difficult it is to obtain the exact truth respecting any occurrence in which feelings and interests are concerned. Omitting particulars, then, I content myself with remarking, generally, that from more than one district I have received accounts of the prevalence of puerperal fever in the practice of some individuals, while its occurrence in that of others, in the same neighborhood, was not observed. Some, as I have been told, have lost ten, twelve, or a greater number of patients, in scarcely broken succession; like their evil genius, the puerperal fever has seemed to stalk behind them wherever they went. Some have deemed it prudent to retire for a time from practice. In fine, that this fever may occur spontaneously, I admit; that its infectious nature may be plausibly disputed, I do not deny; but I add, considerately, that in my own family, I had rather that those I esteemed the most should be delivered, unaided, in a stable, by the manger-side, than that they should receive the best help, in the fairest apartment, but exposed to the vapors of this pitiless disease. Gossiping friends, wet nurses, monthly nurses, the practitioner himself, these are the channels by which, as I suspect, the infection is principally conveyed.

Blundell, in his textbook on The Principles and Practice of Obstetricy, has little more than this to say regarding the control of the spread of puerperal fever: “As to its prevention, I know of nothing certain.” [33]

Holmes, having gathered exhaustive and thoroughly convincing evidence of the contagiousness of puerperal fever, was doubtless gratified to find himself in agreement with the majority of contemporary British authors on the subject. Nevertheless, he learned

that some eminent obstetricians did not agree with his conclusion. For example, in the course of his research he discovered in the Quarterly Summary of the Transactions of the College of Physicians of Philadelphia for May, June and July of 1842 the report of an on-going epidemic of puerperal fever in Philadelphia in which there were egregious examples of cases traceable to single physicians. [34]

One of these Philadelphia physicians, a Dr. Rutter, had some 70 cases of puerperal fever with 15 deaths during a period of less than 12 months during 1842 - a number rivaling the 77 cases in two years in the Aberdeen epidemic reported by Dr. Gordon. Moreover, it immediately caught Holmes's eye that Dr. Charles D. Meigs, Professor of Obstetrics at Jefferson Medical College, had consulted on some of Dr. Rutter's patients. Professor Meigs was aware that Dr. Rutter had a far greater number of such cases than any other practitioner in Philadelphia, but considered this due to the fact that he had a large practice. [35] Holmes took special note of Meigs's viewpoint and made it plain in his paper that this was an outrageous conclusion to be reached by a professor of midwifery who, in the face of a raging epidemic of puerperal fever in Philadelphia, made no reference to the contagiousness of the disease, and attributed its grossly epidemic proportions in Dr. Rutter's private practice to coincidence. Meigs's failure to recognize the role of contagion in the epidemic is particularly surprising since he had recently (in 1842) edited a monograph on puerperal fever that included the treatises of Dr. Gordon and three other well known British obstetricians, all of whom commented on its communicable nature. [36]

In any event, Meigs refused to acknowledge the contagiousness of puerperal fever and took strong exception to Holmes's sharp criticism of his position on the matter. There followed an acrimonious exchange in which Meigs attacked Holmes in disparaging language to which Holmes replied: "I take no offense and attempt no retort. No man makes a quarrel with me over the counterpane that covers a mother, with her new-born infant at her breast! There is no epithet in the vocabulary of slight or sarcasm that can reach my personal sensibilities in such a controversy." [37] Holmes gave not an inch of ground in the dispute that continued for over a decade. The judgement of posterity has since been harsh on Professor Meigs who stated that "(I prefer) to attribute these cases (of puerperal fever) to accident, or Providence, of which I can form a conception, rather than to a contagion of which I cannot form any clear idea, at least as to this particular malady." [38] The 1842 edition of Meigs's widely acclaimed textbook entitled The Philadelphia Practice of Midwifery makes no mention of the contagiousness or the prevention of puerperal fever. It was as though the extensive and compelling contemporary literature on the subject did not exist. The mind of the Dean of American Obstetrics was completely closed. [39]

As was the mind of Hugh L. Hodge, Professor of Obstetrics at the University of Pennsylvania in Philadelphia, who also denied the contagiousness of puerperal fever and assured his students that they, as physicians, could never be the minister of evil to convey a horrible virus to their parturient patients. [40] Thus Holmes had the two most influential professors of obstetrics in America aligned against him.

Prevention of puerperal fever in the pre-microbial era was based on the assumption that an unknown contagion existed in the lying-in premises, or was carried to the childbed by an attendant of the mother. Holmes did not indulge in speculation (as did Drake) regarding the nature of the contagion, but assumed the physical presence of an unseen, transmissible agent. Years later, in 1894, Holmes said he was pleased to remember that "I took my ground on the existing evidence before a little army of microbes was marched up to support my position." [41]

As to preventive measures within lying-in hospitals, the British medical literature of the day called for strict cleanliness of bedding and wards, and good ventilation to combat epidemics. If these measures failed, the ward should be closed and the patients relocated. Outbreaks of puerperal fever were not unusual in lying-in wards and, on that account, some obstetricians were convinced that the loss of life from puerperal fever occasioned by lying-in institutions completely defeated the object of their founders. Although he does not prescribe a specific regime for the decontamination of hospitals, Holmes stresses the danger of spread of contagion within that environment. [42] Among others, he refers to the observations of Dr. Edward Rigby, Physician to the General Lying-in Hospital and Lecturer on midwifery at St. Bartholomew's Hospital in London: [43]

> That the discharges from a patient under puerperal fever are in the highest degree contagious, we have abundant evidence in the history of lying-in hospitals. The puerperal abscesses are also contagious, and may be communicated to healthy lying-in women by washing with the same sponge: this fact has been repeatedly proven at the Vienna Hospital; but they are equally communicable to women not pregnant; on more than one occasion the women engaged in washing the soiled bed linen of the General Lying-in Hospital have been attacked with abscesses in the fingers or hands, attended with rapidly spreading inflammation of the cellular tissue.

As to preventive measures applicable to personnel, many authors recommended procedures to be observed by accoucheurs and other attendants in order to avoid spreading the contagion. The following are examples of such recommendations.

In 1795 Alexander Gordon, MD, Obstetrician at Aberdeen, Scotland, suggested: [44]

> With respect to the most effectual means of preventing infection from being communicated, I must speak with great uncertainty, because in this matter I have not experience for my guide… That fresh air and cleanliness are insufficient for the destruction of contagion, and that there is no certain antidote but fire and smoke, has been demonstrated … .(Therefore), the patient's apparel and bedclothes ought either to be burnt or thoroughly purified, and the nurses and physicians who have attended patients affected with puerperal fever ought carefully to wash themselves, and to get their apparel properly fumigated before it be put on again.

In 1817 William Hey, Esq., Surgeon of the General Infirmary at Leeds, England, wrote: [45]

> It was my custom … to use such precautions in my attendance on patients, as to render it impossible for me to convey infection to them; and those who would take the same trouble might practice safely, were the disease as infectious as Dr. Gordon represents it to be. It was an invariable rule with me never to attend a patient in childbed in any article of clothing which had been in the presence of one affected with the puerperal fever; nor without washing repeatedly such parts of my person as could have been exposed to infection. This trouble I took for the satisfaction of my own mind, and the safety of my patients, though not convinced it was necessary. But in so important a matter I wished for perfect security under any supposition.

In about 1814 John Armstrong, MD, Obstetrician at Sunderland, England, had this brief comment: [46]

> When puerperal fever is epidemical, the accoucheur should make it a point of duty to have the apartments of women who he is engaged to attend properly cleaned and ventilated before confinement; to prevent nurses and other persons who have been with those affected, from waiting upon or going near any patient about to be delivered; to pay the utmost scrupulous regard to the cleanliness of his own person, using daily ablutions of the whole body, and frequent changes of linen and dress.

In 1833 Robert Lee, MD, Obstetrician at the British Lying-in Hospital in London, proposed: [47]

> These facts (affirming the contagiousness of puerperal fever) point out the necessity of adopting every precaution to prevent the extension of the disease, by careful and repeated ablution, and changing of clothes after attending patients who are affected with it. They show, also, whether they be conclusive or not as to the communicability of the affection from person to person, that we ought not to expose ourselves beyond what is necessary in examining the bodies of those who have been cut off by the complaint. When post mortem examinations are required, they should be conducted by those who are not engaged in the practice of midwifery. We certainly owe it as a duty to our patients to act as if the contagion always existed.

In 1841 Dr. Rigby of St. Bartholomew's in London issued an emphatic warning: [48]

> The contagiousness of puerperal fever has long since ceased to be a matter of doubt, and instances have repeatedly occurred of practitioners and nurses communicating the disease to several patients in succession. Dr. Gooch has recorded some striking instances of the kind, and we could enumerate many others if necessary. Where a practitioner has been engaged in the post mortem examination of a case of puerperal fever, we do not hesitate to declare it highly unsafe for him to attend a case of labour for some days afterwards. The peculiar smelling effluvia which arises from the body of a patient during life is quite, in our opinion, sufficient to infect the clothes; and every one who has made a minute dissection of the abdominal viscera, especially in fatal cases of puerperal fever, knows full well that it is almost impossible to remove the smell from the hands for many hours, even with the aid of repeated washing; it must be, therefore, self-evident, that, under such circumstances, it would be almost criminal to expose a lying-in patient to such risk.

Now consider, in relation to all of the above, the following protocol framed by Holmes: [49]

> A physician holding himself in readiness to attend cases of midwifery, should never take any active part in the post-mortem examination of cases of puerperal fever.
>
> If a physician is present at such autopsies, he should use thorough ablution, change every article of dress, and allow twenty-four hours or more to elapse before attending to any case of midwifery. It may be well to extend the same caution to cases of simple peritonitis.
>
> Similar precautions should be taken after the autopsy or surgical treatment of cases of erysipelas, if the physician is obliged to unite such offices with his obstetrical duties, which is in the highest degree inexpedient.
>
> On the occurrence of a single case of puerperal fever in his practice, the physician is bound to consider the next female he attends in labor, unless some weeks, at least, have elapsed, as in danger of being infected by him, and it is his duty to take every precaution to diminish her risk of disease and death.
>
> If within a short period two cases of puerperal fever happen close to each other, in the practice of the same physician, the disease not existing or prevailing in the neighborhood, he would do wisely to relinquish his obstetrical practice for at least one month, and endeavor to free himself by every available means from any noxious influence he may carry about with him.
>
> The occurrence of three or more closely connected cases, in the practice of one individual, no others existing in the neighborhood, and no other sufficient cause being alleged for the coincidence, is prima facie evidence that he is the vehicle of contagion.
>
> It is the duty of the physician to take every precaution that the disease shall not be introduced by nurses or other assistants, by making proper inquiries concerning them; and giving timely warning of every suspected source of danger.
>
> Whatever indulgence may be granted to those who have heretofore been the ignorant causes of so much misery, the time has come when the existence of a private pestilence in the sphere of a single physician should be looked upon not as a misfortune but a crime, and in the knowledge of such occurrences, the duties of the practitioner to his profession, should give way to his paramount obligations to society.

Holmes concluded his paper with these eight unambiguous rules of conduct for the accoucheur. Compared to guidelines in the existing literature, examples of which were cited above, Holmes's precepts were comprehensive, explicit and uncompromising. They were the most definitive standard yet published on the prevention of a fearsome and seemingly capricious disease. Respect for his protocol's eight enduring principles, ignored for decades by prisoners of false doctrines such as the Philadelphia professors, saved countless lives around the world.

There are other reasons for the historic significance of Holmes's essay. As we have seen, during the previous 50 years numerous epidemics of puerperal fever had been studied and reported by a new generation of British physicians. They had abandoned traditional medical dogma for a scientific approach involving correlation of clinical course with post mortem features. It was at this juncture that Holmes fortuitously became interested in the problem. Without burdensome preconceptions, he reviewed the available reports and recognized that they provided incontrovertible evidence of the contagiousness of puerperal fever. More importantly, he convincingly traced the contagion's common mode of epidemic spread to the physicians and others who attended the patient.

By this time the concept of a transmissible "contagion" of some kind as the agency of infection in puerperal fever had gained some but by no means general acceptance. There was still much equivocation and denial in high places, and widespread ignorance among practicing physicians of the risk of contagion. To Holmes's New England conscience, there was lacking in the medical community at large a proper sense of outrage and urgency over the propagation of a preventable calamity, and it was inexcusable.

Far from avoiding the implications of this conclusion, Holmes analyzed existing evidence and, in a persuasive treatise that for cogency and eloquence is at once both a medical and a literary classic, he defined the obligations of all who attend at childbirth. It has been rightly observed that Holmes was not an obstetrician nor had he done independent research on his subject, but he was the first to give unmistakably clear and credible voice to the emerging consensus that puerperal fever was contagious, a specific infection often conveyed by doctors and nurses. His achievement was to create a synthesis of existing observations and ideas from which he evoked a momentous conclusion - no longer could there be any question of the contagiousness of this terrible affliction, or of the human agency in its dissemination. For this historic contribution Holmes deserves to be honored as an illustrious pathfinder in world medicine.

Unfortunately, circumstances prevented the early and wide distribution of Holmes's paper that its importance merited. The paper was originally an essay read before the Boston Society for Medical Improvement. At the request of the Society, the essay was printed as a paper in the New England Quarterly Journal of Medicine and Surgery for April 1843. As this journal never had a large circulation and was discontinued after one year, the paper was not brought fully to the attention of physicians or the public. That it was not entirely unnoticed is shown by favorable reference to it in 1852 in the highly regarded Dictionary of Practical Medicine by James Copland, MD, Consulting Physician to Queen Charlotte's Lying-in Hospital in London. In affirming his belief in the infectiousness of puerperal fever, Dr. Copland pointed out that "Dr. Holmes has forcibly and eloquently brought this much neglected subject before the profession." But Copland also reminded his readers that the contagiousness of puerperal fever was still denied by such established authorities as Hulme, Leake, Hull, Beaudeloque, Tonnellé, Dugé, Dewees and others. [50]

In 1855, twelve years after its original appearance in the New England Quarterly, Holmes reprinted his essay ,"without the change of a word or syllable", as a private publication under the title of Puerperal Fever, as a Private Pestilence. He was led to do so by his disappointment over its limited distribution originally, and by his conviction as to the continuing importance of warning refractory members of the profession of the contagiousness of puerperal fever. On a more personal level he was offended by the disparaging remarks of Dr. Meigs, and appalled by the pompous denial by the Philadelphia professors of the infectious nature of this terrible disease, a truth that the "commonest exercise of reason" should reveal. Holmes prefaced the reprint with a masterful Introduction in which he aired all these issues, deflated the pretensions of the professors, and warned medical students of the sophistry in their arguments. [51]

By the time his essay was reprinted in 1855, Holmes had joined the Harvard medical faculty as Parkman Professor of Anatomy and Physiology, a post that he held for 35 years from 1847 to 1885 (the chair of Physiology was separated in 1871), after which he continued for 12 more years (1882-1894) as Emeritus Professor. He was Dean of the Medical School from 1847 to 1853. [52] After his appointment to the Parkman professorship, Holmes gradually withdrew from the practice of medicine, but he is warmly remembered as a legendary teacher of Anatomy. His engaging style and captivating wit made him, it is said, the only professor who could keep the students awake during a 1 p.m. lecture. As the years passed, his literary affinities increasingly claimed his interest, and he became better known as a conversationalist and author than as a physician. His graceful pen earned him a respected place as poet (Chambered Nautilus) and essayist (Autocrat of the Breakfast Table) among such contemporary writers of the New England Renaissance as Emerson, Hawthorne, Longfellow and Whittier. [53][54][55]

Nevertheless, Holmes will also be well remembered by distant posterity for his Thesis of 1843 on puerperal fever and the passion with which he defended it against all sceptics and against the entrenched error of "the teachings of two Professors in the great schools of Philadelphia." [56]

> If I am wrong (he wrote), let me be put down by such rebuke as no rash declaimer has received since there has been a public opinion in the medical profession of America; if I am right, let doctrines which lead to professional homicide be no longer taught from the chairs of those two great Institutions. Indifference will not do here; our Journalists and Committees have no right to take up their pages with minute anatomy and tediously detailed cases, while it is a question whether or not the "black-death" of child-bed is to be scattered broadcast by the agency of the mother's friend and adviser. Let the men who mould opinions look to it; if there is any voluntary blindness, any interested oversight, any culpable negligence, even, in such a matter, and the fact shall reach the public ear; the pestilence-carrier of the lying-in chamber must look to God for pardon, for man will never forgive him.

Never had the rites of motherhood been so ably defended.

Ignaz Philipp Semmelweis (1818 - 1865)

When in 1855 Oliver Wendell Holmes published the reprint of his 1843 article on puerperal fever, he provided not only an Introduction but also a supplement entitled Additional References and Cases. In this supplement he briefly reviewed journal articles and other works printed since 1843 which further documented the contagiousness of puerperal fever. Among these publications were two reports on the research in Vienna of a Dr. Semmelweis whose "doctrine" of the cause and control of epidemic puerperal fever was highly commended by the authors of the reports. Reference to these reports in his supplement was a recognition by Holmes that Semmelweis's observations, of which he was learning for the first time, were possibly of great significance - as indeed they proved to be. [57][58]

Semmelweis, of German ancestry and Hungarian birth, studied medicine at the University of Vienna where in 1844, at the age of 25 he received the degree of Doctor of Medicine. Later in the same year he qualified for the degree of Master of Midwifery, and from that time forward devoted the remainder of his life to the science and practice of Obstetrics. Upon receiving his Master's degree he at once applied for the position of Assistant in the Lying-in Division of the huge Vienna General Hospital (Das allgemeine Krankenhaus), and was eventually appointed to that post.

The General Hospital's Lying-in Division was the largest of its kind in the world. It was also one of the most deadly due to prevalence among its postpartum patients of what was known as "the endemic puerperal fever of Vienna." [59] James Simpson, eminent British obstetrician and father of chloroform anesthesia, pronounced this censure of the situation in Vienna. He said "he knew in what a lamentable condition midwifery in Germany, and especially Vienna, still remained; he knew for certain that the cause for the high mortality lay only in the unbounded carelessness with which patients were treated." Incidentally, the great Simpson completely rejected Semmelweis's discoveries. [60]

The sensitive and deeply humanitarian Semmelweis was appalled by the death rate from puerperal fever in the Lying-in Division, and search for the cause and control of this pitiless disease became his life's work. For a laboratory he had the First and Second Obstetrical Clinics, each averaging about 3000 deliveries per year. When he tabulated the deliveries and deaths by month and year in each of the Clinics for the six-year period from 1841 to 1846, he found that First Clinic, where medical students were trained, had a death rate from puerperal fever of 9.9%; whereas, the death rate in Second Clinic where midwives did the deliveries was 3.3% - only one-third that of First Clinic. It would be too chilling to list the grotesque explanations offered by the medical "authorities" and a government commission in Vienna to account for the evil reputation of First Clinic where patients were in mortal fear to go because they believed that a doctor's interference was always the precursor of death. [61] Johann Klein, the reactionary Professor of Obstetrics who presided over the upsurge of puerperal fever which Semmelweis found so disturbing, ridiculed the theory that the disease was contagious. [62]

These circumstances were especially troubling to Semmelweis for he himself had been in charge of the First Clinic since February of 1846, and the high death rate persisted in spite of all his efforts. He had studied the problem from every angle in the wards. He also frequented the pathology department where he participated in the post mortem examinations of the many victims, becoming increasingly mindful of the nauseous fetor that clung to his hands and clothes long after an autopsy. There is no indication that Semmelweis, at this stage of his career, accepted the concept of contagion as defined by Holmes of whom he was not aware until years later. Yet by 1847 there was no one in Vienna with greater knowledge of endemic childbed fever than Semmelweis, and his mind was prepared to grasp the solution to the mystery of its cause when chance provided the clue - as it soon did in the sad loss of a dear friend, Dr. Kolletschka, who died of infection.

By a singular coincidence, a physician's death from overwhelming sepsis following a simple puncture wound received while performing an autopsy created circumstances that led both Holmes and Semmelweis to their independent conceptions of the cause of epidemic puerperal fever. From time immemorial, pyemia had stalked the deadhouses as a dreaded foe of all anatomists, pathologists, surgeons and others who dissected. It was well known that a swiftly fatal infection might follow even the slightest prick of a knife or needle during anatomical dissection, autopsy, or an operation such as amputation of a gangrenous limb. Holmes in 1843 and Semmelweis four years later in 1847 both recognized the similarities between this accidentally acquired infection and puerperal fever. It was the genius of Semmelweis to derive from this observation a new principle of prophylaxis and, by experiment, to demonstrate its validity.

Jakob Kolletschka, a 43 year-old Professor of Forensic Medicine, was a former teacher and friend whom Semmelweis held in the highest esteem. Kolletschka's death early in 1847 from a scalpel wound, incurred during an autopsy, had a profound effect upon Semmelweis who assuaged his anguish by studying in detail the reports of his friend's fatal illness and autopsy. These records disclosed that after a puncture wound in his finger from the knife of one of his pupils, Kolletschka developed lymphangitis and phlebitis in the same upper extremity. From there the infection spread. He developed pleurisy, pericarditis, peritonitis, and meningitis; and a few days before his death an abscess occurred in one of his eyes. This generalized dissemination of infection was exactly the same that Semmelweis had seen at autopsy in women who died of puerperal fever. A new thought was forced upon his mind with irresistible clarity - the disease from which Kolletschka died was identical with that from which he had seen so many hundred puerperae die. [63]

Semmelweis designated the causative agent as "cadaveric particles" that enter the circulation after being introduced by the knife in the case of pathologist's pyemia. In puerperal fever, the particles are introduced into women in labor by students and others who do vaginal examination with hands contaminated by such particles during autopsy or anatomical dissections, or during examination of patients with puerperal fever or other infections. Contaminated instruments and bedclothes might also transfer the causative agent. He also observed: [64]

> Owing to a filthy discharge from an ulcer of the leg in one of the patients, several women who were confined at the same time were infected. Thus, therefore, the conveyance of a foul exudation from a living organism may be one cause which produces the puerperal

process.

By this conjecture Semmelweis is thought by some to have foreshadowed the germ theory by proposing that, while puerperal fever is in most cases a cadaveric infection, it is sometimes traceable to other sources, i. e., to a "living organism." [65]

Now the explanation for the higher mortality from puerperal fever in First Clinic became obvious to Semmelweis - medical students and doctors carried cadaveric particles to the patients on hands contaminated at post mortem dissections. In Second Clinic the midwives, who did no dissections, were not thus contaminated. [66]

Since students and others could not be banned from work in the pathology and anatomy laboratories, it was necessary to establish a procedure for the decontamination of their hands. (It was not until 1890 that rubber gloves were introduced by Halsted of Johns Hopkins to protect the hands of his surgical team from irritating antiseptics.) Semmelweis associated cadaveric particles with the foul clinging odor of the autopsy and dissecting rooms, and knew that soap and water would not dispel it. However, he found a solution of chlorinated lime to be effective and therefore chose it as the decontaminant. The system of prophylaxis introduced into the regular obstetric practice of First Clinic in May 1847 was simple. Placards with the following directions were posted conspicuously in the wards: [67]

> All students or doctors who enter the wards for the purpose of making an examination must wash their hands thoroughly in a solution of chlorinated lime which will be placed in convenient basins near the entrance of the wards. This disinfection is considered sufficient for this visit. Between examinations the hands must be washed in soap and water.

The experiment was successful. Within a few months, the mortality rate in First Clinic was no greater than in Second Clinic, and remained so as long as Semmelweis's directions were strictly followed. In 1848, the first full year in which the chlorine-washing was carried out assiduously, 45 out of 3556 puerperae died of puerperal fever in the First Clinic for a mortality of 1.27 %. In the Second Clinic, during the same period, 43 died out of 3219 delivered, or 1.34%. [68] These results were a clear validation of the concept and method of prophylaxis which became known as the Semmelweis "doctrine."

Far from bringing him preferment in the University, Semmelweis's discovery divided the faculty. Professor Klein, head of obstetrics, was adamantly opposed to the Semmelweis doctrine and squelched a proposal by Skoda, Professor of Chest Diseases, for a commission to evaluate its effectiveness. Believing it better to prevent contamination than to remove it, Semmelweis petitioned the authorities for a regulation preventing students occupied in the Lying-in Hospital from engaging in any dissection whatsoever. Here again, Professor Klein barred the way. [69]

When Semmelweis's Assistantship expired in March 1849, Klein refused to renew it. Semmelweis appealed, precipitating a faculty feud between Klein and Skoda from which Klein emerged the victor, and Semmelweis the loser. Frustrated and demeaned by the rejection, he departed abruptly for Budapest in 1850 without expressing his gratitude to Skoda and others who had supported his doctrine and his quest for a position in Vienna. Semmelweis's erratic and inconsiderate behavior was never forgotten.

Soon after his arrival in Budapest, Semmelweis was made head of the obstetrical service at the St. Rochus Hospital in Pest. There he conducted a six-year clinical trial (1850-1856) of his doctrine and achieved a mortality rate of 0.85% on a maternity service where puerperal fever had previously raged. In 1855 his academic aspirations were at last gratified by his appointment as Professor of Midwifery at the University of Pest. He took over an obstetrical service in shambles and, during the first full year of his tenure, reduced the death rate from puerperal fever to 0.39 %, an unheard of record on the continent. [70] Now full of confidence in his doctrine, he spent the remainder of his career zealously promoting it. [71]

Unfortunately, Semmelweis did not personally author a single publication about his work until 1861. His findings were first announced to the profession at large in December 1847, not by himself, but by his good friend Ferdinand von Hebra, editor of the Journal of the Royal Imperial Society of Physicians in Vienna, who wanted to encourage him and gain recognition for him in spite of Professor Klein. The article, written by v. Hebra, was entitled "Experience of the highest importance concerning the etiology of epidemic puerperal fever at the Lying-in Hospital." [72][73][74]

Other of Semmelweis's friends and supporters also wrote articles and tried to win adherents to his doctrine, but with indifferent success. It was two of these articles that came to Holmes's attention and were referred to by him in the 1855 reprint of his 1843 article. Finally, in 1861, Semmelweis published his magnum opus of 543 pages entitled The Etiology, Concept, and Prophylaxis of Puerperal Fever. This monograph was an exhaustive account of his studies, experience and evolving conception of puerperal fever. The Etiology documented his life's work and contained a vigorous defense of his doctrine that for the previous 14 years had been mired in controversy and counterclaims that deterred its general acceptance. In fact, to his great distress, his doctrine had been ignored or dismissed as unsound by many of the leaders in the field of obstetrics. [75][76][77]

Rebuffs to his struggle for wider application of his doctrine were disturbing to Semmelweis. He particularly resented attacks by the self-serving forces of the authoritarian medical establishment, and he lashed out against them. His doctrine was opposed by powerful members of the academic hierarchy such as Professors Busch of Berlin; Hamernik of Prague; Hecker of Munich; Kiwisch of Würzburg, Lumpe of Vienna; Rosshirt of Erlangen; Scanzoni of Würzburg (formerly of Vienna); and others. Mortality from puerperal fever on the services of some of these Professors of Midwifery ranged as high as a barbarous 26% (under Kiwisch at Würzburg). [78] The damning evidence that they were themselves the remorseless messengers of death was a scarcely veiled threat to their pride and eminence. Semmelweis was unsparing in his condemnation of those who denied his doctrine in spite of the high mortality rates in their own institutions. This from his open letter to Professor Scanzoni of Würzburg who, while professor at Vienna, had disparaged Semmelweis's earliest work: [79]

> Your teaching (that the Würzburg epidemic of childbed fever is caused by unknown atmospheric influences or puerperal miasma is false), and is based on the dead bodies of lying-in women slaughtered through ignorance… I have formed the unshakable resolution to put an end to this murderous work as far as lies in my power so to do… (If you continue teaching your students this false doctrine), I denounce you before God and the world as a murderer, and the History of Puerperal Fever will not do you an injustice when, for the service of having been the first to oppose my life-saving Lehre, it perpetuates your name as a medical Nero.

At last, although acceptance of his principles was gaining ground, the long years of controversy and intense preoccupation with defense of his doctrine affected Semmelweis's mind. Because of increasingly eccentric behavior, he was admitted to a sanatorium for mental disorders. There an infected wound on his finger, received during a gynecological operation, was discovered. Defying all efforts at control, the infection progressed to gangrene followed by extensive sepsis, leading to his death in 1865 at the age of 47. By a tragic irony Semmelweis died from the same manifestations of pyemia as his friend, Kolletschka, whose death provided the clue to the prevention of puerperal fever.

The importance of Semmelweis as a forerunner of Pasteur and Lister is in his doctrine of puerperal fever as a bloodstream infection (septicemia) caused by a specific transferable agent, and preventable by destroying the agent with an antiseptic (20 years before Lister published a description of his antiseptic principle). No one before Semmelweis had articulated a concept of the etiology and prophylaxis of this disease so consistent with all the facts as later determined. His demonstration by controlled experiment that the incidence of puerperal fever could be significantly reduced by an antiseptic method ranks Semmelweis among the foremost medical scientists of his day. The ultimate price of a broken spirit that he paid for his devotion to the spread of his life-saving doctrine ordains him as a martyr to Medicine. [80]

The relative merits of the contributions of Holmes and Semmelweis have often been debated. Holmes, man of letters and one of the most perceptive medical thinkers in early American medicine, analyzed the experience and views of British contagionists. From these abundant data, refined by his own judgement and colored by his indignation and sense of urgency, Holmes fashioned a powerful and convincing brief in defense of women in childbirth. That puerperal fever was contagious was not the question. The extensive and horrifying evidence was undeniable. At issue was the incredible, monstrous failure of the medical profession to recognize a "momentous fact, which is no longer to be considered for trivial discussions, but to be acted upon with silent promptitude." [81] Holmes concluded his thoroughly documented treatise with a warning that those who fail to heed its conclusions must answer at the bar of judgement for their crime; and he promulgated the most comprehensive and effective set of principles yet published to prevent the spread of the contagion of puerperal fever. Holmes made an eloquent appeal to the common sense and conscience of the profession. As such, his message was the most trenchant, timely and persuasive of its kind in the medical literature, and remains so to the present day. It unquestionably saved thousands of lives. Herein lies its merit. The life's work of Semmelweis - humanitarian, experienced clinician, dedicated scientist - is of another category and order of magnitude, and should not be compared to the treatise of Holmes. As the exponent of the most advanced concept of infection up to his time, and harbinger of the antiseptic method, Semmelweis simply has no peer.

It was not until after 1867 that Lister's antiseptic method, having proven its value in the prevention of infection in surgery, was applied with success in maternity hospitals, obstetricians in general having finally acknowledged the contagiousness of puerperal fever. According to Dr. Emile Roux, one of Pasteur's assistants, the actual cause of the disease was not revealed until 11 March 1879. On that day Pasteur was attending the Academy of Medicine in Paris and the subject of puerperal fever came under discussion: [82][83]

> One of (Pasteur's) most weighty colleagues was eloquently enlarging upon the causes of epidemics in lying-in hospitals; Pasteur interrupted him from his place. "None of these things cause the epidemic; it is the nursing and medical staff who carry the microbe from an infected woman to a healthy one." And as the orator replied that he feared that the microbe would never be found, Pasteur went to the blackboard and drew a diagram of the chain-like organism (the streptococcus), saying: "There, that is what it is like!". His conviction was so deep that he could not help expressing it forcibly. It would be impossible now to picture the state of surprise and stupefaction into which he would send the students and doctors in hospitals, when, with an assurance and simplicity almost disconcerting in a man who was entering a lying-in ward for the first time, he criticized the appliances, and declared that all the linen should be put into a sterilizing stove.

Thus ended the agonizing search for the cause and prevention of puerperal fever. Vive Pasteur!

In keeping with our purpose, this account of the contributions of Holmes and Semmelweis to the control of puerperal fever will serve as a reminder of the state of the art in their time. It will also call attention to the striking contrast between the slowness with which medical advances were accepted in the mid 1800's and the readiness with which new concepts and technologies are adopted in the present day.

Cooper's Antiseptic Use of Alcohol

Much has been made of the fact that Dr. Elias Cooper was using alcohol in the management of surgical wounds as early as 1850 when Semmelweis was completing his clinical trials of chlorinated lime as an antiseptic.

In a journal article in 1929 Professor Emmet Rixford of Stanford expressed the opinion that: [84]

> Much of Cooper's operative success was due to his free use of alcohol on instruments and hands and parts to be operated on and for the irrigation of his wounds, although he was inclined to account for the fact that his wounds did better in California than in Illinois by the difference in climate, or rather that the combination of climate

> and alcohol had a most remarkably favorable influence in the healing of wounds.

In an article published the previous year, Professor Rixford stated that Cooper "washed his wounds with 25 percent alcohol." [85]

No source is cited for these statements and it is assumed that Rixford received the information about Cooper's surgical use of alcohol from Levi Cooper Lane. The inference of Rixford's comments is that Cooper independently conceived and practiced a primitive form of antisepsis.

Perhaps he did, but we can find only such statements from Cooper himself as the following: [86]

> (The wound) was dressed in accordance with my universal plan in these cases, viz: by filling it with lint wet with evaporating solution, composed of one part alcohol and ten of water.

In another article Cooper indicates that the use of an "evaporating lotion" for wound care is not original with him He says that a lotion composed of one part of alcohol to ten of water is "much better for our climate than that used in London, composed of one of alcohol to five of water." [87]

As far as we can determine, we have from Cooper's own hand reference to the use of alcohol only as an ingredient of an "evaporating lotion." As for its rationale we have the implication that he thought use of the lotion would help to control inflammation.

Actually, Cooper had a most sensible approach to wound healing in the pre-antiseptic era. He insisted on adequate incisions for the drainage of infection, including septic joints, with wounds packed open for free drainage until suppuration subsided and clean granulation was established. He had sound surgical instincts. We can surmise that he would have been prompt to accept and apply Listerian principles could he have lived to the day of their dawning.

Medical Care and Public Health 1800-1850

Treatment of Puerperal Fever

Before leaving the subject of puerperal fever we should further broaden our view of the practice of medicine in America by considering, as an example, the manner in which this devastating disease was being treated during the first half of the 19th century. We have already taken note of the controversies aroused by the views of Holmes and Semmelweis regarding its cause and prevention. With respect to its treatment, however, there appears to have been general agreement. No voice of authority seriously questioned either the benefit or the harm to the patient of the commonly employed regime of blood-letting, purging, mercury and opium. This in spite of the fact that there was no scientific evidence of the effectiveness of any of these remedies.

Blood-letting

Blood-letting as a treatment for many diseases, but especially fevers, dates from antiquity. It was common practice among Greek physicians of the fourth century B.C. some of whom habitually applied it to almost every condition. Blood-letting continued in use as a therapy in the West throughout the Christian era and still had many adherents until near the end of the 19th century. Blood was withdrawn from the general circulation by venesection (phlebotomy), and from local tissues by leeches. [88]

Venesection

In the mid 1800's prompt and copious blood-letting by venesection was the first and most important treatment in puerperal fever, and was sanctioned by virtually all European and American authors on midwifery. This procedure was perpetuated by the groundless theory that fevers were associated with a harmful accumulation or congestion of blood in the affected part. According to this theory an excess of blood was driven to the inflamed area by an overactive circulatory system and was highly detrimental.

In 1840 Professor Blundell of Guy's Hospital in London, an international authority on obstetrics, recommended repeated venesections in puerperal fever to remove 1200 to 1500 ml. of blood, on the average, and insisted that it should be removed within the first 24 hours for optimum effect. He stated that as much as 1800 ml. or more had sometimes been removed in anomalous cases "with apparent benefit." By way of caution, he advised against bleeding if the patient had already begun to "collapse." [89]

In 1842 Professor Meigs of Philadelphia graphically described what he believed to be the compelling reason for urgent venesection in puerperal fever: [90]

> Nothing but the abstraction of blood can have an immediate and potent influence on the circulation, and reduce the momentum of the blood to such a degree of moderation, as may consist with a resolution of the inflammation. Nothing short of these venesections can diminish the force of the blows which the irritated, I might say, the infuriated ventricle strikes upon the columns of blood which it is driving like so many riving wedges into the (pelvic) tissues, to disorganize, to tear them to pieces, and overwhelm them with the torrent of circulation that it urges upon them, while their power to resist succumbs to every successive blow…
>
> Dr. Gordon (of Aberdeen, Scotland) tells us, that it is not merely bleeding the patient that will save her. She must be bled copiously - so copiously as to give to the disease a definitive check. He tells us that where the woman is bled timidly, no available impression is made, that the disease advances and soon becomes indomitable. Twenty-five or thirty ounces (750-900 ml.) drawn from the arm, early in the attack, rarely fails to make so powerful an impression on the disorder, that the juvantia, such as calomel, opium, etc., hardly fail to effect the remainder of the cure.
>
> All the experience I have had in regard to the course and treatment of this malady, leads me to concur fully with the instructions of Dr. Gordon on the subject…

To illustrate Professor Meigs's actual practice with respect to venesection, we can quote his comment on one of his own patients: [91]

> This young woman (a 20 year-old primipara who developed puerperal fever on her fourth postpartum day) had a healthy and strong constitution. In her case I took away, between 11 and 6 o'clock on the first day of the attack, 52 ounces (1500 ml) of blood, without which, I think, she must have died. (I relate this case from my notebook) as a fair specimen of the mode of practice, in such attacks, which I have for years been in the habit of pursuing.

As Professor of Obstetrics at Jefferson Medical College, one of the largest and most prestigious American medical schools at the time, the influence of Dr. Meigs on the management of complications of pregnancy was enormous. As a brilliant and dramatic lecturer to hundreds of medical students, as well as a prolific writer, his denial of contagion in puerperal fever and his sanction of copious blood-letting in its therapy carried great authority, and resulted in corresponding ill effects on the practice of midwifery and the well-being of patients.

Leeches

Blood-letting by leeches was recommended by many experts on puerperal fever as an optional adjunct to venesection. According to Professor Wood of the University of Pennsylvania, whose Treatise on the Practice of Medicine was published in 1847 and contained a section on puerperal fever and peritonitis, leeches should be placed on the abdomen immediately after venesection. For example, after one or two large bleedings, from 50 to 150 American leeches should be applied at once in the areas of greatest pain and tenderness, the procedure to be repeated if indicated by persisting symptoms. Professor Meigs had these words of approval for the practice: "While I profess in the strongest terms to confide in the lancet as the first and chief remedy, I would not pretermit any mention of leeches, which, as a secondary and subservient prescription, will be found of the greatest utility in the management of the cases." [92][93]

Leeches are efficient and painless blood-letters and capable of removing many ounces of blood because they inject an anticoagulant into the tissues where they bite. The application of leeches to the abdominal wall was based on the notion that their proximity to the inflamed pelvis would enable them to "decongest" that region more directly of its excess blood. Leeches had several disadvantages. They were loathsome to the patient and on rare occasion their bites could be lethal by continuing to bleed after removal of the leeches, resulting in exsanguination of the patient. There were reports of patients who, being left unattended for a period of much-needed rest after removal of leeches and application of an abdominal poultice, were later found dead in bed, lying in a pool of blood.

We shall return to the subject of "leeching" when we discuss the various "medical systems" in vogue during the early 1800's.

Mercury and Purging

Immediately following the first venesection, the second or medicinal phase of treatment of puerperal fever was begun This phase consisted of giving drugs that presumably led to the further "depletion" of the congested circulatory system. [94]

Calomel (mercurous chloride), a mild laxative, was considered the most important drug in puerperal fever and other inflammatory disorders. It was started after the first venesection and continued in serious cases to the point of toxicity as indicated by salivation. It was thought, erroneously, that mercury had a specific anti-inflammatory effect and that salivation was a sign of depletion.

Purging (by such cathartics as castor oil, sulfate of magnesia, and infusion of senna) was, like calomel, begun early in order to assure complete evacuation and thorough decongestion of the gastrointestinal tract.

Emetics once had a great, but fortunately evanescent, reputation as a treatment for puerperal fever, ipecacuanha being the drug of choice for inducing vomiting. The most distinguished advocate of this agent was Doulcet of France who In 1782 observed that puerperal fever often commenced with vomiting: [95]

> He viewed this as an indication of nature, and he assisted her efforts by giving 15 grains of ipecacuanha, which he repeated the next day. The patient recovered. This unexpected success led him to try it on all of the rest of his patients (during an epidemic of puerperal fever) and 200 were saved, while six, who refused to take the emetic, died… The previous devastation of the malady, and the consequent despondency in the practitioners of France, caused the news of Doulcet's success to be hailed with enthusiasm throughout the kingdom. The government compensated the discoverer largely. The Faculty of Medicine drew up minute instructions for this mode of treatment, and distributed them gratuitously over the whole of France. On the following year the malady was once more epidemic, and the remedy of Doulcet resorted to in full and earnest faith, but this time quite unsuccessful.

Other medicaments including antimony, arsenic and oil of turpentine were tried as therapy but fortunately never came into common use.

Opium, mercifully, was administered freely for analgesia and sedation and represented the only element of the entire therapeutic regimen with a positively beneficial effect when properly administered. [96]

Treatment of Autumnal Fever (Malaria)

In the mid 1800's it was assumed that both puerperal fever and autumnal fever, and many other "inflammatory" conditions as well, were associated with an overstimulated and aroused circulatory system as described by Professor Meigs. Theoretically, this hyperdynamic and congested state could be mitigated by "depletion" of the circulation through a combination of blood-letting, purging and mercury - a so-called antiphlogistic (anti-inflammatory) regime. Accordingly, we find that Drake's therapy for autumnal fever consisted of venesection, purging and calomel, with one noteworthy addition: the sulfate of quinine. [97]

Quinine is an alkaloid isolated from the bark of a species of the cinchona tree, native to Peru. As early as 1600 the Jesuits in Peru knew of the bark's curative effect on intermittent fever but it was not until the mid 1600's that its remedial properties were "certified" by the Pope's physician in Rome where malaria was rampant and where, by 1650, the Peruvian bark had become a popular remedy. Nevertheless,

because effectiveness of the bark in malaria was considerably obscured by its indiscriminate use for all fevers, there was resistance to its use by the generality of physicians who remained committed to bleeding and purging. Thus, for the next 150 years, and until isolation of the bark's active principle, quinine sulfate, by French chemists in 1820 made it available in this more usable form, quinine was slow to gain wide acceptance by the medical profession. Finally, by 1850 quinine was in general use as a remedy for the syndrome we now know as malaria. The specificity of quinine's effect exclusively on malaria made it possible to begin the objective differentiation of malaria from other fevers. Although the emerging recognition of quinine as a specific for malaria tended to undermine the antiphlogistic regime, Drake could not bring himself to abandon the old order. He insisted that bleeding, purging and mercury were essential "preparation" of the patient before administration of quinine sulfate. [98][99]

It is relevant to our evaluation of Drake's vegeto-animalcular hypothesis of the cause of malaria to point out that the elusive plasmodia of the malarial parasite were not found in the blood of malarial patients until 1880. The discovery was made by Alphonse Laveran (1845-1922), a French military medical officer working in a military hospital in Constantine, Algeria. He suspected that the parasite was probably transmitted by a mosquito, but could not prove it. [100] Sir Ronald Ross (1857-1932), a British army surgeon working in India, identified plasmodia in the stomach wall of Anopheles mosquitoes which had fed on the blood of malarial patients (1897). He also found that sporozoites of the parasite were concentrated in the mosquito's salivary gland. He concluded that they were injected from there into the blood stream of the human host. For this work, which led to effective methods to control mosquitoes and prevent malaria, he was awarded the Nobel Prize in 1902. [101] By this time clearing of land, drainage of swamps and improved housing had resulted in the control of mosquitoes and the end of malaria as the scourge of the Northwest.

In retrospect, Drake's hypothesis regarding the etiology of malaria was about as close to the mark as was reached until Pasteur and Koch demonstrated the microbial origin of infectious disease; laid to rest the theories of their atmospheric, constitutional or spontaneous origin; and set off an intensive search for specific agents of infection.

As we have seen, malaria was the commonest infectious disease in the Northwest. It was so widely prevalent and unavoidable that it was tolerated stoically by those who could not move to more healthful locations away from the low or "bottom" lands where it was known to be an almost universal complaint. Although malaria was the major cause of recurrent illness and was not infrequently lethal, especially among the very young, it is important to keep in mind that the principal causes of death in the region in the 1850's were a host of other infectious diseases: infant diarrhea; exanthemata in childhood, particularly scarlet fever; diphtheria; pulmonary tuberculosis; lobar pneumonia; typhoid fever; and bacillary dysentery. These nineteenth century destroyers, now well controlled in developed countries, were then a dreaded menace to every family.

To these endemic afflictions were added the periodic visitations of Asiatic Cholera, the most feared of all diseases in the 19th century. This pestilence followed trade routes across the Atlantic and invaded North America for the first time in June 1832. It was carried from Europe to Quebec and Montreal by Irish immigrants fleeing the cholera epidemic in Ireland. Between June 9 and September 2 there were 2127 deaths from cholera in Quebec City. Between June 10 and July 14 there were 1220 deaths from cholera in Montreal. It appeared within the next few months in the New York, Philadelphia, Maryland, Virginia, Kentucky and the Ohio Valley.

By July 1832 the epidemic had already crossed the Great Lakes from Canada into Northern Illinois where the Black Hawk War was in progress. On July 2 General Winfield Scott was dispatched from Buffalo with troops aboard two lake vessels to put down the Indian uprising. General Scott never engaged Black Hawk who was defeated before his arrival in Northern Illinois. Instead, the General encountered cholera which broke out aboard the vessels, disorganizing his expedition and costing the lives of 500 men. [102]

The plague returned to Northern Illinois in 1866 and attacked Chicago where there were 1581 cases of cholera in that year with 970 deaths, including that of Professor Daniel Brainard of Rush Medical College. Brainard died within less than 24 hours from the onset of the disease. Because of its rapid progress and high mortality rate, cholera struck terror wherever it appeared. It was well-known in some cases to begin in the morning with mild gastrointestinal symptoms and copious watery diarrhea and terminate with dehydration, collapse and death by nightfall. Crowded, unwashed populations living amidst filth and pollution with fecally contaminated water and food supplies were seen to be more susceptible to cholera and typhoid than those living under opposite conditions. This observation, even though the nature of the contagion was unknown, stimulated the inception during the first half of the 19th century of the modern public health movement known as "The Great Sanitary Awakening," devoted to sanitary reform throughout the world. [103][104][105]

Finally, as a rough measure of social and medical progress over the past century and a half we see that the death rate in the nation is now half that in the mid 1800's and life expectancy is twice as long: [106][107]

	Deaths per 1000 Population	Life Expectancy at Birth
Massachusetts	19 (1860) [108]	39 Years (1850)
All USA	9 (1990)	75 Years (1990)

Medical Systems

Medical therapies during the first three quarters of the 19th century, and throughout previous medical history as well, were based on one or another theory of the pathophysiology of disease. In the absence of observations based on scientific principles, these theoretical "systems" sought to account for the signs and symptoms of illness and to devise "logical" treatments to counteract them. Whether a treatment was in fact effective was not objectively evaluated. If patients recovered after receiving a treatment, the favorable response was attributed to the treatment - post hoc ergo propter hoc. As a result, the drugs and medical procedures prescribed were, with the exception of a few specifics, either useless or harmful, a circumstance obscured since prehistoric times by the healing power of nature - vis medicatrix naturae. In an address in 1860 to the Massachusetts Medical Society, Oliver Wendell Holmes reviewed the state of the Art and called on his colleagues to forego obnoxious treatments: [109]

> On the whole, more harm than good is done by medication. Throw out opium, which the Creator himself seems to prescribe, for we often see the scarlet poppy growing in the cornfields, as if it were foreseen that wherever there is hunger to be fed there must also be pain to be soothed; throw out a few specifics which our art did not discover, and is hardly needed to apply; throw out wine, which is a food, and the vapors which produce the miracle of anaesthesia, and I firmly believe that if the whole materia medica, as now used, could be sunk to the bottom of the sea, it would be all the better for mankind - and all the worse for the fishes.

Several of the medical systems in vogue early in the 1800s will be cited as examples of the genre. Professor Wood's recommendation on leeches in puerperal fever calls attention to their use as definitive therapy in the medical system of the Prince of Leeching, François Joseph Victor Broussais (1772-1838). This colorful veteran of the Napoleonic campaigns was chiefly responsible for founding the famous Paris Clinical School. His style was vigorous and dictatorial. Even his civilian medical practice was conducted with military-like discipline. His dogmatic approach was temporarily persuasive and for a time he was the leading medical figure in Paris. The basis for his immense popularity was, in addition to his dynamic personality, the medical system he conceived and zealously propagated. The Broussais Doctrine, which gained a wide but short-lived prominence on the continent and in America, was merely one in a countless succession of theoretical systems proposed during the prescientific era to explain the manifestations of disease. The importance of systems lay in their determining influence, in the absence of basic facts, on the diagnosis and treatment of medical disorders. Groundless in a scientific sense, some systems were nevertheless remarkably durable as illustrated by the humoral doctrine which regarded the body as composed of four liquids or "humors": blood, phlegm, yellow bile and black bile. This often-refined doctrine survived in modified versions from Hippocrates in the fifth century B.C., through Galen in the second century A.D., and until Rudolf Virchow (1821-1902)) finally dealt a death blow to its surviving remnants with publication of his work on Cellular Pathology in 1858. [110][111]

After 1700 the validity of medical systems was increasingly challenged by the basic and clinical research of investigators who were in the vanguard of modern biomedical science. However, the still-limited scope of scientific information permitted systematists to continue filling the void well into the 19th century with theories such as the Broussais Doctrine. This Doctrine was a modification of the Brunonian theory, derived by John Brown (1735-1788) from the medical system of his teacher, William Cullen (1710-1790) of Edinburgh. Cullen's system assumed that the body is maintained in a normal state of health by "nervous energy". The nervous system, which is the source of this energy, reacts adversely to certain external stimuli and disease is the result. Cullen regarded almost every disease as a manifestation of nervous reaction.

The Brunonian theory claimed that the essential quality of living tissue is "excitability" and that life itself is non-existent except as the resultant of external and internal stimuli. If these exciting forces are withdrawn, death ensues. Health is defined as a moderate state of excitability resulting from a proper balance of stimuli. Disease is caused by an increase or decrease of excitability and falls into two main groups: "sthenic" diseases (asthenia) are associated with increased and "asthenic" diseases (asthenia) with decreased excitability. Treatment is simple - sedatives (e.g., opium) for sthenia and stimulants (e.g., alcohol) for asthenia. This mode of therapy soon gained many passionate adherents, and as many bitter opponents. Advocates and enemies of Brown's system tended to be noisy and combative. In 1802 a two-day riot between Brunonian and non-Brunonian medical students broke out at the University of Göttingen and had finally to be put down by a troop of cavalry.

As for the controversial Brown himself, his favorite remedies and personal adjuvants were, as might be expected, opium and alcohol. Of his lectures, which attracted many students, it is said:

> His voice was in general hoarse and almost croaking… Before he began his lecture, he would take 40 or 50 drops of laudanum in a glass of whisky; repeating the dose four or five times during the lecture. Between the effects of these stimulants and voluntary exertion, he soon waxed warm, and by degrees his imagination was exalted into phrenzy.

Hopelessly addicted to drink and narcotic, his downward path led, by way of a term in debtors' prison, to death one night in his 53rd year after taking a very large dose of laudanum. [112][113][114]

Broussais simplified matters by claiming that individual diseases do not exist. For the Brunonian concept of stimulation as the agency of disease, he substituted inflammation. Based on clinical experience and extensive post mortem dissections he concluded that most diseases are merely the physiological expression of inflammation, usually localized in the gastrointestinal tract. For example, fevers in general are a symptom of gastroenteritis. He denied the Hippocratic doctrine of the healing power of nature and therefore thought it necessary to abort disease aggressively by active measures. His standard treatment (the rationale for which is incomprehensible in the present day) was to combat the underlying inflammation by antiphlogistic or weakening measures consisting of a very limited diet plus blood-letting by application of leeches all over the patient's body. From 10 to 50 leeches would be applied at a time. In the year 1833 alone, when Broussais was at the height of his fame, over 40 million leeches were imported into France. Yet eight years earlier, two or three million met all demands. [115][116]

It was also in 1833 that Oliver Wendell Holmes arrived in Paris for two and a half years of study. The first lectures he attended at the Ecole de Médecine were those of Professor Broussais about whom he wrote: [117][118]

> Broussais was in those days like an old volcano, which has pretty nearly used up its fire and brimstone, but is still boiling and bubbling in its interior, and now and then sends up a spurt of lava

> and volley of pebbles. His theories of gastroenteritis, of irritation and inflammation as the cause of disease, and the practice which sprang from them ran over the fields of medicine for a time like flame over the grass of the prairies.

The authority and popularity of Broussais were just then being eroded by younger members of the faculty who set about exposing the absurdity of his doctrine and the dangerous consequences of treatment by starvation and leeching which reduced some patients to a deplorable state. [119] Among this new generation of clinicians in Paris was Rene Theophile Hyacinthe Laennec (1781-1826), expert pathologist and the most distinguished internist of his day. He is best remembered as inventor of the stethoscope in 1819, and author of classic treatises on auscultation and percussion. He had a low regard for his colleague, Broussais, to whom he referred in sarcastic terms.

However, it was Laennec's pupil, Pierre Charles Alexandre Louis (1787-1872), founder of medical statistics, who undermined Broussais's arbitrary system in 1835 when he published a memoir entitled Investigations on the Effects of Blood-letting in Some Inflammatory Disorders. [120] Here for the first time the effectiveness of the age-old practice of venesection was submitted to scientific evaluation. Louis's research consisted of a retrospective study of the response to blood-letting in two series of cases, one of pneumonia and the other of erysipelas of the face. He tabulated and analyzed the data according to his new "Numerical Method" which he described in detail. [121] By simple arithmetical calculations he compared the carefully observed outcome in untreated patients with similar patients who received treatment. The results showed that blood-letting was not of value in these cases. In the process, he demonstrated the need for rigorous evaluation of the theories and conventional wisdom of clinical medicine. Louis's Numerical Method served to establish the cardinal principle that "the edifice of medicine reposes entirely upon facts, and that truth cannot be elicited but from those which have been well and completely observed". [122] Medical systems could not withstand such a test and Louis's method of statistical analysis of objective data was now used to discredit them. By mid century systems were being labeled "quackery" and vigorously attacked by the enlightened elements of the profession. [123]

During the second quarter of the 19th century the hospitals and medical schools of Paris were the preferred destination of American students seeking advanced training abroad. Many future leaders in American medicine were inspired by the progressive spirit of French medicine. Louis, particularly, was respected for his devotion to science and his personal interest in American students, many of whom strengthened the faculties of American schools when they returned home. Holmes, for one, greatly admired Louis and after a few months' attendance at his rounds and lectures reported that "I have learned at least three principles since I have been in Paris; not to take authority when I can have facts; not to guess when I can know; not to think a man must take physic because he is sick." [124] In 1908 Osler recalled the contribution of the European schools to the development of American medicine and the changes that occurred in their appeal to American students: [125]

> During the nineteenth century three schools in succession have molded the thoughts and opinions of the medical profession in this country. In the early period English ways and methods prevailed, and (as in the colonial days) the students who crossed the Atlantic for further study went to Edinburgh or to London. Then came a time between 1825 and 1860 when American students went chiefly to Paris, and the profession of the country was strongly swayed by the teaching of the French school. Since 1860 the influence of German medicine has been all-powerful, but of late American students are beginning to learn that their "Wanderjahre" should be truly such, and that when possible they should round their studies in France and England.

Discovery of Anesthesia

Ether

The discovery of the anesthetic property of ether was one of the most significant medical contributions in the first half of the 19th century. Ether anesthesia was first publicly demonstrated at the Massachusetts General Hospital in Boston on 16 October 1846. William T. G. Morton (1819-1869), a dentist, administered ether vapor (whose properties he had investigated), while Professor John Collins Warren (1778-1866), Harvard surgeon, painlessly ligated a cavernous hemangioma in the left side of the neck of Gilbert Abbott, age 20. Upon successful completion of the operation on the anesthetized patient, Dr. Warren turned to those present and said: "Gentlemen, this is no humbug." [126]

Dr. Warren published a report of the operation in the Boston Medical and Surgical Journal on 9 December 1846. The endorsement of ether by the highly respected Warren and his surgical colleagues at the MGH led to its immediate acceptance as an anesthetic agent on both sides of the Atlantic. Within a few months medical journals were filled with reports of operations performed under ether anesthesia. [127]

At the time of the demonstration at the MGH, Dr. Oliver Wendell Holmes was in medical practice in Boston. About a month after the operation he wrote to Dr. Morton with a suggestion on terminology: [128]

> On 21 November 1856
>
> My dear Sir:
>
> Everybody wants to have a hand in a great discovery. All I will do is to give you a hint or two as to names, or name, to be applied to the state produced, and to the agent.
>
> The state should, I think, be called anaesthesia. This signifies insensibility, more particularly (as used by Linnaeus and Cullen) to objects of touch. The adjective will be anaesthetic. Thus we might say the "state of anaesthesia," or the "anaesthetic state.". .
>
> I would have a name pretty soon, and consult some accomplished scholar, such as President Everett, or Dr. Bigelow, Sr., before fixing upon the terms which will be repeated by the tongues of every civilized race of mankind. You could mention these words which I suggest, for their consideration; but there may be other more appropriate and agreeable.
>
> Yours respectfully,
>
> O. W. Holmes

There is no evidence that other advice was sought and the words suggested by Dr. Holmes were readily accepted by the profession and the public. In due course the spelling was simplified to "anesthesia" and anesthetic.

Chloroform

James Young Simpson (1811-1870), Professor of Obstetrics at Edinburgh, first used ether for delivery in January 1847 but, being dissatisfied with its unpleasant odor and tendency to irritate the bronchi, set about looking for a more agreeable anesthetic. At the suggestion of David Waldie, a chemist at Liverpool, he and his assistants tested chloroform by inhaling it themselves in November 1847. Finding it highly effective and bland, they immediately began using it to provide analgesia in childbirth. Later that month he reported his experience to the Medico-Surgical Society of Edinburgh and then proceeded to wage a campaign on behalf of the use of chloroform analgesia to relieve the pangs of childbirth. [129] The Scottish Calvinist clergy objected on the basis of God's malediction to mothers in Genesis iii, 16 that "in sorrow shalt thou bring forth children; and thy desire shall be to thy husband, and he shall rule over thee," which he countered with the revelation in Genesis ii, 21 that God was the first anesthetist when he "caused a deep sleep to fall upon Adam, and he slept: and he took one of his ribs, and closed up the flesh instead thereof." When Simpson delivered Queen Victoria of her eighth child with the benefit of chloroform in 1853, the ecclesiastics were silenced and he was knighted, to be known thereafter as Sir James Young Simpson, Bart. [130][131]

In a letter to Professor Meigs at Jefferson Medical College in January 1848, Simpson, eager to encourage the use of chloroform in America, informed him that: [132]

> In Great Britain and on the Continent of Europe, chloroform has everywhere entirely, or nearly entirely superseded the use of sulphuric ether, as an anaesthetic agent… In Midwifery, most or all of my brethren in Edinburgh employ it constantly. The ladies themselves, insist on not being doomed to suffer, when suffering is so totally unnecessary.

To which Meigs with his usual self-assurance replied in February:

> And here allow me to say, I have been accustomed to look upon the sensation of pain in labor as a physiological relative of the power of force; and not-withstanding I have seen so many women in the throes of labor, I have always regarded a labor-pain as a most desirable, salutary, and conservative manifestation of life-force.

Once again, as he did with respect to contagion and blood-letting in puerperal fever, Professor Meigs came down on the wrong side of a significant medical issue of his day. He continued to be markedly antagonistic to the use of either chloroform or ether in childbirth and late in the 1840's arranged to demonstrate the danger of anesthesia to his students at Jefferson Medical College. S. Weir Mitchell (1829-1914), later to become the leading American neurologist, was a member of the class and made this note in his diary: [133]

> (My father, Professor John K. Mitchell of the Jefferson faculty, was the first in Philadelphia to use ether in childbed.) Professor Meigs violently opposed it and one day undertook to show its peril to a class of three hundred or more at Jefferson Medical School. A big billy goat was brought into the arena, which was called the bull-ring, and Ellerslie Wallace, Dr. M's assistant, gave the ether. At last, Professor Meigs announced the demise of Billy, and the corpse was taken out and left in a small room at the half-way landing of the main stairway. The lecture over, we were noisily descending to the chemical lecture when Wallace opened the door of Billy's room. Out came Billy, very drunk, charged between Wallace's long legs into a mass of delighted students, and Billy and students went downstairs in one wild confusion. My father was never weary of inquiring of his colleague after his patient's health.

According to Professor Hodge of the University of Pennsylvania, Meigs continued 15 years later to protest against anesthesia in labor and predicted that, in the course of a few years, it would be banished from practice, except in a few extraordinary cases. [134]

Here we conclude our survey of the status of medicine and medical care from 1800-1850. We shall look ahead now to the three immortals of science whose contributions during the next half-century most clearly mark the transition to the modern era.

Louis Pasteur (1822-1895)

The Germ Theory

In 1854 Pasteur, then 32 years of age, was appointed Professor of Chemistry and Dean of the newly organized Faculté des Sciences in the city of Lille, the richest center of industrial activity in the north of France. When extolling the marvelous discoveries of modern science in his opening speech to the students on 7 December, the young Dean reminded them that "chance only favours the mind which is prepared." [135] These words, that have echoed ever since through the halls of academe, are a key to Pasteur's own achievements. His experiments were always carefully planned and decisive, but it was his genius to make serendipitous observations of historic significance while solving practical problems - such as the problem brought to him by a certain Monsieur Bigo, the father of one of his students.

In the summer of 1856 M. Bigo came to consult Pasteur concerning the difficulty he was having with the alcoholic fermentation of beet sugar in his distillery. Something was going wrong with the process and the alcohol was turning sour. Pasteur was at first hesitant to undertake a project outside his school. Fortunately for posterity he decided to go to Mr. Bigo's distillery and have a look at his vats. He found that, part of the time and for no apparent reason, the alcoholic fermentation process for which yeast was the ferment began to produce lactic acid, an acid usually obtained from sour milk. Pasteur decided that there were in fact two kinds of fermentation, each independent of the other, going on in M. Bigo's vats: alcoholic fermentation due to yeast and lactic acid fermentation due to the lactic acid bacillus. When

the alcoholic fermentation turned sour it was due to the production of lactic acid by a contaminant, the lactic acid bacillus. Pasteur discovered and isolated the bacillus, and believed that the air was the source of the contamination.

Hitherto, fermentation had been described in all the textbooks as a chemical process, but Pasteur had now shown it to be caused, in the case of lactic acid fermentation, by a living organism. Skeptical also of the chemical theory of alcoholic fermentation, he went on to disprove the theory by demonstrating that yeast is the living agent of the process. He reported his findings in a "Mémoire sur la fermentation appelée lactique" (Memoir on the fermentation of lactic acid) in 1857, and a "Mémoire sur la fermentation alcoholique" (Memoir on the fermentation of alcohol) in 1860. Pasteur's experiments proved conclusively that fermentation is caused by microorganisms. In so doing, he provided a biological explanation for a phenomenon generally accepted as a chemical reaction. Furthermore, he established that specific microorganisms are responsible for specific biological processes and, by inference, that specific germs may be the agents of specific diseases. While Pasteur thus laid the foundation for the germ theory of disease, validation of the theory awaited the test of clinical application soon to be undertaken by the British surgeon, Joseph Lister. [136]

Doctrine of Spontaneous Generation

Pasteur knew that his concept of biological activity by microorganisms was incompatible with the doctrine of spontaneous generation that still had many adherents. In his day the belief persisted that microscopic life forms could be spontaneously generated in putrefying organic material. According to this theory, the microorganisms associated with fermentation were the product and not the cause of the process.

The ancient and hardy doctrine of spontaneous generation, rooted in the speculations of the Greek philosopher Aristotle of the fourth century B.C., was strongly supported by Félix Archimède Pouchet (1800-1872), Director of the Museum of Natural History in Rouen, a French city northeast of Paris. In a paper read before the Paris Academy of Sciences in 1858 he claimed to be able to produce spontaneous generation at will in a sterile culture medium. Pasteur, unerring in his sense that this stubborn doctrine required the coup de grace as only he could administer it, was unwilling to let Pouchet's claim go unchallenged. Therefore, he began an extensive series of meticulous experiments in 1859, the year of Darwin's publication of the Origin of Species - and the year that saw the opening of the first medical school on the Pacific Coast by Elias Cooper. Pasteur's experiments took him from the crowded streets of Paris to the Alps, gathering samples of air in glass flasks containing sterile culture medium. There was rigorous attention to every detail. Flasks opened in the Paris streets grew organisms abundantly, those opened in the high mountains remained sterile with rare exception. To his own satisfaction, and that of the l'Académie des Sciences, Pasteur demonstrated that microorganisms appeared in flasks of sterile culture medium only when contaminated by exposure to contaminated air from the outside, and never by "spontaneous generation." In 1861 he summarized his findings in the essay Sur les corpuscules organisés qui existent dans l'atmosphère. Examen de la doctrine des générations spontanées. (On the organized bodies which exist in the air. Examination of the doctrine of spontaneous generation.) [137][138]

Pasteur considered the matter closed. Nevertheless, the dispute dragged on and we can detect his exasperation in the tone of his lecture at the Sorbonne in 1864 when he outlined the history of the controversy and concluded by saying: [139]

> Gentlemen, I could point to that liquid (in the flask of sterile culture medium on the table before him) and say to you, I have taken my drop of water from the immensity of creation, and I have taken it full of the elements appropriated to the development of inferior beings. And I wait, I watch, I question it, begging it to recommence for me the beautiful spectacle of the first creation. But it is dumb, dumb since these experiments were begun several years ago; it is dumb because I have kept it from the only thing man cannot produce, from the germs which float in the air, from Life, for Life is a germ and a germ is Life. Never will the doctrine of spontaneous generation recover from the mortal blow of this simple experiment.
>
> No, there is now no circumstance known in which it can be affirmed that microscopic beings came into the world without germs, without parents similar to themselves. Those who affirm it have been duped by illusions, by ill-conducted experiments, spoilt by errors that they either did not perceive or did not know how to avoid.

Meanwhile, Pouchet continued to generate life in his "sterile" cultures. As a result, doubts of Pasteur's thesis lingered until 1876. By this time Pasteur and his associate, C. Chamberland, had discovered that some bacteria have a resting spore stage during which they are resistant to the temperatures then used in sterilizing experimental cultures. They showed that, in the experiments of Pouchet, the presence of resistant spores in their hay infusion cultures accounted for the subsequent growth. By heating these cultures to 115-120 degrees centigrade, Chamberland destroyed the spores and sterility could be universally maintained in the infusions so treated. The age-old doctrine of spontaneous generation was finally demolished.

Pasteur's seminal contributions are by no means limited to germ theory and spontaneous generation. His other memorable works include the following and many more: identification of the microorganisms responsible for contamination of wine (1863) and for diseases of silkworms (1865); identification of the bacteria causing gas gangrene (Clostridium septicum), furunculosis (Staphylococcus) and puerperal fever (Streptococcus). He showed that the spoiling of wine by living microorganisms could be prevented by heating for about 30 minutes at 68 degrees C. (154.4 degrees F.), a process now known as pasteurization and widely used in the preservation of milk and other liquids. His last and one of his greatest works was on rabies and vaccination for the prevention of rabies and other conditions. These investigations led to the discovery of the principles of acquired immunity and practical methods of producing it by artificial means. [140]

Joseph Lister (1827-1912)

The British surgeon, Joseph Lister, was the first to demonstrate the medical significance of Pasteur's work on fermentation and spontaneous generation. Pasteur demonstrated by his experiments that living germs are widely distributed in the air and are the agency of fermentation and putrefaction. When Lister read Pasteur's papers in the early 1860's, he concluded that the inflammation, "laudable pus" and "putrid intoxication" which commonly followed open wounds, was caused by microbes from the air and surrounding surfaces.

Lister was well suited for the task of evaluating this new conception of the origin of wound infection, the dreaded nemesis of surgeons. He was born at Upton in the county of Essex of Quaker parents who engendered in him the creed of devotion to the good of mankind, with kindness and consideration for others. [141] His father, a wine merchant, devoted his leisure to optics and made important contributions to modern microscopy through improvements in achromatic lenses. Exposure to microscopy under his father's tutelage was an early preparation for the important research in microbiology he conducted in later life. The young Lister graduated in Medicine at the University of London in 1852, and in 1854 went up to Edinburgh to study surgery with the distinguished James Syme, whose daughter he married. In 1860, on Syme's recommendation, Lister competed successfully for the chair of surgery at Glasgow, a post he held until 1869. He then returned to Edinburgh where he succeeded Syme and remained until, in 1877, he accepted the position of Professor of Clinical Surgery at King's College, London. There he stayed until his retirement, replete with honors, in 1892. [142] In 1897, Lord Lister became the first medical man to be elevated to the peerage. [143]

It was during his tenure as Professor of Surgery at Glasgow from 1860 to 1869 that Lister developed and put to trial the principles of "antiseptic surgery" based on the theory that wound infection could be prevented by destroying with an antiseptic the bacteria in the air, on the skin and other surfaces, and in the wound. After evaluation of various bactericidal agents he chose carbolic acid as most effective for this purpose, including its use as a spray before each operation to kill the microbes in the air. (In 1890 he discontinued the spray, having concluded that it was not an essential.) [144] The initial procedures devised by Lister were cumbersome and the carbolic acid was irritating to the patient's skin and wound and to medical personnel. He gradually succeeded in minimizing these drawbacks by diluting the carbolic acid and experimenting with various types of antiseptic dressing. By 1865 he was prepared to treat patients, beginning with such cases as compound fractures and chronic (tubercular) abscesses, then moving on to amputations. [145]

Two years later Lister's first paper on the antiseptic method, published in the Lancet in early 1867, dealt with trials of the method in patients with compound fractures, and included a preliminary report on its prevention of secondary infection when draining tubercular abscesses. [146] The results fulfilled his "most sanguine anticipations." In reality, the results could not have been more striking, for the patients suffered neither from inflammation and abscess in the wound nor from general sepsis, complications expected to occur frequently in such cases. In the introductory section of the paper, he graciously acknowledged his debt to Pasteur: [147]

> Turning now to the question how the atmosphere produces decomposition of organic substances, we find that a flood of light has been thrown upon this most important subject by the philosophic researches of M. Pasteur, who has demonstrated by thoroughly convincing evidence that it is not to its oxygen or to any of its gaseous constituents that the air owes this property, but to the minute particles suspended in it, which are the germs of various low forms of life, long since revealed by the microscope, and regarded as merely accidental concomitants of putrescence, but now shown by Pasteur to be its essential cause, resolving the complex organic compounds into substances of simpler chemical constitution, just as the yeast-plant converts sugar into alcohol and carbonic acid.

His second paper on the antiseptic method appeared in both the British Medical Journal and the Lancet for 21 September 1867. In this article, entitled "On the Antiseptic Principle in the Practice of Surgery", he discussed the rationale for and technical details of the method, and concluded with the following description of its "salubrious" effect on the hospital environment. [148][149]

> There is, however, one point more that I cannot but advert to, viz., the influence of this mode of treatment upon the general healthiness of an hospital.... (S)ince the antiseptic treatment has been brought into full operation, and wounds and abscesses no longer poison the atmosphere with putrid exhalations, my wards, though in other respects under precisely the same circumstances as before, have completely changed their character; so that during the last nine months not a single instance of pyemia, hospital gangrene or erysipelas has occurred in them.
>
> As there appears to be no doubt regarding the cause of this change, the importance of the fact can hardly be exaggerated.

It was thus, with characteristic understatement, that Lister ushered in a new era in the prevention and control of surgical infection - and, by inference, indicted microorganisms as agents of other types of infection.

Lister's first paper on the antiseptic method referred to above reported a series of 10 patients with compound fractures who fared much better under the antiseptic treatment than might have been expected under the usual care. However, more than such "anecdotal" information was needed to convince the sceptics among his surgical colleagues, of whom there were many. By 1870 Lister, who left Glasgow in 1869 to become Professor of Surgery at Edinburgh, had marshaled the evidence his thesis needed for its wider acceptance. In a paper in the Lancet "On the Effects of the Antiseptic System of Treatment upon the Salubrity of a Surgical Hospital", he analyzed the outcome of amputations at Glasgow Infirmary before and after adoption of the antiseptic system. In 1864 and 1866, before adoption of the system, there were 35 amputations with 16 deaths for a mortality rate of 46%. in 1867, '68 and '69, after adoption of the system, there were 40 amputations with 6 deaths for a mortality rate of 15 %. [150] This was a spectacular improvement in the mortality rate from amputation over that reported from leading British hospitals at the time. [151]

For over a decade many leading British surgeons failed to recognize the merit of the antiseptic system, and much acrimonious criticism was

directed at Lister and his method. When he visited the United States in 1876 to deliver an address at the International Medical Congress in Philadelphia, he was not received with any enthusiasm. The Americans were slow to accept Listerism, and as late as the meeting of the American Surgical Association in 1882, the Lancet reported that "Anti-Listerians were in the majority; … they relied for support upon the statements of others… . Surely it is too late in the day (for them) to contest the truth of the germ theory." [152] Levi Cooper Lane, who began his surgical career prior to Listerism, never fully accommodated to the restrictions imposed by the antiseptic and aseptic methods and gave as the reason: "You can't teach an old dog new tricks." [153]

However, in Britain and on the continent, the antiseptic method had by 1879 been widely applied, and Lister's findings amply confirmed. In that year Lister attended the International Congress of Medical Science at Amsterdam where his reception was far different from that he received from the Americans. When he rose to deliver his address, he was greeted by an overwhelming ovation that only abated when the President of the Congress came forward to take his hand and say: [154]

> Professor Lister, it is not only our admiration which we offer to you; it is our gratitude, and that of the nations to which we belong.

Lister's work was the first convincing application of the germ theory to the control of human disease, and as such it spurred great progress in surgery and other fields. "There is no instance in the history of surgery, and indeed few in the history of science, in which a deduction has been so completely verified when put to the test." [155]

It soon became apparent that it would be more efficient to prevent wound contamination by sterilizing in advance all the drapes, dressings, gowns and instruments coming into contact with the operative field - thus creating an "aseptic" environment for the wound. This became feasible when Ernst von Bergmann (1836-1907), Professor of Surgery at Berlin, introduced steam sterilization in 1886 and inaugurated the present "aseptic" method in 1891. The procedures of aseptic surgery have now evolved over the past century to an elaborate standardized routine, including face masks, rubber gloves and laminar air flow; and, instead of carbolic acid, employing a broad spectrum of less noxious bactericidal antiseptics. The current regime, a combination of aseptic and antiseptic technology, is highly effective in barring live microorganisms from the wound - which is, in essence, the goal defined originally by Lister in 1867. [156][157]

With the contributions of Lister, three essential pillars of modern surgery - anatomy, anesthesia and antisepsis/asepsis - were now in place. When the risk of surgical infection was reduced to a minimum by application of the Listerian principle, the domain of surgery expanded immediately to include bones and joints, body cavities, and vascular and other systems, a progression that continues to this day.

Robert Koch (1843-1910)

Robert Koch, native of Hannover, Germany, was the co-founder with Pasteur of the new field of bacteriology. Whereas Pasteur was a chemist who became a microbiologist and immunologist, Koch was a practicing physician who became the world's preeminent bacteriologist and investigator of infectious diseases. Following a medical degree in Göttingen in 1866 and service in the Franco-Prussian War, Koch was appointed district physician at Woolskin where he combined his country practice with microscopic studies.

He began by working out the complete life-history and sporulation of the anthrax bacillus, and proving it to be the cause of the disease. When he demonstrated his culture methods and results to a group of well-known scientists at the Breslau Botanical Institute in 1876, they declared his discovery to be the greatest yet made in bacteriology.

Koch's many other remarkable contributions to the creation of a new science included identification of the specific microbial agents responsible for two of humanity's greatest plagues: the tubercle bacillus in 1882 and the cholera vibrio in 1883. His paper on the tubercle bacillus contains the first statement of the steps necessary to establish the pathogenic nature of a given microorganism, steps now known as "Koch's postulates." His elegant techniques of staining and culturing, and his historic discovery of two of the world's most dangerous pathogens, coupled with his other wide-ranging scientific efforts, settled with finality the question of the microbiologic origin of infectious disease and earned for him the Nobel Prize in 1905. [158][159]

By verifying the germ theory , the work of Pasteur, Lister and Koch ushered in the Golden Era of Microbiology which began with a phenomenal surge in research activity that shows no sign of abating to the present day. The search for causative organisms of specific diseases dominated the three decades from 1870 to 1900 and was highly successful. More than 20 pathogenic bacteria causing specific human diseases were identified, including: [160][161]

Date	Disease	Organism	Discoverer
1868	Leprosy	Mycobacterium leprae	Hansen
1878	Furuncule (Boil)	Staphylococcus	Pasteur
1879	Puerperal Fever	Streptococcus	Pasteur
1879	Gonorrhea	Gonococcus	Neisser
1880	Typhoid Fever	Salmonella typhi	Eberth
1882	Tuberculosis	Mycobacterium tuberculosis	Koch
1883	Cholera	Vibrio cholera	Koch
1883	Diphtheria	Corynebacterium diphtheriae	Klebs
1884	Tetanus	Clostridium tetani	Nicolaier
1886	Pneumonia	Pneumococcus	Fraenkel
1887	Meningitis	Meningococcus	Weichselbaum
1892	Gas Gangrene	Clostridium welchii	Welch
1894	Bubonic Plague	Pasturella pestis	Kitasato
1898	Dysentery	Shigella shigae	Shiga

The predecessors to Stanford Medical School - Medical Department of the University of the Pacific, Medical College of the Pacific and Cooper Medical College - all evolved between 1850 and 1900. Medicine made more progress during this period than during any previous half century in the history of the world. In later chapters we shall see how these predecessor schools responded to the remarkable changes in medicine and medical education then in progress, and how they acquired the resources and programs that assured a smooth transition to Stanford auspices in 1908.

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Chapter 6. The Zealous Anatomist of Peoria

At the time of the Blackhawk War in 1832 Peoria, Illinois, was a small frontier settlement consisting of only 15 to 20 log cabins and two frame houses. Thirteen years later in 1845, Peoria was incorporated as a city and at that time had attained a population of 1,619 souls. It had all the advantages of a strategic location at the geographic center of the State on a beautiful site where the Illinois River widens to form a broad lake before flowing southwesterly to join the Mississippi. [1] In 1844 Elias Cooper, aged 24, gave up a thriving medical practice in Danville, Illinois, to move 120 miles west to Peoria where he shrewdly foresaw better prospects for advancing his surgical career. His nephew, Levi Cooper Lane, who then lived in nearby Henderson, Illinois, later wrote the following memoir of his uncle's life in Peoria: [2]

> Within a year after his settling in Peoria, he opened a dissecting room, secured a class of students and a number of medical men of the place, to whom he delivered lectures upon Anatomy, accompanied with demonstrations upon the dead subject. His life, as I well remember, was, at that time, a constant gala-day of enthusiasm, - whilst his genius seemed to be ever enlivened by the selectest influences of the brightest stars of hope, which, mingled with their animating inspirations of a lively ambition, painted the future in all those gorgeous tintings which hold in rapture the youthful heart. At that time, he seemed to be almost wholly neglectful of the present, and to live with an eye only to the future. For, during the first three years after his locating in Peoria, he gave but little attention to private practice, his time being mainly devoted to a careful study of the great principles of Medicine and, more especially, to that branch of it, Surgery, which he had chosen as his future sphere of action. During this time, I am able to bear witness that, in no case, have I ever seen such devotion as a student. Day, as well as the greater portion of the night, one might ever find him within his study, or analyzing the textures of the cadaver. When fatigued from the confinement of study, his habit was to rise up, and pace the room for some moments, and sing with great vivacity some lively song; - the happy energy which pervaded his manner at such times, showed that his ardent genius was constantly feasting upon the inspirations which were furnished by his studies and researches. At this time, he usually retired between three and four in the morning, and rose between seven and eight, apparently as much refreshed as those who spend the whole night in sleep. The motto which he had inscribed on the wall, at his bedside, was that of the old Greek painter Appelles - Nulla dies sine linea (No day without a line).
>
> The zeal with which Dr. Cooper pursued his researches in Medicine and Surgery, early indicated him as one who would soon win for himself the highest laurels which can be awarded in our profession; his reputation at Peoria was at once established by a brilliant series of operations for the removal of deformities of the eye and face, of which each case was crowned by success. His first operation was in a case of strabismus, in which he was entirely successful. Now, as is usual, the sight of one so rapidly outstripping his peers, soon created a jealousy on the part of the older members of the profession towards him. As it was at once seen that nothing in his profession could be brought to bear against him which would sully his reputation, or obstruct his upward advancement, so it seems to have been decided, on the part of his enemies, that the vulnerable point in which they might most advantageously assail him, would be in respect to his dissections. At first, the aid of the press, with its many arms, was brought to bear against him. Article after article of a sensational character, appeared daily, until, finally the worse passions of the public were kindled to such a pitch, that a popular move was set on foot, the aim of which was to compel him to leave the city. For this purpose, flaming handbills, headed with the title, "Rally to the Rescue of the Graves of Your Friends," etc., were posted in all parts of the city, calling for an indignation meeting of the people. Nowise daunted by the threatening aspect of affairs, the Doctor himself attended the meeting, accompanied by a few of his friends; by a management of some of the latter, a gentleman was selected as Chairman, who was publicly recognized to be of the opposition party, but who, in reality, was a "Cooperite," as his friends were then called. This gentleman, by assuming to be partly intoxicated and the use of a large fund of Irish wit, soon wrought so much upon the risible faculties of the audience, that few felt like taking any violent measures. One old gentleman, the post-master of the city, thinking the matter of too great gravity to be disposed of in so light a manner, made a motion that, as the President did not appear to be in a condition suited for discharging, with due decorum, the duties of his office, that Mr. Mc--y be requested to resign his place, and that another should be chosen in his stead. Mr. Mc--y, with that intuitive readiness of reply that is so characteristic of his nation, rose up instantly and said, "A drunken man may get sober, but a native-born fool will never have any sense, by G-d." The audience, who had already become properly prepared for the enjoyment of such a scene, now burst into a deafening roar of laughter, which turned the whole affair into a mere farce and matter of ridicule, so that the audience broke up and went home, in the most perfect good humor.
>
> As every effort to sully the doctor's reputation, or damp his enthusiasm in the prosecution of the profession which he so passionately loved, had proved wholly abortive, - the press, in all its attempts to injure him, so far from reaching its object, had tended rather to increase his reputation, - the next resort on the part of his enemies, was to invoke to their aid the strong arm of the law against him. In hunting up evidence as grounds for a legal prosecution, there was an amount of energy and malevolent bitterness on the part of his opponents which certainly would have succeeded in its purpose, had it not been directed against one of that class of minds whose innate courage and self reliance ever gathers force co-equally with the circumstances which strive to oppose them. Though prosecution after prosecution during the space of three years, were at the meeting of each court being waged against him for dissecting, - as quick as one indictment failing to be sustained, another, without delay, being brought forward on other grounds, - still, all this availed not: no charge ever brought against him was proven to the satisfaction of the jury, by whom, in all cases, he was honorably acquitted. The unwavering steadiness and singleness of purpose with which, amidst all these harassing circumstances, he continued his professional pursuits, now wrought a change among his opponents, so that, soon afterwards many who had borne towards him an intense malevolence and bitter antagonism, gradually, one by one, became his friends, and, by their subsequent strong devotion to him, they seemed to wish to make amends for their previous injustice to him. He meanwhile, on his part, so far from keeping awake a remembrance of past hatreds, seemed to blot at once from his memory the previous course of his enemies, and as soon as they made advances towards him, he received them with as much openness and cordiality, as though of their past acts he were wholly unconscious.
>
> In the City of Peoria, he established an Infirmary for the treatment of diseases of the eye and ear, and the removal of deformities of the lower extremities, especially club-foot. In six months after opening his institution, the applications for admission were so numerous, that his building, though a large one, was quite inadequate to contain them, so that he purchased a second one, and the two buildings were constantly crowded with patients. His reputation as an oculist and orthopaedic surgeon soon extended into the adjacent States of Indiana, Kentucky and Iowa, so that his practice became, at once, very lucrative.
>
> Near the period when he opened this institution, I recollect an incident or two illustrative of his cheerfulness and constant good humor, which I will mention. Being summoned into an adjacent county to perform a surgical operation, I accompanied him. Our route, at one place, lay through a deep forest, of some miles in width; when part of the way through this, the road divided into two branches, when, as we afterwards found, we took the wrong one; this we pursued for some miles, when, at length, it disappeared, whereupon, the doctor, with his characteristic happy laugh, remarked: "We have at least learned two points, - the first is, that this road does not lead to the place of our destination, and, secondly, that we have made the discovery of its termination" On another occasion, he was called into the country, to operate for a deformity of the eye; the distance was long, and the day bitterly cold; on arriving at the farmer's house, a panic seemed to have seized on the family, and they had decided to defer the operation. After arriving home, upon my remarking that the results of our day's work were anything but encouraging, he replied, that he was very well satisfied with it, and that never did he allow himself to be discouraged in the case of failure of any undertaking, where he was conscious of having used all proper endeavors for its accomplishment.
>
> As I have remarked, he had secured on extensive and lucrative practice in the West, yet this did not satisfy his ambition; money, with him, was but a secondary object, - he had yet a fonder, a more darling thought at heart, - this was, connection with a medical school, and one at the laying of whose cornerstone he had mainly assisted.
>
> In 1854, he visited Europe, and though in ill-health at the time, he made the acquaintance of most of the eminent medical men in Edinburgh, London and Paris; he also made many observations in respect to the institutions pertaining to Medicine located in these cities. Immediately after his return from Europe, in May, 1855, he came to California, and located in San Francisco.

According to the above reminiscences of Levi Cooper Lane, "(w)ithin a year after his settling in Peoria, (Cooper) opened a dissecting room, secured a class of students and a number of medical men of the place, to whom he delivered lectures upon Anatomy, accompanied with demonstrations upon the dead subject". We have assumed from other of Lane's recollections that Cooper moved from Danville, Illinois, to Peoria in 1844. This means, chronologically speaking, that by 1846 Cooper had set up a laboratory for dissection, acquired a dead body or two, and begun some teaching. Given the obstacles to dissection in a small town like Peoria, success in such a venture would be a considerable achievement for an inexperienced, 24 year-old practitioner without a medical degree. We have, therefore, sought to obtain information from sources other than Lane regarding Cooper's practice of dissection and teaching of anatomy. Our findings support Lane's account of Cooper's accomplishments as an anatomist.

Cooper's Office and Dissecting Room in Peoria in 1846

Our first collateral information confirming Cooper's early devotion to anatomy comes from Dr. O. B. Will, a Peoria physician, who wrote to Professor Rixford of Stanford in 1923 about his memories of Dr. Cooper: [3]

> My own personal recollection of the Doctor is necessarily limited to very youthful impressions since I was but a boy at the time (when) I was compelled (by some ear trouble) to be one of the Doctor's patients My mental picture (of him as) a very stern and unrelenting tyrant is likely to be considerably warped. However, my brother-in-law … knew Dr. Cooper very well from the standpoint of an office attendant for more than a year, and he gave me in the past years much information regarding the man, Doctor Cooper, who had managed to stir up much interest in himself and his work….
>
> Dr. Cooper's office was located in the very centre of town in one of the few three story brick structures of the time. He occupied the second floor for the reception and examination of patients, and the entire third story as a sort of anatomical museum and dissecting room. All along one side of the long hall against the wall were arranged in orderly fashion human skeletons ranging in age from the infant to adult life. The general knowledge of that fact appears to have become somewhat repugnant to a considerable number of the hypersensitive (citizens of Peoria).
>
> (All evidence indicates) the indefatigability of the man as a worker. In fact, from all I have ever known or heard, Dr. E.S. Cooper was a tireless toiler while a resident practitioner of this City of then unusually able competitors, nearly all of whom were distinctly jealous of Dr. C.'s enterprising energy. He burned the midnight oil, and the dim light to be seen in his dissecting room at unseemly hours bespoke for him the reputation of an enthusiastic and self-sacrificing seeker of the truth preparing for an untimely grave.

Cooper Gives a Private Anatomy Course in 1848

We are unsure when Cooper first began the formal teaching of anatomy in Peoria, but we know that he gave a Private Course of Anatomy Lectures and Dissections in November 1848. He sent a copy of his

Introductory Lecture to the Editor of the North-Western Medical and Surgical Journal who was mildly complimentary: [4]

> Dr. Cooper's address (which was not published along with this commentary) shows energy of character in the author; and the plan for pursuing anatomical studies he has marked out, by forming a private class, is a good one. It would be well for the profession if private preceptors generally devoted more time to the instruction of students, as it would improve both. The Doctor is a little mistaken in reference to his character as a pioneer in the work of giving private courses, with dissections. Classes were assembled for such purposes in different places in the west, within our knowledge several years ago.
>
> In setting forth the advantages offered by his course, Dr. Cooper says the dissections will continue as long as weather will permit, which will enable them to acquire a proficiency seldom met with, and "during the course you will have an opportunity of witnessing and assisting in the performance of most of the important surgical operations on the dead subject, which will not only give you a delight in surgery, taking it as science, but it will overcome any natural repugnance which you have to cutting human flesh, which is indispensable to your success as operative surgeons."

We are unsure of the number of years that Cooper continued to give his Private Anatomy Course, but the following ad published in Drown's Record and Historical View of Peoria for 1851 announces that the course "will commence on the 4th of November (1851), and continue as heretofore, during the winter season." [5]

> E.S. C00PER, M.D.
> PHYSICIAN & SURGEON
> PEORIA, ILL.
>
> Offers his services in operating for the removal of all varieties of DEFORMITIES, such as CROSS-SIGHTEDNESS, CLUB-FOOT, CICATRIX from burns; restoring LOST NOSES and LIPS, by the plastic method, &c., &c.
>
> The COURSE OF LECTURES ON ANATOMY & SURGERY, delivered by Dr. Cooper, in which Medical Students and Country Practitioners are enabled to pursue a thorough course of study in these two branches, will commence on the 4th of Nov. next, and continue as heretofore, during the winter season. These Lectures embrace extensive anatomical demonstrations both by preparations and the cadaver. The surgical student, especially, can reap the full benefits of a private course, by being able to witness and assist in the performance of every variety of operation upon the dead subject. March 1st, 1851.

Anatomy Concours at Rush

In 1850 there unexpectedly appeared a unique opportunity for Cooper to compete in a concours for a vacant anatomy post at Rush Medical College in Chicago, and he responded enthusiastically to the challenge.

The decision by Rush to hold a concours, or competition, for the vacant faculty position was the school's response to important new developments in American medicine. A National Medical Convention met in New York In May 1846 and again in Philadelphia in May 1847. The purpose of these meetings was to found a National Medical Association and address matters of concern to the medical profession, including the deplorable status of medical education in the country. These historic assemblies established the American Medical Association on 7 May 1847 and adopted a number of resolutions respecting such critical issues as standards in medical education and the principles of medical ethics. [6] In annual meetings thereafter the American Medical Association continued to evaluate medical education and to urge improvement in problem areas ranging from premedical studies to the quality of medical teachers. Regarding the latter subject, the AMA adopted the following resolution at its Second Annual Meeting held in Boston in 1849: [7]

> Whereas, merit should be the test by which one individual is preferred to another; and, whereas, the places of profit and honour in our profession should be open to the competition of all, in order that the best selections may be made, therefore, Resolved, That trustees and others exercising the office of appointing Professors in Medical Schools, be requested to adopt the system of concours, or public trials, among the means resorted to for calling out the talent of the profession, and ascertaining the qualifications of applicants.

Upon the resignation in 1849 of a Demonstrator in Anatomy, Rush announced with considerable pride that, in accordance with the AMA resolution, it would be "the first in the United States to hold a public concours or trial, for the selection of a Medical teacher." The vacancy would be filled by the Candidate who, in the judgement of the Faculty, shall have complied to the greatest extent, and in the best manner, with the following requirements:

> Who, on or before the first of March 1850, shall have furnished the undersigned with a written application for the situation, accompanied by the most satisfactory testimonials as to character, knowledge of medicine in general; and of Anatomy in particular. Who, on or before the 1st Monday in June 1850, shall have prepared and furnished as above, the best specimens of Dried or Wet Preparations showing the Conformation and structure of bones, the Distribution of Blood-Vessels, Nerves, or Lymphatics of any Part or Organ; Moulds in Plaster, Wax, or other material, of whatever nature, showing the Conformation or Structure of Parts or Organs, either in Human or Comparative Anatomy.
>
> Who, on the 1st Monday in June 1850, or during the week following, on such day as shall be appointed by the undersigned, shall most skillfully dissect some region of the body, and make the best demonstration of the same before the Faculty; the region dissected and demonstrated, to be determined by lot, from a number to be designated at the time.
>
> The award to be made by the Faculty, and such others as they may appoint to take the place of absent Members.
>
> Signed: W.B. Herrick, Professor of Anatomy
> Chicago, December 1 1849.

The above announcement appeared in the January 1850 issue of the North-Western Medical and Surgical Journal, published in Chicago, edited by members of Rush faculty, and serving as the prime outlet for faculty articles and editorials. [8] When the announcement came to Cooper's attention, he promptly applied for the vacant post and spent the spring months of 1850 in preparing his anatomical demonstrations.

Although Cooper had never been to Chicago, he was well informed about Rush Medical College and the accomplishments of Dr. Daniel Brainard, Founder of the College and Professor of Surgery, with whom he was later to become friends. This friendship was significant in Cooper's life for it is said on good authority that it was admiration for Brainard's achievement in organizing Rush Medical College that inspired Cooper to found a medical school himself. [9]

Daniel Brainard (1812-1866) and the Founding of Rush Medical College. Brainard was born in Oneida County, New York. After a common school and junior-college education; a medical preceptorship; and medical lectures at Fairfield Medical College in the Western District of the State of New York, he spent two years at Jefferson where he received an MD degree in 1834. Spurred by ambition and the lure of adventure, he abandoned a desultory medical practice in Whitesboro, New York, and migrated in 1836 to the unlikely village of Chicago, then a town of 3000 on the western frontier. Upon his arrival in Chicago, Brainard sought out one of his friends, a lawyer who had previously moved there from New York State. His friend recalled their meeting: [10]

> Dr. Brainard rode up to my office on a little Indian pony. He was dressed rather shabbily and said he was nearly out of funds, and asked my advice about commencing the practice of medicine in Chicago. I knew he was ambitious, studious, and a man of ability, and I advised him to go to the Pottawatomie Camp where the Indians were preparing to start for a new location west of the Mississippi River and sell his pony; take a desk or rather a small table I had in my office and put his shingle by the side of the door, promising to aid him in building up a business.

Brainard was interested not only in medical practice but also in medical education and teaching which led him at once to conceive of starting a medical school in Chicago. In the fall of 1836 he and a medical colleague drafted articles for incorporation of a medical college. A charter for the college was granted by the Illinois State Legislature on 2 March 1837, a few days before a charter was issued to the still-pioneer City of Chicago. [11][12] When the severe financial depression of 1837 delayed further planning for the college, Brainard opened a private school of anatomy where he gave three courses in each of which he enrolled some six or seven students (thus preceding Cooper's efforts along the same lines by about ten years). [13] Building a surgical practice in Chicago was painfully slow for Brainard until 1838 when he successfully performed a difficult amputation on a canal worker's leg in the presence of most of the town's physicians. News of this feat spread rapidly, bringing acclaim and patronage to the young surgeon. [14] He spent the period from 1839 to 1841 in further medical preparation in Paris where he was a fellow student in surgery with Charles A. Pope who was later to become Professor of Surgery at St. Louis University and a benefactor of Elias Cooper. On his return from Paris, Brainard was appointed in 1842 to the Chair of Anatomy at St. Louis University and gave two courses in that subject during his brief stay in St. Louis. [15]

Meanwhile in 1842-43 several "country medical schools," to which we shall later refer, were preparing to open in Illinois and Indiana. Concerned about competition from these schools in attracting medical students, Brainard hastily activated the charter of his own medical college in Chicago, summoned the faculty that had already been appointed, and began the school's first session of 16 weeks on 4 December 1843. The population of Chicago was then 8,000. [16][17]

Brainard gave the name of Rush Medical College to the new school in commemoration of Dr. Benjamin Rush of Philadelphia, venerated as a signer of the Declaration of Independence. It was anticipated that some of his heirs would endow the school. When the strategy failed and no money was forthcoming, Brainard was inclined to drop the name but it has clung to the institution to the present day. [18]

Cooper in Chicago for the Concours. In June 1850, when Cooper arrived by stage from Peoria with his boxes of anatomical preparations, Chicago was a city of 28,000 and had become the major commercial center of the region. It was several years later that Peoria and Chicago were connected by rail and the stagecoach was replaced by the "teakettle on wheels" as the steam train was called in Peoria. Rush Medical College, by virtue of its outstanding faculty and superior access to cadavers for teaching anatomy and hospital beds for clinical instruction, had survived the competition of the country schools and was now the only viable medical college in the State of Illinois. The strong faculty was anchored by Professor Brainard, recognized as one of the leading surgeons west of the Alleghenies, and by a contemporary of Cooper, Nathan Smith Davis (1817-1904), Professor of the Principles and Practice of Medicine. Davis was already a national figure when he came to Rush in 1849 from New York City. Through his membership in the New York State Medical Society Davis had led the call for the National Medical Conventions of 1846 and 1847 and was a dominant figure in their deliberations on medical education and organized medicine. Since then he has been called the Father of the American Medical Association. Cooper realized that appointment to the faculty at Rush could be the turning point of his career and that high stakes for him were riding on the outcome of the concours. [19][20][21]

The concours for the position of Demonstrator of Anatomy took place on 17 and 18 June 1850 at the College. Only two competitors came forward out of a number who had given the required notice. They were Dr. E.S. Cooper of Peoria, Illinois, 130 miles to the southwest, and Dr. J.W. Freer of Wilmington, Illinois, 40 miles to the south.

Joseph Warren Freer (1816-1877). Dr. Freer's background is of some relevance here. In 1846, with a high school education and nine years of hard-working life on a farm, he lost his wife to poor medical care, leaving him a 30 year-old widower with a little boy. Determined to become a doctor to help prevent such tragedies, he set out for Chicago mounted on a load of wheat. On arrival he at once called on Dr. Brainard and asked to be taken as his pupil. With remarkable intuition and in the spirit of the frontier, Brainard accepted the rustic candidate and became his preceptor. Freer received an MD degree from Rush in 1849 and stayed on thereafter. [22][23]

The result of the concours was duly reported in the July 1850 issue of

the North-Western Medical and Surgical Journal: [24]

> **Concour for Demonstrator of Anatomy in Rush Medical College**
>
> The concur for the place of Demonstrator of Anatomy in Rush Medical College, came off on the 17th and 18th of June last. Only two competitors came forward, out of a number who had given notice. They were Dr. J.W. Freer … and Dr. E.S. Cooper …
>
> The trial was highly creditable to both, and resulted in the appointment of Dr. Freer.
>
> The preparations presented by Dr. Freer, for the inspection of the Faculty, all of which have been made by him since the announcement of the concours, last winter, were very numerous, and would compare favorably with those from the hand of any other anatomist in any country.
>
> This first trial of the concours system on this side of the Atlantic, has satisfied all concerned of its superiority over any other plan for selecting teachers; and although there may be circumstances where it would be inexpedient, for want of time or other necessary conditions, still we feel confident that its general adoption will be found of the utmost utility, both to institutions and the profession at large.

To Cooper, who had not yet received an MD degree, but was intensely committed to anatomical studies and aspired to a teaching career, the outcome of the concours was deeply disappointing. Actually, he had little chance of winning the competition. It is no reflection on the performance of Dr. Freer to point out that he was a recent graduate of Rush and a favorite son. He doubtless had access to the anatomy laboratory at Rush for his preparations, with the added advantage of familiarity with the surroundings and the judges. As for Cooper, his eagerness to participate in a concours at the regional seat of learning was typical of the self-assurance he always displayed in pursuit of his aims. As a reward for his efforts, he at least gained wider recognition as an anatomist through favorable mention in the medical press, and he received a terse commendation from the Board of Judges at Rush in the following letter (which is, incidentally, the earliest of all the letters found among Cooper's personal papers): [25]

> Chicago June 18th, 1850
> E.S. Cooper M. D.
>
> Dear Sir,
>
> Permit me to communicate to you the following resolution passed by the Board of Judges, of the Concours for the Demonstratorship of Anatomy in Rush Medical College, before the close of their session this day -
>
> Resolved:
> That the Board of Judges of the Concours for the Demonstratorship of Anatomy in Rush Medical College, would desire to express their gratification at the zeal and interest exhibited by E.S. Cooper M.D. of Peoria, Ills, in the prosecution of the Study of Anatomy, and though unsuccessful as a candidate, they are satisfied that his abilities are such as to render him capable of acquiring eminence in that department of Medical Science.
>
> I remain Sir, yours truly
> James V.Z. Blaney, Secy of Board of Judges

What of Cooper's future had he prevailed in the concours? Unfortunately for him, when the Rush Faculty learned that he did not hold an MD degree from a recognized school of medicine, he would not have been appointed to the position. As for the career of his competitor, Dr. Freer was appointed to the post of Demonstrator of Anatomy and remained on the faculty of Rush Medical College for the rest of his life, filling in succession the professorships of Anatomy, Microscopical and Surgical Anatomy, Physiology, Surgical Pathology, Physiology and Histology.

After the end of the Civil War, Dr. Brainard was discharged from the United States Army and went to Paris. When he returned to Chicago in the fall of 1866 to resume teaching, he found the city in the midst of an epidemic of Asiatic cholera (its last severe outbreak): [26]

> On the afternoon of October 9, 1866, he digressed from the subject of his lecture in Rush Medical College, to tell the class how to guard themselves against the cholera, and before he retired that evening he began an article on the subject…. He went to bed apparently in perfect health, but near morning had an attack of diarrhea which he checked with opiates. However, he arose as usual the next morning and had no symptoms of sickness until 9:00 when he was suddenly attacked with vomiting and diarrhea … By 2:00 he was in collapse and seven hours later he ceased to breathe.

At the time of his death from cholera on 10 October 1866, Dr. Brainard was the dominant figure in surgery in Illinois and one of the foremost medical men in the Northwest. He was also the perennial President of Rush Medical College, a position immediately assumed upon his demise by Professor James V.Z. Blaney whose failing health caused him to resign in 1871. Then Brainard's pupil and protégé, Professor J.W. Freer, became the third President of Rush Medical College, and remained so from 1871 until his death in 1877. [27][28]

In the Middle West of today the memory of the historic concours between Cooper and Freer is still preserved in the History of Medical Practice in Illinois: [29]

> Chance and circumstance shape a man's destiny, in this instance Cooper's. In the spring of 1850 he had contested ably with Dr. Joseph Warren Freer for the post of Demonstrator of Anatomy at Rush Medical College, a post which was considered to be of high honor and distinction. Freer received by concours the appointment and left a greatly disappointed competitor. Cooper … removed to the Pacific Coast. Here, he was to acquire wealth and wide reputation as a brilliant and accomplished surgeon. In 1888, his name was fittingly honored in that the most distinguished medical institution on the coast, the Medical Department of the Pacific, was rechristened Cooper Medical College. This college is now the School of Medicine of Leland Stanford University.

Peoria vs. Anatomist Cooper

In his letter to Rixford about Cooper, Dr. Will recalled that a considerable number of hypersensitive citizens in Peoria were aroused over Cooper's anatomical museum and practice of dissection at his downtown office. In January 1851 an incident occurred that further inflamed public passions and may well have led to violence against Cooper had not his friends, the "Cooperates" as described by Lane, turned the protest into a farce. It was a time of high emotional tension in Peoria following a brutal murder and the attempted lynching of the suspects. [30]

The Murder

In the latter part of 1850 on a Saturday, a farmer and cattle dealer named Hewitt drew some $2500 from a Peoria Bank. This fact was known to Thomas Jordan alias "Tom Tit", a notorious river thief, who imparted the knowledge to two young men named Thomas Brown and George Williams with the understanding that they would rob Hewitt of the money. They watched Hewitt's movements and when he entered his buggy and started for home they followed close behind. At the foot of the bluff at the edge of town he got down and started to walk up the bluff behind his buggy to lighten the load for his horse. Brown and Williams quickened their pace, came up with him and demanded his money. When he refused to hand it over, they assaulted him with a brick-bat, striking him on the head, fracturing his skull, and rendering him unconscious. They barely had time to rifle his pockets when they were frightened away by some teamsters coming down the bluff, and escaped by fleeing over the bluff and across the river. By some means, probably with the help of the teamsters who may have thought him intoxicated, Hewitt got up in his buggy, his horse started on and went about ten miles to a wayside tavern where he was in the habit of stopping. There his condition was noticed and he was carried into the house where he died of his wounds on the ninth day.

The Posse

Brown and Williams had been seen running across the bluff and when it was known that Hewitt had been assaulted and robbed, suspicion pointed to them as the guilty parties. Sheriff Riggs formed a posse and set out to trail the suspects who they found out were headed south toward Springfield where they were surprised in their beds and captured on Sunday night. After their arrest they were searched and all of the stolen money but 23 dollars was found secreted in their neck-handkerchiefs, the old fashioned black silk kind. They were brought back in irons and taken out to the tavern where Hewitt, who had regained consciousness and was still alive, identified them as his assailants. The money was also identified by the banker as the same he had paid to Hewitt on the previous Saturday. On the whole, this was a rather impressive bit of police work by the Peoria constabulary.

The Trial

Brown and Williams were lodged in the Peoria jail and, being poor and friendless, the Court appointed attorneys to defend them. When the Court convened in November 1850 they were indicted for murder, put on trial, found guilty of murder in the first degree, and on the 27th day of November were sentenced to be hanged on Friday, the 20th day of December.

In the meantime Tom Tit's collusion in the robbery had become known, his whereabouts discovered, and a stay of execution granted for thirty days to give the officers time to bring him back that he might be identified by the condemned men as an accessory to the crime.

The Mob

The populace was greatly excited over the murder, and as the day first fixed for the execution drew near, the excitement increased. On the morning of that day, the 20th of December, men came to Peoria from all parts of the country until there was a large crowd in the streets round and about the jail. When it became known that a respite had been granted, excitement exceeded the bounds of law and order. The frenzied mob demanded that the Sheriff hang the men, declaring they would do so if he did not. The leading men of Peoria appealed in vain to the crowd to disperse, assuring them that the law would be enforced. When the mob attacked the jail to seize the prisoners, Sheriff Rigg, a naturally timid man, kept out of sight, while Deputy Irons, a man of more nerve as befitted his name, called others to assist him in barring the approach but to no avail. A part of the mob forced their way past Irons and his assistants and secured possession of Williams who gave up without a struggle. Another part of the mob dragged the scaffold from the jail yard to the center of the street. When it was seen by the deputies that they could no longer protect Brown, he was told to defend himself as best he could. This he did right effectively by securing a small brick-bat in the end of one leg of a pair of trousers and stationing himself within his small cell so as to strike any head as soon as it appeared within the door, which had been forced. His aim was so unerring and his weapon of defense so formidable that the attempt to drag him out was soon abandoned. One man received such a terrible blow that he died from the effects of it soon after.

Williams was carried out to the scaffold and placed under the beam. Then the courage of the mob oozed out, and not a man among them was brave enough to place the rope around his neck. After some parleying he was carried back to the jail to await a legal execution.

The Execution

On the 19th of January 1851 the sentence of the Court was legally executed and Thomas Brown and George Williams, in the prime of their young manhood, paid the penalty of death by hanging for the murder of a fellow man. These were the first executions of the death penalty in Peoria County. The gallows was erected on the open prairie. The hangings were carried out in public and witnessed by no less than ten thousand people. Terraces of men and women were ranged all along the bluff in the vicinity of the scaffold, and many of them had come from long distances to witness a double death-leap from the scaffold to eternity.

Bodies for Science

When the demand of the law was satisfied, their bodies were cut down and given to Dr. Cooper, physician and surgeon, for the benefit of science.

Tom Tit

Thomas Jordan, alias ":Tom Tit", who had planned and instigated the

robbery of Hewitt, avoided detection in the Peoria area, and escaped down river. He was traced to New Orleans where he foolishly told some associates of his involvement in the Hewitt affair. The information leaked to the New Orleans police who clapped him in jail until he could be transported in irons by up-river boat to Peoria. He arrived there, near paralyzed with fear, on the morning of the 19th of January, the day of the execution of Brown and Williams. He was taken at once to the Peoria jail where Brown exclaimed, "That's the man!", as soon as Jordan appeared in his presence.

Jordan was indicted for murder but the charge was changed to robbery. He pled guilty and was sentenced to the penitentiary for 14 years, the first five in solitary confinement. In 1863, at the height of the Civil War, he requested a pardon and promised to enlist in the Northern army if freed. Pardon was granted and after 12 years behind prison bars he was set at liberty. He kept his promise to enlist. He was last heard from in 1863 when he was in the Army of the Potomac. A letter sent to him at that time was never answered. It is inferred that he was killed in battle, or died of other causes.

Anatomy Laws

The practice of turning over the bodies of criminals to doctors for anatomical dissection and experiment is of ancient origin. The Ptolemies of Egypt legalized the procedure in Alexandria three centuries before the Christian era. Since the 13th century dissection of executed criminals was sanctioned by precedent and custom. These in due course served as the basis of common law and eventually of statutory law in many European countries, for example Italy, Germany, France, Holland, England, etc. The following are some of the early precedents involving dissection that were ultimately reflected in common and statutory English law. In 1505 the magistrates of Edinburgh granted to the Guild of Surgeons and Barbers the right annually to take an executed criminal for dissection. In 1540 the English Parliament during the reign of Henry VIII gave the Guild of Barbers and Surgeons of London a chartered right annually to dissect four persons put to death for felony. In 1654 Queen Elizabeth granted a "special charter of anatomies" to the College of Physicians of London whereby four bodies of executed felons were to be delivered to the College for "anatomizing". In 1663 Charles II increased the yearly quota of bodies to six. Ultimately, it became an accepted tenet of English common law (i.e., springing from an accumulation of unchallenged precedents) that judges were permitted to authorize dissection of the body of an executed criminal. The practice under common law of allowing judges to authorize dissection of executed criminals was incorporated in English statutory law (i.e., expresses the will of the legislature) by an Act of Parliament in the reign of Charles II in 1752. [31]

The initial anatomy laws in colonial America and the United States can be traced to English common and statutory laws and, like them, authorized dissection under only one condition - in the case of an executed criminal. Dissection was commonly viewed as a further punishment or indignity to be administered posthumously to a felon, and was considered a desecration of the deceased under other circumstances. The first American enactment providing for dissection was the resolution in 1647 of the Governor and Council of the Massachusetts Bay Colony that permitted students of physick and chirurgery to anatomize once in four years some malefactor in case the Court shall allow it. In 1784 the Commonwealth of Massachusetts advanced a small step further by including in its law "Against Duelling" the edict that the body of one killed in a duel should be turned over to any surgeon who might apply for it to be dissected. In 1789, immediately following the mob violence of 1788 in New York City known as the "Doctor's Riot", to which we have already referred, the Legislature of New York passed "An Act to prevent the Odious Practice of digging up and removing for the Purpose of dissection, dead Bodies interred in Cemeteries or Burial Places." This law contained the further stipulation that any offender convicted "of Murder, Arson, or Burglary for which he or she shall be sentenced to suffer Death, may" at the discretion of the Courts have the added "Judgement that the Body of such Offender shall be delivered to a surgeon for Dissection". [32]

The original version of the Illinois law under which Cooper received the bodies of Brown and Williams following their execution was passed by the State Legislature on 3 January 1825. It was entitled an "Act to Prevent the Disinterment of the Dead". The first portion of the act deals rather verbosely with grave robbing: [33]

> If any person or persons shall open the grave or tomb where the body or bodies of any deceased person or persons shall have been deposited, and shall remove the body or bodies or remains of any deceased person or persons from the grave or place of sepulture, for the purpose of dissection, or any surgical or anatomical experiment or any purpose, without the knowledge and consent of the near relatives of the deceased, or shall in any way aid, assist, counsel or procure the same to be done, or shall aid or assist in any surgical or anatomical experiment therewith or dissection thereof, knowing said body or bodies to have been so taken or removed from the place or places of their sepulture, every such person so offending, being thereof duly convicted, by indictment before the circuit court, shall forfeit and pay a fine not exceeding five hundred dollars, and shall be imprisoned in the common jail of the county, not more than twelve nor less than three months, at the discretion of the court, the fine for the use of the county to be paid as other fines are required to be.

The Act further states, with respect to dissection:

> Provided that the provisions of this act shall not be construed to extend to the dissection of the body of any criminal, where the same has been or shall be directed to be delivered up for such dissection by competent authority.

The above provision for dissection was strengthened in 1833 by Section 156 dealing with murder in the Illinois criminal code which states that the "punishment of death shall be inflicted by hanging" and "the court may order, on the application of any respectable surgeon or surgeons, that the body of the convict shall, after death, be delivered to such surgeon or surgeons for dissection." This principle was reaffirmed in the Illinois Statutes of 1845 with the revision, however, that such dissection can only be made if there is no objection to it by some relative of the convict. [34]

Prior to the executions of Brown and Williams, Cooper applied to the court for their bodies in accordance with the above law. Under cover of darkness on the cold winter night after the executions, the bodies of the hanged men were hauled by wagon to his office in the center of downtown Peoria and, with care to avoid public notice, carried up the back stairs to the dissecting room on the third floor. Any hope on Cooper's part that the clandestine removal of the bodies to his dissecting room for "anatomizing" would go undetected and unchallenged was quickly dispelled. His previous advertising of anatomy courses, and the certain knowledge that bodies for these courses could only have been obtained by robbing graves, had already inflamed the populace against him. Now he was preparing to dissect criminals in his office on Peoria's main street. To make matters worse the crime, near-lynching and public hanging of Brown and Williams had created a fractious mood among the townspeople. Furthermore, they had not forgotten the lethal anatomy riot caused by zealous anatomists just two years before at St. Charles in upstate Illinois, an incident to which we shall later refer. [35][36]

Cooper, as he was prone to do, had overstepped the bounds of community tolerance. Hand bills were soon printed calling for a mass meeting to protest his dissections, and Lane has amply described the ensuing confrontation from which Cooper was fortunate to emerge unscathed.

Later in 1851 Cooper took both a long and a short range approach to the problem of lessening future conflict over his dissections.

Resolution on Dissection

The desired long range solution was, of course, to legalize dissection; and so in June of 1851, at the first Annual Meeting of the Illinois State Medical Society of which he was a founding member, Cooper introduced the following resolution calling for investigation of means whereby legalization of dissection could be achieved. [37]

> Whereas, The present laws and public sentiment of the people of the State of Illinois are strict and binding, holding the Physician and Surgeon legally responsible for the performance of their duty, but at the same time are hostile to those means by which a practical knowledge of pathology, skill, and surgical anatomy is obtained; therefore
>
> Resolved, That a Committee of three be appointed to investigate the subject of legal dissections in all its relations and bearings, and report the same to this Society at its next annual meeting.

The resolution was adopted and the Committee on Legalizing Dissection was appointed consisting of Drs. E.S. Cooper, Chairman, J.C. Frye and Wm. Chamberlain.

When the Report of the Committee was called for at the second Annual Meeting of the Society in June of 1852, Dr. Cooper as Chairman of the Committee stated that the intent of the Resolution was not to prepare a report for the Society but to memorialize the Legislature on the subject. No further communication to the Society was forthcoming from Cooper's Committee, and the Legislature did not act to legalize dissection until many years later. Apparently Cooper did not pursue the matter vigorously in Illinois, but we find him introducing a similar resolution before the California State Medical Society after his move to San Francisco.

Cooper Founds Peoria's First Hospital

Cooper's short range approach to the dissection problem was more effective. In September 1851 he opened the first hospital in Peoria, located on the prairie about a mile from the edge of town near the west line of Monson and Sanford's addition to Peoria. There he made successful provision for the discreet furtherance of his anatomical studies, well out of the limelight of his downtown office. The new establishment was a three story building known officially as the Peoria Eye Infirmary and Orthopedic Institution but, no doubt because of Cooper's anatomical museum and dissections, the children called it the "Spook House". [38]

The Peoria Democratic Press reported on 24 September 1851 that Cooper had one patient in his Infirmary and accommodations for 40 or more. By 1 October the Press learned that he now had several patients and was fast making arrangements to receive all who seek admission. We can understand Cooper's desire to fill the beds as soon as possible and his urge to inform the entire region that a splendid new facility devoted to the most modern of specialty care was now available. However, he miscalculated the reaction of his professional colleagues when he widely published an announcement of these unique services in area newspapers. They promptly accused him of advertising and unethical conduct. There followed a bruising encounter with some of Peoria's leading practitioners, details of which we will defer until we come to Cooper's role in the Peoria Medical Society.

But before taking leave of the Infirmary, we should remark that Cooper proved to be exceptionally forward-looking in its founding and operation. The Editor of the Press seems to have maintained a special interest in Cooper's affairs. After a visit to the Infirmary in May of 1853 he reported to his readers that "we are convinced that its celebrity has been acquired through the merit of the proprietor only. Every evening the lady inmates assemble in the parlor and recite lessons in French, after which the Dr. or a friend reads aloud from a book. The patients almost forget they are under the care of a physician". [39] By his brashness, innovations and sheer ability the tireless Cooper was fast becoming a respected figure in Peoria in spite of detractors in the Medical Society. In a history of the County written sixty years later he is called "the most active, progressive, original and enterprising member of the Peoria county profession during this first stage in its development." [40]

The Country Medical Schools

Prior to the passage late in the 1800s of legislation in the various States providing bodies for dissection, teachers of anatomy in American medical schools faced obstacles that were legally insurmountable. On the one hand, dissection was outlawed except on the bodies of executed felons, resulting in only a few bodies being available for teaching and research in anatomy. On the other hand, grave robbing was illegal and subject to severe penalties. This cruel dilemma was not resolved in Illinois until passage by the Illinois Legislature of the

Anatomy Act of 1885 mandating that the body of any deceased person requiring to be buried at public expense shall be released upon request to a medical school or physician for advancement of medical science, provided that certain conditions regarding notification of relatives and ultimate disposal of the remains are met. [41]

Meanwhile, in 1849 there occurred the tragic anatomy riot at the Franklin Medical School in St. Charles that doubtless fuelled the Peoria protest against Cooper, and by the strange course of subsequent events, again raised his hopes of an academic career.

Franklin was one of the following group of new medical colleges founded in and near Chicago during the seven year period from 1842 to 1848.

1842 Medical Department of LaPorte University (Later Indiana Medical College), LaPorte Ind. Discontinued in 1850

1842 Franklin Medical College, St. Charles., Ill. Discontinued in 1849

1843 Illinois College Medical School, Jacksonville, Ill. Discontinued in 1848

1843 Rush Medical College, Chicago, Ill. Rush is the only school in this group that has continued without interruption to the present day

1848 Rock Island Medical School, Rock Island, Ill. The school moved in 1849 to Davenport, Iowa; later to Keokuk, Iowa; and finally merged into the State University of Iowa College of Medicine, Iowa City. More later regarding this transient school

Except for Rush, these medical colleges may be described as Country Medical Schools. Their location outside metropolitan areas posed for them an especially severe problem in obtaining anatomical material, with dire consequences for Franklin. [42]

Franklin Medical College (1842-1849)

The first medical colleges to be founded in the State of Illinois - Franklin, Illinois, Rush and Rock Island - were opened during the 1840's, the decade when Cooper began to practice in Peoria and to establish his reputation as an anatomist and surgeon. He surely would have observed the fate of these schools, particularly that of Franklin, with keen interest.

Franklin Medical College was located in St. Charles about 40 miles west of Chicago and 110 miles northeast of Peoria. Although the school never acquired a State Charter or awarded any MD degrees, it was the first in Illinois to organize a faculty and conduct a formal course of medical lectures, and on that basis may be credited with initiating medical education in the State. A class of 15 or 20 students attended the first series of lectures that began in the fall of 1842.

The original faculty of 6 "professors" was a respectable group and included two particularly able physicians: George W. Richards (1800-1853), Dean and Professor of Anatomy and Physiology; and Nichols Hard (1818-1851), Professor of Obstetrics and Diseases of Women and Children. Dr. Richards received his MD degree from the College of Physicians and Surgeons of Fairfield, New York, in 1828 and Dr. Hard graduated from the Ohio Medical College in 1841. Both were highly regarded as physicians and teachers, and both had amphitheaters in the upper stories of their offices where they gave lectures to students and provided an abundance of anatomical material for dissection. As already noted, Cooper followed a similar pattern in combining the teaching of anatomy with his practice, probably influenced by such examples as theirs.

In spite of the flourishing prospects of Franklin Medical College, the Illinois State Legislature delayed the granting of a charter. Richards and Hard therefore acquired faculty status in the Medical Department of La Porte University in La Porte, Indiana, 60 miles east of Chicago and arranged that this school award MD degrees to Franklin students. Such was the ingenuity of these pioneers in surmounting obstacles to their operating a medical college. They could not, however, overcome the effects of the grave-robbing incident that abruptly extinguished their school in 1849. [43][44][45]

Franklin Anatomy Riot

The circumstances were these: anatomy was the prime course in medical education at that time, and a country school such as Franklin in the small town of St. Charles had great difficulty in procuring subjects for dissection in a manner that would not arouse the hostility of the local community.

In April 1849 Mrs. George M. Kenyon, daughter of a prominent citizen by the name of Churchill, died shortly after her marriage and was buried in the local cemetery. John Rood, a first year medical student at Franklin Medical College, in search of knowledge and dissecting material, enlisted the aid of George Richards, a son of the founder of the College, in opening the newly-made grave of Mrs. Kenyon. On the way to the cemetery they stopped for refreshments at a tavern where one of the customers peeked into their wagon and saw some shovels. This finding was sufficient to reveal the purpose of the mysterious night mission of the two young men whose zeal for grave-robbing was known throughout the entire surrounding country. Unaware of being under suspicion, they drove on to the cemetery where they hastily disinterred Mrs. Kenyon, covered the empty grave as best they could and hurried to St. Charles where they concealed their gruesome prize in Dr. Richards' barn.

Meanwhile, the father and husband of the deceased woman were alerted to inspect her grave which, to their horror, they found empty. Their first step toward recovering the body was to seek the assistance of local physicians who selected a committee to visit the home of Dr. Richards and search the premises. Dr. Richards, who is said to have been at the time unaware of the facts in the matter, issued a firm denial of involvement in the affair. The aggrieved relatives and their friends doubted the doctor's word and, their emotions now thoroughly aroused, organized an armed posse to force entrance into his home and recover the remains at all costs if they could be found. Meanwhile Dr. Richards, having discovered that the body was on his premises, realized the seriousness of the situation and advised Rood to hide the corpse in some secure place until an amicable settlement could be reached. During the night and with the assistance of an employee of Dr. Richards, Rood moved the body to a secluded area. There they placed it under a limestone ledge and returned to the Richards residence to await developments. [46]

Knowledge of the approach of 200 or more armed men led by Kenyon, the irate husband of the exhumed woman, soon reached Dr. Richards who made preparation for the defense of his residence. The family fled over a stone wall back of the house, but he refused to leave. The local sheriff absented himself from the scene so as to be neither a participant nor a witness in the unfolding drama. The grim posse executed military type maneuvers on their approach to the house. Now, according to Zeuch: [47]

> Thinking the evidence completely hidden, the doctor determined to put on a bold front and deny knowledge of the whereabouts of the remains. As the enraged citizens hove in sight, armed with rifles, shotguns and other weapons, they presented a formidable front. "The stillness of death," said an eye-witness, "seemed to hover about." At first, however, they were quiet and well behaved. A strong local prejudice against Dr. Richards among his townsmen was evident and increased their boldness. The doctor's friends prudently remained quiet, while he attempted to settle the matter peaceably from within. A small delegation, upon their own initiative, searched the barn for the body. They reported the finding of an unrecognizable cadaver of a male, disfigured by dissection, which helped to inflame their passions. The fearless Richards then opened the door and, appearing before the crowd with his hand in an opening of his coat, spoke to them boldly and, according to a mob spokesman, insultingly. The avengers then began to get impatient and surged forward. Their menacing attitude caused Richards to close the door, whereupon Churchill (the woman's father) attempted to force an entrance. At this point Kenyon, impatient for action, retraced his steps a few feet backward, asked those in front to step aside, leveled his gun and fired a shot that passed through the door above the knob. Rood, with his back upon the door, bracing it from within, received the fatal bullet. Another shot struck Richards through the right subclavicular region, pierced the lung and cut the brachial plexus. The doctor though bleeding profusely, removed his coat and again went to the door to speak. But before he could utter a word some one hurled a stone that hit him in the face, whereupon he was forced to retire to the bedroom where Dr. Everts attended him.

Temporarily placated, the crowd withdrew and invited a local magistrate, Judge Barry, to step in as mediator. Under the cover of darkness, the Judge and a Captain Norton personally retrieved the woman's body from its hiding place in the limestone crevice, located for them by one of the badly frightened Franklin medical students. Following the reburial of Mrs. Kenyon, an uneasy truce prevailed.

As to the final outcome of this episode, John Rood died of a bullet wound to the head; Dr. Richards recovered from his injury but lost the use of his right arm for which he compensated by learning to write with his left hand. The Franklin Medical College was closed by the incident, never to be reopened. [48]

There is no doubt that this violent anatomy riot in upstate Illinois in 1849 was well known to the people of Peoria, and led them to suspect that Cooper's anatomical material was obtained by the robbing of local graves, as was doubtless the case. One must admire the dedication and courage of physicians like Cooper whose pursuit of anatomical science in their day involved not only a grossly repugnant medium, but also great personal risk.

From Rock Island to Keokuk

After the Franklin anatomy riot and closure of the school there occurred the following complicated series of maneuvers that ultimately involved Cooper, and showed that he had gained considerable recognition in the region as an anatomist. Dr. George W. Richards, while still a member of the Franklin Medical College faculty, participated in organizing and became president of the Rock Island Medical College in Rock Island , Illinois, 120 miles west of St. Charles and just across the Mississippi River from Davenport, Iowa. Notable among the faculty of eight professors at Rock Island were Richards, theory and practice of medicine; John S. Sanford, midwifery and diseases of women and children; and Saul G. Armor, physiology, pathology and medical jurisprudence.

After giving only one course of lectures and graduating 21 students in the 1848-49 academic year, the Rock Island school moved across the river to Davenport and opened the 1849-50 academic year with a reorganized faculty that still included Richards, Sanford and Armor. The Davenport school was incorporated in Iowa under the name of College of Physicians and Surgeons of the Upper Mississippi. This College functioned for only the 1849-50 lecture series. In the spring of 1850 it became the Medical Department of the State University of Iowa and was transferred to Keokuk, Iowa, some 120 miles down river from Davenport. In 1870, the Medical Department moved from Keokuk to the campus at Iowa City and is now well known as the University of Iowa College of Medicine. [49]

Cooper Offered Anatomy Professorship at Keokuk

In 1850 Richards, Sanborn and Armor, widely regarded as outstanding teachers, moved with the Davenport school to Keokuk. There they were joined in the same year by Dr. Nichols Hard as Professor of Anatomy. Hard, who had been a colleague of Richards in the Franklin and La Porte schools, was an important addition to the Keokuk faculty in a key subject area. In the summer of 1851 he contracted cholera followed by an attack of dysentery resulting in his death at the age of 33 on 16 October 1851. [50][51] This sad and unexpected loss of the school's highly respected Professor of Anatomy occurred on the eve of the fall series of medical lectures due to begin in early November. Professor Sanborn, who was the Keokuk Dean at the time, received the unwelcome news of Hard's death while in New York on school business. In view of the importance of Anatomy in the curriculum, he considered it his responsibility to find a replacement for Professor Hard as soon as possible. He had heard of Dr. Elias Cooper of Peoria as a rising star in anatomy and addressed to him the following urgent letter: [52]

> New York, Oct. 22d, 1851
> Dr. E.S. Cooper
>
> Dear Sir,
> A late telegraphic dispatch, brought me the melancholy intelligence of the Death of Dr. N. Hard, Professor of Anatomy in the Med. Dept. of the Iowa State University.

It was made my duty, by a resolution of the Board of Trustees, to fill any vacancy that might occur in the recess of the Board; and having heard of you as a distinguished Physician, and an indefatigable Cultivator of Anatomy, I have been induced to nominate you as Professor of Anatomy in the College of Physicians and Surgeons of the Iowa University, and request your acceptance of the same. I have advertised my Colleagues at Keokuk of the act, and you will please write them immediately in relation thereto. Direct your Communication to Profs. Armor and Hudson.

I am now in this City, expending a part of an appropriation made to our Institution by the last General Assembly of Iowa. The prospects of the School are exceedingly flattering.

In haste, Very Respectfully, Jno. F. Sanford

P.S. I would be pleased to learn by Telegraph, whether you can accept the place, and what time you could commence your course at Keokuk. I desire the information as it would influence my return. Direct to me at the New York Post Office. J.F.S.

Response from Keokuk

Cooper, who earlier in the year had finally acquired an MD degree, wrote promptly to accept the appointment. As we have learned, he had already shown his lively interest in such a position by competing unsuccessfully in the previous year for a post in Anatomy at Rush Medical College. It might well be that his commendable performance in the Rush competition brought him to the attention of Dean Sanford at Keokuk. In any case the unexpected call to a professorship at Keokuk must have been exhilarating to Cooper who had spent six toilsome years in perfecting his knowledge of anatomy and his skill in dissection. His elation was short-lived for, in response to his letter of acceptance, he soon received the following reply from Keokuk: [53]

Keokuk, Iowa, Nov. 18th, 1851
Dr. E.S. Cooper

Dear Sir,
Your letter of the 14th is before us. We are sorry indeed that there shall be any misunderstanding concerning the vacancy that has occurred in our Institution, especially if it effect in any degree your private business matters. That there is a misunderstanding appears to us evident from the letter you received from Prof. Sanford. Still we have no idea that the Doctor intended to transcend his authority. In an emergency last season we delegated our Dean, Prof. Sanford, to fill one or more vacancies which occurred; but in examining our Constitution, it appears there to be the duty of the President to appoint at least an ad interim prof. in case of death or resignation.

In the impulse of the moment, and overwhelmed with the position in which we were placed by the death of Prof. Hard on the eve of our Session, Dr. Sanford may have supposed that it was the duty of the Dean to fill the place, and thus wrote you immediately on the receipt of the intelligence of Dr. Hard's death. We are satisfied, however, that the Doctor is mistaken, and wrote you therefore immediately on the receipt of your former letter.

We desire to act prudently in this matter in order that every thing may be done properly, and that harmony may prevail in our association. And we repeat again that on the meeting of the Board, we shall be glad to present your name and your claims to the chair of Anatomy.

We are anxiously waiting the arrival of Dr. Sanford, that we may have a full Board, and speedily arrange the matter as to filling the vacancy.

In the mean time we shall be glad to hear from you on the subject.

Respectfully yours,
Sam'l G. Armor
A.S. Hudson

The letter from Armor and Hudson was surely a heavy blow to Cooper, rescinding as it did the offer from Dean Sanford who seemed to say that the professorship of Anatomy at Keokuk was his for the asking. There is no further correspondence with the Keokuk faculty or comment on the subject among Cooper's papers, nor can related information be found in archival records at the University of Iowa College of Medicine in Iowa City. It is clear, however, that Cooper was denied the position. We do not know the reason that his application was turned down but there is evidence that there was dissension over the procedure followed at the school in filling the post. According to Weaver, who is an authority on the "country schools", "(w)hen Nichols Hard, of the Keokuk faculty died in 1851, Richards and Armor left the school because they could not endure the friction which arose among the faculty over the appointment of (Hard's) successor (as Professor of Anatomy)." By a strange coincidence, the paths of Armor and Cooper were later to cross again under far different circumstances. [54]

This second rebuff to Cooper's academic aspirations within eighteen months served only to increase his determination to devote his future to medical education. From this time forward his thoughts turned increasingly to California where the field was yet unclaimed, and full of promise for a pioneer who, like Brainard, had the vision to found a medical college on the frontier.

Endnotes

1. History of Peoria County Illinois, ed. not specified. (Chicago: Johnson and Company, 1880), 451-452
2. Levi C. Lane, "Obituary of Elias Samuel Cooper," San Francisco Medical Press 3, no. 12 (Oct 1862): 227-231 Library catalog record
3. Letter from O.B. Will to Rixford dated 28 April 1923, Emmet Rixford Papers, MSS 8 Box 1.7, Lane Medical Archives, Stanford Library catalog record
4. "Reviews: Introductory Lectures, for the Sessions of 1848-9," North-Western Medical and Surgical Journal 1, no. 6 (Feb-Mar 1849): 508-509 Library catalog record
5. In the personal collection of Victoria Hineman, MD, Peoria
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Chapter 7. A Long Farewell to Peoria

Peoria was the “crucible” and proving ground where Elias Cooper gained professional experience and maturity. During the decade from 1844 to 1855 he worked tirelessly to improve his knowledge of anatomy and his mastery of surgery. Literally, there was “no day without a line.” Like Daniel Drake and many other leaders of American Medicine in his day, he overcame formidable educational and other handicaps by relentless personal effort. With Drake he shared the firm belief that “labor omnia vincit” and, in later years, he made this the theme of his exhortation to medical students in California.

Peoria’s historians write of Cooper as the leading surgeon of the city. “Large, powerful, earnest, vigorous and sensitive, he thought, talked and wrote only of surgery, begrudging even the few hours he slept daily as time lost from his work”. [1]

By all accounts he was single-minded and dedicated. He demonstrated uncommon enterprise and courage by conducting Anatomy Courses regardless of public censure in Peoria from 1848 to 1855. He competed creditably against considerable odds in the Anatomy Concours at Rush in June 1850. He attended a 4 1/2 month course of medical lectures in 1850-51 at St. Louis University where he finally received an MD degree in March 1851. And he founded Peoria’s first hospital entirely at his own expense in September 1851. Meanwhile he developed an extensive surgical practice where he introduced innovative and advanced procedures to which we shall later refer. In his eagerness to expand his specialty practice and attract patients with eye and orthopedic disorders to his hospital, he advertised his services and the hospital in newspapers in the region. For this, his medical society colleagues accused him of unethical conduct, a subject to which we shall shortly return.

Cooper recognized the significance of the National Medical Conventions of 1846 and 1847 that founded the American Medical Association and stimulated the formation of state and local medical societies throughout the country. He had an abiding faith that such organizations were the best hope for raising medical standards and improving relations among physicians. This conviction led him to participate zealously in the founding of medical societies in Illinois and California. Understandably, he was dismayed when fellow society members, first in Illinois and later in California, accused him of unethical conduct for “advertising” his hospital and specialty practice. Throughout his career Cooper’s medical ethics were questioned on one pretext or another by detractors whose often-spurious charges cast a still-lingering shadow over his reputation. Recently, however, we have discovered transcripts in his own hand that explain his actions and respond vehemently to his critics. When in the course of our continuing narrative the question of ethics arises, as it frequently will, these new findings should help us to understand, and possibly even accept, his point of view.

Advertisement for Cooper’s Hospital

We cannot be certain when Cooper began to place advertisements for his hospital in regional newspapers but can assume from subsequent events that it was probably in the fall of 1851, shortly after the opening of his institution. The following advertisement, published in the Peoria Weekly Republican on 23 July 1852, is the earliest copy of the ad available. [2]

> PEORIA EYE INFIRMARY
> and Orthopedic Establishment
>
> The undersigned having purchased and enlarged the house known as the English cottage on Monson and Sanford’s Addition to the City of Peoria, designs it as a permanent place for the treatment of all persons afflicted with Eye Diseases, and those desirous of undergoing examinations for the cure of all deformities such as long standing dislocations, club foot, immobility of the lower jaw, etc.
>
> The building is in a healthy and beautiful location where patients can be accommodated with comfortable rooms, boarding and nursing such as corresponds with the desires of each case. Every instrument is provided, and in the Orthopaedic department, several entirely original ones are used, some of which in the club feet of young children, frequently obviates the necessity of operating with the knife. For further information address
>
> E.S. Cooper, M.D.
> Peoria, Ill.
>
> References
> Hon. S. A. Douglas, Chicago
> Hon. A. Lincoln, Springfield, Ill.
> (and names of 25 other persons).

Not reticent to claim the support of prominent citizens for his institution, Cooper appended a list of 27 References to his advertisement. The list included many high officials in Illinois State government as well as other notables from Ohio to Iowa. Most memorable of the references are Stephen A. Douglas, U.S. Senator from Illinois at the time, and Abraham Lincoln, an attorney at Springfield, who had served as an Illinois Representative to the U.S. Congress from 1847 to 1849. Lincoln had been elected to Congress as a member of the Whig Party which was superseded by the new Republican Party organized in 1854 to oppose the extension of slavery. Lincoln joined the Republican Party and became its successful candidate for the U.S. Presidency in 1860. There is no evidence among Cooper’s papers to prove that he was acquainted with Abraham Lincoln or any of the other political figures listed as references. On the other hand, it is doubtful that even the brash Cooper would have used their names in a published advertisement without some personal link with them. It could be that Cooper was much more active in State and regional politics than we are aware. We have only one tantalizing clue. A simple notice was published in the Peoria Weekly Republican for 7 May 1852. It read: “(Dr. Elias Cooper was) at Whig meeting.” Why should Cooper’s presence at a meeting of the Whig political party be newsworthy? We must add this to the many unanswered questions about his personal life. [3]

A.M.A. Code of Ethics on Advertising, 1847

In the mid 1800s medical ethics was a highly sensitive issue among

physicians. Since the self-confident and aggressive Cooper was destined frequently to test the boundaries of ethical practice, and provoke harsh criticism for his temerity, it will be useful for us to consider the status of American medicine and the attitude of the profession toward medical ethics in his day.

When the second session of the National Medical Convention convened in Philadelphia in 1847 it not only founded the American Medical Association but also passed a number of important resolutions. The Fourth Resolution stated: “That it is desirable that a uniform and elevated standard of requirements for the degree of M.D. should be adopted by the Medical Schools of the United States.” This resolution was the basis for the A.M.A.’s continuous struggle to induce American medical schools to raise their standards, an effort frustrated over the next 60 years by the self-serving intransigence of the majority of the schools. General reform in medical education did not finally occur until after Flexner’s fearless critique of 1910, to the preparation of which the A.M.A. lent its valuable support. [4][5][6]

When the Fourth Resolution was framed in 1847, the parlous state of the medical profession was much on the minds of the delegates: [7]

> The very large number of physicians in the United States, a number far larger in proportion to its population than in any other country perhaps of which we have a correct knowledge, has frequently been the subject of remark. To relieve the diseases of something more than twenty millions of people, we have an army of Doctors amounting by a recent computation to forty thousand, which allows one to about every five hundred inhabitants. And if we add to the 40,000 the long list of irregular practitioners who swarm like locusts in every part of the country, the proportion of patients will be still further reduced. No wonder, then, that the profession of medicine has measurably ceased to occupy the elevated position which once it did; no wonder that the merest pittance in the way of remuneration is scantily doled out even to the most industrious in our ranks, - and no wonder that the intention, at one time correct and honest, will occasionally succumb to the cravings of a hard necessity. The evil must be corrected. With a government like ours, to diminish the number of medical schools is not to be expected; and the corrective can alone be found in the adoption of such a standard of requirement… as will place the diploma beyond the reach of those who seek to wear its honours without deserving them.

The National Convention’s Sixth Resolution, also relevant to Cooper’s future, asserted: “That it is expedient that the Medical Profession in the United States should be governed by the same code of Medical Ethics.” [8] Convinced that high ethical standards were vital to improvement of medical practice and the status of medicine, the National Convention drew up a comprehensive ethical code for the A.M.A. and, in due course, each state and local medical society adopted a code of ethics comparable to it. The Illinois State Medical Society of which Cooper was a founding member was organized at a Medical Convention in Springfield in 1850. On that occasion the Convention accepted the A.M.A. code with slight modification of the section on advertising. The following is the Illinois version of the section on advertising which Cooper was accused of transgressing: [9]

> It is derogatory to the dignity of the profession, to resort to public advertisements or private cards or handbills, inviting the attention of individuals affected with peculiar diseases - publicly offering advice and medicine to the poor gratis, or promising radical cures; or to publish cases and operations in the daily prints, or favor or encourage such publications, except in approved medical prints; to invite laymen to be present at operations,- to boast of cures and remedies, - to adduce certificates of skill and success, or to perform any other similar acts. These are the ordinary practices of empirics, and are highly reprehensible in a regular physician.

During the Colonial period and throughout the 19th century American physicians were on the defensive against irregular practitioners who indeed swarmed “like locusts, “ especially in newly settled regions of the country such as the Old Northwest. The irregulars were, to say the least, unconstrained by any ethical principles. Government regulations and licensure requirements were either non-existent or unavailing. On the other hand, the medical profession itself took no substantial steps toward self-improvement because the majority of medical schools were unwilling to raise their standards. As a result, public opinion was ambivalent regarding even regular medical practitioners in the mid 1800s. Another reason for the public’s disaffection was that physicians often had little more to offer than did the botanics, sectarians, cultists, eclectics, electric healers, mesmerizers, hydropaths and other quacks. In fact, the punishing regimes that at mid century still often included bleeding, purging and calomel led many patients to believe that they were unsafe in the hands of the regular physician. [10]

Under these circumstances, one of the profession’s most effective means for distinguishing the regular from the irregular practitioner was the ban on advertising, and medical societies were committed to its strict enforcement. Given the contentious spirit latent in the medical fraternity, abundant manifestations of which we have already seen, it is not surprising that there was self-righteous vindictiveness in the persistence with which Cooper’s enemies in the Peoria and Illinois State Medical Societies pressed a case against him for “advertising” his hospital.

The following chronological account of Cooper’s role in these Societies will bring to light important features of his career in Peoria not yet addressed, and will provide background for our consideration of the dispute over ethics in which he became embroiled.

Founding of Peoria Medical Society 19 April 1848

Peoria doctors were among the first, if not the first, in Illinois to organize a stable and continuing local medical association. They formed a medical society in 1846, reorganized it in 1847 and finally established a permanent society on 19 April 1848. It was on the evening of this latter date in the office of Dr. Frye - a dingy little room with a pine floor and three or four stuffed wooden chairs - that the following six physicians met by candlelight to found an association known originally as the Peoria Medical District Society: [11][12]

Elwood Andrew

J.C. Frye

John D. Arnold

F.A. McNeill

Edward Dickinson, Chairman

J. Murphy, Secretary

Dr. Zeuch, historian of the early days of medical practice in Illinois, writes that “seven men met to organize the first medical society in Peoria County” and he names Cooper as the seventh man. Nevertheless, the account of the organizational meeting of 19 April 1848, recorded longhand in the Minute Book of Peoria Medical Society, states that the founding group consisted of only the six physicians named above - and Cooper was not among them. [13]

Although it appears that Cooper may not have been a founding member of Peoria District Medical Society, we do find him present only seven weeks later on 6 June 1848 when 30 members convened at Peoria in the First Annual Meeting of the Society. During that meeting Cooper was appointed to membership on the Standing Committee on Medical Statistics. It was on this occasion that Cooper was initiated into the mysteries of medical society organization which remained a fatal attraction for him the rest of his life. In this particular aspect of professional affairs, he was ever after intensely involved. [14]

This leads us here to the further observation that Cooper was never married and his records contain little information about his social life, apart from interaction with his own family and his ardent participation in medical societies.

There were several features of the First Annual Meeting of the Peoria Society that attest to the alertness of its members and the extensive region of the country over which they were scattered: (1) E.M. Colburn of Bloomington (40 miles southeast of Peoria) made a report on the use of ether in obstetrics practice (only a year and a half after its introduction as an anesthetic), and was elected President of the Society for the ensuing year; (2) the Society adopted the Code of Ethics of the American Medical Association which had been formulated only a year previously at the National Convention in Philadelphia. Among those present at the meeting were the men who later charged Cooper with unethical practice: Drs. John D. Arnold of Peoria and Dr. Thomas Hall of Toulon (30 miles northwest of Peoria). This is an opportune moment to introduce them and through their lives gain some additional insight into medical practice in Illinois at mid-century.

John D. Arnold, MD (1820-1863)

Sketches of Doctor Arnold’s early life by historians of Peoria County are contradictory and create uncertainty as to the facts. He was born 8 June 1820 in the small town of Collins, Erie County, New York, 15 miles south of Buffalo. He probably began the study of medicine in 1840 as an apprentice to a practitioner in Buffalo. According to the annual Buffalo City Directory, Arnold was a “Medical Student” with M.W. Hill, a “Botanical Doctor,” in 1840 and 1841. He attended Allegheny College in Meadville, Pennsylvania, as a Preparatory Student for one year in 1842. He was enrolled as a first year college student for part of 1843 before dropping out. He appears only once more in the Buffalo City Directory in 1844 when he is listed simply as a “Medical Student.” [15][16]

If and where he received an MD degree are unclear. The History of Peoria County records that he “attended for a considerable time the New York College of Surgeons;” that “he commenced the practice of Medicine at Springville, New York, with Dr. Emmons;” and that “in the Spring of 1847 he emigrated to Galveston, Texas, remaining there but one year, when he removed to Peoria and resumed the practice of medicine… “

The actual date of Arnold’s arrival in Peoria is unknown although it was obviously prior to April 1848 because he was sufficiently established in practice by that time to be included among the six physicians who organized the Peoria District Medical Society. He was not a founding member of the Illinois State Medical Society that first met in Springfield in 1850, but he became a member of that Society when it convened in Peoria in 1851 for its First Annual Meeting. On that occasion he was listed as a delegate from the Peoria Medical Society.

Presumably he was primarily engaged in general practice as were virtually all physicians in Peoria, but it is evident from his appointment to the State Society’s Committee on Surgery in 1853 that he also did some operating. This would have put him into competition with the hard-driving Cooper who considered himself a specialist in surgery and scorned dilettantes in his field, as he would have deemed Arnold to be.

A tall, slender man of a lively social turn of mind, Arnold is said to have enjoyed the esteem and confidence of all with whom he came in contact, and was rewarded by a flourishing practice. He had a delicate constitution and throughout his adult life suffered from what would now be termed latent tuberculosis. His tastes ran more to political affairs than to the intricacies of medical science, and this was reflected in his approach to professional matters. In fact, as his career unfolded, his interest and forte proved to be not medicine, but politics. He was a Whig and, when the Party dissolved, he cast his fortune with the Republicans. He campaigned for public office and in 1854 was elected to the Illinois State Senate where he served four years. In 1859 he was elected mayor of Peoria and served one year. During the 1840s and 1850s Abraham Lincoln emerged as the “wheelhorse” of the Whig and Republican Parties in Central Illinois and Arnold became his personal friend. This led in 1861 to Arnold’s appointment by President Lincoln as Consul to St. Petersburg, Russia. Arnold left Peoria for his foreign post in May 1861. When the rigors of the Russian winter proved too severe for his fragile health, he was forced to return to Peoria in the spring of 1862. There, after a protracted illness, the Honorable John D. Arnold died of consumption in April 1863 at the age of 43. [17][18][19][20]

Thomas Hall, MD, (1805-1876)

According to a schoolteacher who was raised on a small farm north of Peoria, the country around the homestead where her family settled in 1838 was a wasteland broken only by distant groves of trees. She recalled that: [21]

> In the early ‘40s, the roads by which the settlers occasionally passed from one grove to another were faint trails, sometimes almost overgrown and hidden by the luxuriant grass of the prairie. And the sloughs, as the feeble watercourses were called, were unbridged, so that in spring season or time of heavy rains many of them were

impassable.

The nearest physician lived … 18 miles away in the village of Osceola. He was an Englishman… No man ever more adorned the profession of healing. He rode in what he called his "pill-cart," night and day, in all weathers, from hamlet to hamlet, prescribing for the sick, supplying them medicines, setting broken limbs, and delivering pregnant women. His patients paid when they could, and how they could. A load of hay, or corn, or firewood, or a quarter of venison, or a horse to supply the wear and waste of his stable. He never considered the question of gain, and I doubt if he ever sent a bill to a single patient.… He died a poor man, followed to his grave by the tears and affectionate remembrances of three generations. His name was Thomas Hall.

According to local tradition, one of the first settlers on Spoon River in what is now Stark County was a very religious man. He had great faith in the power of prayer, but he was also a practical man and never asked God to do the impossible. Among his petitions to the Almighty was the fervent request that a doctor be sent to the settlement where he and his family lived; that the doctor would be devoted to his work and labor for the benefit of the people; and that he would be accompanied by a well-educated wife who would be interested in the wives and daughters of the settlers. When in 1837 Dr. Thomas Hall arrived on the Illinois frontier, bringing with him his wife and family from England, it was regarded as undeniably an answer to the old settler's prayer. [22]

Doctor Hall was born on 12 March 1805 near Hulland in Derbyshire, England, where he attended a local grammar school. Following apprenticeship under a practitioner in neighboring Stafford County, he studied at the Royal College of Surgeons in London, graduating as a doctor of medicine and surgery in 1828. His diploma bore the names of Sir Astley Cooper and Dr. John Abernethy, two of the best known medical men in England at the time. "When the young Dr. Hall was leaving home to begin life and practice for himself, his good mother followed him to the gate, and laying her hands lovingly on his shoulder said to him 'Tom, do your duty by all, but especially remember the poor'." [23]

After nearly ten years of active and successful practice in his native county of Derbyshire, Dr. Hall had a wife and four children, and a desire to seek a new home for them on the American frontier in Illinois where two brothers and a sister had settled the year before. In 1837 he embarked for America, the land of promise, accompanied by his own family, his father and mother, and his sister, her husband and their five children. Overcome by sea sickness on the Atlantic, his mother died a few days before the ship reached New York and was buried at sea. An exhausting and hazardous journey inland still lay ahead for the sorrowing party of five adults and nine children. They traveled northwest by boat up the Hudson River; by way of the Erie Canal, and Lake Erie to Cleveland, Ohio; thence by boat on a canal to the Ohio River; and, from there, down the Ohio, and up the Mississippi and Illinois Rivers to Peoria, then only a hamlet on the west bank of the Illinois River where it widens to form Lake Peoria. The final stage of the odyssey, by horse and ox-drawn wagons, brought them to a happy reunion with Dr. Hall's brothers and sister at the frontier settlement of Osceola, 35 miles north of Peoria. The settlement was in open country later to become Stark County.

Assisted by his brothers and his father, Hall built a log cabin for his family including an office for himself. At the age of 32, and having "brought with him a library of choice medical works and surgical instruments of the most approved pattern then known to meet every emergency," he began the practice of his profession without delay. In 1842 he moved with his family ten miles south to the village of Toulon which had become the county seat, and from there he continued his peripatetic practice. We have already learned of the respect and affection in which he was held by his patients. He continued to serve them until incapacitated by the infirmities of age. Only a few days before his death he remarked to some of his friends, "I am not afraid to meet my mother, for she knows that I have done as she told me." Here was a man whose criticism Cooper was bound to respect. [24]

Cooper's First Scientific Paper

Cooper found in the Peoria and the State Medical Societies a welcome forum for the scientific papers that he now began to produce regularly.

We have already mentioned the first publication of his career, a paper entitled "Remarks on Congestive Fever" printed in 1849, on which paper he prematurely listed himself as "E.S. Cooper, M.D.," two years before he actually received a medical degree from St. Louis University in 1851. He presented a second paper, entitled simply "Congestive Fever," at the Peoria Medical Society and published it in 1850. Since both these papers were reviewed at the First Annual Meeting of the Illinois State Medical Society in 1851, we shall defer comment on them until we take up Cooper's participation in that meeting.

We learn from the Minutes of the Peoria Society that Cooper was a frequent contributor to their scientific program. His topics were: [25]

1850 -Congestive Fever
5 Dec 1852 - Diseases of the Eye
7 Jan 1853 - New Operation for Congenital Scrotal Hernia
20 Feb 1853 - Treatment of Vaginal Ulceration
5 Mar 1853 - Surgery of Oceanea as Practiced by Natives
16 Jul 1853 - Surgery of the South Sea Islands
1 Apr 1854 - Treatment of Diseases of Hip Joint

As far as we can determine none of these presentations, except for that on "Congestive Fever," was ever published. They are listed here primarily to illustrate the range of his interests at the time and the fact that he enthusiastically supported the educational efforts of the new Society. We shall return to consider the disciplinary action taken against him by the Peoria Medical Society after we have reviewed his substantial contributions to the early history of the State Society, beginning with the Medical Convention at which the Society was founded.

Medical Convention for the Purpose of Organizing the Illinois State Medical Society
Springfield, Illinois, 4 June 1850

The American Medical Association at its Second Annual Meeting, held in Boston in May 1849, adopted the following resolution: [26]

Resolution 5. Resolved, That in accordance with a resolution of the American Medical Association, adopted May 4th, 1847, "it is earnestly recommended to the physicians of those States in which State Medical Societies do not exist, that they take measures to organize them before the next meeting of this Association."

In response to Resolution 5, the doctors of Illinois responded decisively. Forty-nine physicians from around the State assembled in a Medical Convention in Springfield, the State Capitol, on 4 June 1850. On the first day of the meeting, under the presidency of Rudolphus Rouse of Peoria, the Convention proceeded with clockwork precision to resolve into a Committee of the Whole; ratify a Constitution; declare itself the Illinois State Medical Society; elect officers for the ensuing year; appoint Standing Committees; and adopt a code of Medical Ethics based on that of the A.M.A. By any standard, a remarkable day's work. [27]

While engaged in these heady organizational proceedings, Cooper was uncomfortably aware that he had not yet obtained an MD degree, or even attended a medical school (although, as we have seen, he had been signing himself as "M.D." since 1849). His position in this regard was now quite untenable because of the following resolution that had also been adopted by the A.M.A. at the Boston meeting in 1849: [28]

Resolution 6. Resolved, That the State Societies be recommended, after they shall have been organized, to recognize as regular practitioners none who have not obtained a degree in medicine, or a license from some regular medical body, obtained after due examination.

The Transactions of the recently established A.M.A. were of extraordinary interest to the medical profession. Thus there can be no doubt that Resolution 6 came promptly to Cooper's attention and that he grasped the importance of his obtaining a legitimate MD degree as soon as possible. Accordingly, he took the steps necessary to acquire an MD ad eundem from St. Louis University in March 1851, just in time to avoid an embarrassing exposure by the strict constructionists of the Illinois State Medical Society at the forthcoming First Annual Meeting.

Cooper was one of the 49 founding members of the State Society. During the organizational meeting he was appointed to the Society's Standing Committee on Surgery, chaired by the dean of Illinois surgeons, Professor Daniel Brainard of Rush. Appointment to membership on this three-man surgical committee was a significant mark of recognition for the 30 year old Cooper. He was also named to the important Standing Committee on Arrangements which was charged with preparing for the First Annual Meeting of the Illinois State Medical Society to be held the following year in Peoria.

In order to trace Cooper's further involvement in the affairs of the Illinois State Medical Society, we shall summarize his participation in each of the annual meetings from 1851 through 1854. [29]

First Annual Meeting of Illinois State Medical Society
Peoria, Illinois, 3-4 June, 1851

Cooper was a member of the Committee on Arrangements that organized the program for this First Annual Meeting of the Society. During the meeting he was elected as an Alternate Delegate to the next meeting of the American Medical Association.

Also during the meeting Cooper proposed the following Resolution on Dissection to which we referred earlier:

Whereas, The present laws and public sentiment of the people of the State of Illinois are strict and binding, holding the Physician and Surgeon legally responsible for the performance of their duty, but at the same time are hostile to those means by which a practical knowledge of pathology, skill, and surgical anatomy is obtained; therefore

Resolved, That a Committee of three be appointed to investigate the subject of legal dissections in all it relations and bearings, and report the same to this Society at its next annual meeting.

The preamble and resolution were adopted and the following gentlemen were appointed as the Committee on Legalizing Dissections: Drs. E.S. Cooper (Chairman), J.C. Frye and William Chamberlain.

Two of the earliest scientific papers to be published by Cooper in a medical journal were reviewed at this meeting by the Society's Committee on Practical Medicine in an "elaborate report" read to the assembled Society, which must have been very gratifying to the author. The first of these two papers, entitled "Remarks on Congestive Fever," was published in two parts in the St. Louis Medical and Surgical Journal in 1849 and 1850. The paper is a report of three fever patients two of whom died. One of the deceased was autopsied by Cooper and the findings are reported. The second paper, entitled "Congestive Fever," was published in the North-Western Medical and Surgical Journal for November 1850 and is a report of three additional fever patients, one of whom died but was not autopsied. All six of Cooper's patients, diagnosed by him as suffering from "Congestive Fever," undoubtedly had malaria, the endemic pestilence that ravaged Illinois during Cooper's era, as we previously discussed. Being of unknown origin at the time and often fatal, speculations as to the cause and management of malaria were the subject of innumerable journal articles and textbook discussions that consisted chiefly of futile theorizing as to etiology and of frustrated groping for effective therapy. [30][31]

Cooper's finding of venous engorgement in brain, heart, lungs and liver of his autopsied patient, whom he diagnosed as having died of "Congestive Fever," convinced him that "general internal venous congestion" was specific to the disease. This was a common hypothesis at the time and led to the frequent use of blood-letting to relieve the "congestion" as a primary mode of treatment, as we have seen. Quinine was not yet recognized as the ultimate specific for malaria. Nevertheless, it was being generally accorded a regular but rarely exclusive role in therapy. Cooper's regime in the autopsied patient had consisted of "brandy, quinine, camphor, calomel and morphine, in large and frequent doses; mustard poultices extending

from ankles to knees and from wrists to elbows; bottles of hot water to the sides; and a large quantity of bruised horseradish to the region of the stomach and bowels. The pulse rose a little, and the skin became somewhat warmer under this treatment, but (the patient) died in a few hours."

Cooper's inclusion of large doses of quinine, and his exclusion of blood-letting and purging, in the treatment of his patients are the most notable features of his papers. They otherwise consist of tortured reasoning about the relationship of different degrees of "internal venous congestion" to various clinical manifestations of "congestive fever." For example: "Symptoms vary, owing to the part or parts which may be the seat of congestion, and the internal remedies have to be modified accordingly - thus in congestion of the veins of the liver and mesentery, there will be vomiting and purging; and should these organs be the principal seat of congestion, quinine would be of little avail during the paroxysm. The remedies in this case, should be calomel and opium, with brandy and the application of hot air, etc., etc."

Deficiencies in medical knowledge and practice in the mid 1800s as compared to the present are once again cited here not to belittle the doctors but to enable us to understand the difficulties they faced, and to entertain the thought that present-day physicians, provided with only their limited information and resources, would have responded to conditions much as they did. When Cooper boldly addressed the "fever question," the foremost medical problem of the period, he had never taken a course in a medical school. If he had, it would have made no difference to the outcome in his patients, except that he probably would have harmed them further by insisting on bloodletting.

Cooper's Paper on Chloroform

Professor Brainard and the other member of the Standing Committee on Surgery failed to arrive at the Society meeting. Therefore, Cooper was called upon to make a report for the Committee, which he was happy to do. He had wisely brought with him a scientific paper he hoped to get on the program if time allowed. His presentation was on a subject far more congenial to his interests than "Congestive Fever." He spoke on the topic of "Chloroform in Surgical Operations."

At the time of the State Society meeting in 1851, general anesthesia was a recent innovation. Ether had been administered by a dentist, W.T.G. Morton, for an operation performed by Professor Warren at the Massachusetts General Hospital in October 1846. A year later, chloroform was introduced for childbirth by Professor Simpson at Edinburgh in November 1847. [32][33]

There was immediate worldwide interest in these agents and reports of their use in childbirth and surgery promptly appeared in the medical journals of the Old Northwest. Cooper at once recognized the immense significance of these developments and was among the earliest in the region to experiment with general anesthesia. He reported that he "had an opportunity of testing the effects of Chloroform as an anaesthetic agent in seventy-nine cases of Surgical operations since the organization of the State Medical Society (in 1850)." He pointed out that, although most of the operations were minor, they nonetheless demonstrated the effectiveness of chloroform in producing insensibility. He further stated that, although there were no fatalities in his series of cases, a complication occurred in one patient which was the principal reason he decided to report on the subject of chloroform anesthesia. He then went on to describe the following harrowing incident: [34]

> Case. - Mrs. M.C., a widow lady aged 25, of good constitution and decidedly vigorous health, took Chloroform for the purpose of undergoing an operation for Strabismus, Dec. 10, 1850. She was seated in a chair, and the Chloroform given under my directions. About twenty drops were used, and the napkin containing it held close to the mouth wide open. Two or three vigorous inhalations were rapidly made, when the patient sank down, and would have fallen at my feet, had not support immediately been afforded her. She struggled, gasped for breath, became pulseless while the lips and cheeks assumed a purple hue.
>
> I placed her in a recumbent position, forcibly expanded the lungs, titillated the fauces, sponged the face with spirits of camphor, and exhibited some of the same internally.
>
> After recovering from the immediate symptoms, which she was slow in doing, great head-ache, pains and fullness in the chest, together with a stunned and torpid condition of the sensorial powers, with considerable prostration of physical strength remained for some days.

Cooper's patient had suffered a cardiac arrest due to the paralyzing effect on the heart of chloroform administered in too high a concentration. He correctly inferred that the risk of this disastrous cardiac complication could be minimized by gradual administration of the agent while always assuring ample inspiration of room air. To test this conclusion, he later recalled Mrs. M. C. whose operation for strabismus he then performed without incident under chloroform anesthesia delivered in accordance with the above precautions.

The significance of Cooper's paper lies in his warning of the lethal potential of chloroform, then being widely and indiscriminately used by inexperienced practitioners. Soon after Professor Simpson's report in November 1847 "On an anaesthetic agent, more efficient than sulfuric ether," chloroform was being hailed In Europe and America as the agent of choice for general anesthesia in preference to ether, over which it indeed had many advantages. Ether is irritating to the air passages; has a disagreeable and lingering odor; is highly flammable; and is slow in action. On the other hand, chloroform is well tolerated by the airways; has a not unpleasant odor, is not flammable; and is ten times as potent as ether. Yet, ominously, within a few months of the introduction of chloroform, reports of sudden death during its administration for minor operations began to come in from around the world. First, in January 1848, a girl of 15 at Newcastle-upon-Tyne suddenly collapsed and died during removal of a toenail; next, in February 1848, a woman of 35 in Cincinnati died during extraction of teeth; then a young woman in Hyderabad died during excision of the end of a finger; followed by death of a woman aged 30 at Boulogne; a man from Glasgow; a boy of 17 at Lyon, and a laboring man at Westminster. These patients were cited in a classical paper "On the fatal cases of inhalation of chloroform" by Queen Victoria's anesthetist, Dr. John Snow of London, the first physician to devote his full time to the practice of anesthesia. Snow's sobering article was published in the Edinburgh Medical Journal in July 1849, just over a year and a half after the introduction of chloroform. [35]

Although Snow demonstrated by personal experience that chloroform could be administered with relative safety by controlling the dosage of the vapor with a suitable inhaler, its deadly potential for arresting the normal heart led within a decade to its progressive decline in favor. Ether then became for many years the agent most widely used for general anesthesia until replaced by better drugs. As for Cooper, he continued to prefer chloroform until ten years later in 1861 when he wrote: [36]

> The announcements of deaths from the use of Chloroform are becoming truly frightful. Scarcely a medical journal reaches us without containing the account of some recent death by Chloroform. We were once a very strong advocate of its use, but experience has taught us that it is absolutely unsafe when inhaled to the extent of producing insensibility to pain. So we seldom use it now, except in cases of a desperate character.

A myth has grown up that attributes to Cooper the first use of chloroform for surgical anesthesia in the Old Northwest, but Cooper himself made no such claim. [37][38] In fact there is no record of the specific dates on which his operations were performed. He stated in his paper that his 79 cases had been done "since the organization of the State Medical Society." That is, after 1850. From a review of regional journals it seems likely that both Professor Brainard of Rush in Chicago and Professor Mussey of Ohio Medical College in Cincinnati both used ether and chloroform well before 1850, and were the first to administer these agents for surgical anesthesia in the Old Northwest.

Professor Brainard first used ether anesthesia when he performed two surgical procedures - amputation of a finger and resection of metatarsals - in January 1847, only 3 months after the introduction of ether at Boston in October 1846. [39] In a second report, published in October 1847, Brainard said that "We have lately used (ether) for the extirpation of two cancerous breasts, extirpation of tumors, opening of abscesses, strabismus, etc., with most satisfactory results." [40]

With respect to Brainard's use of chloroform, it was reported in December 1847, only one month after this agent was introduced in Edinburgh, that he had already performed several operations under anesthesia with chloroform which had been manufactured by Professor Blaney in the laboratory at Rush Medical College. [41]

R.D. Mussey, Professor of Surgery at Ohio State Medical College, reported in September 1848 that he had "employed etherization in the amputation of all the members belonging to the human body" and various other operations such as excision of tumors, lithotomy and reduction of dislocations. Regarding his use of chloroform, Mussey said that soon after the announcement of Dr. Simpson's experiments with the agent had reached him, he proceeded to try it without hesitation in 38 surgical operations, and saw no unpleasant reaction in a single instance. The operations performed under chloroform included such procedures as removal of tumors, amputations, strangulated hernia, etc. Mussey cited the deaths from chloroform at Newcastle-upon -Tyne and Cincinnati to which we have already referred and attributed them to improper procedures in administering the agent. "On the whole", he concluded, "I regard the inhalation of chloroform for surgical operations, administered with due precaution, as entirely safe; and I look upon it as a boon of inestimable value, presented by Chemistry to our profession under the guidance of Providence." [42]

These references to the use of ether and chloroform by Drs. Brainard and Mussey illustrate the rapidity with which the agents were incorporated into surgical practice even in the relatively undeveloped western section of the country. The evidence suggests that these two Professor of Surgery in the leading medical schools of the Old Northwest were the earliest to employ ether and chloroform in the region and that Cooper was not, as local tradition would have it, the first in the area to use chloroform. Nevertheless, Cooper's substantial series of 79 patients operated under chloroform anesthesia in the provincial town of Peoria, and his timely emphasis on the agent's lethal properties, bespeak his capacity for leadership in the new era of surgery that began with the advent of general anesthesia.

Cooper's presentation on chloroform anesthesia at the first annual meeting of the State Society was the only scientific paper delivered during that meeting at the initiative of an individual member.

Second Annual Meeting of Illinois State Medical Society
Jacksonville, Illinois, 1-3 June 1852

Elias Cooper attended this meeting of the State Society as an elected Delegate of the Peoria Medical Society. On the first day of the meeting Levi Cooper Lane from Henderson, was elected a Permanent Member of the State Society on the recommendation of his Uncle Elias, thus establishing Lane's presence in Illinois in 1852.

As evidence of increased recognition of Cooper within the State Society, we find him appointed during this meeting to the Committee on Unfinished Business; to the Nominating Committee for Society Officers for the ensuing year; and to the Committee on Surgery for the ensuing year. He was also elected as First Secretary of the Society for the ensuing year, and as a Delegate to the A.M.A. at its next meeting to be held in New York in May 1853.

When Cooper was called on to report for the Committee on Legalizing Dissections, he pointed out that the Committee was charged to memorialize the Legislature rather than to submit a report to the Society. As already noted, we have no information on the steps the Committee may have taken to influence the Legislature. In any case no legislative action was taken on this subject until years later.

Cooper and Levi Cooper Lane were the only members of the Society, except those submitting reports of Standing Committees, to present papers on their personal scientific observations. Lane was unable to attend the meeting and Cooper read his paper for him. The papers by Cooper and Lane, published as Appendixes of the Transactions, are summarized here briefly to indicate the modest level of scientific communications at the meeting.

Appendix B. “Collodion in Entropion”
By. E.S. Cooper, M.D.

Entropion is inversion or turning inward of the margin of the eyelid bringing the eyelashes into contact with the eyeball and causing pain, irritation and possible corneal abrasion. Collodion is prepared by dissolving pyroxylin or gun cotton in ether and alcohol. When applied to the skin it dries rapidly, forming an adherent glossy contractile film that contracts the underlying skin. This short communication describes the effectiveness of collodion, painted along the cutaneous margin of the eyelid, in reversing inversion of the lid by contracting the underlying skin. Cooper, who took a special interest in diseases of the eye, considered the collodion method of treating entropion to be original with himself:

> Since the last meeting of the Society I have had an opportunity of fully testing the efficacy of Collodion as a remedial agent in Entropion, and though I am not aware of any other person having used it, to give testimony that would afford weight to my opinion, I feel perfectly at liberty to recommend it as an agent capable of superseding the necessity of a surgical operation in the cure of that disease.

Although collodion is no longer listed among the now more sophisticated methods of treating entropion, it may well have had a temporary palliative value in Cooper’s day.

Appendix C. “A New Instrument for Cauterizing the Urethra”
By E. S. Cooper, M.D.

Urethral strictures in men caused by gonorrhea, a common problem in the pre-antimicrobial era, were dilated by catheters and curved metal probes of various sizes passed down the urethra. When dilatation failed because of denseness of the stricture, it was common practice to apply a caustic via catheter to the strictured area in order to soften the contracted tissue and facilitate its dilatation. In this communication, Cooper described an instrument of his own design for this purpose. The instrument had the shape of a common catheter but was made of copper and perforated with small holes at its distal end:

Its mode of application is as follows: Having it well oiled, it is introduced as far as the stricture; after which, a solution of nitric acid and water is poured into it, which, passing down the holes, throws out to the parts corresponding the nitrate of copper just formed by the union of the acid and the copper. The degree of cauterization will be graduated by the strength of the solution and the length of time it is permitted to remain.

Cooper designed several models of the copper instrument for different types of stricture and also shaped its mouth like a funnel more freely to receive the caustic. He recommended his invention as easy to fashion by coppersmiths and convenient to apply by physicians, “especially in places remote from the largest cities.”

John Hunter (1728-1793) was the British surgeon who elevated surgery to the status of an experimental science. Both he and the eminent French venereologist Philippe Ricord (1799-1889) used such caustics as silver nitrate to relieve resistant strictures. Cooper’s copper tube was designed to facilitate the accurate application of a caustic solution. Nowadays sophisticated instruments passed down the urethra accomplish the same task with knife, cautery or possibly laser when dilatations alone are ineffectual. [43][44]

Appendix D. “Incomplete Anchylosis of the Knee-joint”
By E. S. Cooper, M.D.

Cooper’s third paper to the Society concerned the treatment of orthopedic deformity which, like diseases of the eye, was a field in which he sought to cultivate referrals and establish preeminence in the region. He reported the treatment of three patients, two men and a little girl, who had marked chronic flexure of the knee joint which retained only the slightest motion, indicating that the fixation or “anchylosis” of the joint was almost but not entirely complete. By an ingenious apparatus consisting of splints, springs, rods and a boot, custom-designed for each deformity, he enabled the patient to walk. When bearing weight on the foot, pressure was transmitted through the apparatus to extend the knee joint which gradually straightened until the patient could walk again without crutches.

It is in the process of cure by walking that I claim originality in the treatment of these cases. Though many cures have been effected by gradual extension alone, or by extension and forced motion, a plan not new to the profession by any means, but one that must appear imperfect to all who are familiar with this class of deformities; since in many, if not a majority of cases, where anchylosis has been of 10 or 12 years standing, the limb is too weak to bear the patient’s weight, even though the motion of the true joint was unimpeded.

Cooper was indeed an early advocate of the beneficial effects of weight-bearing in the management of orthopedic conditions of the lower extremities, a principle that later gained general acceptance. It is of further interest to note that he was always anxious to have his patients observed by other practitioners who could substantiate his claim of good results. In the case of his first patient with anchylosis of the knee joint (who consulted him on 26 January 1852), “The progress of cure, and the principles of treatment were frequently noticed by Drs. John L. Hamilton, J.T. Steward, W.R. Hamilton, and L.C. Lane, of Peoria.”

Appendix E. “Remarks on Transforming lacerated and Contused, into Incised Wounds” By L.C. Lane, M.D., of Peoria

Cooper read this paper at the meeting on behalf of Lane.

After stating the important principle that a wound associated with irregular laceration and heavy bruising heals poorly, Lane made the point that surgical excision of dead and badly damaged tissue leaves behind only viable normal structures capable of rapid healing. He then cited the case which led him to that conclusion - a 34 year old German bootmaker who on 31 December 1851 received a violent wound from the explosion of a gun in his hand, blowing away its palmar surface:

> Dr. E.S. Cooper and myself were called to the case a few minutes after the receipt of the injury. After making a careful examination of the wound, as to its nature and extent, it was a matter of considerable demur with us whether nature would be sufficient to effect a cure without amputation of a part or all of the hand…
>
> The idea immediately suggested itself to Dr. Cooper of trimming the wound, and thus changing its nature from a lacerated and contused to a neatly incised one - an idea novel in itself… Almost the entire surface of the wound was pared to a sufficient depth to remove the lacerated soft parts, leaving it for the most part one of smooth incision…
>
> I shall not enter into a tedious detail of the after treatment . . but let it suffice to say that (healthy granulations sprang up and the wound healed kindly). This was satisfactory evidence to me that had not the worst and nearly all the surface been changed from a lacerated and contused to an incised wound, the patient would have lost his hand.

This rather elementary case report conveys two pertinent messages: Cooper was a gifted surgeon able to act intuitively on a basic surgical principle generations before its many applications were fully appreciated: and Lane was associated with him in practice in Peoria in December 1851.

Third Annual Meeting of Illinois State Medical Society
Chicago, Illinois, 7-9 June 1853

The Society met in the Common Council Chamber of the City of Chicago and, in the absence of President Rouse (from Peoria Medical Society), the meeting was called to order and its preliminary session conducted by First Vice President Thomas Hall (from the Stark County Medical Society). Pursuant to the recommendation of the Committee for Nomination of Officers, Professor Daniel Brainard of Chicago was elected President of the Society and took the chair as presiding officer for the remainder of the meeting.

Delegates from the Society to the next annual meeting of the A.M.A. to be held in St. Louis in May 1854 were elected and Thomas Hall of Toulon was among those chosen.

During the Society’s administrative deliberations, Elias Cooper took no significant part but, as before, he contributed to the scientific program by reading a paper. His presentation on “Medical and Surgical Diseases of the Eye” was discussed by Drs. Hall and Brainard. Unfortunately, this paper was not reproduced with the Transactions as was the case with his previous contributions, and a search of the medical literature did not locate its publication elsewhere.

It was at this Chicago meeting of the State Society that Cooper’s opponents, Drs. Arnold and Hall, planned to bring against him the charge of unethical practice and call for his expulsion because he “advertised” his hospital in the public press. We shall return shortly to this issue.

Seventh Annual Meeting of American Medical Association
St. Louis, Missouri, 2-4 May 1854

Elias Cooper attended the A.M.A. meeting in St. Louis as a Delegate from the Illinois State Medical Society. However, according to the Minutes for the 1853 meeting of the State Society, he was not among the delegates elected to represent the Society in St. Louis. Dr. Thomas Hall was elected by the Society as a delegate to the St. Louis Meeting of the A.M.A. but did not attend. The Minutes of the 1852 meeting of the State Society show that Cooper was elected to serve as a delegate from the Society to the A.M.A. at its New York meeting in May 1853 but, according to the A.M.A. Minutes, he was not present. These data are cited merely to clarify the record with respect to Cooper’s attendance at meetings of the A.M.A. As far as we can determine, Cooper attended only one A.M.A. meeting - that held in St. Louis in May 1854.

Cooper’s surgical teacher, Professor Charles Pope, Dean of the Medical Department of St. Louis University, was elected President of the A.M.A. at the St. Louis meeting and presided over the sessions. This must have been a pleasing development for Cooper who no doubt took the opportunity to renew his friendship with Dr. Pope, and to revisit the familiar environs of his alma mater, the St. Louis University. Perhaps it was in part to this congenial ambiance that Cooper owed the signal recognition he received during the meeting. He was elected Chairman of the Committee on Orthopedics of the A.M.A. with the responsibility to report on the status of the specialty in the United States at the next meeting. For a surgeon from Peoria, without the aura of a large metropolitan practice or an academic title, to be elected to such a chairmanship suggests a far more than local appreciation of his work.

Two months later, in order to gather information for his report on orthopedic surgery, Cooper wrote the following letter: [45]

> Peoria, Ill, July 1st, 1854.
>
> Dear Sir,
> Having been appointed by the American Medical Association to report upon Orthopaedic Surgery, I take the liberty of addressing the medical men of this country generally, by circular, soliciting their aid in the fulfilling of that duty. The objects of the commission are to place within the reach of all practitioners the improvements that may now be in the hands of a few, and to obtain an accurate estimate of the condition and progress of Orthopaedia, in the broadest acceptation of the term, embracing statistics of treatment for removing obstructions in the movements of all Diarthrodial Articulations, either with or without dividing tendons, and endeavor to ascertain if there exists in America any cause for a vibration of the medical mind between an almost exclusive reliance upon tendon cutting, or the appliance of machinery to remove deformities, as has heretofore existed in most parts of Europe.
>
> I wish to know the number of cases of Club-foot, Immobility of the Knee Joint, Permanent Contraction of the Jaws, Wry Neck, Curvature of the Spine, etc., etc., which have come within your observation, at your present residence, the number submitted to treatment, and the attendant success, as well as whose machinery was applied, etc., etc.
>
> Respectfully yours,

E.S. Cooper, M.D.

The American Medical Association met for its Eighth Annual Meeting at Philadelphia, 1-4 May 1855. During the meeting there was a call for the Report on Orthopaedic Surgery by Dr. E.S. Cooper of Peoria. He was not present at the meeting and no report was submitted. He had left Peoria for the Pacific Coast the month before.

Fourth Annual Meeting of Illinois State Medical Society
Lasalle, Illinois, 6-7 June 1854

Dr. Cooper's participation in the routine business of the Society was minimal during this meeting The Minutes record no participation by him in any of the decisions. It is as though organizational issues and parliamentary maneuvering had lost their attraction for him. Perhaps in deference to his seniority in the Society, he was again elected as a delegate to the A.M.A. at its next meeting to be held at Philadelphia in May 1855.

As usual he contributed to the Society's scientific program. On this occasion he read a lengthy paper, published only in the Transactions, with the following wordy title: "Walking rendered the Primary Element in the Cure of Deformities of the Lower Extremities; its early Adaptation to White Swelling and Coxalgia, with Apparatus for carrying out the designs of the same."

This paper is essentially a defense and further documentation of the effectiveness of the apparatus and methods previously described in the paper on "Incomplete Anchylosis of the Knee Joint" which Cooper presented to the Society in 1852, and which was later criticized severely in the medical press. For example, the editors of the Western Medico-Chirurgical Journal, organ of the Iowa State Medical School in Keokuk (an institution not unknown to Cooper), sent him a copy of that periodical containing a review of the anchylosis paper which conceded the apparatus to be Cooper's invention, but considered it worthless. An editorial in the Philadelphia Medical News and Library claimed that Cooper's methods had already been in use for many years, but the editors never supplied any reference to prove their point. To which Cooper responded:

I have either greatly overrated my claims of originality (and) the value of my inventions or the editors of medical journals have done me a great injustice. I shall never give priority to any one who has not published previously to me in 1852, nor lose confidence in my methods because they are condemned by others.

Cooper's championing of progressive weight-bearing (walking) and joint mobilization, controlled by appropriate apparatus, and his insistence that these activities are essential to musculoskeletal development and restoration of function, find their counterpart in modern orthopedic practice - with the use of sophisticated "apparatus" that would have fascinated him. Current methods affirm basic principles he long ago espoused.

In one arena after another, Cooper was proving to be forward-looking, firm in his convictions, and self-assured in confronting his adversaries.

Fifth Annual Meeting of Illinois State Medical Society, Bloomington, Illinois, 5-6 June 1855

Cooper is not mentioned in the Minutes of the meeting. His name does not appear on the List of Members of the Society published in the Transactions - nor do the names of John D. Arnold and Thomas Hall. Cooper had arrived in San Francisco on 26 May 1855.

A Question of Ethics

When Cooper printed notices in regional newspapers in the fall of 1851 describing the services available in his Peoria Infirmary, he embarked on troubled waters. The recently founded American Medical Association made strict adherence to its Code of Ethics a condition of legitimacy for physicians and medical organizations alike. The Peoria County and Illinois State Medical Societies adopted the Code which, among other restrictions, proscribed advertising. It was the responsibility of the Societies to interpret and enforce this ruling which they proceeded to do. Certain influential members of the Societies claimed that Cooper's newspaper notices regarding his Infirmary were "advertising;" that they were therefore unethical; and that he should be censured.

Cooper's dispute with the Peoria and the Illinois State Medical Societies over his newspaper notices was so complex and lengthy that we have deferred discussion of it until now when we have completed our summary of the founding and early meetings of these two organizations.

The first phase of the convoluted process that eventually ensnared Cooper began in June 1851 at the First Annual Meeting of the Illinois Medical Society. This meeting was about six months prior to Cooper's wide publication in regional newspapers of notices regarding his Infirmary. During the meeting a Resolution was introduced before the State Society to the effect that the time had come when the people of the State of Illinois ought to regulate, by statutory enactment, the qualifications of those who practice medicine and surgery (i.e., require that every practitioner have a bona fide MD degree). In addition, the Resolution enjoined the Society to take any other necessary steps (these would include suppression of advertising) to protect the good name of the profession: [46]

Dr. Thomas Hall of Toulon was a member of the committee of three elected to implement the Resolution. As a result of his membership on the committee, Dr. Hall shared with the other two members the role of guardians of ethical standards for the Society, a responsibility he took very seriously - as one might expect from his background that he would.

It was a year later, at the June 1852 meeting of the Illinois State Medical Society, that the following incident occurred relevant to the Infirmary notices Cooper had then been publishing for the previous 9 months.

By an unfortunate coincidence, Dr. J.W. Halsted, an Oculist in neighboring Stark County, was carrying out a newspaper campaign of his own simultaneous with that of Cooper. This is Halsted's notice: [47]

Dr. J. W. Halsted, Oculist

> Residing at La Fayette, Stark County, Illinois, would respectfully announce to those afflicted with diseased eyes, whether of recent or long standing, that he is fully prepared to treat all such cases with the utmost care and attention. From his knowledge and success in the treatment of diseased eyes, he feels confident in thus offering himself to the public. He would further state for the benefit of those who may reside at a distance wishing to put themselves under his care, that he has provided suitable boarding accommodations where all such persons will be provided for in the best possible manner, and that no means will be spared to insure entire success.

Dr. Hall, who was the delegate of the Stark County Medical Society to the 1852 meeting of the State Society, called the State Society's attention to Halsted's notice, which was in some respects similar to the notice that Cooper was running in newspapers at the same time. Hall reported to the State Society that the Stark County Society found Halsted's notice to be a form of advertising and offensive to ethical practice. The Society demanded that he withdraw it. When he refused to do so, Halsted was expelled from the Stark County Medical Society which now wished the opinion of the State Society on the propriety of the action they had taken. After considerable discussion, the members of the State Society voted that "such advertisement is a sufficient ground for expulsion," and adopted the following resolution:

> Resolved, That (Dr. Halsted's) advertisement, presented for the consideration of this Society by Dr. Hall, is unprofessional in its character, and contrary to the code of ethics of this Society.

Thus the ground was laid and the precedent established for a move to expel Cooper from the State Society for running a similar ad. What back-stage maneuvers took place at the State Society meeting in 1852 to censure Cooper, or to begin recruiting a consensus for such action, we do not know. However, later events suggest that the Halsted expulsion was a dress rehearsal for an attack on Cooper.

Cooper was aware of the implications for him of the action taken in the Halsted case; but he did not anticipate the circumstances under which open hostilities would break out. When the attack upon him came a year later on his home ground in Peoria, it took him by surprise. The circumstances were as follows. The Peoria County Medical Society met on 1 June 1853 in the office of Dr. Hamilton to transact routine business, including the election of delegates to the forthcoming meeting of the State Society to be held at Chicago 7-9 June 1853. The Minutes of the Peoria Society provide the following account: [48]

> Peoria, 1 June 1853
>
> The society then proceeded to the election of delegates to the state medical society. Dr. (John D.) Arnold was nominated and elected by a vote of 5 to 2. Dr. Cooper (was then) nominated. Dr. Arnold objected to the nomination on the grounds of alleged quack advertisement. After a long discussion Dr. Cooper withdrew has name as a candidate. Dr. Stewart then moved a reconsideration of the vote taken on Dr. Arnold's election and presented certain charges of unprofessional conduct against him. A discussion ensued but it growing very late, the society adjourned till tomorrow evening at same place.

> Peoria, 2 June 1853
>
> The society met pursuant to adjournment, president in the chair. Discussion concerning Dr. Arnold's case continued. At a late hour he resigned his delegation. The following preamble and resolution (were) then offered by Dr. Dickinson and passed.
>
> Whereas a variety of breaches of professional etiquette have been charged against Dr. J. D. Arnold by various members of this Society some of which perhaps have been proved to the satisfaction of a majority of the gentlemen present, but in consideration of Dr. Arnold having expressed his regret at such breaches of etiquette and his determination that nothing of the kind shall occur in the future, therefore
>
> Resolved that no further action be taken…
>
> Dr. Hamilton, Sr., then offered the following resolutions which were passed:
>
> Whereas the conduct of Dr. E. S. Cooper in advertising his eye infirmary and orthopaedic Institution in a very unprofessional manner has rendered himself obnoxious to the unqualified censure of the Society, therefore
>
> Resolved that we do hereby express our entire disapprobation of the course pursued by him in this respect, and
>
> Resolved that in consideration of the doctor's expressed readiness to conform to the opinion of the Society regarding this matter and in view of his perfectly honorable and dignified course otherwise, it is but due to him to overlook all past offences in view of his promise to offend no more, and
>
> Resolved that a copy of these resolutions be sent to the State Medical Society.

When Cooper departed for the June 1853 meeting of the State Medical Society in Chicago, he was under the impression that his arraignment and acquittal before the Peoria Society only a few days previously had settled the advertising issue. In this assumption, he was sadly mistaken for he underestimated the vindictiveness of the clique determined to discredit and humiliate him.

Cooper was no stranger to conflict over his professional activities in Peoria where he had already faced down strident critics of his dissecting. But the coming challenge was far more serious for it threatened to undermine his professional "honor." The success of his Infirmary and surgical practice; his intense competitiveness tinged with a certain arrogance of opinion; and his flouting of conventional ethics by running newspaper notices regarding his Infirmary had provoked a malignant combination of jealousy and self-righteous zeal among a few of his erstwhile colleagues. He was soon to be introduced at the State level to the fratricidal infighting for which the medical profession of the day was notorious.

At this point we must call special attention to the fact that the Minutes of the June 1853 meeting of the State Medical Society do not so much as mention that charges of unethical behavior (advertising) were brought against Cooper during the meeting. Lack of record on this subject is not surprising since such information was commonly not included in medical society minutes unless some action was taken

- and we assume that there was no formal indictment of Cooper's behavior by the State Society. Thus we have only Cooper's word that an attempt was made during the June 1853 meeting to expel him from the Society.

His version of the incident is detailed in the following lengthy and caustic letter to the President and Members of the State Society for consideration by the Society at its Fourth Annual Meeting to be held at Lasalle 6-7 June 1854. The letter reveals a determined and self-assured man (he was thirty-three), independent in thought, unafraid of controversy, and formidable in polemic. He claimed the right to inform the public directly about his Infirmary, based on the important specialized services it made available to the region; and he rejected the authority of a medical society to deny him that right.

The following letter from Cooper to the President and Members of Illinois State Medical Society, long and rambling though it may be, merits recording here in full for it reveals in Cooper's own emotional words his concept of specialization, the vexing realities of small-town specialty practice, and a combativeness to which we shall become more accustomed as we follow his career. [49]

Peoria, Illinois
Early 1854

Mr. President and Gentlemen (of the Illinois State Medical Society), I am charged of non-professional conduct in advertising my Eye Infirmary and Orthopedic Institute of Peoria.

Before attempting to commence my own vindication in the affair permit me to say that I have always designed to let my course in this respect be shaped by the opinions of the profession. I would at first almost as soon have given up my Institution as to have had my course condemned by a respectable number of reputable physicians since nearly all the reputation I have acquired has been through my professional brotherhood. My plan was to pursue a course that could not be objected to by the most fastidious in orthodoxy.

That I had a right to announce my Institution I judged it but reasonable to suppose from the fact that all public institutions do the same…

There are hundreds of cases requiring the precise treatment that can be given at an institution prepared for the purpose and which could not be treated advantageously in another place. These patients are not being treated at all or are in the hands of the unskillful, such practitioners as take no medical journal, and consequently there is no means of reaching them but by circular. The very class of cases in fact that would benefit most from my institution are such as would hear of me last. A code of ethics therefore which curtails the sphere of usefulness of anyone is of doubtful propriety and should never be followed by those whose privileges are unjustly trampled upon. (Emphasis added.)

If the code of medical ethics of the State and of the National Medical Association is intended to imply that I shall not pursue whatever department of the profession I wish; and that I shall not have a private hospital in which to carry out my treatment; and that I shall not make the same known in any way best calculated to be most creditable to myself and beneficial to the community - all I have to say is that the code may go to thunder and so may those who thus construe it.

I have expended nearly five thousand dollars in preparing buildings, bedding and other appurtenances of a private hospital. I have devoted almost four years to private study and dissections which I might have devoted to the more lucrative employment of general practice. This sacrifice of time and money I made the better to qualify myself for the treatment of deformities for which I ever had a predilection. I have not lost sight of the many sacrifices thus made on account of my profession nor am I going to forget that my profession shall repay me. I have not forgotten the popular fury and the criminal prosecutions I had to defend myself against when, had I not been dissecting, I might have pursued the even tenor of my professional career, making money and friends where I was losing money and making enemies.

Who would be so unreasonable as to propose that in the opening of my institution after engaging a matron and nurses in advance, buying buildings which I could appropriate to no other purpose, that I should have had permission from the Illinois State Medical Society merely to insert my name in the Peoria papers as E.S. Cooper, M.D., Physician and Surgeon, without the privilege of making the slightest allusion to my institution or its designs, which would be the case if I am not permitted to advertise for the treatment of peculiar diseases.

If it is wrong for an individual to pursue a specialty, why should Philippe Ricord, famous French venereologist, be encouraged in Paris at the head of a venereal hospital or Doctor G… , at the head of an orthopedic institution, both of whom are distinguished medical men. In fact, we cannot look around us in want of examples in which individuals have had private hospitals for the treatment of special diseases. Only a few years ago Valentine Mott of New York (to whom we shall refer again later) opened an Orthopedic Institution and sent circulars all over the United States announcing the same. Such men have a decided fondness for the instigation of particular branches of the profession and the history of medicine in all ages proves that it is to these persons we owe our greatest improvements in both medicine and surgery because special devotion gives special proficiency.

Any Institution therefore that discourages the cultivation of particular parts of the profession should be condemned as obnoxious to improvement and incompatible with its interest; and an association does discourage such effort if it cuts off the only means by which an individual can make himself known to a certain portion of the population with which it is his interest to deal. Those physicians whose wish it is to practice medicine, generally feel very independent in regard to advertising when they know full well that the entire community in which they reside must soon hear of them by their own doings, and that they can immediately be appreciated according to their merits. But the case is very different with the practitioner who wishes to extend his practice only to one or two classes of cases in which if all that ever occur in his vicinity should fall under his treatment he would have but an inadequate business.

Another apology for my past course is that some practitioners are so illiberal as to endeavor to prevent patients going off to be treated but, in preference, abandon them to nature although perhaps readily treatable by those whose special province is to treat such.

For many months Dr. Thomas Hall, who has been a leader in bringing this charge against me for advertising my institution, kept a patient from coming to me who could neither walk nor even stand alone and whom he had long before abandoned as incurable or only curable by the process of nature, a process somewhat tedious to an individual who could not get one rod from his door for nearly three years without being carried. This patient was Charles Rood of Osceola, Stark County, Illinois. He stood alone on the fourth day after his admission into my institution and in 10 days walked 150 yards.

Dr. Arnold of Peoria, another leader in bringing the charge against me, kept a patient from coming to me long after he had abandoned the case to nature. This was Fenton Shipler who had been unable to stand alone for 12 months when he placed himself under my treatment, but who began to walk in a few days and to walk well in a few weeks.

I will have to confess that it looks unfair to bring up, in a controversy like this, cases occurring in private practice; but I am fully convinced that whatever errors I may have committed, the present complaint has originated alone among my enemies who have either ulterior motives or are prejudiced against me.

Let us take a retrospective glance and view this matter of opposition to my course from its origin. It assumes the appearance of a conspiracy under the influence of Drs. Arnold and Andrew of Peoria and Dr. Hall of Toulon. At the Second Annual Meeting of the Illinois State Medical Society held in Jacksonville in June 1852, Dr. Hall secretly agitated the affair by showing copies of my advertisement to different members of the Society after having conferred with Dr. Arnold in Peoria in regard to it. The encouragement to proceed openly at that time was not so flattering as to justify his trying it. However, when Dr. Hall returned to Peoria he tried to soothe his coagitator, Dr. Arnold, by stating that he thought I would slacken my will after that. This is Arnold's statement subsequently made before the Peoria City Medical Society in June 1853.

Between the meeting of the State Society in June 1852 and the meeting of the Peoria Society in June 1853, it was a common observation among the profession of Peoria that Drs. Hall and Arnold were arranging their plans for a systematic attack on me, and that Dr. Quigley of Pekin was likely to be added to the list of my accusers. On 1 June 1853, immediately before the Third Annual Meeting of the State Society in Chicago on 7 June 1853, Dr. Arnold introduced a charge against me before the Peoria City Medical Society for advertising my institution and read at the same time a letter from Dr. W.C. Quigley very abusive to myself.

This created a discussion in which all the members expressed their opinions freely. As my friends concurred in expressing the opinion that it was against the code of ethics to advertise for the treatment of special diseases, I agreed to be guided by the verdict of the members of that body and promised to advertise no more; to issue no more annual reports of my institution; and not to do anything that would publicly identify myself with any particular branch of the profession. In return, I should have permission to keep open my institution for the reception of patients in a perfectly normal way. To this agreement on my part I have adhered ever since. I agreed to this willingly because it appeared to be the wish of a majority of the members that I should do so. In fact, I personally drew up the resolution in which my mode of advertisement was pronounced censurable by the Peoria Society. I did this because I preferred suffering myself to having the harmony of the Society marred in the slightest on my account. But in what manner have my accusers replied?

Dr. Arnold concurred in the vote on the resolution by which my past course was condemned, and also in the vote by which I was exonerated from all blame in consideration of my expressed willingness to be guided by the opinions of the Society as soon as I had ascertained what those opinions were. Therefore, as far as the Peoria Society or any of its members were concerned the matter was of right put to rest unless necessarily revived by some subsequent delinquency on my part. But instead of acting as any gentleman of honorable principles would have acted, we find Arnold going immediately to the meeting of the State Medical Society on 7 June 1853 in Chicago with the plain object of agitating the matter there. This he did although freshly from the scene of his own disgrace before the Peoria Society where he was judged to have violated every high-toned principle of a professional gentleman by traducing the character of his professional brethren by false statements; by stopping messengers on their way to the prescription shops from the sick room of other physicians' patients; by examining the prescriptions and making remarks about them; and by making it an established custom to visit other physicians' patients without being called - behavior which a practitioner possessing a spark of honor would avoid as he would a loathsome thing…

Let me examine still further the course pursued by my enemies. Dr. Quigley, formerly of Pekin now of Chicago, is one of them and his conduct will compare favorably with that of Arnold. Not knowing how else to vent his spleen, and like Dr. Chambers (of Peoria) being anxious to do something, Quigley collected the medical men of Pekin together such as he could get to join him, and formed a Society of which he became president. A Delegate from Pekin was then appointed to the State Medical Society whose duty it was to bring forward this same affair with the view of having me expelled. What became of the delegate, I never heard.

This Pekin Medical Society of which Dr. Quigley was the President consisted of Drs. I and W. Mans, both of whom were druggists and industrious vendors of nostrums; Dr. Wright, a sort of one-horse druggist who kept hardly anything but patent nostrums and sold one of his own for ague called Wright's pill; and Dr. Hinsey, who is an avowed eclectic and advertises himself as such. Drs. Fitch, Roberts and Merrik, regular physicians, refused to have any connection with the Pekin Society at the time.

Dr. Elwood Andrew of Peoria, another of the clique, has been ignominiously expelled from the Masonic order for gross violations of morality and decency.

So it will be discovered that it is to those men generally, whose

own course is justly obnoxious to censure, that I owe most of this opposition. Take the mote out of thine own eye and then see clearly that which is in thy brother's.

I have dealt in personalities to an extent scarcely justifiable were it not for the fact that the charge brought against me before the meeting of the State Medical Society at Chicago in June 1853 was the result of personal ill feeling alone. I know this to be the fact. Though Dr. Chambers came forth and appeared the champion of the cause, it is very easy to perceive that he is merely a tool of Arnold… . Whatever wrong I had committed had been atoned for to the Peoria City Medical Society if no subsequent cause of complaint should occur. All that I promised to the Peoria City Medical Society in June 1853 I would have been promised the year before in June 1852 to the State Medical Society had a single unprejudiced member expressed a desire to have it so because, as I said before, my desire was to pursue a course that could not be objected to. It was at the meeting of the State Society in Jacksonville in June 1852 that Dr. Hall tried initially to thrust me into the notice of the Society on the shoulders of one Dr. Halsted but, as Dr. Halsted had no institution to advertise, there could be no analogy between our advertisements.

In conclusion, I would state that whatever wrongs I have committed have certainly been committed under a very fair semblance of being right; that whether it is compatible with the dignity of the profession to follow special departments of Medicine and Surgery, I have the most illustrious examples set before me of those whose course I would be proud to pursue and whose expectation I would be proud to assimilate even in the slightest… . I have always said that I am willing to have my course in regard to the publicity of my institution guided by the views of the profession… . I feel no desire to violate my obligations to the Peoria City Medical Society made last year in June 1853, however unnecessarily binding these may have been because my friends there wished them so. Therefore, I consider that I have nothing more to do, that I have no concessions to make to those who brought up this charge to the State Society because it originated among my enemies who do not seek the good of the Society so much as they seek to injure me.

The active agent is Dr. Arnold who cares naught about the State Society unless to further his plans as his former course proves. He never left home to attend State Society meetings though to each he was made a delegate from the Peoria Society until the State Society meeting in June 1853 when his dishonorable conduct prevented his appointment as a delegate from the Peoria Society though there was a vacancy, and he expressed a wish to be appointed which was denied. He was determined to go anyhow, which he accordingly did. Who can doubt his object in attending the State Society under the circumstances?

Dr. Hall, who works with Arnold in this affair, has a motive very different from his. Dr. Hall is honest but prejudiced; and while Dr. Arnold wants to injure me in order to advance his own interests, Dr. Hall wants to injure me for the benefit of the Society. While one would wrong me by being unjust himself, the other would wrong me from being biased by prejudice. It is from these wrongs that I claim exemption of this Society. I claim it in full confidence because I have a right to claim it.

Here ends the controversy over Cooper's advertising of his Peoria hospital, as far as we can determine from existing records. In the absence of evidence that the State Medical Society took any action in the matter during either its June 1853 or its June 1854 meeting, we can assume that Cooper's cogent arguments and his vow to desist from further advertising were persuasive and led to a dropping of the complaint. Whether he learned from this experience that future advertising would likely again expose him to the censure of his medical colleagues is an interesting question. In the light of similar charges against him during the California phase of his career, we might be tempted to believe that the Peoria lesson was lost on him. On second thought, it seems more likely that the keenly perceptive and strong-willed Cooper simply meant it when he said:

> … if the code of medical ethics …is intended to imply that I shall not pursue whatever department of the profession I wish; and that I shall not have a private hospital the latter to carry out my treatment; and that I shall not make the same known in any way best calculated to be most creditable to myself and beneficial to the community - all I have to say is that the code may go to thunder and so may those who thus construe it.

This Manifesto and defiant challenge of the established order has about it the ring of conviction and an uncanny prescience. Cooper was simply ahead of his time, as is clearly evident in these excerpts from the A.M.A. Code of Ethics, as interpreted in 1989 by its Council on Ethical and Judicial Affairs: [50]

A.M.A. Code of Ethics on Advertising, 1989

There are no restrictions on advertising by physicians except those that can be specifically justified to protect the public from deceptive practices. A physician may publicize himself as a physician through any commercial publicity or other form of public communication (including any newspaper, magazine, telephone directory, radio, television, direct mail or other advertising) provided that the communication shall not be misleading because of the omission of necessary material information, shall not contain any false or misleading statement or shall not otherwise operate to deceive…

Objective claims regarding experience, competence and the quality of the physician's services may be made if they are factually supportable. Similarly generalized statements of satisfaction with a physician's services may be made if they are representative of the experiences of that physician's patients.…

Statements that a physician has an exclusive or unique skill or remedy in a particular geographic area, if true,… are permissible.…

Cooper would have had no difficulty operating within modern guidelines. Today's ethical codes allow publication, freely through all media, of advertisements and other releases by physicians, hospitals and health service organizations provided they are not deceptive or contain false, misleading or confidential information.

Cooper in Europe

The enterprising spirit, moral courage, stubborn individualism and surgical talent that Cooper demonstrated during his Peoria years were attributes that fitted him uniquely for his California venture. By the time he left Peoria he was a hardened veteran of professional competition and intrigue. In consequence, when he arrived in San Francisco in May 1855, he was prepared to embark with scarcely a day's delay upon the vigorous execution of his plan to found a medical school.

As we have seen, Cooper's plan had been quietly germinating throughout his sojourn in Peoria. By mid 1854 he was ready to carry out its first phase comprised of visits to medical centers in Britain and France - a pilgrimage that would not only expand his knowledge of medical education and surgery, but also enhance his stature in the profession.

Our first indication of his planned departure for Europe is found in four letters written by the highly respected Nathan S. Davis, MD, Founder of the A.M.A., Professor at Rush Medical College and Editor of the North-Western Medical and Surgical Journal. These letters, dated 1 and 21 September 1854, were addressed to prominent surgeons at the College of Physicians and Surgeons in New York and at New York Hospital. Davis's message to each of these surgeons was substantially as follows: "I write to introduce my friend, Dr. Cooper of Peoria, who will be traveling to Europe and wishes to stop over in New York for a few days to observe your work." This would be Cooper's first journey east of the Alleghenies. [51]

We have already referred to his transatlantic voyage on the Arabia from New York to Liverpool 4-14 October 1854. The only reliable information we have about Cooper's itinerary in Europe is found in the Diary of his younger brother Jacob who was at Edinburgh when Elias arrived in Britain. On 18 October Elias joined Jacob in Edinburgh for a joyous reunion. After three days in Edinburgh, Elias went down to London on 21 October where he spent nine days making contacts with eminent surgeons before crossing the Channel to Paris on 30 October. While in Paris, Elias became ill with "dyspepsia" which was of such concern to the tenderhearted Jacob that he went to Paris on 22 November to be with his ailing brother. A few days after Jacob's arrival in Paris, Elias received word from Peoria that his presence there was much needed to look after his business affairs. Although Jacob had planned to remain longer in Europe, Elias much desired his company on the voyage home and Jacob agreed. Thus Elias, after a month in Paris that was marred by persistent abdominal complaints, departed with Jacob for London on 30 November. During their stay in London from 1 to 7 December, Elias felt so much better that he again visited hospitals and principal medical gentlemen. Meanwhile Jacob went sightseeing until December 7th when he made the following entry in his Diary: "This day completed my twenty-fourth year! I can scarcely believe I am so old for I have done so little… Left London at 7 A. M. on the … Parliamentary train bound for Liverpool. The distance 200 miles. Arrived in Liverpool at 8 P.M." On December 9th he and Elias embarked on the S. S. America, a Cunard steamer bound for Boston where they arrived on 25 December 1854. [52]

During his European interlude of 57 days from October 14th to December 9th, 1954, Elias while in Edinburgh attended the Clinics of Symes and Miller. In Paris he observed the methods of Velpeau, Jobert, Nelaton and Ricord. The dexterity of the French surgeons impressed him, but he found deficiencies in their pre and postoperative care which in his view contributed to their less than optimum results. In London, he visited the surgical services of Fergusson and Erichsen. Even brief exposure to the practice of internationally recognized surgical authorities and the surroundings in which they worked would be of significant benefit to a keen observer like Elias who was already familiar with their contributions to the medical literature. [53][54]

The America docked at 10:30 A. M. on Christmas Day and at 1:30 P. M. Elias and Jacob were southbound on the Boston and New York Railroad. They changed trains in New York and headed west, arriving at the Cooper farm outside Somerville on 30 December 1854. On 9 January 1855 Elias took the train to Peoria, there to dispose of his hospital, close out his practice and prepare for the journey to California.

Cooper Invites Dr. Saul G. Armor to Accompany Him to California

Dr. Armor, born in Pennsylvania in 1819, was Cooper's contemporary. He received his MD degree in 1844 from Missouri Medical College where he was a pupil of the controversial Joseph McDowell. In 1849 he became Professor of Physiology, Pathology and Jurisprudence in the Medical Department of the University of Iowa at Keokuk. When Cooper was offered the professorship of Anatomy at Keokuk in 1851, Professors Armor and Hudson had the delicate task of withdrawing the offer because of an administrative technicality, as we have already related. Neither Armor nor Cooper was likely to forget that unpleasant incident.

In 1853 Armor won the prize offered by the State Medical Society of Ohio for the best paper on the subject: "Zymotic Theory of the Essential Fevers." This brought him to the attention of the trustees of the Medical College of Ohio who offered him the chair of Physiology and Pathology, which he accepted. This is how Armor chanced to be located in Cincinnati when Cooper returned from Europe and called on him there to discuss their joining forces and migrating together to San Francisco.

After their meeting in Cincinnati, there was the following exchange of letters. [55]

> From Dr. Armor to Cooper:
> Cincinnati, 28 January 1855
>
> My dear Doctor:
> Since my interview with you - and indeed for some time before - I have been strongly thinking of making a tour to the Pacific, and it is barely possible that I may conclude to go the coming Spring, after the close of our Session.
>
> Are you making your calculations to (go) early in the Spring? At what time (will you) start, and what route will you take? Please write me on receipt of my letter. I have a brother - an only one - who recently talks of making his future home in California, and his decision may very much influence me as to my future.
>
> It does appear to me to be a very desirable field for energetic young

men; but, above all, I think I should like the climate.

Very truly yours,

Saul G. Armor

To which Cooper promptly replied:

Peoria, Ills., 9 Feb 1855

Dear Doctor:
My plan of operation in San Francisco is this, viz., in connection with the private (medical) teaching of which I mentioned at our interview in Cincinnati. My design is to engage in active practice as soon as possible and, by economy, endeavor to make considerable instruments in real estate which must rise in value in San Francisco to an extent almost unprecedented. With this for a foundation I should be led to hope in a few years to possess not only the wealth but likewise the reputation to enable me to establish a medical college.

That San Francisco is destined to make one of the largest cities on this continent - perhaps in the world - wants but a glance at her position to decide. There is China with a population of 360 millions and materials of exportation equal to that of 1/3 of the entire commercial world besides; and San Francisco will be her chief place henceforth as can reasonably enough be inferred from what has occurred already. This of itself would make it a great city to say nothing of the trade with Sister States and the balance of the world, and the impulse given by the construction of the Pacific Railroad which no one doubts will be speedily accomplished.

Now, Sir, you are young, have talents, ambition and abiding faith in being adequate to accomplish an important destiny in life, and as our tastes leading us to pursue different branches of the profession would not only remove all difficulties in the way of permanent harmony, but we might be immensely advantageous to each other from the commencement of our career, more particularly as we should have the prudence to keep our mutual understanding and plans a matter of secrecy.

I design leaving here for San Francisco about the last of May or the first of June (1855) but cannot affix a definite time at present as I have some real estate to dispose of yet and business to settle - making it a point to hold on to a bird in the hand.

I have given you my plans without reserve and shall be pleased…

(The letter ends here abruptly at the bottom of a page, and all the rest has been lost.)

What a dazzling prospect with which to tempt an adventuresome spirit, but it did not attract the hesitant Armor for whom California's greatest appeal was its climate. It was fortunate for him that he did not join Cooper who, above all, saw California as the land of the future where great deeds were possible for those with an abiding faith in their destiny. Had Armor teamed with Cooper, he would have found himself in harness with a tiger. Better for his peace of mind that he should spend the rest of his days gliding from professorship to professorship in established medical schools in the East, which he did - joining the faculty of Missouri Medical College in 1858, moving to the University of Michigan in 1863, and finally to Long Island Medical College in Brooklyn in 1866 where he became Dean in 1868. He continued on the Long Island faculty until his death in 1885. [56]

Better, also, for Cooper that he should travel alone to California. His searing ambition and contemptuous disregard for the sensibilities of San Francisco's self-anointed medical elite would have strained relations with any partner except his devoted nephew, Levi Cooper Lane, whom Providence later sent at a crucial juncture to sustain him.

By early April 1855 Cooper had concluded his business affairs in Peoria and terminated his practice. Jacob, who was visiting Esaias in Henderson at the time, came over to Peoria by stagecoach on April 17th and was delighted to find Elias looking very well - indeed, he "never saw him better." But when Elias told him that he was on the eve of departing for San Francisco, Jacob was greatly distressed. On April 19th the sad and trying hour of their separation came and Jacob accompanied Elias to the railroad station. "I went with him into the car and there took my long - I greatly fear my last - farewell." Elias set out for New York quietly, leaving Peoria without even giving notice to friends, one of whom later wrote of his disappointment in finding Cooper no longer among them.

When Jacob returned to Somerville on May 10th he received news that must have eased his sadness over his brother's departure for the West. Awaiting him was a letter from Centre College in Danville, Kentucky, announcing his appointment as Professor of Greek in the College. Now that he had a good situation that would enable him to support a family, there was nothing in the way of his marriage to Caroline. They were wed on 31 May 1855.

To California by Sea via Nicaragua

On about 23 April 1855, Elias left New York on a steamer that carried him down the Atlantic Coast to Central America on the first stage of his journey to San Francisco. He chose the route that involved crossing the Isthmus through Nicaragua.

The discovery of gold in California on the American River in 1848 created the Gold Rush of 1849 and a massive wave of migration that Cooper now joined. There were three possible routes from the East to the Pacific Coast - by wagon train across the western plains and mountains; by sea around Cape Horn; and by sea to a crossing in Central America and thence again by sea to San Francisco. The route by way of Central American was the most rapid and convenient of the three, being the itinerary followed by an increasing proportion of passengers, mail and treasure from the gold fields. Until completion of the transcontinental railroad in 1869, the Central American route remained the preferred way for the ordinary person or message to travel between the Atlantic and Pacific Coasts.

At the time of Cooper's journey, Central America could be crossed either through Panama or Nicaragua. The southern crossing at the Isthmus of Panama was the shortest. The distance between the Atlantic and Pacific Oceans was only 47 miles, with less than 300 feet elevation at the highest point. Nevertheless the hardships and perils of crossing the Isthmus through malarious tropical swamps and rain forest by mule-back and shallow-draft boat made this route at first relatively unattractive. This changed when on 27 January 1855, after heroic exertions, the last track was laid on the Panama Railroad, and on the following day a locomotive passed over it from ocean to ocean. From that time forward, it was possible to cross the Isthmus in half a day in the comfort of a railroad car. This assured that the Panama crossing would eventually become more popular than the northern option through Nicaragua. Sixty years later the Panama Canal was excavated along the same route as the Panama Railroad. On 15 August 1914 the Canal was opened by the United States to the commercial vessels of all nations. Not only was the Canal the greatest construction project the world had ever seen, the practical eradication of malaria and yellow fever in Panama by controlling the mosquito vectors during building the canal was one of the greatest triumphs of sanitation in history. [57][58]

Cooper chose to book passage on a shipping line that used the northern route. He landed in Nicaragua at San Juan del Norte on the Atlantic Coast then traveled by boat up the San Juan River and across Lake Nicaragua to its far shore, beyond which there was an overland trek of only 18 miles to San Juan del Sur on the Pacific Coast. Although the distance between oceans at Nicaragua was 174 miles as compared with 47 miles at Panama, all but 18 miles of the Nicaragua passage could be covered by boat. Also the higher latitude of Nicaragua was thought to make the climate cooler and tropical fevers less prevalent. The most obvious advantage of the Nicaragua route lay in its shorter over-all distance. The journey from New York to San Francisco via Panama was 5,245 miles; whereas it was only 4,871 by way of Nicaragua, a difference of 374 miles in favor of the northern crossing. This small advantage, however, was later more than offset by the convenience of rapid rail transit across Panama when that service became well established. [59]

Competition between shipping lines carrying traffic on a fortnightly basis between New York and San Francisco was fierce, Bankruptcies, mergers and rate-wars were frequent. Passenger volume on the Panama and Nicaragua routes was closely watched. In 1855, 15,000 passengers traversed Panama and 11,000 crossed by way of Nicaragua. Fares fluctuated erratically according to the state of hostilities among the carriers so we are unable to determine with certainty what it cost Cooper to travel from New York to San Francisco. We do know that in June 1854 steamers via Nicaragua charged $ 225 for first cabin accommodations, $130 for second cabin and $ 75 in steerage. At that time the trip from New York to San Francisco required approximately 33 days (11 on the Atlantic and 22 on the Pacific leg). [60]

On 4 May 1855 Cooper boarded the S. S. Sierra Nevada at San Juan del Sur on the Pacific. After 22 days at sea, steaming north off the Mexican and California coasts, his ship docked at San Francisco on Saturday, May 26th.

The "Captain Jim Story"

Cooper had the happy faculty of making interesting friends while on sea voyages. We have previously referred to his correspondence with the Honorable Hugh Keenan, U.S. Consul to Cork, Ireland, whom he met aboard the S.S. Arabia when on his way to Europe in October of 1854. He had a similarly pleasant experience in May of 1855 on the S. S. Sierra Nevada where he encountered a congenial fellow passenger named Captain James M. McDonald whose friendship and generosity continued throughout Cooper's life, and beyond. As sometimes occurs when facts are few and memories dim, an intriguing myth arose that attributed to Captain McDonald a decisive influence on Cooper's career. Stanford's Professor Rixford, a principal biographer of Cooper, wrote the following: [61][62]

> Dr. Cooper greatly admired (Daniel) Brainard, founder of Rush Medical College, and conceived the ambition of emulating him and founding a medical college on the Pacific Coast. He sailed for Portland, Oregon, but on the steamer met one Captain James M. McDonald who prevailed upon him to leave the ship at San Francisco. I mention "Captain Jim" as we afterward called him because, out of this friendship for Doctor Cooper and thirty years after Cooper's death, he gave to Cooper College the (two varas of) land on which Lane Hospital (was erected), as well as ($ 25,000 in money for college purposes).

Professor Rixford did extensive research on Cooper's life, but the Rixford papers contain no hint of the origin of the "Captain Jim" legend. It is possible that Cooper himself was inadvertently responsible for the birth of this romantic fiction regarding his decision to settle in San Francisco. We have seen from his letters to Keenan and Armor that he was secretive about his plan to found a medical school in the city by the Golden Gate. Obviously these letters never came to Professor Rixford's attention. We assume that it was Cooper's reticence to speak openly of his seemingly quixotic plan to found a medical school in San Francisco that led to the poetic conception that he was bound for Oregon and that Providence in the person of Captain Jim influenced his fateful decision to disembark at San Francisco. We know that the Captain was a great admirer of Cooper, lent him money on very favorable terms, and was later a generous donor to Cooper Medical College. [63]

In any case, the entire sequence of events somehow led to the fanciful "Captain Jim Story" that was reported in good faith by Professor Rixford. Under the circumstances, those who prefer to believe the appealing notion that it was Captain Jim who convinced Cooper to remain in San Francisco should feel free to do so - but should keep in mind that the now available evidence indicates that Cooper had long before made up his mind on his destination.

Intimations of Mortality

When Cooper visited Europe he was just 34 years of age but was already beset with early symptoms of the strange neurological and gastrointestinal disorder which was to bring his tempestuous career to a close in just 8 more years. Levi Cooper Lane made the following reference to the onset of Cooper's chronic and ultimately fatal disease in the Obituary he wrote in 1862: [64]

> In 1854, (Cooper) visited Europe, and though in ill-health at the time, he made the acquaintance of most of the eminent medical men in Edinburgh, London and Paris; he also made many observations in respect to the institutions pertaining to Medicine located in these

> cities. Immediately after his return from Europe, in May, 1855, he came to California, and located in San Francisco. His purpose in coming here, was two-fold, first, the improvement of his health, which had been shattered by a too uninterrupted application to business, and, second, to find an ampler field for the exercise of his surgical talent, and besides, an ulterior object was, that, at no remote day, California would have, as one of her wants, the establishment of a medical school on the shores of the Pacific. . . .

Soon after coming to this coast, he was attacked with an obscure nervous affection, which manifested itself by an attack of left hemiplegic facial paralysis, and wandering neuralgic pains in the extremities, with indigestion.

There can be no doubt that facial palsy accompanied by recurrent neurologic and digestive symptoms would be a significant handicap to a young physician newly arrived in the maelstrom that was San Francisco in 1855. Political corruption and crime in the streets were rampant. There was a surplus of physicians, and an additional doctor was looked upon by those already present as an unwelcome intruder. This would be especially true in the case of a newcomer with the aggressiveness and pretensions of Elias Cooper. He indicates from time to time during the following years that he is unwell, but provides insufficient detail to allow us to hazard a diagnosis. Although we lack specifics, we should keep in mind when considering his behavior and achievements during his residence in San Francisco that he was burdened throughout by a serious and progressive chronic illness. [65]

Endnotes

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Part II.

E.S. Cooper in San Francisco

Chapter 8. San Francisco: The Master Plan

First Impressions

Saturday 26 May 1855. On this date the S.S. Sierra Nevada arrived in San Francisco from San Juan del Sud, Nicaragua, bringing 664 passengers. Among them was a tall and sturdily built, black-bearded and somber-faced young man of 34 - Dr. Cooper of Peoria, Illinois. His bold and furtive plan to found a medical school in San Francisco had governed his every move for the past year, and was constantly in his thoughts during the long sea voyage. Now that he had at last reached his destination on the Pacific Coast, his whole concern was to take decisive steps toward his ultimate goal without delay.

He inquired aboard ship about a hotel in the city that would best serve as a temporary base of operations and was advised to try the new Rassette House. He went there directly from the pier as soon as the steamer had berthed. The choice could not have been more fortunate. The original Rassette House was a five-story frame structure that escaped the great fires of 1850 and 1851, but burned to the ground in 1853. It was then rebuilt on a grand scale at the same site on the corner of Bush and Sansome Streets. Situated in the heart of the commercial district, the new Rassette House was an impressive edifice and the largest private building in town devoted to a single business. [1]

One block distant, on the corner of Bush and Battery Streets, was the fashionable Oriental Hotel where the Democratic Party was holding a political rally. Standing in front of the Rassette House on his first evening in San Francisco, Cooper witnessed a multitude of boisterous Democrats, numbering about 3000, milling around the Oriental and marching through the streets in torchlight procession, carrying banners and preceded by music. What he saw confirmed his belief that San Francisco was a up and coming city where he could realize his ambitions. [2][3]

Elias Samuel Cooper (1820-1862)

Sunday, 27 May 1855. This was Cooper's first morning in San Francisco. He left no account of the impressions and emotions that flooded his mind when he viewed the dazzling expanse of city and Bay from his window in the Rassette House. But we are not entirely at a loss to visualize the scene and fathom his thoughts on that occasion.

Four years later another perceptive traveler, Richard Henry Dana, gazed out on the same resplendent panorama from the nearby Oriental Hotel. We have previously told how he entered San Francisco Bay for the first time aboard the sailing ship Alert in 1835. Twenty-four years later Dana, now a Boston attorney, returned to the Bay on Saturday August 13th 1859 He arrived on this occasion aboard the superb steamship, Golden Gate, and engaged a room at the Oriental Hotel. The vista of San Francisco and the Bay from his hotel window on the following Sunday morning, and the emotions he felt, must have been much the same as those experienced by Cooper four years earlier on the Sunday morning of May 27th 1855. Dana described the scene in words that Cooper himself might well have chosen: [4]

> When I awoke in the morning, and looked from my windows over the city of San Francisco, with its storehouses, towers and steeples; its courthouses, theatres, and hospitals; its daily journals; its well-filled learned professions; its fortresses and lighthouses; its wharves and harbour, with their thousand-ton clipper ships, more in number than London or Liverpool sheltered that day; itself one of the capitals of the American Republic, and the sole emporium of a new world, the awakened Pacific; when I looked across the bay to the eastward, and beheld a beautiful town on the fertile, wooded shores of the Contra Costa; and steamers, large and small, the ferry boats to the Contra Costa, and capacious freighters and passenger-carriers to all parts of the great bay and its tributaries, with lines of their smoke in the horizon - when I saw all these things, and reflected on what … now surrounded me, I could scarcely keep my hold on reality at all, or the genuineness of anything, and seemed to myself like one who had moved in "worlds not realized."

During the next few days Cooper explored his new surroundings eagerly and discovered a city unrivaled among the ports of the world for the grandeur of its prospect on rolling hills overlooking a majestic bay. The astounding prosperity of the Golden Era from 1849 to 1855 had brought incredible material progress to San Francisco. In the six-years following the Gold Rush of 1849, the city changed from a disorderly encampment of unsightly tents, shanties and rickety wooden shacks to a flourishing city of 50,000. Permanent buildings of wood, and over 600 of stone or brick, supplanted the former temporary structures that had been repeatedly consumed in devastating fires. By 1855 cobblestones were replacing planks on the main roads, and a gas works was in operation, furnishing lights for major streets. Omnibuses were running between key points in the city, steamboats plied the inland waterways tributary to the Golden Gate, and ferries made morning and evening runs to Oakland 10 miles across the Bay. At portside were a dry dock and a vast array of wharves and warehouses. Manufactories included foundries and boiler works; several oil, candle and soap works; four sawmills and eleven flour mills; a sugar refinery; distilleries and over a dozen breweries. [5]

Downtown, only a few blocks distant from the port, there were some 160 hotels (including the Rassette House and the Oriental) and hostels, 60-odd restaurants, and ample bakeries and markets. Drinking and gaming were popular pastimes of the miners and footloose immigrants who flocked to the Gold Coast. Because of the prevalence of drunkenness, the Christian Advocate undertook in 1853 to determine the availability of strong drink. It was found by actual count that there were 527 places in the city where liquor was sold. Of these 83 were retail drinking saloons, 52 were wholesale stores, 144 were restaurants, 154 were groceries, 46 were gambling houses, and 48 were fancy and dance houses. In a word, alcohol was everywhere plentiful, and copiously imbibed. Gambling was a prominent feature of San Francisco night-life and one of the main branches of business. The gamblers had the best buildings and paid the highest rents. Their halls were on the level with the street and were crowded from dark till late at night. Orchestras and vocalists provided music, and the bar, liquor. At one time prior to 1855 a dozen large gambling houses were open, each with five to fifteen tables, making nearly a hundred tables in all - and the "take of the house" in gold and silver coin, and not infrequently nuggets and bags of gold dust, was prodigious. [6]

Entertainment on a higher plane was provided by theaters and halls that commonly featured celebrated actors, actresses, singers and musicians from the East. Shakespeare was popular in San Francisco. The famous Edwin Booth played Hamlet, and toured the mining camps where the Bard's works were a rousing success. The Adelphi Theater was built in San Francisco in 1851, the Metropolitan in 1853. By 1855 the spacious Jenny Lind Theater had been converted to the City Hall. (Jenny Lind never came to California, but P. T. Barnum as her press agent made hers the most popular name in show business. [7] There were also the American Theater (seating nearly 2000), the Union Theater and three Halls: San Francisco, Musical and Turn Verein. San Francisco was from its earliest days the cultural center of the West.

Nor was social development laggard in other respects. In addition to a dozen and a half primary, grammar and other public schools, there were two girls' schools, a Jesuit school, and the San Francisco College that aspired to the university grade. Churches were, as usual in frontier America, among the first institutions on the scene. By 1855 there were 32 congregations in San Francisco embracing eight Protestant denominations, and six Catholic and two Jewish bodies. There was also a convent. Some of the congregations worshipped in Halls, but most possessed their own buildings, the most imposing being the catholic cathedral. The number of women had greatly increased since '49 and their influence in fostering normal family life and religious observances, where they set the example, tempered the reckless and exuberant spirit of the mining era. In addition to the churches, many benevolent associations were established, such as a dozen military companies (with ornamental as well as useful aims); seventeen semi-heroic fire brigades, including three hook-and-ladder companies; Free Mason and Odd Fellows Lodges; and Temperance Societies. These various organizations served to elevate the moral tone of the city and changed it from a community of reveling adventurers to one of high average respectability and intelligence - for a city on the very rim of civilization, that is.

Finally, like churches, newspapers normally sprang to life early and helped to shape the character of new American settlements. By Cooper's day in San Francisco there were thirteen daily and as many weekly newspapers, in half a dozen languages. We shall soon see to what use he put them. Several hospitals were already flourishing when he arrived: The German Hospital; the French Hospital; the San Francisco City and County Hospital (supervised by the Sisters of Mercy); and the U.S. Marine Hospital, one of the most imposing structures in the city. [8]

In his walks about the city, Cooper surveyed the streets and buildings with the shrewd judgement gained through real estate dealings in Peoria. Wherever he went he struck up a conversation with tradesmen who were eager to hear about conditions "back East," and to share with him their concern over the economic recession (California's first) that had devastated their business during the past year. The downturn had been precipitated by a sharp decline in the previous frantic pace of mining, commercial, and real estate activity. San Francisco's astounding prosperity during the period from the beginning of 1851 to the middle of 1853, with its spiraling prices and acute shortages of everything from shovels to rental property, was fueled by the surging growth of mining and gold production, accompanied by a massive influx of immigrants. This led to rampant overspeculation based on the belief that population, gold export, demand for commodities, and the value of real estate would continue to increase annually at the former rate. When this failed to occur, a severe panic seized the severely inflated banking, mercantile and real estate markets in early 1854. The failure in 1855 of Page, Bacon & Co., a major bank, and Adams & Co., the premier express company in California, wiped out thousands of investors and sent shock waves through San Francisco and the State. Cooper received this distressing news with quiet satisfaction. The depressed economic conditions played into his hands by reducing prices, and making it vastly easier and cheaper for him to find vacant property in a good location for his infirmary and clinic. [9]

In his talks with the man in the street, Cooper learned of yet another threat to the community's welfare. While frontier conditions still prevailed at mining camps on the foothills and rocky slopes of the Sierra to the east, and in the small settlements in the sparsely populated inland valleys, San Francisco had in the half-dozen years of the Golden Era from 1848 to 1854 become the western metropolis and chief port of trade on the eastern shore of the Pacific. But the very conditions responsible for the city's remarkable development also attracted a rapacious and lawless element that preyed on society. Ruffians had so far controlled the streets and the courts in San Francisco in 1851 that the First Vigilance Committee was organized by Sam Brannan and other leading citizens who were outraged by the unbridled wave of crime. The Committee set up its own constabulary and courts and meted out a swift and stern "justice" that included the hanging of four and the deportation of many other vicious felons. The Committee's methods were denounced by the city's corrupt judiciary but firmly supported by the aroused populace. Within six months the Committee had intimidated the outlaws and rebuked the servile city courts. It then suspended its activities without ever formally disbanding. It stood ready for instant recall should circumstances warrant. [10]

Although gun-toting desperadoes were less brazen, and law-abiding citizens somewhat less fearful of mugging on the streets of San Francisco when they ventured forth at night, crime in the city had not been greatly diminished. In the wake of the First Vigilance Committee professional scoundrels infiltrated the domain of politics where their control of city government by ruthless tactics went unchecked by the

arm of the law. Finally, when James King of William, crusading editor of the San Francisco Evening Bulletin, was shot down in the street on 14 May 1856 by a ballot-box stuffing politician named James P. Casey, confidence in civil authority again collapsed and tolling of the bell at Monumental Engine House called the Second Vigilance Committee into action. We shall later return to the role in these events played by Cooper and the men associated with him in the founding of his medical school. [11]

The Master Plan Unfolds

During the first months after his move to San Francisco, Cooper's decisions and maneuvers were so methodical, and pursued with such intensity, that there can be little doubt he followed a predetermined plan - a plan based on his Peoria experience and driven by a tireless zeal for surgery, anatomy, vivisection and teaching. He made haste to put in place the following main pillars of his strategy:

- Open an Infirmary and Clinic
- Advertise extensively
- Begin a Private Medical Teaching Program
- Acquire a large Surgical Practice
- Publish a Medical Journal
- Organize Medical Societies (Local and State)
- Found a Medical School.

It seems scarcely plausible that Cooper could have conceived such an audacious and comprehensive scheme, and had the ability and resolve to carry it out. Yet we know that he did, although the outcome of his venture hung often in the balance as we shall now learn by following his course stage by stage.

Infirmary and Clinic

On 5 June 1855, just ten days after his arrival in San Francisco, Cooper rented a large house for his clinic and infirmary at 14 Sansome Street across from Rassette House, paying rent of one dollar a day. [12] One month later, on 7 July, he opened his Infirmary and announced its special services in newspaper ads similar to the following modest item in the Empire County Argus, published in Coloma where James Marshall had discovered gold in Sutter's millrace in 1848. [13]

> Cooper's Eye, Ear, and Orthopaedic Infirmary
> No. 14 Sansome Street, San Francisco
> near Rassette House
>
> Patients laboring under diseases of the Eye, the Ear and those afflicted with all varieties of deformities resorting to this Institution will find at once a home where miners as well as others can be accommodated with rooms in plain or costly style according to their tastes.
>
> Dr. Cooper has visited all the important Hospitals of Europe for the purpose of extending his knowledge of Medicine and Surgery, and will give the Infirmary his immediate supervision.
>
> N.B. All surgical operations free to patients who present themselves at the "Clinic" on Wednesdays and Saturdays.
>
> For particulars apply to Dr. E.S. Cooper at the Infirmary.

Six months later, in February 1856, Cooper moved his Infirmary and Clinic to a new location on the north side of Mission Street between Second and Third Streets, only three blocks from 14 Sansome. Various bills for repairs on the Mission Street house, sidewalk and sewer suggest that he eventually bought the building. In any case it became the permanent site for his medical activities, including teaching. A few years later he changed the title of his establishment to "Pacific Clinical Infirmary." [14]

Within a month or so of Cooper's arrival in San Francisco, he invited Dr. Charles A Kirkpatrick to join him as an associate in practice. Our first inkling of their association is found in a bill dated 31 August 1855 addressed jointly to Cooper and Kirkpatrick by the Book and Job Printing Office for 5000 circulars and 500 cards. [15] We know nothing more of the background of their association than can be inferred from a letter written by Captain James McDonald to Cooper from Sacramento dated 25 February in which McDonald refers to some of their fellow passengers on the S.S. Sierra Nevada and says "if Dr. Kirkpatrick is still with you, give him my best respects." The context of McDonald's comment makes it likely that Kirkpatrick was a shipmate aboard the Nevada and there made Cooper's acquaintance. Kirkpatrick followed Cooper into the medical societies that soon developed and its seems unlikely that he would have done so except under Cooper's wing. We learn from the Minutes of the San Francisco County Medico-Chirurgical Association for 24 October 1856 that Dr. Kirkpatrick moved to Sacramento at about that time and we can assume that he served as Cooper's associate until then. [16]

Advertisements

Not content with simply announcing the opening of his facilities in July 1855, Cooper conducted over the following two years (until November 1857) an aggressive newspaper ad campaign throughout California, Oregon and beyond. During this period his ads appeared in 65 different news publications, usually for a run of 3 months at a time, with a later rerun in one or another of these papers on 46 occasions. Publications ranged from the Puget Sound Courier in the North to the Santa Barbara Gazette, San Diego Herald, and El Nicaragua in the South; from the Honolulu Polynesian in the West to the Downieville Sierra Citizen in the East. Cooper's expenditure for ads, cards and various circulars during the period of the ad campaign amounted to $ 1500, a major sum in those days. [17]

After the move to Mission Street, Cooper's confidence soared and his impatience to build a surgical practice led him to have the following fulsome "puff" widely published as an ad in English, German, French, Spanish and probably Chinese-language newspapers. [18][19]

> Eye, Ear, and Orthopaedic Infirmary
> Mission Street Between Second and Third near "Russian Baths"
> San Francisco
>
> E.S. Cooper, M.D., Surgeon
> "Dr. Cooper was introduced to our acquaintance several months ago by letters to us from eminent men in the States of Ohio and Illinois, as a gentleman of high reputation and established surgical skill. Since his arrival he has opened an Eye, Ear and Orthopaedic Infirmary, in this city, where patients can have comfortable rooms, and the benefits of his skillful attention. The following complimentary notice of his departure from his home in Illinois, we find in the Peoria (Illinois) News:
>
> We learn that our townsman and distinguished young surgeon, Dr. E. S. Cooper, starts this morning on a tour to Europe, preparatory to settling in San Francisco which he has decided to make his permanent home. We know of no one in his profession more worthy than Dr. Cooper of the high reputation he has established for surgical skill during his residence among us. For the last two years his Infirmary and Orthopaedy have been crowded with patients from various parts of this and adjoining states, and the constant increase of their number is the best evidence of the success of the Doctor's treatment of them. We congratulate our friends of Oregon and California upon the prospect of receiving a surgeon of such abilities, for when we say that his untiring energy and fixed determination to be second to none in his profession, together with his exclusive devotion to the attainment of a single object are the certain preludes of future greatness, if he lives, we only give utterance to the private opinion of nearly every thinking man in the community; for however little his retiring manners and unsocial habits are calculated to secure feelings of personal interest in his favor, such concentration of effort and unceasing industry always have been, and always will be, attended with abundant success. He has our best wishes for his prosperity and happiness.

The above ad consists of the verbatim quotation of a laudatory newspaper article printed in the San Francisco Alta California on 17 August 1855. It is impossible to believe that the editor of Alta California would have "found" the above flattering article about Dr. Cooper in the obscure Peoria News unless called to his attention by Cooper himself. Cooper must have known, and chose to ignore, that such self-serving manipulation of the lay press would be considered unethical and lead to his censure as an advertising quack by fellow physicians.

In addition to newspaper ads, Cooper had thousands of cards such as the following printed for distribution: [20]

> E. S. Cooper, M.D.
> Surgeon
> Office at Eye, Ear, and Orthopaedic Infirmary
> Mission Street
> Between Second and Third near "Russian Baths"
> San Francisco
>
> All Surgical Operations Free to patients presenting themselves at the Clinics, on Wednesdays and Saturdays, at 2 1/2 o'clock, P.M.
>
> Medical men of the City and Pacific Coast, generally, are respectfully invited to attend the Infirmary on Clinical Days, whenever it may be opportune for themselves.

Cooper was fresh from the heated controversy and threat of expulsion from the Peoria and Illinois State Medical Societies caused by his advertising, yet we see that he proceeded to conduct an even more intensive newspaper ad campaign immediately upon his arrival in San Francisco. In Peoria he defended his advertising on the grounds that it was his right to acquaint the profession and public with the specialty services he had to offer, and we pointed out that he would not be condemned for doing so under today's ethical guidelines. In Peoria he had received absolution for his advertising only on the condition that he agree to stop it and abide by the stricter standards of the A.M.A. Code of Ethics. He was thus well aware that the Code did not admit of self-promoting practices, yet he began again to employ them vigorously as soon as he reached California.

Why Cooper now embarked on an advertising campaign of truly major proportions in spite of his previous experience in Illinois is an intriguing question. We know that he considered it grossly unfair to deny him the right to inform doctors and the public about the specialty services and facilities offered at his Infirmary. Furthermore, he thought (mistakenly) that the physicians of San Francisco were not yet sufficiently organized to take a firm stand on ethical questions of the day, and that it would thus be difficult for them to take concerted action against him. Cooper therefore felt secure in launching an ad campaign that would hasten the growth of his practice and attract candidates to his teaching program - crucial steps on the path to his goal. In the worst case, should he be seriously challenged by the profession, he could as he did in Peoria discontinue advertising "in deference to the respected opinion of his fellow physicians" and, presumably, be forgiven. By then, the ads would have had the desired effect.

In the light of the modern ethical standards to which we have previously referred, we may conclude that Cooper was a courageous rebel in the vanguard of the profession with respect to advertising. Unfortunately, he was too much in advance of some of his California colleagues and we shall see how far he miscalculated the ferocity of their adverse reaction to his industrious self-promotion.

Private Medical Teaching Program

Impatient to resume the teaching of anatomy and surgery as he had done in Peoria, Cooper announced a Course of Medical Instruction as soon as he had opened his Infirmary on Sansome Street. In addition to his obsessive devotion to self improvement, his motivation was also based on other considerations. He recalled that his exemplar, Daniel Brainard, had conducted a private school of anatomy while marking time in Chicago before he opened Rush Medical College. Furthermore, he knew from his own previous experience that teaching activities would enlarge the circle of his professional contacts, stimulate his surgical practice and elevate his standing in the community while his covert plan for a medical school matured.

He announced his Course by the mailing of 2000 Circulars which he had printed on 10 July 1855, just a month and a half after his arrival in California. He candidly stated that he would give the course free of charge to all who attend, the object being to make acquaintance with medical men of the Pacific coast. The following excerpt from the Circular includes the main points of his message to the physicians of the region: [21]

> Announcing a Course of Medical Instruction
> San Francisco - 10 July 1855
>
> Dear Sir
>
> My object in addressing the Medical Profession of California

and Oregon by Circular is to propose giving a Course of Medical Instruction under the following arrangements:

1st Lectures on Special and Surgical Anatomy

2nd Demonstrative Surgery upon the cadaver

3rd Experimental Surgery by vivisections.

The course will commence as soon as a sufficient number of pupils can be engaged to attend, of which further notice will be given to such as respond to this Circular and desire it. The Lectures during the first session will be free. My object in delivering gratuitous lectures is to make acquaintances with medical men of the Pacific coast, endeavor to keep the principles of anatomy and surgery fresh in my mind and confirm, if possible, habits of industry in the cultivation of Surgical literature…

Medical men desirous of reviewing practical anatomy and of making anatomical preparations, are respectfully invited to attend and will have all the assistance necessary to insure success, so far as my efforts can be available. And at all times, transient physicians, who may be spending a day or two in the city, as well as those residing here, are respectfully invited to give me a call.

Yours,
E. S. Cooper, A.M., M.D.
Residence, Rassette House
Office, Sansome Street, Opposite Rassette House

As mentioned earlier, it was on this Circular that Cooper first appended the "A.M." degree to his title. But when we searched for evidence of his having been granted an A.M. degree by a college or university in the Northwest, we found none. Cooper's medical contemporary and bitter enemy in San Francisco, Dr. David Wooster, scoffed at the degree: "Where he got the A.M. he always appends to his name, we cannot imagine. It is inconceivable to those who know his literary attainments, what institution of learning in the civilized world could have conferred it. But, after all, it is a harmless affix, and perhaps the professor don't mean Master of Arts by it, but it may be a key to some family legend, for we understand he belongs to a 'very ancient family.' [22]

As far as we can determine, neither Cooper nor anyone else ever specified the source of the A.M. degree. It is surprising that Cooper, if the degree was genuine, did not respond in some fashion to Wooster's implication that the degree was not authentic. There is the possibility, of course, that Cooper simply preferred not to dignify the insolence of his tormenter by a reply, or that the reply has been lost. It is also possible that other records and clues that would disclose the origin of his degree can simply no longer be found at this late date. As things stand, however, the absence of any evidence whatsoever that Cooper actually received an A.M. degree from an accredited institution makes it difficult to discount entirely Wooster's inference that the degree was "self-awarded."

Let us look back through the mists of time and try to imagine the state of Cooper's mind when he readied his Circular announcing the very advent of formal medical teaching on the Pacific Coast. Could he then have reasoned as follows? "How simple and uncontestable it will be, far from the scene of my previous life and from medical colleagues familiar with my every move, to adorn my signature with an A.M. degree. This modest and harmless symbol of scholarly achievement will significantly enhance my stature as a teacher and heighten the appeal of my present and future Courses of Medical Instruction." May not such dissembling thoughts as these, stirred by a feverish ambition, have been the genesis of the A.M. degree that appeared after Cooper's name so unaccountably on the occasion of his inaugural venture in medical education in the West?

This is the very suspicion the cunning Wooster sought to implant by his slashing attack on Cooper. But the unsupported insinuation of Cooper's implacable adversary must not be accepted in lieu of facts. Since no evidence has been found to prove that Cooper either did or did not receive an A.M. degree - and if such evidence ever existed, it may well have been lost - we must in fairness give him the benefit of the doubt. Therefore, because Cooper appended an A.M. degree to his name in July 1855 and continued to do so for the rest of his life, we shall perforce allow the possibility that an institution somewhere, somehow granted it to him.

David Wooster (1825-1894)

As we follow Cooper's rising star, we shall hear much more of Dr. Wooster. This then will be a convenient point at which to sketch his background. He was born in Jasper, Steuben County, in western New York State, the son of the Reverend John Wooster and a remote descendant of the first Earl of Worcester, England. He was the great-grandnephew of the Revolutionary Major-General David Wooster (1711-1777) who graduated from Yale in 1738 and married Mary Clap, daughter of Yale's president, in 1746. General Wooster's record as a military leader was far from successful and congressional commissioners once reported him unfit to command. But he was well-liked by his troops and died in action while rallying them during a brief engagement with the British near Danville, Connecticut, on 27 April 1777.

Seventy years later Dr. Wooster, like his namesake General Wooster, entered military service. Before graduating in medicine, he served as Acting Assistant Surgeon in the U.S. Army during the Mexican War (1846-48), being stationed at La Puebla near Mexico City. In 1849 he received an MD degree from the Cleveland Medical College (organized in 1843 and now known as Case Western Reserve University School of Medicine), and in the same year began the practice of medicine at Adrian in southern Michigan. In 1850 he crossed the plains to California where he mined for gold and practiced medicine on the Yuba River in the northern sector of the Mother Lode until 1856 when he established himself in San Francisco.

Soon after his arrival in the city he attended some of Cooper's anatomical lectures and dissections and they became friends. Cooper attended Wooster's small son who was critically ill with croup and narrowly escaped tracheostomy. Cooper also assisted Wooster in building his practice in San Francisco and was prepared to provide the funds that he needed in 1858 to begin publishing the Pacific Medical and Surgical Journal which had the longest life of any of the early medical journals published in California. Following an incredibly acrimonious disagreement between them, to which we shall later refer, Wooster spitefully disclaimed Cooper's generous offer of financial assistance and went on to found the Journal under other auspices and to use its pages for virulent attacks on Cooper. Wooster edited or co-edited the publication for almost 4 years until he relinquished the post in 1861 during the Civil War in order to rejoin the U.S. Army, "hoping to be of real service in the present melancholy condition of our once glorious country." [23][24][25]

Cooper's first Course of Medical Instruction, advertised in July 1855, was convened in October of that year, only four months after his arrival in San Francisco. The Course was continued under the original plan until modified by the following Circular dated 10 December 1856 which announced a considerably expanded curriculum: [26]

Anatomical and Surgical Lectures
San Francisco - 10 December 1856

Dear Sir
I desire to direct the attention of medical men of this Coast, and the adjacent States and Countries, to the advantages which the climate of San Francisco offers above that of any other city of this Continent, or perhaps the World besides, for prosecuting the study of Practical Anatomy and of Operative Surgery.

Dissections are conducted here almost free from effluvium the whole year, but particularly from April to October, when the salubrious breezes preserve bodies for any desirable length of time.

The Course of Anatomical and Surgical Lectures commenced by myself, in October, 1855, will be continued during the coming year, with little intermission, under the following arrangements, unless a change be duly announced.

1st Lectures on Surgical Anatomy.

2d Demonstrative Surgery upon the Cadaver.

3d Experimental Surgery by Vivisections.

4th Instructions upon Ophthalmic and Orthopaedic Medicine and Surgery. - Clinical Lectures, at the Eye, Ear, and Orthopaedic Infirmary of San Francisco.

The entire Course will be free during the ensuing year, and until other important changes are announced. My objective in delivering Gratuitous Lectures, is to extend my acquaintance with Medical men of adjacent States and Countries, and to endeavor to keep Practical Anatomy and the principles of Surgery always before me, by adopting and confirming, if possible, habits of great industry in cultivating these branches. If, therefore, you have a Student whom you desire to place under such a Teacher, for a year or eighteen months, send him; and it may open a channel for future reciprocity of favors between us.

Medical Students of the Tropical Countries, and of the Southern States of this Union, who are unable to pursue their studies, owing to ill health, unless their disease be that of the Kidneys or Lungs, should, by all means, resort to San Francisco, if in their power to do so, because there is probably no place on the Globe where so long continued mental and physical labor can be endured as in this City; and the health of the student need never suffer by protracted dissections, owing to the salubrious breezes mentioned.

Expenses - The expenses of living in San Francisco are but little more than in the older cities of this Continent, either in the Union or the Southern Republics. Good boarding and lodging can be obtained at from five to six dollars per week.

Further information will be most willingly given to those who desire it, and who address me accordingly. Medical men of Mexico, the Central and South American Republics as well as the Hawaiian Kingdom, receiving this Circular, would confer great favors by returning me all information at their command, in regard to Medical matters in their respective regions, particularly the names of Medical men and students, the number, names, and comparative standing of Medical Colleges, and the number of Pupils in attendance at each, &c, &c.

This interchange of favors, when kept up between members of the Profession, always tends to the elevation of all. Let us hereby commence it, regardless of the Country or Nation to which we belong. The principles of our noble Profession are not changed by the forms of Government.

Medical men of other States and Countries, visiting San Francisco, are respectfully invited to give me a call whenever it may be convenient for themselves; and to such as design locating in California, it will, at all times, afford me much pleasure to give them all information, at my command, relating to the different portions of the State.

Yours, respectfully,
E. S. Cooper, A.M., M.D.

The expansive invitation in the above Circular is the last announcement we have of the private teaching program conducted by Cooper in his Infirmary. By all indications, the program was essentially in continuous session along these same lines. It was a natural bridge to and preparation for the medical school curriculum that eventually superseded it three years later in 1859. Records are not available to document the actual attendance at the course, but indications are that numerous physicians from San Francisco and the region were in attendance for brief periods, this being the only postgraduate program available in the area at the time. The teaching program served the purpose of attracting those medical men in the city who shared Cooper's interest in medical education while at the same time it aroused the hostility of others, such as San Francisco's pioneer physicians, who considered his claims as a teacher to be presumptuous.

Surgical Practice

Building a large practice was to Cooper an urgent necessity for this was his only means of garnering the money, patients and especially the recognition that his scheme to found a medical school required. He was confident that his anatomical knowledge and technical skill were unsurpassed by any of the local practitioners. What he needed to attract patients and especially referrals was an opportunity to demonstrate his surgical virtuosity. Surgery is a performing art and preeminence is most rapidly acquired by the safe execution of hazardous, difficult and well-publicized procedures. As a bold, deft and experienced operator, Cooper was well aware of this formula for

success and welcomed opportunities to perform “capital” operations.

It was customary at the time for surgeons to invite medical colleagues to be present as observers during operations in order to have their advice and moral support, and to cultivate their referral of patients. Cooper’s purpose in opening an Infirmary as soon as possible was to enable him from an early date to perform surgery in his own premises and be host - and instructor - to local and regional doctors. Aseptic techniques were unknown, of course, and there was no bar to the presence of even a considerable group, such as up to ten or twenty observers, crowding close around the operating table in their street clothes. Afterwards they discussed the operation freely outside among the profession in general, especially if there were some special features. Daily papers were always on the lookout for a good story and the surgeon’s guests at the operation commonly provided explicit details to reporters. When report of an unusual operation appeared in the press, as it often did, the surgeon could righteously disavow responsibility for a gratuitous “puff” to his reputation if the case were successful. On the other hand, if the outcome was unfavorable, the surgeon could expect a scathing critique of his judgement and technique.

Operating before an audience lent itself to the dissemination not only of complimentary information but also of distortions and malicious gossip, as Cooper was to learn from the following case that occurred six months after his arrival in San Francisco.

The Case of Frank Travers

Cooper not only hosted practitioners at operations in his own Infirmary, but also attended the operating rooms of other surgeons at their invitation in order to broaden his clinical knowledge and to evaluate surgical practice in the community. It was on such a courtesy call that he by chance became involved in the Travers case. [27]

A man named Frank Travers was stabbed in the upper thigh (left or right not specified). His femoral artery was lacerated, resulting in repeated severe hemorrhages and development of a femoral artery aneurysm. Treatment of such a condition would require ligating the external iliac artery in the lower abdomen to control the flow of blood to the femoral artery - a difficult and truly “capital” operation at the time. According to Cooper: [28]

> In December, 1855, I was invited to witness an operation for ligating the external iliac artery (on a patient named Travers)… On my arrival there were present Drs. Knapp, Hubbard, Angle, Webster, Macauley, Sawyer, and twelve or fifteen others who were strangers to me. Through the politeness of Dr. Macauley, the attending surgeon in the case, I was invited to take the knife

Cooper was delighted with this unexpected opportunity, only six months after his arrival in San Francisco, to demonstrate his superior anatomical knowledge and surgical skill before a group of about twenty of the town’s physicians. He recognized that his situation was similar to that of Brainard who, seventeen years before in Chicago, performed a difficult amputation on a canal worker’s leg in the presence of many of the local doctors - with great benefit to his reputation.

Travers was anesthetized with chloroform by one of the doctors. Cooper, as well as the crowd of spectators, were all in ordinary street dress, although Cooper and his assistant did roll up their sleeves and don aprons to protect their clothes. Speed and dexterity being the hallmark of the master surgeon, he rapidly made an incision in the lateral aspect of the lower abdomen with a scalpel that he took from the instrument case he always carried with him. Pushing the superficial tissues aside in a swift and nearly bloodless maneuver, he reached the fibrous layer of the abdominal wall known as the “transversalis fascia” which is the last barrier covering the extraperitoneal space between the peritoneal membrane medially and the pelvic wall laterally. Within this space the iliac artery and vein course side-by-side to the lower limb where they become the femoral artery and vein. [29]

> The transversalis fascia being unobscured by any flow of blood was now nicely exposed to view. As a matter of greater safety, I divided (the transversalis fascia) solely with my finger nail, according to the plan of Jobert and Lawrence, having previously laid down the knife… At this stage, however, I encountered the first difficulty of the operation.

The peritoneal membrane was markedly thickened and adherent to the side wall of the pelvis, effectively sealing off the space occupied by the iliac artery and vein which are normally easily exposed by detaching the peritoneum from the pelvic sidewall with the finger. While Cooper was carefully separating these thickened and adherent surfaces, the large and thin-walled iliac vein accompanying the artery was torn and dark blood gushed up in a torrent from deep in the pelvis. Dr. Sawyer, Cooper’s panic-stricken assistant, froze and the horrified onlookers who now moved in close for a better view of the operative field, sensed that death from uncontrollable hemorrhage was imminent.

In the hands of any surgeon on the Pacific Coast except Cooper, a tragic outcome may well have been inevitable. No operator in the region aside from Cooper was so disciplined by countless hours of anatomical dissection and surgical procedures assiduously practiced in the animal laboratory, that equanimity and technical virtuosity were normal responses in an emergency. He knew that false or frantic moves would worsen bleeding or do irreparable damage to vital structures. While the observers watched in breathless anxiety, Cooper arrested the hemorrhage by calmly directing his assistant to press down a sea sponge firmly on the bleeding point in the pelvis while he coolly and adroitly enlarged the wound, exposed the iliac vessels, tied the vein above and below the tear and then ligated the artery. It was an impressive feat of damage control.

The patient made a rapid recovery, without a single untoward symptom. To Cooper, this favorable course was not only a source of gratification, but it also raised the physiological question of whether tying both the iliac artery and the vein at the same time, a procedure thought to be hazardous, was as harmful as generally believed. He knew that when the vein alone is tied and the artery remains open, congestion of the venous system often results and swelling of the limb, even clotting of the blood in the engorged veins may occur. When the artery alone is tied and venous return continues unimpeded, the limb is deprived of blood and may be cold and its sensation impaired.

Perhaps in Travers’s case the tying of both vessels resulted in the retention of a more natural amount of blood in the extremity. Did this account for the good result? As was his custom, Cooper tried the experiment: [30]

> This was the query and subject of speculation between my medical friends and myself, for some weeks, until at last I opened a channel for settling the matter by experiments upon dogs, with the following results.
>
> Of fifteen dogs, I ligated the external iliac artery alone in six, one of which died, the balance recovered. In five I ligated the iliac artery and vein at the same time - all of these recovered. In the first six the extremity became cold in every instance, and the coldness was sometimes quite persistent for a day or two, in spite of externally stimulating applications. The sensibility of the limb was greatly impaired, so much so that the application of terebinthinic (turpentine) liniments would hardly disturb the animal during the first two or three days; but in the latter five the heat and sensibility of the limb remained nearly natural from the first.

According to the above experiment, the answer to the question posed by Cooper and his medical friends is probably “Yes, tying both iliac artery and vein at the same time did result in a more normal balance in the circulation of the extremity.”

While it is clear that Cooper exhibited superior technical skill in controlling hemorrhage under difficult conditions, the most significant feature of the Travers episode is not in Cooper’s surgical coup, but in his turning to the laboratory for an explanation of the clinical outcome of the case. Indeed it was Cooper’s devotion to research and teaching that set him apart from his peers in San Francisco where, from the outset, he conducted programs to teach anatomy (the basic surgical science of his day) and to investigate clinical surgical problems in the animal laboratory. He is the first surgeon in the region to heed the admonition of John Hunter (1728-1793), founder of surgery as a science: “Why not try the experiment?” Cooper’s experimental ligation of the iliac vessels, simplistic as it seems today, was evidence of a commitment to academic pursuits that earned him the respect and loyalty of a small coterie who later joined him in founding a medical school. [31]

But there is more to the Travers story. As usual in such cases, there was free discussion of the operation among the doctors, and sidewalk progress reports kept all informed. Interest on the street was particularly keen in this instance because Travers was a well-known figure in the downtown area, being the cabman on the corner of Broadway and Kearney. As we have seen, the operation was well attended. The many eye-witness accounts of the procedure generally varied only in the superlatives used to describe the surgeon’s skill and poise. All of this was very gratifying to Cooper until the day when word reached him that a prominent physician, Dr. H.M. Gray who had been present at the operation, pronounced it the botched job of an inept surgeon - or words to that effect.

Although Cooper was not personally acquainted with Dr. Gray, he knew that criticism by him was a serious matter because Gray’s arrival in San Francisco during the Gold Rush period conferred upon him and other doctors of this vintage a distinctly honorific status as “pioneers” within the medical profession of the city.

Henry M. Gray (1821-1863) was born in New York City, son of the Reverend William Gray, a Scotch Presbyterian clergyman. Soon after his birth his family moved to Seneca Falls in northeastern New York State where he spent his youth and early manhood. His medical education consisted of an apprenticeship with a private physician in nearby Almyra and graduation in 1842 from Geneva Medical College, a “country medical school” that was moved to Syracuse, New York, and became the Medical Department of Syracuse University in 1872. [32]

To commence the practice of medicine he moved back to New York City where his bright mind, pleasing frankness of manner and gratuitous practice among the poor soon won him a secure professional and enviable social position. Although he was assured of speedy eminence as a New York physician, his love of adventure and the excitement of the California gold discovery led him to close his office and organize an immigrant party of ten congenial spirits - college mates, friends and associates. They purchased the bark Hope and set sail in July 1849 on the six-months’ voyage around Cape Horn to the gold fields of California, he acting as the surgeon of the expedition. Touching en route at Rio de Janiero, they reached San Francisco in December. Some of the party, including Dr. Gray, visited the mining regions, but he returned to San Francisco in a few months where he immediately commenced the practice of medicine, to which he thenceforth devoted himself.

His practice, at first limited, grew to be among the most extensive in San Francisco, and so lucrative that in a few years he acquired a considerable fortune that enabled him to support not only his expensive habits but to make liberal contributions to the many charities that appealed to him for aid. As in New York, he was generous in his services to needy patients so that his kind offices were legendary in the community. He was a member of the San Francisco Medical Society and San Francisco Pathological Society, associations that were initiated by the pioneer group of physicians.

Just as with Dr. John D. Arnold, Cooper’s adversary in Peoria, Dr. Gray had a decided interest in political affairs. He identified himself with the Whig Party in California and was Secretary of the Whig State Central Committee and Chairman of the Whig General Committee. His popularity was such that the Whig Nominating Committee considered (but did not choose) him as the Party’s candidate for Mayor of San Francisco in 1852. His talents as an orator were greatly admired and hearers were impressed by his polished eloquence and unstudied gracefulness of delivery. He was a devoted member of the Masonic Order and on many special occasions addressed its members in the fervent rhetoric for which he was distinguished. However, the genial disposition and collegial temperament attributed to him by biographers were apparently not evident to Dr. Cooper in his relations with Dr. Gray.

Dr. Gray died at the age of 42 after a lingering period of broken health.

He was unmarried and the Society of California Pioneers received his body in their hall where it lay in state before the funeral.

With respect to Dr. Gray's surgical knowledge and skills, we are unable to find any writings by him or statements by contemporaries that would enlighten us in this regard. The only reference to his proficiency in a natural science is ambiguous: "He had a genuine appreciation of the grandeur and beauty of nature, and the correctness of an anatomist in the choice of fine horses, of which he was particularly fond." [33][34]

The barbs of Dr. Gray, a well-established and respected figure in San Francisco, were potentially ruinous when leveled at a newcomer such as Cooper who was beginning to annoy the old guard as an offensive upstart. Since coming to San Francisco, Cooper had indeed been "riding high." His whirlwind of activity (of which we have so far referred to only a small part) had gained him many friends and he had made great progress in implementing his long range plan. He had so far not been challenged for his extravagant advertising. Occupancy of his Infirmary and attendance at his Clinic on Sansome Street had grown so rapidly that he was arranging to move to more spacious quarters on near-by Mission Street. Students had been recruited for his Medical Course on Anatomy and Vivisection that had now been in session for several months. Therefore, the report that the silver-tongued Dr. Gray was slandering him to an ever-widening circle of practitioners and laymen who respected the 49er's judgement came as a shock and outrage to the sensitive Cooper.

As to Gray's criticisms of Cooper's surgical technique, they were in fact meaningless quibbles. Therefore, considering the distinction of the source, and counting on the generally favorable opinion of his operation to offset Gray's comments, Cooper took a cautious approach. He waited three months for the gossip to subside. But Gray's libel continued unabated and, inexplicably, there was a sinister persistence in his attack on Cooper's reputation. Finally, barely containing his anger, Cooper addressed the following letter to Dr. Gray: [35]

San Francisco, 10 April 1856
Dr. H. M. Gray
San Francisco

Sir
You were present, I believe, at an operation performed chiefly by myself upon Frank Travers some months since. At various times since I have been informed that you condemned in unmeasured terms the part of the operation performed by myself, making your allegations specific by isolating for condemnation certain parts of the operation such as opening the transverse fascia with the finger nail; separating the peritoneum from the outer side of the wound with the finger "instead of dissecting it away"; drawing the peritoneum towards the linea alba too far; the division of the epigastric artery, etc., etc.

Now I am not disposed to magnify into importance every trivial remark disparaging to myself purporting to have been made by a medical man but on the other hand am disposed to pay no attention to statements not proven at once, making it a rule never to be on unfriendly terms with any respectable medical man unless the responsibility clearly rests upon the other party. My object in sending you this note is to assure you that I have no desire to consider you as a malicious professional enemy.

In regard to the operation in question I have to say that no one present during its performance and close enough to obtain a correct view but knows very well that the epigastric artery was not cut and that no artery could have been divided by the scalpel when I made the incision but the arteria ad cutem abdominis or some of the branches of the epigastric or circumflex illii seeing that I laid the knife down 30-40 seconds before the hemorrhage began.

The transversalis fascia it would be folly to hesitate in saying to any well informed surgeon I saw fit to open solely with my finger nail. I then separated the peritoneum from the outer side of the wound entirely with my fingers and had it drawn as far towards the linea alba as was considered necessary at the time. A diseased condition of the epigastric and iliac veins involved the operation in a serious difficulty which though not the fault of the surgeon it was my misfortune at that time to encounter.

I have been thus minute in my explanations owing to the fact that I have been wrongly informed in regard to your statements. Otherwise you would be placed in the very unenviable light of assuming a groundless and most malicious opposition to one who has never desired to throw an obstacle in the way of your prosperity.

Yours,
E. S. Cooper

To Cooper's increasing indignation, there was no reply or conciliatory gesture in response to his letter of 10 April; and Gray continued during the following weeks to make contemptuous allusions to the Travers operation and Cooper's alleged technical incompetence. Having previously been the victim of medical intrigues in Illinois, Cooper might be excused for his suspicion that the relentless Gray was the agent of a cabal determined to discredit him. Lesser provocations often led to lethal duels in mid-century America, but Cooper chose instead to engage in verbal combat. He wrote the following letter to the Editor of a San Francisco paper: [36]

May 1856 (approx.)
Mr. Editor
No medical man of honorable principles can be regardless of the rights of other members of the profession and no one deserving the name of Medical Man will calmly submit to a gross violation of his rights.

Some months since, I performed an operation for ligating the external iliac artery in the presence of several medical men of this city. Among the medical men present at the operation was Dr. H. M. Gray whom I was soon afterwards informed made himself very conspicuous by a most sweeping condemnation of myself as chief operator in that case, and did not limit his remarks to the profession but introduced the subject among his patients.

This I paid little attention to at the time having heard Dr. Gray spoken of as a well informed surgeon and as a gentleman, and considered the remarks as incompatible with one of his reputation.

As time passed on, however, the evidence of malignancy on the part of Dr. Gray accumulated until it was thought that justice to myself as well as to him demanded that I should give him an opportunity to either deny the accusations or give his reasons for making them which I did by a note to him stating what I had heard. No explanation, however, has been given and the evidence of Dr. Gray's guilt having become conclusive I consider it proper to give publicity to the facts of the case however extraordinary the step may at first appear.

The patient was Frank Travers cabman on the corner of Broadway and Kearney whose rapid recovery after the operation has long since convinced him that Dr. Gray is not a reliable medical prophet. But as rapid recovery after a surgical operation, however formidable it might be, is not sufficient evidence of its judicious performance, I shall now proceed to settle the matter by an appeal to disinterested authority.

The testimony of medical men present at the operation as well as others will now be offered and those who have heard Dr. Gray's version of the matter can have an opportunity of judging for themselves to what extent his statements in traducing my character were reliable, and whether I am not justifiable under the circumstances in arraigning him before the tribunal of public opinion seeing that he arrogated to himself the high privilege of asserting what he pleases derogatory to my character and of treating with silent contempt my most friendly appeals for an amicable explanation.

Testimonial

We the undersigned medical men present at the operation alluded to upon Frank Travers, feel in candor bound to state that, though we have been accustomed to witnessing important surgical operations, both in private and public hospitals by eminent surgeons, yet we have never seen a more skillful use of surgical instruments, or a greater degree of coolness and self-possession under sudden and alarming difficulties in the course of an operation than were exhibited by Dr. Cooper in that case.

Lorenzo Hubbard, M.D.
J. W. W. Gordon, M.D.
M. B. Angle, M.D.
John Lee Webster, M.D.
A. Atkinson, M.D.

The case of Travers was an unfortunate one in consequence of the condition of the blood vessels adjacent to the artery and though the operation terminated well it might not have done so had there been any alarm or confusion on the part of those principally concerned in the operation.

But had I failed to ligate the artery altogether it would not have been anything remarkable in the history of surgery though from the mean advantages that would have been taken of the case it might in that event have blasted my reputation as a surgeon in San Francisco for years to come, seeing that I was quite a stranger at that time.

Many of the most renowned surgeons of the world have failed to conclude successfully operations upon important blood vessels - sometimes not finding the artery at all in case of aneurysm. Sir Astley Cooper once failed to find the subclavian artery in case of aneurysm of that vessel and gave up the patient to die.

Dessault, White and Pelletan, three of the greatest surgeons that ever adorned the profession, failed on the same vessel (vide Pancoast's Operative Surgery). [37]

It is operations upon the important blood vessels in case of aneurysm that test the skill of the operative surgeon. It is in these that coolness, patience, perseverance, the most perfect knowledge of anatomy and the greatest dexterity in the use of instruments are required. And even with all these qualities combined in one man the operation has occasionally failed as above mentioned.

I shall not say that Dr. Gray has shown himself entirely ignorant of the more important operations of modern surgery, neither will I state that he has shown a decided willingness to make false statements in order to injure a professional brother - that may be a subject of comment to others after the evidence has been adjudged. But I will say that there are medical men in San Francisco of very fine personal address and more than ordinary general intelligence but without the least profundity either in the literature or practical skill of any branch of medicine who came here at an early day and attained a considerable degree of prominence among the people in spite of habits of libertinism and debauchery, and who seek self-protection by mutually concurring in their efforts to put down every medical stranger when their interest enjoins the same. Go ahead, Gentlemen, I hold both your principles and your puerile efforts in supreme contempt.

E.S. Cooper

We have no record of a response by Gray to Cooper's sarcastic questioning of his motives and of his competence to judge the Travers operation, but we shall learn that the Cooper's seething resentment later erupted into a altercation with Gray who escaped physical harm only through the intervention of their medical colleagues. It is also of more than passing interest that the five doctors who signed the Testimonial were all co-founding members with Cooper of the San Francisco County Medico-Chirurgical Association, a society whose early history we shall shortly address.

The Gray episode was Cooper's first confrontation with San Francisco's medical "establishment" and we shall see to what lengths they will go in their intrigues to bring him down.

A Medical Journal

No medical journal had ever been published in California when Cooper arrived and he was well aware of the importance of such a publication both as an outlet for his medical articles and as a vehicle for informing and unifying the profession. As a model he had in mind the North-Western Medical and Surgical Journal published in Chicago as a continuation of the Illinois Medical and Surgical Journal which was founded in 1844. He noted that this journal had always been edited by a member of the Rush medical faculty and, in addition to scientific writings, regularly provided information about Rush Medical School, medical education and medical societies The very presence of such a

journal in the Old Northwest stimulated the pursuit and publication of new knowledge, served as a major source of continuing education for practitioners, and by its editorial pages molded opinion and championed worthy medical causes - particularly the Rush Medical School itself.

Small wonder then that Cooper wished to found a journal along the same lines as soon as possible in order to confer these benefits on the rapidly developing West and, of course, enable him to be the principal spokesman for the cause to which he was devoted - medical education.

Therefore, when after six months his medical practice and medical course were well in hand, Cooper sent a prospectus for a medical journal to Dr. Alexander Josephus Spencer (1811-1885), a New Yorker who came to San Jose in 1852 and attained some prominence in medicine and community affairs (and was later a Cooper-colleague in the California State Medical Society). Cooper was under the impression that Dr. Spencer had the resources and sufficient interest in the subject to consider publishing a medical journal. In the following otherwise thoughtful reply, Spencer referred to the North-Western Medical and Surgical Journal of Chicago in terms that seem unduly critical. [38][39]

San Jose, 19 December 1855
E. S. Cooper, M.D.
San Francisco

Dear Sir
Your late communication with a prospectus for a medical journal is before me, to which agreeably to your request I reply that the objects set forth in the prospectus meet with our entire approbation. California, however, is a unique country in which the enterprises of men have hitherto had for their leading object self-agrandisement or pecuniary advantage, ergo, we are admonished to make no positive engagement until we have seen and examined the proposed journal.

For a number of years a similar effort was made in Chicago, but the product was in the main meager, and only served as a vehicle for the conveyance of the puffs, encomiums and notices of faculty connected with it; of course, such an enterprise would be unworthy of the attention of medical philosophers, (while) one of an opposite character would, as it should, receive our cordial support.

With our best wishes for the success of the effort, I have the honor to be,

Yours truly,
Alexander S. Spencer

Cooper did not at the time persist in the effort to establish a medical journal because a few months later in 1856 Dr. John F. Morse of Sacramento founded the California State Medical Journal (fully endorsed by Cooper) which sadly, after only four issues, was discontinued in 1857 for lack of funds. We have already alluded to Cooper's spurned offer to provide start-up support for the Pacific Medical and Surgical Journal which began publication in January 1858. Cooper ultimately achieved the goal of publishing his own medical journal when, in January 1860, there appeared the first issue of the San Francisco Medical Press, edited by E.S. Cooper, A.M., MD

Cooper's Personal Observations After his First Six Months in San Francisco

Among Cooper's personal papers we find the following somewhat euphoric, but prophetic expression of San Francisco's prospects as he viewed them at the end of 1855: [40]

San Francisco's Present Condition and Probable Destiny

Who that has considered the commercial position of San Francisco can but conclude that sooner or later she is destined to be the world's great emporium of trade. Only think. There is the Chinese empire with a population of 360 millions containing materials for exportation equal to that of one sixth of the civilized globe besides, and that the Bay of San Francisco is likely to be the port of entry for one half of all this during the next century at least, perhaps permanently, as the inhabitants of that country begin to show not only a good degree of partiality for us by establishing their schools, periodicals and other institutions under the auspices of our Government. They appear to have a perfect passion of late for supporting a trade with us. They are as a people little disposed to try experiments or to make changes, and their channels of trade once directed to us will not be changed very readily.

The trade of the Japanese too will after this find its way to San Francisco. Japan with a population equal to that of France, and a most industrious and enterprising class of people, is capable of supporting an immense trade with us. Position makes everything in the course which commerce takes and the Pacific Coast of the United States is the most favorably situated for the commerce of not only all China but of the East Indies and much of Asia otherwise.

In the following brief sketch, also written by Cooper at the end of 1855, he reviews his own accomplishments with pride but speaks ominously of "bitter enemies," while quaintly referring to himself in the third person: [41]

Autobiographical Note

Arriving in San Francisco his situation was peculiar. The profession was overstocked and extremely disaffected. The prospect of any stranger, however well qualified, of obtaining practice was exceedingly dull so that not a word of encouragement was at first offered. The aspect of affairs began rapidly to change when he began to unfold his plans to the profession. Seeking to form the acquaintance of medical men only and, having in a very brief period secured the confidence and esteem of a large number, he (instructed them) in dissecting for their benefit and in six weeks after his arrival was lecturing on Anatomy to a very respectable class composed of medical practitioners. Through the influence of these, many of whom appeared to have the most unbounded confidence (in him), cases requiring capital operations soon fell into his hand. The consequence was that during less than six months residence in San Francisco he had upon the recommendation of members of the profession ligated the brachial artery, the primitive carotid, the external iliac, exsected the knee and elbow joints in different cases, also operated for stone in the bladder, comprising a list of important operations never before performed in the same length of time in this city by any one surgeon. Few examples have ever occurred of a young man in a strange city rising so rapidly, taking at a single step the position of first surgeon on this coast from that of comparative obscurity. But this success was not without its opposition. Enemies arose and malignant ones too so that it may be truly said that no one had stronger friends or more bitter enemies than he after six months residence in this city.

We can but agree with Cooper that he made remarkable progress in his first six months in San Francisco and have described five crucial initiatives that he took during that period. We shall now turn to an account of the sixth facet of his plan - the founding of medical societies - with its historic significance for the organization of medicine on the Pacific Coast.

Endnotes

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36. Correspondence, n.d. - Box 1, Folder 5, Elias Samuel Cooper Papers - MS 458, California Historical Society, North Baker Research Library.Ephemera - Box 1, Folder 6, Elias Samuel Cooper Papers - MS 458, California Historical Society, North Baker Research Library. Among E.S. Cooper's papers is an undated draft of a letter to "Mr. Editor," regarding the Travers Case, probably written in May 1856. It is in the hand of Cooper with several missing pages, and there are multiple versions of short segments of the statement. These materials have been arranged in a logical sequence to reconstruct the letter. The date and name of the newspaper (presumably a S.F. publication) to which the letter was sent have not been located, nor has a clipping been found
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Chapter 9. Early Local Medical Societies in California

Elias Cooper was ever an enthusiastic supporter of medical associations and, in spite of the sharp criticism he endured in the Peoria and Illinois State Medical Societies, he made the founding of a State Medical Association one of the prime objectives of his California campaign. His temerity in beginning such an effort in 1855 only three months after his arrival on the Pacific Coast is a token of his zeal to widen contacts and gain prominence within the profession. He doubtless also thought that the strong national trend in the East to organize State medical societies made such a move timely in the West.

San Francisco Medical Societies prior to 1855

Local medical societies are normally the precursors of state-wide associations and San Francisco had seen the organization of three such local societies prior to 1855:

the First San Francisco Medical Society in 1850
the Pathological Society in 1851
the Second San Francisco Medical Society in 1853

The medical activities of these societies were of little consequence and they apparently never considered organizing a State association. Their membership consisted mostly of the pioneer physicians who were the first to practice in the city, a distinction that led some members to consider themselves the medical elite. Cooper was the kind of aggressive interloper to offend their sense of propriety by challenging their supremacy. The following is a brief account of each of these early societies.

The First San Francisco Medical Society

It was just two years after the beginning of the Gold Rush, and San Francisco had leapt from a village of 900 to a chaotic tent city of 35,000, when 32 of the local physicians met on 17 June 1850 to organize the first San Francisco Medical Society. They promptly adopted a Constitution consisting of the usual pledge to maintain high standards and oppose quackery, and enacted a set of ten By-Laws. Number eight of the By-Laws stated: "There shall be established by the Society a Fee Bill, which shall govern the members in their charges for professional services." It appears that the primary reason for organizing the Society was to establish a schedule of allowable charges. The following fees specified in the Fee Bill were recorded with the Constitution and By-Laws. The basic unit to be used in calculating charges for medical visits was $16, the value of an ounce of gold dust. A first visit to the office was listed as $32 and a follow-up visit as $16. The obstetrical charge for normal delivery was $150; for application of forceps, $300; and if turning of the baby was required, $500. Surgical fees were $500 to $1000 for removal of a bladder stone or repairing a strangulated hernia; operation for cataract or making an opening in the skull (trephining) cost $1000. But you could have an arm or a leg amputated for only $300.

Although these seem like exorbitant fees for that era, the Gold Rush was a period of such scarcity, inflation and economic turmoil in San Francisco that we have no idea what a fair charge for medical service would have been at the time. We do have the witness of Dr. Thomas M Logan of Sacramento (whose letter to his brother-in-law we quoted earlier) that the gold country was grossly over-stocked with doctors of both the regular and irregular variety and that the rapacity of some had created mistrust of the profession generally. The founders of the Society were doubtless seeking to establish a reasonable level of fees, but there was certainly no consensus among the members and the Fee Bill was so divisive an issue that it wrecked the organization. By the end of October it had ceased to exist after a short and factious life of only four and a half months. The Alta California for October 27, 1850 had the following last words: [1]

> The members of the medical faculty appear to have fallen out most completely with each other, and the citizens have certainly fallen out with many of them. The pretentious claims of the members who have constituted themselves into a Medical Society, and prescribed rules for the government of the profession, have disgusted the majority of respectable physicians in our midst. They have, as it were, ostracized those who have not subscribed their names to the Constitution and By-Laws, and in point of fact pronounced them mere quacks and pretenders. Now we are quite as much opposed to "quacks," who assume nothing more than to sell "patent medicines" and combine nostrums, as any regular diploma'd (sic) medica can possibly be, but we are equally opposed to those who assume to be regular practitioners, and who are neither fitted by nature nor application for the science of medicine theoretically or by practice….Their "fee bill" was simply an outrage, but we are happy to say that of the twenty-eight members, several have repudiated it, and desired their names be stricken from the roll.

After that cold blast from the press, nothing further was heard from this first Medical Society to be organized in San Francisco. [2]

The Pathological Society of San Francisco

The second medical association to be established by the pioneer physicians of San Francisco prior to 1855 was the Pathological Society. Organized in 1851 "for the promotion of Medical Science," the Society held together for about six years and during that period always had the same officers: A.J. Bowie, MD, President and A.B. Stout, MD, Secretary. Its activities were apparently of a mainly social nature and this may account for its relative longevity in comparison with other medical societies of the period. There is no indication that Medical Science was ever promoted, but there is evidence that the members maintained a lively interest in medical politics. They were active in the founding convention of 1856 and the first two annual meetings of the California State Medical Society, a subject to which we shall later return. In addition to Drs. Bowie and Stout, the membership the Pathological Society also included Drs. H. M. Gray, William Hammond and J.P. Whitney whose names will come up again. as we follow the career of Dr. Cooper. [3]

Since the Pathological Society will figure prominently in our continuing narrative, this is an appropriate juncture to tell how the Society's perennial officers, Drs. Bowie and Stout, arrived on the California scene.

Augustus Jesse Bowie (1815-1887)

San Franciscans appeared to regard Dr. Bowie as highly for his conversational style as for his surgical skill, and in both respects his attainments were exceptional. Legend had it that sometimes patient's feigned illness and took to bed in order to have the pleasure of a visit from the genial and courtly doctor. Levi Cooper Lane considered him a conversationalist without rival because of his scholarly grasp of the works of Virgil, Ovid and Horace from which he quoted freely (and accurately) on appropriate occasions. Where Dr. Bowie received such a thorough grounding in the humanities remains a mystery for little is known of his early schooling, leaving us to assume that native ability and innate refinement of taste guided him in a personal study of the classics.

The urbane and considerate manner that claimed for Dr. Bowie the esteem and approbation of both patients and his peers marked him as a native of the South, as indeed he was - born at Annapolis, Maryland, on 23 October 1815, son of an attorney. It is said that he was a descendant of the Earl of Clarendon, a staunch Loyalist who was influential in putting Charles II on the throne after Cromwell's death. His American ancestors were among the settlers who, with Lord Baltimore, laid the foundations of the Colony of Maryland. Bowie is thought by one historian to have attended school only until thirteen years of age, suggesting a meager formal exposure to Latin authors. Levi Cooper Lane, without citing his source, expressed a different view of Bowie's education when he wrote: "Dr. Bowie had the advantage of a thorough, early education; an education in which the 'humanities' had a full place."

There is also lingering mystery as to the sequence of events in Bowie's professional career prior to his settling in San Francisco. The facts are probably somewhat as follows. He studied medicine under a preceptor before attending the University of Maryland where he received an MD Degree in 1842. He also had a career in the U. S. Navy which began in 1837 when he shipped out on the frigate Independence as Assistant Surgeon. Then followed cruises to Russia, many South American countries, and to the Orient. Navy Surgeon Bowie first arrived in San Francisco harbor at the height of the Gold Rush on 1 April 1849 aboard the side-wheeler Oregon, one of the first steamships to join the East and West Coasts by water. He came with orders to select a site for the Marine Hospital. While accomplishing this, he became so impressed by the future prospects of San Francisco that he returned in 1852 to become surgeon of the Marine Hospital, and to make the city his permanent home. The hospital position requiring only part of his time, he opened an office in downtown San Francisco to engage in general practice with a chief interest in surgery. At some early but uncertain date he was elected President and Doctor A. B. Stout, Secretary, of the organization of pioneer doctors known as the Pathological Society. [4][5]

Dr. Bowie had a long and honorable career as a surgeon and we shall have occasion later to refer to his relationship with Cooper. Among other notable associations, Bowie succeeded Cooper as Chair of Surgery in the Medical Department of the University of the Pacific in 1863 after the latter's death. In a memorial tribute in 1877, Lane made a final assessment of Bowie's surgical contributions:

> As a surgeon he did much praiseworthy work, which, if published, would have placed him among the leading surgeons of our country. In his operative work he was cool, bold, self-poised and dexterous… Still, so free was he from the ambition that inspires most men, that he has left in writing almost no record of his splendid achievements in the field of operative surgery.

Augustus Bowie is hardly remembered. In the annals of medical education, the generous-hearted and convivial doctor was among the earliest of the far western academics to confirm the axiom: "Publish or perish."

Arthur Breese Stout (1814-1898)

Dr. Stout, who may be described as a "thinking surgeon," was a close friend and colleague of Augustus Bowie, and a relentless adversary of Elias Cooper. Born in New York City on 29 April 1814, Stout had many advantages in early life, beginning with a family of ample means and more than average intelligence. Samuel F(inley) B(reese) Morse, inventor of the telegraph, was a first cousin with whom Stout shared grandparents and a middle name. Stout's path to a professional career was smooth. and unimpeded. His family saw that he received a classical education before he studied medicine at the College of Physicians and Surgeons in New York where he received an MD degree in 1839.

After earning his degree, he visited Europe, touring England, France and Germany before returning to New York in 1848. Later in the same year, being unmarried and indifferent to the charms of a lifetime in big-city practice, he accepted the position of ship's surgeon on the S. S. California then preparing to depart on her maiden voyage around the Horn to San Francisco. The California was one of three steamships constructed under a special act of Congress in 1847 to carry mail and passengers from the Isthmus of Panama to Astoria, Oregon, and ports between. The other two ships were the Panama and the Oregon, the latter being the ship that brought Doctor Bowie to San Francisco just thirty-two days after Doctor Stout arrived.

The California pulled out of New York harbor on 6 October 1848, two months before news of the discovery of gold at Sutter's Mill reached the East Coast. Four and a half months later, on 28 February 1849, she steamed calmly through the Golden Gate to a tumultuous reception by the ships in the Bay who saluted her arrival as the first steamer to make the long sea voyage from New York to California. Bowie and Stout were thus authentic '49ers and both were pillars of the Society of California Pioneers. Stout was not a gregarious and forgiving man and took his seniority in the medical community much more seriously than did the amiable Dr. Bowie. [6]

Not to be diverted by the allure of gold in the foothills, Stout went immediately into practice in San Francisco and was rewarded by a sufficient yield to allow him to invest in real estate and enjoy financial security. He had a perceptive and analytical mind that was soon recognized not only among his peers in the profession but also by leading citizens of the community. Considering their early arrival in the city and the prominence they soon attained, it is not surprising that both Stout and Bowie were members of the First Vigilance Committee when an aroused civic conscience called it into being on 10 June 1851 for the avowed purpose "to watch, pursue, and bring to justice the outlaws infesting the city, through the regularly constituted courts, if possible, through more summary course, if necessary," The Committee proclaimed that "no thief, burglar, incendiary, or assassin, shall escape punishment, either by the quibbles of the law, the insecurity of prisons, the carelessness or corruption of the police, or a laxity of those who pretend to administer justice." [7]

Stout was elected a member of the Executive Committee of the Vigilance movement along with Sam Brannan, James King of William and thirty-seven others. During the Committee's deliberations Stout first demonstrated his judicial temperament and medico-legal cast of mind. Although the Committee was determined to intervene directly and restore order when the police and courts were impotent in doing so, it sought, when seizing jurisdiction from the constituted authorities, to proceed in accordance with the rule of law. When the Committee evaded the writ of habeas corpus in the course of apprehending several of its prisoners, the punctilious Stout raised objections. He was then appointed to a committee of three members which advised "that a due circumspection be exercised to maintain the purity and equity of the application of the writ of habeas corpus." [8]

Stout's experience on the Vigilance Committee may have turned his mind to consideration of legal and social issues. Although he practiced surgery and was Professor of Surgery from 1872 to 1874 in Dr. Hugh Toland's Medical School in San Francisco, most of his writings were of a medico-legal or public health nature as a result of which he was highly respected as an authority on social problems.

He was also actively involved in the organization and direction of the Pathological Society and other early medical associations in California. It was in this arena that he encountered Dr. Cooper whom he held in cold contempt and sought to discredit whenever an opportunity arose for him to do so. In due course we shall return to the subject of Stout's hostility to Cooper. [9]

The Second San Francisco Medical Society

According to an article in Alta California, a public meeting, attended by a large number of physicians and other citizens, was held in the City Council Chamber on 17 November 1853 for the purpose of reviving the San Francisco Medical Society. No copy of the Constitution and By-Laws or list of members has been found but the press report states that the object of the association was "to preserve the character of the profession and to prevent the progress of quackery and charlatanism." The City Directory for 1856 further states that "the society has for its object the promotion of Medical Science and the encouragement of the social virtues among the members of the Medical Profession, and is intended to embrace every regular member of the Profession." Presumably, restriction of membership to "regular" physicians meant that only bona fide MDs were eligible, and "irregular" physicians (i.e., practitioners without a genuine degree, generally referred to as "quacks") were excluded.

At mid-century, American Medicine was an embattled profession, there being few effective mechanisms for controlling either the qualifications for or the standards of practice. The disarray within the profession was particularly acute in California because of local conditions. In addition to the holding of an MD degree, one of the few requirements a medical organization could enforce was strict adherence to a code of ethics. Therefore, these early San Francisco societies all called for the MD degree and were on the lookout for the slightest infraction of ethical principles (such as advertising). Cooper seems to have thought that the ethical ground rules of which he ran afoul in Illinois had been suspended in the free-spirited West. He was, of course, mistaken.

There were three candidates for the presidency of the society: Drs. Coit, Harris and Gibbons. The following officers were elected at the first meeting of the revitalized San Francisco Medical Society on 17 November. The president was Dr Benjamin B. Coit whose family name is preserved in the beautiful Coit Tower that overlooks San Francisco, bequeathed to the city by his daughter-in-law in memory of the volunteer firemen. Dr. H.M. Gray was elected first vice president; Dr Valentine Mott, second vice president; Dr. A.B. Stout, secretary. The 63 members enrolled in the Society comprised about half of the physicians estimated to be practicing in San Francisco in 1853. Among the members were the following physicians whom we will encounter later: Doctors Henry Gibbons, Sr., (elected president of the Society in 1855), R. Beverly Cole, J. P. Whitney, W.O. Ayres, J. Morrison and Isaac Rowell. It should be noted that members of the Pathological Society (Gray, Stout and Whitney) also became members of the San Francisco Medical Society.

There are no minutes of the Society's meetings and the only information regarding its activities is found in an editorial written by Cooper in the first issue of the San Francisco Medical Press in 1860: [10]

> (The San Francisco Medical Society) has only been a society in name for the most part.
>
> During the presidency of Professor Henry Gibbons, however, it was brought into a state of considerable usefulness. Quite a number of very interesting meetings were held, with animated discussions upon medical subjects… It has generally been controlled by medical gentlemen who appear to think their highest duties were performed when they succeeded in carrying the yearly election through satisfactorily, and had the officers duly announced in all of our daily papers. It is unfortunate that this society has not been better controlled, because it contains a great number of intelligent members who, under proper auspices, might have done much by associated efforts in extending the boundaries of knowledge and the usefulness of the profession here.

The only indication of the duration of the society's existence is found in the City Directory where it was last registered in 1862. It then simply disappeared from the scene. [11]

Sacramento Medical Societies prior to 1856

The first Sacramento medical societies were organized during the height of the Gold Rush that began in mid 1848. By January 1850 well-nigh 100,000 persons had come to California. [12]

San Francisco was the golden gate to the new El Dorado, but Sacramento was the epicenter of the gold country. Doctors flocked there out of all proportion to the needs, drawn not by a desire to practice their profession, but to join the gold-hunting horde and return with riches to their former homes. It is estimated that from 1300 to 1500 doctors came to California among the gold seekers. These medical argonauts, mostly doomed to menial tasks for survival, also included physicians of the highest caliber who at great personal sacrifice and under chaotic conditions devoted themselves to the relief of the migratory population.

Jacob David Babcock Stillman (1819-1888), originally of New York State, was one of the most respected of these medical '49ers. Little is known of his early life and even the spelling of his second name is uncertain, sometimes being recorded as "Davis." He was born on 21 February 1819 in Schenectady, New York, where he attended public school and Union College. (Levi Cooper Lane was a student at Union for four months in 1849.) He earned his MD degree from the College of Physicians and Surgeons in New York and then practiced in the city, part of the time on the staff of the Bellevue Hospital. For reasons now unclear, but no doubt in response to the lure of California gold, he embarked in January 1849 on the sailing ship Pacific for San Francisco where he arrived on 5 August 1849. He described his epic sea journey of seven months around Cape Horn, and his experience on the California frontier, in a classic memoir entitled "Seeking the Golden Fleece". [13][14]

He left the Pacific at San Francisco and set out for the gold mines in September of '49 with five friends. Sailing up the Sacramento River from the Bay of San Francisco in their 24-foot galvanized-iron boat, Stillman's party arrived in the early morning at the "canvas city" of Sacramento: [15]

> Dust, men, mules, oxen; bales, boxes, barrels innumerable, piled everywhere in the open air. The trees were all standing - magnificent great oaks - and a crowd of ships were fastened to the trees along the bank. We pitched our tent on the west bank, to escape from the dust and confusion on the other side."

On 15 September Stillman's party continued northward up-river toward their destination in the gold fields. For several weeks they struggled against exhaustion, illness, and near-impassable terrain inhabited by Indians who were friendly and grizzly bears who were the chief menace. However, it was not these impediments but the tales of poverty, destitution and death told by the haggard bands of sick and dispirited men whom they met coming down from the mines that blasted the party's hope of riches Within one day's travel of their objective, they took a vote on the question of proceeding and unanimously resolved to return to Sacramento city where Stillman immediately entered the practice of medicine. [16]

It was in this season of disillusionment with his own prospects in California that he considered the boisterous camaraderie of the gold seekers and their countless acts of generosity to the down-and-out to be more than offset by the prevalence of rapacity and dissolute behavior due to the loosening of moral constraints within the polyglot multitude. One of his letters records these somber reflections in the form of a western parable: [17]

> I know that many will inquire my opinion of California… A most melancholy instance of the weakness of some young men, when the restraints and support of friends are removed, occurred last evening. A well dressed young man was seen, very drunk, lying on the ground, and a couple of boys we have with us took him to a shelter and medical aid was rendered to him but he died and was buried. No one new him. He had an ounce of gold in his pocket, a note book and a Bible. Today he was recognized by these relics as coming from Binghampton (New York), the pride of the village - noble, generous and gifted. He drank, gambled his money away, and drank deeper to drown his trouble. The friends, who claimed his effects as his administrators, showed his Bible here tonight. It is the smallest edition, with gilt edges and tucks. In one place was a beautiful card, on which was written, with a lady's hand, "Remember your friend. . " In another was a card, worked with worsted and mounted with silk ribbon, to be used as a book mark; the motto was, "A sister's prayers go with you." It is a case well calculated to stir one's sympathies. If you have a friend who is anxious to come to California and he be not a man of stern virtue, advise him to stay at home. There will be an immense amount of gold dug next season, without a doubt, and there will be many going home discouraged and destitute. A few will go home with higher virtue and characters, formed in the refiner's fire; but by far the greater number will return with gold, perhaps, but with morals and manners ruined, with feelings and habits that will make them poorer members of society. The risk is too great for the reward. I can think of but very few men whom I would advise to come to California.

In Sacramento Stillman went into partnership with Dr. J.F. Morse, another new arrival. They opened a drug store and hospital in a crude new building for which they paid a rent of $1,500 a month. From December 25 in 1849 to April in 1850 their patients were mainly indigent and consequently hospital income was quite insufficient to cover expenses. Furthermore, their two story building was half submerged and nearly swept away during the great flood of January 1850 when patients came by boat and were admitted through a second floor window. All the patients and all the requisites for their care were moved to the second floor of the hospital, and on this second floor the doctors remained with, and cared for, the patients. One of Stillman's letters records the scene: [18]

> January 11th, 1850 - we are witnesses of another act in the great drama of Californian adventures. Perhaps, before this reaches you, you will be informed of the calamitous flood that is now spreading destruction and death through the valley. We are all, about forty of us, in the upper story of our hospital - Dr. Morse and myself writing; Dr. Higgins (of Kentucky) reading; . . "Raphael," the cook, preparing something for breakfast; . . a few patients muttering in delirium. A lone woman, sick and destitute, is curtained off in a corner of the room. She lost her husband on the plains, and has been supporting herself, with the assistance of a few friends. She was brought here with six men, the night before last. Some are dying on the floor; others, dead, are sewed up in blankets and sunk in the water in a room on the first floor. Dr. Morse pours some brandy in his ink, to give spirit to his letter; I pour from another bottle standing on the table, containing laudanum, to quiet the apprehensions that mine may awaken; then we all laugh, and go on as before.
>
> January 12th - The water is still rising. Tents, houses, boxes, barrels, horses, mules and cattle are sweeping by with the swollen torrent, that is now spread out in a vast sea farther than the eye can reach. Today there is no first floor in the city uncovered, and but for the vessels in the river, now all crowded with people, there is no telling what numbers must have perished… .I have some misgivings about our fate, but sure I am that we will not desert the sick, and if we are swept away, we will all go together.

After less than four months' operation, the partners were stone broke and in April 1850 were forced to close the hospital, not for wont of patients, but of patients who could pay. [19]

Later in that same month Stillman and Morse were engaged in the founding of the first medical society in the State of California.

Stillman had a distinctly literary bent and made important contributions to the history of California and the Southwest. He was for one year (1869-70) the senior editor of the second and last volume of the short-lived California Medical Gazette, and he wrote many articles in the Overland Monthly.

He also collaborated with Leland Stanford, an old friend, on the famous book entitled The Horse in Motion. Stillman authored the text of the book which was executed and published under the auspices of Stanford in 1882. Stanford, who had a great interest in horses, raised the question as to whether a horse in motion ever has all four feet off the ground at the same time. In the book's Preface, which he wrote, Stanford said: [20]

> I have for a long time entertained the opinion that the accepted theory of the relative positions of the feet of horses in rapid motion was erroneous. I also believed that the camera could be utilized to demonstrate that fact, and by instantaneous pictures show the actual position of the limbs at each instant of the stride. Under this conviction I employed Mr. Muybridge, a very skilful photographer, to institute a series of experiments to that end.

Eadweard J. Muybridge, who used a quick-acting shutter to obtain rapid exposures, took a series of photographs of a trotting horse at exposures of five-thousandth part of a second. The project was carried out on the Stanford farm, site of the present Stanford University Campus. Stanford provided all necessary funds and resources including money for apparatus and horses for the experiment. He also arranged technical help from the engineering staff of the Central Pacific Railroad Company who devised an electrical system of magnetic devices for rapid sequencing of exposures.

By his photographs, Muybridge demonstrated conclusively that intermittently all four of the horses' feet were simultaneously free of the ground. Stanford then engaged Stillman to write a comprehensive text for The Horse in Motion. Stillman's text included no original prints of Muybridge's photographs, only reproductive illustrations. An account of the methods by which the photographs were produced that served as the basis for Stillman's analysis of the experiment was furnished by Muybridge and printed as an Appendix. The book contained a great deal of additional information the result of Stillman's own anatomical dissections and thorough study of the musculoskeletal kinetics of the moving horse.

Muybridge, who claimed both the original idea for the experiment and the technical innovations as his own, copyrighted the photographs. When he discovered that his name did not appear on the title page of the book, and that the text did not give him what he considered to be sufficient credit, he became so incensed that in September 1882 he sued the publisher, Osgood and Company of Boston, for infringement of his copyright. The suit was never brought to trial and was dismissed without prejudice or costs. Failing in this attack, Muybridge brought suit against Stanford directly, seeking $50,000 in damages. Throughout the extensive legal proceedings Stanford maintained that he had conceived the idea for a specific experiment, that he had employed Muybridge to carry it out under his auspices and with his support, and that he therefore had a right to report the results. The court agreed and on 13 February 1885 it rendered judgement in Stanford's favor; thus Muybridge lost his case.

As a posthumous reward for his later extensive pioneering work in the photography of man and animals in motion, which he began initially under the stimulus of Leland Stanford's original idea, Muybridge is heralded by some historians of the cinema as the Father of the Motion Picture. [21][22][23]

J.D.B Stillman was the father of John Maxson Stillman (1852-1923) who was appointed Professor of Chemistry effective 1 January 1892 as a member of the first faculty at Stanford University. David Starr Jordan, first President of the University, recalled the following circumstances related to Professor Stillman's appointment: [24]

> Only one professor was in any sense selected by Mr. Stanford, and as to the others he made practically no suggestion. He did, however, say that his old friend, Dr. John D.B. Stillman, had left a son, Dr. John Maxson Stillman, a graduate in Chemistry from the University of California, who had also studied in Europe, had later taught in his Alma Mater, and was then serving as a professional chemist in Boston. Would I look him up and, if his attainments and personality seemed satisfactory, consider him for a position?
>
> On visiting Boston, therefore, I went out to Brookline to see Dr. Stillman, and being thoroughly pleased, at once offered him our chair of Chemistry. This he as promptly accepted, declining to consider an advance from his company, for that, he said, would only tend to confuse his mind. We thus secured one of the wisest teachers I have ever known, and one of the most thoroughly beloved…Stillman remained for twenty-six years in active service at the head of his department. On my acceptance of the chancellorship in 1913, he became vice-president of the institution, retiring on August 1, 1917, at the conventional age limit of sixty-five years.

During the transitional period when Cooper Medical College became the Medical Department of Stanford University, Professor John Maxson Stillman was chairman of the Medical Committee that planned the organization and curriculum of the new Department of Medicine. When the first appointments to the faculty of the Department were made in October 1908, J.M. Stillman, Professor of Chemistry, was among them. [25]

J.D.B. Stillman was also the father of a younger son, Dr. Stanley Stillman (1861-1934), who graduated from Cooper Medical College in 1889 and became assistant to Dr. Levi Cooper Lane in 1891. Stanley Stillman was appointed Professor of Surgery at Cooper Medical College in 1898 and when Stanford took over the Medical College he was made Professor of Surgery and executive head of the Medical Department at Stanford, positions he held from 1909 until his retirement in 1924. [26]

The Medico-Chirurgical Association of Sacramento

The Medico-Chirurgical Association of Sacramento was the first medical society to be organized in the state of California. The initial step toward its formation was a meeting of 20 to 30 physicians at the City Hotel in Sacramento on 24 April 1850. They resolved (1) to organize a Medical Society and (2) to appoint a committee to draft a Constitution, By-Laws, and schedule of professional fees. J.B.D. Stillman was a moving spirit, perhaps the moving spirit, behind the organizational effort. Pursuant to the resolutions adopted on 24 April, the second meeting of the Medico-Chirurgical Association of Sacramento was convened on 2 May 1850, again at the City Hotel. The object of the Association , as set forth in the Constitution, was "the cultivation of science; the promotion of honor, dignity and interest of the profession, and the separation of the regular from the irregular practitioners."

On 5 May 1850 the thirty-one year old Stillman wrote enthusiastically about the new society and spoke of his now more favorable view of California. [27]

> We have just organized a medical society, called the Medico-Chirurgical Association, the first of the kind that has been formed in the "Republic." Dr. Bay of Albany was chosen President; Doctors Morse and White, Vice Presidents; Dr. J.R. Riggs, of Patterson (N. J.), Recording Secretary; and Dr. J.D.B. Stillman, Corresponding Secretary. When fully organized it will consist of about fifty members. So, you see, we are pretty well supplied with medical men. Many of them are men of high standing at home and advanced in years. Three of our officers have been Presidents of county societies at home. Dr. Morse is to deliver an address before the society on the 22d. So, hurrah for our noble profession in the new Republic of the Pacific! …
>
> There are some reasons why I should like to live in California, independently of its charming climate. There is more intelligence and generous good feeling than in any country I ever saw. Men are valued for what they are. There are great rogues here, it is true; but there is a smaller proportion of mean and dishonorable men, and one feels that he has a standing here that it takes a man until he is old and rich to enjoy at home.

The public was invited to attend the meeting on 22 May and on this auspicious occasion Dr. Morse became the first to deliver a public address on a scientific subject in Sacramento City. The young Association bravely announced that it would hold monthly meetings Yet the ties that bound the disparate membership were soon loosened

by lack of common interests and the insistence of some members on separation of “regulars” from “irregulars,” as specified in the constitution. Sometime in 1854 or 1855 the Association quietly disbanded. [28]

Dr. John Frederick Morse (1815-1874), whom we first met in his partnership with Dr. Stillman, is to come later to our attention under so many important circumstances that we should now mention something of his background and interests. He was born in Essex, Chittendon County, Vermont, on 25 December 1815, and reared in staid New England surroundings. He was married in 1843, received his MD degree in 1844 from the University of the City of New York, and began practice in Brooklyn, New York. He was highly regarded as a physician and, in these early years, began a lifetime devotion to the philanthropic work of the fraternal order of Odd Fellows and to many other humanitarian causes.

In 1849, ill health forced him to abandon medical practice. He set sail for California via the Isthmus of Panama on 23 February, hoping to recoup his health on the voyage and his fortunes in the gold fields. Throughout the journey by sea and across the steamy isthmus, he dispensed medical aid freely to his fellow travelers. He even took over the work of the ship’s doctor on the long haul up the California coast and organized the passengers to clean up the filthy vessel. Revived by these exertions and good works, he took off for the mines immediately upon arrival at San Francisco in August 1849. Virtually paralleling the course of Stillman, who also reached San Francisco in August, Morse abandoned his quest for the elusive gold after a few months in the Coloma field. Returning to Sacramento, he went into partnership with Stillman. We have already told of their ill-fated venture in opening a hospital in December 1849 that they were forced to close in April 1850 for lack of funds.

Morse was an ardent proponent of medical societies and worked diligently with Stillman in the founding of the Medico-Chirurgical Association in May 1850. He also actively participated in founding other societies, as we shall see. With respect to his medical practice, the fall of 1850 brought to Sacramento a full-blown cholera epidemic to which he unselfishly devoted his professional efforts. He spearheaded a campaign for public sanitation and hospital reform, pleading vainly with the City Council for the formation of a board of health. Due to conditions in Sacramento at the time, his income from medical practice was insufficient to meet his needs.

His business enterprises also met with indifferent success. He turned from banking and real estate (bankrupt within four months) to real estate auctioneering (abandoned after five months), and finally in March 1851 found a more congenial occupation in the editorship of a flourishing Whig paper, the Sacramento Daily Union. Feeling more secure financially, he sent for his wife and daughter to join him. After his monthly salary on the newspaper was reduced from $300 to $200 he resigned the editorship in May 1852. He was then for a few months associated in practice with Dr. Thomas M. Logan when misfortune again sought him out. The store building where he lived and worked was destroyed by fire and his pregnant wife was removed from the flaming structure to the steamer Comanche bound for San Francisco. A son was born en route but Mrs. Morse died before reaching the city. The infant survived, only to succumb at the age of four. Deprived at one cruel blow of his beloved wife and all his worldly possessions, Morse dissolved his partnership with Logan (for lack of income, no doubt) and set up his office over Stanford Brothers’ Sacramento store. During his three years’ tenancy over the store, he became a close friend of Theodore Judah, Leland Stanford, and others of the future railroad dynasty.

With the passing years Morse became an increasingly vigorous and persuasive advocate of worthy causes and his eloquence made him a popular speaker. He spoke on many memorable occasions, including the ceremonial driving of the Golden Spike by Leland Stanford and Thomas Durant at Ogden, Utah, on 10 May 1869, closing the last gap in the first transcontinental railroad. [29][30]

With reference to the final years in the full and eventful life of the valiant doctor, we note that he was appointed to the faculty of the Medical Department of the University of the Pacific in 1863 as Professor of the Theory and Practice of Medicine. During the interval of 1864 to 1869 when the Medical Department temporarily suspended operation, he joined the rival Toland Medical School as Professor of Clinical Medicine and Diagnosis. When the Medical Department reopened he returned as Emeritus Professor of the Principles and Practice of Medicine, a post he held until his death in 1874. In 1870 a Public Dispensary was established in the Pacific Medical College Building through the earnest labors of Professor Morse. The name was changed to the Morse Dispensary in his honor in 1875, a title it retained until renamed the Cooper College Dispensary in 1892. [31][32]

We should also record that Dr. Morse married again and had a son, John Frederick Morse, Jr. (1857-1898) who graduated from the Medical College of the Pacific in 1878 and became Professor of Clinical Surgery at Cooper Medical College in 1889. [33]

Sacramento Medical Society

Scarcely a year had passed since the demise of the Medico-Chirurgical Association when the Sacramento Medical Society was founded on 30 April 1855. Among the officers were Dr. John F. Morse as a Vice President and Dr. Thomas M. Logan as Corresponding Secretary. The original list of members consisted of 25 physicians, all graduates of recognized medical schools. Holding of a medical degree was a prime requirement for membership in the Society which was established specifically “for the purpose of protecting regular practitioners and the public from innovations and malpractice of uneducated pretenders, who will display their ‘shingles’ in every community.”

At the outset, members of the Society were animated by the conviction that regular meetings devoted to the open and informed discussion of scientific subjects were the Society’s central purpose, and that contentious bickering over professional status and competition would threaten its welfare and survival. During the first two years Morse, Logan and others made instructive and interesting medical presentations. Nevertheless, a situation common throughout American medicine of the day caused increasing friction within the Society. There were in Sacramento some practicing physicians who had no medical degree but had gained their professional credentials solely through apprenticeship. This was in accordance with the time-honored but then obsolete practice by which young persons desiring to be a doctor attached themselves to a reputable physician and studied medicine under his tutelage in his offices and at the bedside. These preceptors determined after a few years when students were adequately trained and provided them with a certificate that they were competent to begin practice. Members of the Society who were friends or associates of preceptor-trained doctors pressed for their admission, and other members resisted. The gulf between the parties widened and, in 1863, the Society melted away. [34]

Thomas Muldrup Logan (1808-1876), as noted above, was elected on 30 April 1855 as the first Corresponding Secretary of the Sacramento Medical Society. The member holding this position in a Medical Society is, in effect, its “Minister of Foreign Affairs” and on this account has exceptional responsibilities and opportunities. This special feature of the post was not lost on either Thomas Logan or Elias Cooper. These two were destined soon to involve their respective medical societies in an enterprise of considerable moment, which we will discuss in detail shortly. But first it would be timely to inquire into Dr. Logan’s background.

He was born on 31 July 1808 in Charleston, South Carolina, of Scotch ancestry. His grandfather, Dr. Thomas Logan, a graduate in medicine at Edinburgh in 1773, practiced in Charleston. So did his father, Dr. George Logan, a graduate of the University of Pennsylvania in 1802. He was for some years a leading physician in Charleston.

As might be expected, Thomas Muldrop Logan spent his youth and early manhood attending Charleston schools. He received a classical education at Charleston College and was awarded an MD degree from the Medical College of South Carolina in 1828. He then married and spent several years in medical practice in Clarendon, North Carolina. In 1832 he went to Europe for the usual exposure to the professional culture of Great Britain and France. On his return he entered practice in Charleston and served as a Lecturer on Materia Medica and Therapeutics in a summer course under the auspices of the Medical College of South Carolina. His talent for color engraving, one of his avocations throughout life, was displayed in the first (1834) and second (1836) numbers of Dr. Thomas L. Odgier’s Compendium of Operative Surgery for which Logan did the illustrations of operative procedures on arteries. He moved to New Orleans in 1843 where he practiced until the discovery of gold attracted him to California in 1849.

After a long and tempestuous voyage around the Horn in a small schooner, he arrived in San Francisco on January 29th 1850 and promptly entered medical practice. After a few months he moved to Coloma and mined gold until October 1850 when the terrible epidemic of Asiatic cholera broke out in Sacramento. To help care for the victims of that fearful pestilence, he immediately repaired to that city and there remained until the time of his death twenty-six years later. [35]

Logan’s records and commentary on the cholera epidemic of 1850 are an invaluable source of factual data that would otherwise have been lost to posterity. In November 1850 he wrote: [36]

> As I apprehended, our worst fears have been realized - for never, in the history of this cosmopolitan disease, since its first appearance in the Gangentic delta in 1817, and its subsequent progress around the globe, which it has at last encompassed, has any visitation been so destructive and appalling … The like mortality is unprecedented, and only to be surpassed by the Black Death and awful plagues of the fourteenth century. Even in Paris, in 1832, when I first encountered the disease, and where the mortality was regarded as excessive - amounting to 18,000 out of a population of 800,000, the proportionate number of deaths was not so great, by more than one-half; there only one in 44 died; but in Sacramento City, one out of 17 inhabitants fell a victim to the scourge and this is a most moderate calculation, based solely upon the mortuary record of the two coffin-makers and undertakers. (Of the ninety physicians embraced in the population not one fled; all remained and) performed their duties with an unflinching firmness and fidelity worthy of all honorable mention.

It was presumably during the cholera epidemic that Logan met John Morse with whom he enjoyed a long association in connection with the affairs of medical organizations to which we shall now return our attention.

San Francisco County Medico-Chirurgical Association

By the summer of 1855 the first San Francisco Medical Society had expired, the Pathological Society was essentially dormant except for social functions, and the second San Francisco Medical Society exhibited only fitful signs of life on its downhill course to extinction in 1860. The time was opportune to establish a vigorous forum for scientific discussions and elevation of the profession in San Francisco.

4 August 1855

Doctors John L. Webster and John P. Macauley took the initiative. On Saturday 4 August 1855 they called a meeting in their office “for the purpose of forming a medical society.” In addition to the hosts those present were: B.M. Angle, A. Atkinson, E.S. Cooper, Lorenzo Hubbard, C.A. Kirkpatrick and FP Wierzbicki. Dr. Hubbard was elected as Chairman and Dr. Webster as Secretary of the meeting, and Drs. Hubbard, Macauley and Webster were elected as a Committee to Draft a Constitution. Having disposed of this business with unanimity and dispatch, the group of eight physicians adjourned to meet again on Friday the 10th of August. [37]

10 August 1855

This second organizational meeting was convened to consider the Constitution prepared during the past week by the drafting Committee. The full constitution was presented. No action on it was taken at this meeting and no list of members in attendance is available. The following sections of the Constitution defined the objectives of the society:

> We the undersigned being desirous of forming an Association for the purpose of the advancement of Medical and Surgical Science, of promoting harmony and friendly intercourse among the Members of the Medical Profession in the state of California,

and extending comfort, and such pecuniary aid to unfortunate and indigent Brothers, and their families, as their necessities may require, do each for ourselves agree to be governed by the following constitution.

Article. 1. This Association shall be known by the name of the San Francisco County Medico-Chirurgical Association.

Article 2. The members of this Association shall be those who are graduates of some regularly incorporated Medical Institution, or who shall otherwise give satisfactory evidence of their competency to practice the profession of Medicine, and who shall subscribe to this constitution, and pay into the Treasury of the Association such sums as shall be prescribed in the By-Laws, etc.

17 August 1855. (erroneously dated 16 August in the original Minutes. There was no list of the members present.)
At this third meeting of the Association the Constitution was unanimously adopted, and the following officers unanimously elected:

President:	Lorenzo Hubbard
Vice President:	Miles B. Angle
Secretary:	John L Webster
Treasurer:	I. W. W. Gordon
Corresponding Secretary:	Elias S. Cooper
Censors and Trustees:	I. W. W. Gordon John P. Macauley Charles A. Kirkpatrick F. P. Wierzbicki Elias S. Cooper

Cooper's election as Corresponding Secretary provided him with just the opportunity he needed to move forward as the representative of a local medical association with his plan to organize a State Medical Society.

During this meeting he received the additional important appointment as Chairman of the Committee to Draft By-Laws The committee was composed of Drs. Cooper, Gordon and Webster.

As the last item of business Dr. Cooper offered the following series of eight resolutions which were adopted and ordered to be recorded in the Minutes of the Meeting:

Resolved

That unanimity of feeling and concurrence of action among the members of the Society are indispensable to its perpetuity.

That the members of this Society shall know no contention, save that which prompts us to contend with each other for the highest merits in the cultivation of the literature of our profession, the most skill in its practice, the greatest candor towards each other, and the sincerest devotion to the true interests and dignity of our calling.

That so long as we continue in the organization, it is the duty of each member to vindicate the character of any other, at all times, when unjustly assailed.

That next to candor, punctuality in attending our meetings, and all other appointments, is a cardinal principle, and indispensable to mutual confidence in each other, and harmony in the Society.

That it shall be the duty of every member to treat all other members as if they were in possession of these qualities, unless found to be otherwise.

That this organization gives us duties towards each other, which we do not owe to all other members of the profession.

That the first object of this Society is improvement in the knowledge and skill of our high calling, and that it is the duty of every one to use his utmost endeavors to advance every other member in these respects, and so far as he conceives he justly merits it, to advance his interests in every honorable way.

That want of candor in consultations is, to all intents and purposes, blameworthy, and on being proved against any member of this body rendering him obnoxious to censure, and deserving expulsion.

24 August 1855
There was no list of the members present at this fourth meeting of the Association. Dr. Cooper and other members of the By-Laws Committee must have worked industriously during the previous week for he, as Chairman, was ready with a comprehensive set of statutes for the regulation of the Association. The tone and content of the document suggest that it was chiefly Cooper's handiwork. Aside from routine rules of order for conducting business, the following two Sections from the By-Laws are noteworthy in view of subsequent events.

No member shall be reprimanded, suspended, or expelled except by a vote of two-thirds of the members present at any stated meeting, after a notice of at least one month has been given the accused in writing, and a copy of the same filed in the Journal of the Society.

All flagrant violations of the Code of Ethics of the American Medical Association, shall subject a member to reprimand, suspension, or expulsion, by a vote of two-thirds of Members present at any stated meeting after due notice has been given.

The By-Laws were adopted by unanimous vote.

31 August 1855
Members present at this fifth meeting of the Association were not listed. The Minutes read:

"Dr. Cooper, the Corresponding Secretary, read a communication, which on the motion of Dr. Macauley was received and approved."

This communication was a letter dated 27 August 1855 written by Cooper on behalf of the Association to Thomas N. Logan, MD, Corresponding Secretary of the Sacramento Medical Society, proposing the organization of a State Medical Society. We will return later to this historic proposition.

In a bold move to define the character and mission of the Medico-Chirurgical Association in his own terms, Cooper now took the floor again in order to read a series of twelve resolutions, which he followed by a second series of ten resolutions. Both series were received for the record and carried over to the next meeting for discussion.

7 September 1855
The roll was called at this sixth meeting and the following nine members were present: Drs. Angle, Atkinson, Cooper, Gilbert, Gordon, Kirkpatrick, Macauley, Webster and Wierzbicki.

Dr. Wierzbicki proposed that a committee be appointed to draft resolutions respecting the controversial subject of Medical and Surgical Fees. The proposal elicited a warm discussion from the usually compliant group. Several members objected to a scale of fees being drawn up at present, the Society being but in its infancy. It was finally decided to appoint a committee to prepare a fee bill.

Cooper's two series of resolutions comprising a total of twenty-two, submitted at the previous meeting, were read again, discussed, and unanimously approved. These were in addition to his eight resolutions previously ratified at the third meeting of the Association. It must be a singular occurrence for a medical society in the process of organization to adopt unanimously thirty resolutions from a newcomer to the local profession. Recall that Cooper had at this time been in San Francisco only a little over three months. His campaign to build a practice and begin a teaching program was in full sway. Living alone and associating only with medical men, he maintained his accustomed punishing schedule of dissection and medical studies far into the night, his restless mind focussed on the ultimate goal of founding a medical school. We know, too, that he continued to have nagging symptoms of the mysterious neurological disorder that caused his facial palsy. To what extent this chronic illness influenced his behavior we shall never know. That being the case, Cooper's grim striving and sense of mission best explain his assertiveness and the barrage of 30 resolutions designed to proclaim his personal credo and take aim at emerging critics.

Cooper's resolutions in general were mainly noble and harmless platitudes, except for those in the last of the three series he submitted. These have troubling implications. They are obviously directed against certain of San Francisco's pioneer physicians, members of the Pathological Society, who resented Cooper's aggressive tactics and his disrespect for their seniority and competence. On this account they had presumably excluded him from their Society. The following self-righteous litany was nothing less than a defiant challenge to the old guard. By obtaining approval of these resolutions, Cooper involved the Association in his smoldering feud with the Pathological Society.

Resolved:

That ostracism in our profession, practiced among its members, irrespective of merit, deserves the contempt of all high minded and honorable practitioners, and shall meet with scorn from the Society in whomsoever found.

That societies banded together for the purpose of crushing merit, are common enemies of all mankind, and should be treated accordingly.

That we recognize only merit as entitled to our regard, and that we will individually and collectively acknowledge on all opportune occasions and encourage it, wherever found.

That we will fraternize with all other societies of this and other cities in mutual efforts to elevate the Medical Profession, and wage war against all whose known course and practice is unconditional ostracism.

That the members of the so called "Pathological Society" of San Francisco have heretofore pursued a course which, to say the least, is one of doubtful rectitude and requires careful watching by this Association. (This resolution was originally approved unanimously but later disavowed by the Association; and its original handwritten version in the Minutes was crossed out and initialed by the President and two other members.)

That a copy of these Resolutions be sent to any other society or societies of this city whose sympathies are with ours, whose objects are improvement and advancement in Medicine and Surgery, in any honorable way.

That instead of being jealous of, or unfriendly to other societies, whose members are high toned and honorable, we should only regard them in a more favorable light for having pursuits and aspirations congenial to our own.

That the members of other societies, who recognize our feeble efforts in the cause of our profession, and act accordingly, place us under obligations to them, which we are not under to members of the profession generally.

That we consider there is room for all honorable Medical Men, and that we recognize no illiberal selfish policy which does not tend to elevate the Medical Profession generally.

That in elevating the profession by promoting unanimity of feelings, and concurrence of action among its members, we pursue the best course to enhance our own individual and collective interests.

It would be surprising if the above "manifesto" did not provoke a punitive response from members of the Pathological Society. Indeed, we can now regard Dr. H.M. Gray's criticism of Cooper's operation on patient Travers as the opening gun in a campaign by Gray and his associates in the Pathological Society to censure Cooper.

Association Proceedings: The First Year

The Association's first year began on 4 August 1855. It concluded with an Annual Meeting on 7 July 1856 devoted to receiving an Annual Report and electing officers for the coming year. The Association was fortunate during its first year to attract an able and active membership. At the first organizational meeting on 4 August, eight physicians were present. At the third organizational meeting on 17 August, when the Constitution was adopted and officers elected, the same eight physicians were present and probably two additional (Drs. Gilbert and Gordon) for a total of ten in attendance. These can be considered the founding fathers of the Association.

The signatures of the thirty-two members of the Association (including

the founders) are appended to the Constitution. Twenty-six members signed before July 1856 and six signed after that date. We can thus say that the membership of the Association increased three-fold (from the original ten to thirty-two). Forty-six weekly meetings were held during the first year. The greatest number of members present at any meeting was twenty, the lowest seven, the average twelve - not a bad record for a community where the vitality of medical societies was low and the mortality high. For a history of the organization more detailed than that available for any other local medical society in that era, we are indebted to the Secretaries of the Association who were careful to preserve the founding documents and the minutes of all meetings up to 18 January 1858. After that date, although the Association continued to meet, the minutes have been lost.

It was Cooper who energized the Association. His special contribution was in rallying the members to participate in the scientific program as the primary objective of the Association. Meetings were devoted to medical rather than social or political issues. He emphasized the presentation of cases and formal reviews of preassigned topics. He himself took active part in discussions, made many reports, and conducted a series of weekly lectures on the anatomy of the arterial system. It can also be assumed from indirect evidence that members frequented his dissecting rooms to profit from his anatomical classes and surgical cases. Uplifted by the high sentiments expressed in Cooper's first series of Resolutions, the enthusiasm for self-improvement among the early members reached such a pitch that the Minutes for 7 September 1855 recorded the following:

> It was proposed by Dr. Macauley, seconded by Dr. Atkinson, that a fine of two dollars and a half be inflicted on any members who should not attend the dissecting rooms at least once a week. The motion was put to the vote, and not carried, the majority being against it.

The young Association made a serious attempt to achieve high standards and arranged to have its scientific Proceedings for October and November 1855 (unsophisticated as they were) published in the San Francisco Medical Journal, volume 1, number 1 for January1856 (the only issue of the journal ever published). The medical cases described in the Proceedings ranged from remarkable to ridiculous. Here are a few examples to illustrate the level of the discourse. [38]

Dr. Angle reported that a small company of men were on a cattle drive from Los Angeles to San Francisco in 1854. It was customary to set a watch during the night to ward off predators, human and otherwise. During the night one of the men got up unbeknownst to the watch who, hearing a rustling in the brush, fired a single shot into the dark. When he went to investigate he found his friend shot through the head. The ball entered the left mastoid bone, crossed the base of the skull, and exited through the right eye. The patient was evacuated sixty miles cross-country on horseback and up the coast by steamer from San Luis Obispo to San Francisco. In spite of that harrowing experience, the patient survived and his wounds healed completely in three weeks. As for residual complaints, he was deaf in the left ear and blind in the right eye. According to the Proceedings, the peculiar interest attached to this case was not so much the rapid convalescence of the patient, as that a ball should enter at the base of the skull on one side and pass out through the eye on the other without causing immediate death. Stories like this reinforced the legend of fortitude and hardiness in the American frontiersman.

Dr. Cooper read a communication, translated by him from the French, giving the history of a case wherein a speedy cure of Sciatic Neuralgia was effected by cauterizing the ear. Henry Gibbons, who had joined the Association in October, countered with the story of a bed-ridden patient with Rheumatism. When a showman's monkey came down the chimney covered with soot, the patient was so much alarmed that he hastily arose and walked down the stairs as a well man. Not to be outdone, Dr. Angle related the case of a female with Catalepsy who could only be aroused to consciousness by the melody of a violin, while the harsh tones caused by drawing the bow across the strings without any regard to tune, produced no sensible effect. In further reference to the effect of a stringed instrument, Angle claimed to have repeatedly found in his own personal experience that the notes produced by the violoncello would excite hoarseness. The gist of this small symposium was that the mind has a powerful influence over physical conditions.

According to the Minutes for the meeting of 14 December 1855 Cooper read a paper by Professor Fleming of Queen's College who asserted that pressure on the carotids so as to arrest circulation to the brain would cause anesthesia. There was a lively discussion of the mechanism, safety and practical value of the procedure. Eager to sustain the fervor of his colleagues, and committed to the Hunterian policy of taking surgical problems to the laboratory for study, Cooper invited Drs. Enscore, Hubbard, Angle, Kirkpatrick, Macauley, Austin, Gordon and Wierzbicki to observe the following simple experiment in his animal laboratory. Not caring to risk brain damage by compressing the carotids in man, he ligated both carotids in a dog and all present observed that the procedure caused only the slightest immediate stupor lasting little more than an hour. The experiment demonstrated to the entire satisfaction of the eight physicians who witnessed it that interruption of carotid circulation is not a satisfactory method of producing anesthesia, at least not in the dog. What possible significance can be attributed to this humble and inconclusive laboratory demonstration? Its import lies in its having occurred at all, and in its precedence as a forerunner of laboratory investigation in the farthest outpost of the nation. [39]

Henry Gibbons, Sr. (1808-1884)

Cooper's lasting friendship with Doctor Henry Gibbons dates from October 1855 when Gibbons joined the Association. We earlier referred to the Quaker background of both Cooper and Gibbons as conducive to the mutual trust that characterized their relationship. Both were tireless in their devotion to medical science and in their cultivation of medical organizations. They were, however, quite different in temperament. Whereas Cooper was openly scornful of incompetence and bristled at criticism, Gibbons - twelve years his senior - was ever the reserved and even-handed medical statesman.

Gibbons traced his American ancestry to the Quaker John Gibbons who left Warminster, England, in 1681 to settle on a grant of land obtained from William Penn in Chester County, Pennsylvania, just south of Philadelphia. The family prospered in the proprietary Colony, being of scholarly inclination and active in public service and the founding of schools. John Gibbons as head of the American line was succeeded by a son, grandson and great grandson, all named James, the last of whom was the father of William Gibbons. William, the youngest of twelve children, received a medical degree from the University of Pennsylvania in 1802 and settled just south of Chester County in Wilmington, Delaware. This Dr. William Gibbons was the father of Henry Gibbons whose descendants include a distinguished line of Henry Gibbonses in California.

The first Henry Gibbons (H. G., Sr.) was born in Wilmington on 20 September 1808, the second of fourteen children. Both Henry's father and grandfather were highly educated men, being well versed in ancient and modern languages, and in natural science. It is evident from published accounts that members of the family carried down through the generations a full share of those traits of inflexibility of purpose, purity of life and simplicity of manners that make for the distinctive individuality of members of the Society of Friends.

The young Henry received in his native city of Wilmington, Delaware, a good early education from private schools where he had a thorough training in English and French, and acquired a knowledge of Latin and Greek. As an adolescent youth he began a medical apprenticeship in the practice of his father with whom he studied until he entered the Medical Department of the University of Pennsylvania where he received an MD degree in March 1829. He then practiced with his father in Wilmington for twelve years but, attracted by the larger opportunities in the great city, he moved to Philadelphia in 1841. There he was soon invited to accept a professorship at the Philadelphia College of Medicine, a post he held until he departed for California. Meanwhile his scientific interests led him to membership in the Philadelphia Academy of Natural Sciences and in the College of Physicians. Furthermore, he lectured on physiology and other topics at the Franklin Institute and elsewhere, was one of the original members of the American Medical Association, and one of the founders and corporators of the Female Medical College of Philadelphia. In the course of these various endeavors he became a relaxed and effective public speaker and able parliamentarian, attributes that served him well in his later undertakings.

When gold was discovered in California in 1848, Dr. Henry Gibbons was no longer a venturesome young man, but a mature physician of forty with a successful academic career and a promising future of medical practice in the premier medical city of the new nation. Nevertheless, responding to some mid-life compulsion to expand his horizon, he joined the high tide of immigrants flowing to the farthest West where a new society was being created. He and two of his brothers reached San Francisco by sea via the Isthmus of Panama on 20 August 1850. Six feet tall, thin, dark of eyes and hair and sedately dressed, Dr. Gibbons as he disembarked in San Francisco was plainly a professional man and not a restless argonaut bound for Sacramento and the gold fields beyond. He went directly into practice in San Francisco and within a month or two of his arrival was involved in a cholera outbreak in the city. He had previous experience with the disease when it occurred in the eastern states in 1832, 1847 and 1849 and offered his services to the city authorities. Contrary to most, he had no fear of the disease and even slept in the hospital to care for the victims. Since climate was thought to be somehow concerned with the etiology of cholera , and botany with its therapy, he set out to make observations in the virgin field of California meteorology, and aided by his brother, Dr. William P Gibbons (1812-1897), studied native plants. He later published his climatological observations in various journals. From a promising beginning of selfless public service during the cholera epidemic, Henry Gibbons grew steadily in the esteem of the local profession and his medical practice reflected the high regard in which he was held by the public. Another brother, Dr. Edward Gibbons, also came to California and practiced in Oakland.

Dr. Gibbons was eminently a domestic man and ardently attached to his wife and family who joined him in San Francisco in 1851. He had been married in Wilmington, Delaware, in May 1833 to Martha Poole of the same city, daughter of a prominent member of the Society of Friends. They had eight children of whom Henry Gibbons, Jr., (1840-1911), future Dean of Cooper Medical College, was the fourth.

No man in California in his day surpassed Henry Gibbons in zeal and natural aptitude for medical organization. His cool impartiality and parliamentary finesse made him a respected presiding officer and effective mediator in fractious medical assemblies where acrimonious exchanges were prone to get out of hand. His ability in this regard was recognized by his medical colleagues soon after his arrival in San Francisco. As already mentioned, he was one of three candidates nominated for the presidency of the San Francisco County Medical Society when it was resurrected in 1853, and he became president of the Society in 1855. When the San Francisco County Medico-Chirurgical Association was founded in August of 1855, its dynamic program attracted his attention, and he was elected to membership in October. Thereafter he participated faithfully in the Association's activities. We shall have occasion to refer again and again to the roles of Henry Gibbons, Sr., and his son, Henry Gibbons, Jr., in the evolution of medical education on the Pacific Coast. [40][41][42][43][44][45]

Following the minutes of the Association's regular weekly meeting of 28 December 1855, the Minute Book contains the following curious entry:

End of Year 1855

> May the enemies of the San Francisco County Medico-Chirurgical Association experience personally all the evil they wish us, a thousand times over, while of our friends and well wishers - we will venture to express a hope - may their shadows never grow less.

We can safely assume that the "enemies" referred to in this New Year's greeting were the members of the Pathological Society anathematized in Cooper's last series of Resolutions.

Another Cooper Resolution

The assumption that the Pathology Society and the Medico-Chirurgical Association were now engaged in a "cold war" is borne out by a parliamentary maneuver executed by the persistent Cooper in the Spring of 1856. He began his attack by submitting to the Association

the following seemingly innocuous resolution: [46]

> Resolved - That a committee of three be appointed to inquire into the condition of Societies for Medical Improvement in this city, and also of the State Medical Society, and report at the next regular meeting of the Association.

The resolution was adopted and Cooper, who was appointed Chairman of the Committee of Inquiry, submitted the following report:

> Mr. President and Gentlemen of the San Francisco County Medico-Chirurgical Association - Your committee appointed to inquire into the condition of Societies for Medical Improvement in this city and also that of the State Medical Society, report as follows.
>
> There are two regularly organized Medical Societies in this city, viz., the San Francisco County Medical Society, and the San Francisco Medico-Chirurgical Association, each having its constitution and by-laws based upon the ordinary open principles characteristic of all praiseworthy medical organizations.
>
> It is claimed further by some that there is another medical organization in this city called Pathological Society, but your committee have no evidence of the existence of such a medical organization entitled to be considered as a society for medical improvement further than that members of the State Medical Society were permitted to represent something bearing that name.

Having engineered this caustic gibe at the Pathological Society, Cooper doubtless saw to it that the Report of the Committee of Inquiry came promptly to the attention of the Society's members. Although his vendetta with the influential Pathological Society was increasingly dangerous to his own standing in the profession, Cooper did not shrink from confrontation with those members of the Society who had now begun openly to assail not only his ethics but also his competence as a surgeon.

New Members in 1856

From time to time new members were admitted to the Medico-Chirurgical Association which was definitely the most vigorous and progressive of the San Francisco medical societies to be organized up to that time. Two members, Drs. Beverly Cole and Hugh Toland, elected to membership on 25 January 1856, were to have such a lasting influence on medicine and medical education in the West that something of their backgrounds should now be mentioned. Their surgical and other exploits, and their relationship to Cooper, were about to thrust them into the limelight of California history.

Dr. Richard Beverly Cole (1829-1901) arrived in San Francisco aboard the sailing ship Columbia in 1852 after harrowing experiences with epidemic cholera that struck down many of his fellow travelers during transit of the Isthmus of Panama. San Francisco was still a rough and disheveled boomtown with unpaved streets and everywhere the clutter of frenzied building. But the weather was mild and dry and the unkempt population, temporarily chastened by the Vigilance Committee of 1851, was preternaturally well-behaved. Cole wasted no time with mining for gold, but began practice at once by affiliating with a Mr. Little in the pharmacy business and taking an office in his drug store at 137 Montgomery, one of the liveliest streets in the city. Dr. Cole was twenty-three at the time, tall and slender with fair complexion and the blackest of curly hair and beard. Morally and physically fearless, open and sociable in manner, with a remarkably compelling speaking voice and style, he was destined to be an influential figure in what might be called the post-frontier environment of early California.

Although young, Cole was not inexperienced when he set out for California from the port of New York on 24 June 1852 aboard the elegant and spacious side-wheel steamer, the S. S. Cherokee, bound for Panama. He was born in Manchester, Virginia, on 12 August 1829, youngest of the three children of John and Pamelia Wooldrich Cole. When he was an infant in his mother's arms his father died at the age of twenty-seven, leaving his mother penniless. Being a woman of courage and enterprise, she provided for her children by opening a boarding house in Pottstown, Pennsylvania, and with the profits of this venture moved to Philadelphia where she opened a larger establishment. She taught Beverly at home during his childhood because of his delicate health, and sent him to the Delaware College institute in Newark, Delaware, at the age of thirteen where he completed the four-year course in three years, thus finishing his schooling at sixteen. His medical training began with an apprenticeship to Dr. Benjamin Dudley of Lexington, Kentucky - the same Dr. Dudley whose infamous duel with William Richardson and confrontation with Daniel Drake at Transylvania Medical College we have already cited. Cole's formal medical education began with a year at Transylvania Medical College in Lexington, followed by a year at Jefferson Medical College where he received an MD degree in 1849 - at the age of twenty.

Being without funds, Cole worked his way through Jefferson by preparing anatomical dissections to be used in teaching by his anatomy professor, the respected anatomist and surgeon Dr. Joseph Pancoast, author of the classic Treatise on Operative Surgery. In addition to a thorough grounding in anatomy, another legacy of his year at Jefferson was the influence on his impressionable mind of his Professor of Obstetrics, the scientifically myopic and opinionated Charles D. Meigs. It is assumed that Cole's later choice of obstetrics as a specialty can be traced to the Professor's florid lectures.

During his last year in medical school, Cole married Miss Eugenie Bonaffon, not more than fifteen at the time but of rare devotion and fortitude as the passing years were to prove. From the moment when his MD was awarded in 1849, the tempo of the lives of Dr. and Mrs. Cole was changed and tranquility banished, never to return. No sooner had Cole begun practice in Philadelphia than a cholera epidemic descended on the city. As physician in chief of the Pine Street Cholera Hospital - a temporary shanty harboring a near hopeless assemblage of patients - he lived and worked within its four walls during the months until the epidemic subsided in August of 1849. Cole then embarked on the usual hectic round of general medicine with cases ranging from endemic "putrid sore throat" (diphtheria) to "childbed fever" (puerperal sepsis), from bone-setting to (he later claimed) three caesarian sections.

As rumors of gold in California came floating in to stir the imagination of the restless, Cole was immersed in his growing practice. Now he was also obstetrician to three dispensaries and prosector and assistant demonstrator in anatomy under Professor Pancoast at Jefferson. It was in the Spring of 1852 when, without warning, his dreams of a brilliant career in Philadelphia were dissolved by a terrifying hemorrhage from his lungs. Never of robust health since infancy, he saw tuberculosis as a deadly menace that would abate only under the most favorable conditions - by all reports, conditions best found in California where the balmy air would restore his health while he supported his family by a leisurely practice. He departed at once for San Francisco and Eugenie, now pregnant with their first child, would remain in Philadelphia until he sent for her. Such were the circumstances that launched another of the eminent adopted Sons of the West on the journey to a new life in California.

During his first two years in San Francisco Cole went about unobtrusively cultivating professional colleagues and developing his practice - a process at which he was experienced and adept. His easy good humor and obvious competence gained him wide respect and his low-profile approach was very effective, but it was a near fatal accident that brought him universal recognition. In June 1854 he was in the drug store packing his saddle-bag for a trip by horseback to San Mateo, 19 miles south across the sand dunes. As a deterrent to the brigands who frequented the countryside, he slipped his loaded Colt's revolver with its six-inch barrel into his breast pocket where it would be handy for a quick draw. When he leaned over to arrange his saddle-bag the gun slipped out, caught its hammer on the edge of the table and fired a ball that entered in the left upper quadrant of the abdomen, passed through the stomach, and lodged in the back between the eleventh and twelfth ribs just to the left of the midline - a thoroughly obscure location in those days long before the discovery of x-rays.

Cole's survival after this injury was nothing less than a medical miracle and can be attributed to his having an empty stomach at the time of the wounding, and to the infection remaining localized under the left diaphragm until, after three weeks, it "pointed" at the site on the back where the ball was lodged. Only then did Dr. Tripler turn the patient over and, summoning all his nerve, lance the inflamed area - draining a large sub-diaphragmatic abscess and extracting the ball with one stroke of the scalpel. Nevertheless, it was several years before a gastric fistula at the bullet hole on the abdominal wall in front finally closed and he could comfortably digest a heavy meal. By making a full recovery from a mortal wound whose progress was followed avidly month after month in professional and social circles, Cole gained a celebrity which followed him all his days. But this was the least of his claims to distinction, as we shall see.

Cooper arrived in San Francisco during the latter stage of Cole's illness and their mutual interest in anatomy and surgery led to friendship and cooperation. Cole doubtless joined the Medico-Chirurgical Association on 25 January 1856 at the invitation of Cooper, who shared with him a great respect for Cole's mentor, Professor Pancoast. [47][48]

Dr. Hugh Huger Toland (1806-1880) was also elected to membership in the Medico-Chirurgical Association on 25 January 1856, and he signed the Constitution, but there is no evidence that he attended the meetings of the Association. Nor does he appear to have participated in any of the other early medical societies in San Francisco. He was evidently not a joiner. He was, however, acknowledged to be the senior surgeon of the city, his grim rectitude and cold self-possession adding weight to his professional opinions. He was about the same age as Henry Gibbons. In terms of technical ability and knowledge of the field, Cooper was the only serious challenge to Toland's supremacy in California surgery.

Toland was born in Guilder's Creek, South Carolina, in 1806. He was the fourth of ten children of John Toland who in early manhood migrated from the north of Ireland to South Carolina where he purchased a large estate and became a prosperous planter. Schooling was limited in rural South Carolina for the young Henry, but he was a bright boy and acquired a good elementary education in English literature, Latin and Greek. His father, recognizing in him an aptitude for medicine, apprenticed him to a Dr. Ross at the age of sixteen and, after a year and a half of Dr. Ross's tutelage, sent him to Transylvania Medical College in Lexington, Kentucky. There he received an MD degree in 1828 at the head of a class of 160 students. Dr. Toland began his medical career in rural Pageville, South Carolina, engaging in general practice and covering a huge backwoods area on horseback. After two and a half years he had acquired $3000 and an urge to improve his surgical skills. To this end he returned to Lexington and, after taking a postgraduate course in dissection and surgery from the now-familiar Dr. Benjamin Dudley, ventured on to Paris in 1832. The French savants were highly impressed by the intelligence and attentiveness of the solemn, unsociable American student who, unlike many of his compatriots, devoted his whole time to study, and to roaming the wards instead of the bistros.

By 1834 Toland was back in South Carolina, engaged in a lucrative practice in Columbia, one of the state's major cities. Over the next eighteen years his income averaged a handsome $20,000 a year. His first wife died and he married again in 1844, this time to Mary Avery. Although he was extraordinarily successful in Columbia, the humdrum routine of his uneventful life grew tedious, conflict over the slavery question loomed, and his wife was unwell. Meanwhile the tales of gold in the rivers and mountains of California grew ever more alluring, promising adventure, a break with the past, and new horizons for those willing to risk their future in the western gold fields. For whatever reason, the ties that bound this stolid, childless citizen to the community gave way. At the age of forty-six he abandoned all he had built up. He cushioned his terminally-ill wife on the bed of a Conestoga prairie schooner, and joined a wagon train at Independence, Missouri, that crossed the plains to California in a record seventy-six days. Three days after arrival, poor Mary died and was buried in a desolate little cemetery at Stockton. One of the theories to account for Toland's cross-country migration in 1852 was that he hoped his ailing wife would benefit from a change of climate.

Toland came West, not as an ordinary adventurer but as an affluent medical gentleman, well-known and respected in the Carolinas. He was not, however, planning to overlook the possibility of adding California gold to the tidy fortune he brought from Columbia. He was soon set up on a claim at Mokelumne Hill, Calaveras County, complete with a quartz mill he sent ahead by boat. However, within a few weeks, under the cold rains of winter in the Sierra foothills Toland like countless argonauts before him discovered his unfitness for the rigors

of mining gold. He wisely disposed of his claim and quartz mill, and rode down to San Francisco, arriving there on a wet December day in 1852. The hitherto successful Toland thus began his California career in sorrow and failure. But he was experienced in building a medical practice and within a few years patients thronged to his office at Montgomery and Merchant Streets, buying thousands of prescriptions from the drug store he opened near by for their convenience. Tall and angular with a stern face and downturned line of a mouth, dressed entirely in black with wide-brimmed hat and flowing cape, he was a familiar figure in the consulting rooms of San Francisco. By the time Cooper arrived in 1855, Toland was solidly established. It was inevitable that these proud and opinionated men should clash. [49][50]

First Annual Meeting, 7 July 1856

The First Annual Meeting of the San Francisco County Medico-Chirurgical Association was convened in the City Hall, fifteen members being present. The First Annual Report was read and included the following noteworthy comments:

> Your Association was formed on the fourth day of August last year… The Certificate of Association was immediately entered in the legal book of Records at the City Hall, and being the first of that nature, it was then thereby constituted the only legally recorded Medical Association of the State of California…
>
> (Through the influence of Dr. I. M. Tewksbury) a commodious and suitable room, lighted with gas, was granted free at the City Hall for your weekly meetings…
>
> At a medical convention (of the California State Medical Society) successfully held last March in Sacramento, your Association was well represented by delegates and obtained universally the highest opinion of the Sacramento physicians, as well as those representatives from the surrounding country. Your Society will ever remain indebted and feel justly proud of Dr. E. S. Cooper, through whose perseverance and indefatigable exertions, the convention was brought together.
>
> It may not be remiss to remark that the last two months of excitement in this city (the murder of James King of William and the convening of the Second Vigilance Committee) has prevented several members, hitherto regular, from attending the weekly meetings…
>
> (We shall later return to the founding of the California State Medical Society and the murder of James King.)
>
> While it is with feelings of pride and satisfaction that you are congratulated on passing through the first year so successfully, you are respectfully reminded that future progress and permanency of the Association depends on your perseverance individually, - by punctuality in attendance at the meetings - by the introduction of new members - by bringing forward subjects of interest for discussion - evincing willingness at all times to assist and cheerfully promote good will and confidence amongst each other. Under such pleasing circumstances, apathy and indifference can never exist, but the future success of the Association will remain certain, and a continued matter for congratulation at every succeeding Annual Meeting.
>
> Signed: A. Atkinson, Secretary.

Having received this gratifying summary of the year's activities, the members proceeded to choose a panel of officers for the coming year. Their first action was to elect Doctor E. S. Cooper as President of the Association. In a further deferential gesture to Cooper, his associate C. A. Kirkpatrick was elected Vice President. The new President then took the Chair and spoke:

> Gentlemen of the San Francisco County Medico-Chirurgical Association - My present position like the common course of life affords me its pleasures and its pains. It affords me pleasure at all times to receive evidence of the good will of the Members of that Profession to which I have devoted the undivided energies of my life thus far; but it gives me pain to take a retrospective glance at life and find that, while at this Anniversary I have been a resident of California for thirteen months, yet I have done nothing either for myself or the Profession worthy a place in the storehouse of memory. It affords me pain likewise to be conscious of occupying the station which could be filled with much more dignity by another.

At this point Cooper's rough draft of the speech, found among his papers, included the following statement that he omitted from his comments to the Association: "While I plead guilty to the fault of much indolence, most of you will I think readily extenuate to some degree at least that fault upon the grounds of (my) almost constant ill health." [51]

Dr. Cooper then spoke briefly on the unhappy condition in which the Medical Profession of San Francisco is now found for want of unanimity of feeling and concurrence of action, but said that properly conducted Medical Associations can do much in correcting these evils as well as in advancing the skill and knowledge of the members. He concluded his remarks as follows:

> Let us resolve to make our Association a place of harmony. - Yes, while the political and social elements of our City and State are convulsed by discord and angry passions, let our Association be a place of peace. As the temple of Delphos during the wildest domestic perturbations of Greece formed an Asylum, one sacred spot where all contention ceased, so let us have a sacred area, let us fortify ourselves against discord and strife by consecrating our Society Meetings solely to the elevation of our noble profession. Yes, let our place of meeting be our sacred area, our Temple of Delphos.

Reprise

Cooper was immensely gratified, only thirteen months after his arrival in San Francisco, to be elected President of the city's now-premier medical society whose success in its first year was due in large measure to his active involvement. His brief acceptance speech had a philosophic and conciliatory tone, reflecting his idealism, the burden of his chronic illness, and the high goals he set for himself. He deplored, as well he might, the ominous rift in San Francisco's medical profession to which his meteoric rise in the profession and open conflict with the Pathological Society were contributing causes. Lastly he referred to the social unrest in the city. While following the course of the Medico-Chirurgical Association during its first year, we necessarily deferred comment on this and other memorable developments during 1855-56, such as the founding of the California State Medical Society, to which we will now turn our attention.

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Chapter 10. Founding of Medical Society of the State of California

By participating in the founding of the San Francisco County Medico-Chirurgical Association Cooper secured a base of operations from which to organize a State Medical Society. Because of the parochial outlook and instability of the early city and county societies in California, there was no leadership at the state level until Cooper seized the initiative and supplied it. We now have sufficient information about the local societies to enable us to undertake a chronological account of the organization of the State Society.

The San Francisco Medico-Chirurgical Association had been in existence for less than a month when Corresponding Secretary E. S. Cooper requested authorization to address the following historic letter to Dr. Thomas Logan, his counterpart in the Sacramento Medical Society: [1]

> San Francisco, 27 August 1855
> Thomas N. Logan, MD, Corresponding Secretary
> Sacramento Medical Society
> Sacramento, California
>
> Dear Sir,
> In accordance with a resolution of the San Francisco Medico-Chirurgical Association imposing upon this Corresponding Secretary the duty of addressing the Societies as well as Medical Men of the State where there are no societies yet formed upon the subject of taking the initiatory steps to call a convention for the purpose of organizing a State Medical Society, I now address you.
>
> Our Society does not wish any particular place of (precedence) to dictate in this matter but (wishes) rather that all who may be supposed to feel interested and who are actuated by the right spirit shall stand upon the same footing.
>
> We are asking to meet you here or in Sacramento or if more conducive to the success of the enterprise to go beyond you and join with our brothers in Marysville or any other place so that it may (bring) the greatest good to the project.
>
> It has been proposed here that an effort be made to cause the profession to effect local organizations in Marysville, Stockton, and two or three of the larger towns of the State … and that their Corresponding Secretaries fix the time and place of meeting in convention under the sanction of their respective Societies and when thus arranged have the profession throughout the State notified of the same and invited to join by organizing local Societies and sending delegates.
>
> We are in no haste about the matter but would be pleased to join our full efforts to those of our brothers of the State generally in doing what we could to elevate the profession and think a well conducted State association calculated to have much influence in affecting this and are ready to offer our aid at any time when others are willing to give concurrence of action.
>
> If the plan here suggested as an initial step is not thought to be best we are ready to adopt and pursue any other of seeming greater practicability and would rather work under disadvantage than not at all. We are resolved not to be contentious or to weigh individual or local interests when the good of the profession of the State must be opposed to us in the balance but wish rather to contend with all others as to who shall best work and best agree in doing for the good of our beloved profession.
>
> Respectfully yours,
> E. S. Cooper
> Corresponding Secretary
> San Francisco County Medico-Chirurgical Association

After a delay of three months, Dr. Logan of the Sacramento Medical Society responded to Cooper as follows: [2]

> Sacramento, 29 November 1855
> E. S. Cooper, M.D.
> Corresponding Secretary
> San Francisco County Medico-Chirurgical Association
>
> Dear Sir,
>
> On yesterday (was) the first full meeting of our Society since the reception of your communication of September last. I had the pleasure of reading your letter and views respecting the formation of a State Medical Society. The Society appear to think favorably of the subject and have appointed a committee of three to report on Wednesday week at an extra meeting to be called for the special purpose. As Chairman of the Committee I have deemed it best to drop you a line for the purpose of ascertaining whether you have anything more to suggest preliminary to our taking action on the subject.
>
> Yours very respectfully,
> Thomas. M. Logan
> Corresponding Secretary
> Sacramento Medical Society

Cooper, eager to keep negotiations regarding a State Society moving briskly, responded to Logan’s encouraging letter of 29 November by dispatching to him the following letter on the very next day. [3]

> San Francisco, 30 November 1855
> Thomas M. Logan, M.D.
> Corresponding Secretary
> Sacramento Medical Society
>
> Dear Sir,
> I was glad to receive your communication acquainting me with the fact of your Society having taken steps calculated to further the project of organizing a State Society which the Medical Profession of California so greatly need. Nothing in my humble opinion would go so far towards elevating Medicine and Surgery and suppressing Quackery as a well organized State Association connected with local Societies all having unanimity of feeling and concurrence of action and composed of working liberal men who consider no efforts of their own as any sacrifice provided the good of the profession is enhanced thereby.
>
> Our Society does not wish to be forward in suggesting places but would be well pleased to listen to and pursue the suggestions of you

and others throughout the State and consequently have but little further to offer than contained in my former communication which designed should merely offer some hints for your consideration.

I would remark however that many of State Associations have had their operations much compromised by jealousy growing up between the larger and smaller towns of the State and that San Francisco and Sacramento being the largest cities it might be well to push other places forward pretty well and work under disadvantages ourselves rather than not work at all. It would be according to custom for Sacramento or San Francisco to call a convention to meet at any time and place thought best or this might be done in connection with the two places but if several other towns of the State could be induced to organize and join in the call it might give a more general concurrence of action. However, we are ready to act at any time with others in whatever may be decided on. I think, however, Sacramento would be the best place to hold the convention and would give my vote in favor of that place if agreeable to all others but still would prefer it if agreeable to you to let some two or three of the smaller towns make a choice before insisting on any preference of our own seeing that our two places will no doubt have to use some little exertion to stir up others and it will matter little to us whether others dictate in the matter or ourselves so we reap the benefits of improvement by association.

Dr. McLane of Marysville wrote me some weeks ago that he thought Yuba County would organize soon. Drs. Spencer and Bell of San Jose likewise informed me that an effort was being made to induce them to quicken their efforts a little. I wrote to Hon. Dr. Thomas Kendall of Sonora but have received no answer as yet.

Any communication from you upon this subject will be gladly received at any time and, if requiring it, would be promptly responded to.

Respectfully yours,
E. S. Cooper, M.D.
Corresponding Secretary
San Francisco County Medico-Chirurgical Association

Two long months now passed before the impatient Cooper was rewarded with the following assurance from Logan of "unanimity of feeling and concurrence of action" with respect to the founding of a State Society: [4]

Sacramento, 3 February 1856
E. S. Cooper, M.D.
Corresponding Secretary
San Francisco County Medical Chirurgical Association

Dear Sir,
At a stated meeting of the Sacramento Medical Society held on 3 February, I was instructed to communicate to you the following Resolution which was unanimously adopted:

Resolved - That we the members of the Sacramento Medical Society and the San Francisco County Medico-Chirurgical Society respectfully invite you (the physician addressed) to meet us in Convention at Sacramento on the 2nd Wednesday (the twelfth) of March 1856 for the purpose of an interchange of opinion respecting the expediency of organizing a State Medical Society.

If this resolution meets the approbation of your Society, it can be addressed as a Circular signed by the respective Corresponding Secretaries (in printed form) through the members of the Legislature now in Session, to every medical man in the State, and a State Society can be organized and a charter obtained before the adjournment of the Legislature.

Prompt concurrent action is therefore respectfully solicited on the part of the Society you represent.

Your obedient Servant,
Thomas M. Logan, M. D.
Corresponding Secretary
Sacramento Medical Society

Logan and his colleagues, by proposing in his letter of 3 February that a convention meet in Sacramento on 12 March 1856 to organize a State Medical Society, acutely accelerated the planning process. Less than six weeks remained for completion of all arrangements.

It was, of course, imperative to inform the State's physicians of the objectives of the Convention as soon as possible, and to assure a substantial attendance that included leaders of the profession. With these requirements in mind, Cooper responded immediately to Logan proposing the following Preamble and Resolution to be printed in a Circular and sent to all physicians: [5]

Preamble and Resolution of Sacramento Medical Society and San Francisco County Medico-Chirurgical Association

Whereas - The time has come for medical men of the Pacific Coast to turn their attention to the elevation of the profession and whereas an efficient State Medical Organization would do much towards accomplishing this result, therefore

Resolved - That we the members of the Sacramento Medical Society and of the San Francisco County Medico-Chirurgical Society consider it not presuming too much to take the initiatory steps by inviting the medical men of California generally to meet in convention for the purpose of organizing a State Medical Society and that the Secretaries of our respective Societies be instructed to proceed immediately to that duty.

Cooper also provided Logan with the following list of leading California physicians with the suggestion that they be invited to join in the call for the Convention:

In accordance with the foregoing Preamble and Resolution the undersigned do hereby call a convention to meet in Sacramento on the 2nd Wednesday of March 1856:

Doctors	Location	Doctors	Location
Cory	San Jose	- Baldwin	Shasta
Spencer	San Jose	Hon. Dr. Keen	Placerville
Bell	San Jose	H. J. Hammond	San Diego
J. Crane	San Jose	J. S. Griffin	Los Angeles
A. N. Sasee	Santa Clara	-.. Walland	Santa Barbara
A. B. Caldwell	Santa Clara	- Ayer	Stockton
W. Warburton	Santa Clara	- Kerr	Stockton
B. R. Mitchell	Vallejo	- Screvens	Mariposa
J. N. Rice	Marysville	- Carman	Nevada
J. T. McLane	Marysville	D. Austin	Nevada
R. McDaniels	Marysville	R. C. Wyatte	Cherokee
J. Prisson	Marysville	T. Kendall	Sonora
J. T. Finch	Marysville	J. Walker	Sonora
- McKee	Monterey	- George	?

We do not know whether any of the above physicians actually joined officially in the call for the Convention as proposed by Cooper for we have no copy of the Circular announcing the Convention. However, Cooper's strategy to solicit their support was sound and consistent with his other diligent efforts to arouse interest in forming local medical societies as well as a State Society. With these objectives in mind, he wrote numerous letters such as the following one to Dr. McLane of Marysville: [6]

San Francisco, 15 February 1856
J. T. McLane, M.D.
Marysville, California

Dear Sir,
As Corresponding Secretary of the San Francisco County Medico-Chirurgical Society and under the direction of the Society I several months since wrote to you in regard to taking the preliminary steps to form a State Medical Society requesting you to use your efforts to procure a local organization in your County in order to be prepared to take an equal part with ourselves and others. Though I received one communication from you upon the subject no notification of your having organized has been given me. The propriety of calling a convention is now being discussed in our Society and in the Sacramento Medical Society.

Have you a Society in your County and if so would you not like to join in the call? This is no local or individual matter but one in which all worthy medical men are on an equal footing.

If you have a Society and wish to join in the call for a convention for the purpose of organizing a State Society please give Dr. Thomas M. Logan, Corresponding Secretary of the Sacramento Medical Society immediate word. I hope if your County cannot act in this work as a Society you will do it individually.

Respectfully yours,
E. S. Cooper, M.D.
Corresponding Secretary
San Franciso County Medico-Chirurgical Society.

It was now just one month before the Convention and much remained to be done to assure efficient transaction of the complex business of organizing a State Society. The urgency is reflected in Logan's next letter to Cooper that addressed politically-sensitive issues: [7]

Sacramento, 13 February 1856
E. S. Cooper, M.D.
Corresponding Secretary
San Francisco County Medico-Chirurgical Society

Dear Sir,
In compliance with your expressed wish I have ascertained from our President and several other influential members of our Society that there can be no objection to the preamble and mode of procedure you propose. I think therefore you can go ahead and calculate upon our hearty cooperation.

Permit me to suggest, however, the impropriety of nominating and publishing the names of a Committee on Credentials before even a temporary organization of the convention. We are perfectly willing that this committee shall consist exclusively of county members, i.e., gentlemen not members of our respective societies, but it may look like assuming too much to select beforehand certain names to the exclusion of others. In order to produce harmony and concert of action we must scrupulously avoid exciting jealousy.

I have added such names to the Committee of Reception as in my judgement are most proper.

In the same perfect confidence permit me to advise you to select from your San Francisco delegation a suitable Gentleman for President - one who has professional and moral force and character to command the respect of the community. Settle this point before you leave and I promise you our support. There are several matters concerning which I am desirous of advising you in propria persona, and therefore would be glad to see you immediately on your arrival here.

I have written this in great haste - my time being at present constantly taken up by professional engagements, chiefly caused by the recent steamboat explosion. If convenient, pray present my regards to Dr. Toland, and invite him in my name to attend the convention.

Hastily and truly yours,
Thomas M. Logan
(Postscript): What think you of Dr. Gray for President? I am not acquainted with him.

Imagine Cooper's chagrin at having the name of Dr. Gray so innocently brought forward by Logan for first President of the State Society. Cooper held his tongue and ignored Logan's question, but vented his annoyance by crossing out the Postscript on Logan's original letter with a sweep of his well-inked pen. There was also another cause for concern in Logan's letter. He asked Cooper to convey his special regards to Dr. Toland. Logan could not know that Toland, like Gray, was counted by Cooper as among his detractors. Now for the first time Cooper began to be apprehensive about the leadership that might emerge to dominate the State Society in which he had invested so much of his own effort.

A week later Cooper heard again from Logan, this time with the good news about arrangements for advertising the Convention. [8]

Sacramento, 21 February 1856
E. S. Cooper, M.D.
Corresponding Secretary

San Francisco County Medico-Chirurgical Society

Dear Sir,
I will send you some of the circulars tomorrow. Perhaps you had better publish immediately in one of your daily papers, that has the largest circulation, the same as we have done. Can you not spare the time to come up here before the convention meets in order to make some preliminary arrangements. I wish to hold a consultation with you, Dr. Morse, and one or two other of our most influential confreres respecting our County Hospital, a Medical Journal and a Medical School, as well as the organization of the Convention.

In great haste,
Logan

It was clear from Logan's letter of February twenty-first that preparations for the Convention were reaching their final phase. Whether Cooper went to Sacramento for a pre-Convention conference with Logan and Morse, we do not know. That the Sacramento group were considering "a Medical School" must have aroused his concern, but we have no evidence that they made a serious move in that direction.

For his part, Cooper had been busy developing an appropriate response to Logan's magnanimous suggestion in his letter of February thirteenth that the San Francisco delegation to the Convention agree in advance to nominate one of their number as the first President of the State Society, with the assurance that the candidate would receive the support of the Sacramento Society. Given the strained relations among San Francisco's three medical societies, Cooper was faced with a delicate task. In a letter to Logan dated February twenty-third, he proposed a solution that took the high ground for the Medico-Chirurgical Association, showed deference to the "seniority" of the San Francisco Medical Society, and at the same time took a supercilious dig at the Society. The letter, Cooper-style, is fraught with pious resolutions: [9]

San Francisco, 23 February 1856
Thomas M. Logan, M.D.
Corresponding Secretary
Sacramento Medical Society

Dear Sir,
The proposition in your private communication to me viz that the San Francisco delegation to the Medical Convention should select one of its members for President of the State Society when formed with the promise of support of the Sacramento Medical Society (which by the way would be the equivalent to an election) shows too much liberality to pass unnoticed. I have therefore taken the liberty of placing it before our Society which authorizes me to send you the following resolutions as an official reply.

Resolved that the liberality of the members of the Sacramento Medical Society argues well for the future harmony and prosperity of the State Medical Society that may be formed under their auspices.

Resolved that the members of the San Francisco County Medico-Chirurgical Association are willing to labor for the good of the profession and await their reward through its elevation.

Resolved that we should under all circumstances select with reluctance one of our own members to be the recipient of the chief honors of the State Medical Society and never unless the good of the Society unquestionably demanded it.

Resolved that we will use our combined influence in favor of anyone of seven delegates whom the San Francisco Medical Society may send to the convention if they (the delegates) will make a selection among themselves first.

Resolved that we do not offer this as a premium for delegates of that Society but because we regret its apparent apathy towards a matter equally important to all and because we desire to let no opportunity of promoting universal fraternity among the regular medical (men) of California pass unimproved.

Resolved that whatever may be the manner in which this proposition to fraternize is received we know our motives to be praiseworthy and shall regard that Society according to (their) devotion to the true interests and dignity of the profession regardless of party prejudices and other emotional influences that may have unfortunately disturbed the harmony not to say prosperity of medical men in this city in times gone by.

Resolved that a copy of these resolution be sent to the San Francisco Medical Society in order to show the members that we are not unmindful of the respect due to a Senior Association.

E.S. Cooper, M.D.
Corresponding Secretary
San Francisco County Medico-Chirurgical Association

In accordance with the final resolution, Cooper sent a copy of his letter of February twenty-third to Dr. W. P. Gibbons, Henry Gibbons' brother and Corresponding Secretary of the San Francisco Medical Society, with the following covering note: [10]

San Francisco, 23 February 1856
W. P. Gibbons, M.D.
Corresponding Secretary
San Francisco Medical Society

Dear Sir,
At a regular meeting of the San Francisco County Medico-Chirurgical Association held 22 February 1856 I was instructed to forward you a copy of the following official communication to Dr. Thomas M. Logan of Sacramento.

Its contents will I doubt not explain sufficiently the objects for which it is sent your association.

Permit me to express a hope that an active effect to promote unanimity of feeling and concurrence of action among the regular members of the profession in San Francisco so much to be desired by all honorable medical men may mark the progress of our two associations in future and that unitedly we may turn our faces against quackery which like a strong tide has hitherto overflown our State.

Respectfully yours,
E. S. Cooper, M.D.
Corresponding Secretary

San Francisco County Medico-Chirurgical Association

In view of the tone of Cooper's letters to Logan and Gibbons, one would not expect a cordial response from the San Francisco Medical Society. As far as we can determine there was no formal response at all, and the selection of the first President of the State Medical Society took place appropriately on the floor of the Convention, where we will now join Cooper, Logan et al. [11]

Proceedings of Convention and First Meeting of California State Medical Society, 12-14 March 1856

The Convention called to form the first State Medical Society in California assembled in Pioneer Hall in Sacramento on Wednesday, 12 March 1856, at three P.M. Seventy-six medical men were present, representing 16 Counties.

The largest delegation, twenty-eight in all, came from Sacramento, prominent among them being Drs. Logan and Morse. There were thirteen delegates from San Francisco including Drs. Bowie, Cole, Cooper, Henry Gibbons, Gray and Stout.

The Convention was called to order by Dr. Houghton, President of the Sacramento Medical Society and Dr. Morse was, on nomination, promptly elected temporary Chairman of the Convention. With Dr. Morse presiding, permanent officers of the Convention were nominated by a committee composed of one member from each County delegation. Dr. Benjamin F. Keene of Placerville in El Dorado County was elected President. Dr. Keene, a dignified and highly respected physician from the heart of the gold country was an admirable choice for the presidency, at one stroke gaining a universally acceptable presiding officer and avoiding the political issues surrounding the selection of a candidate from San Francisco. Dr. Keene appointed Dr. Gibbons Chairman of a Committee on Constitution and By-Laws and the Convention adjourned for the day.

The following morning Dr. Gibbons for his Committee submitted a draft Constitution and By-Laws for government of the California State Medical Society, the draft being based on principles and procedures recommended by the American Medical Association. After some minor amendments, the Constitution, By-Laws and Code of Ethics were adopted as a whole.

Selection of officers for the ensuing year now being in order, the following were duly elected:

B.F. Keene, El Dorado President

E.S. Cooper, San Francisco First Vice President

T.S. Logan, Sacramento Corresponding Secretary

As the second day of the Convention drew to a close, Dr. Augustus J. Spencer of San Jose rose to offer the following resolution:

Resolved, That while this Society views with commending pride the zeal and devotion of medical men to foster the interests, augment the learning, and enhance the usefulness of our liberal profession, it entertains a sovereign contempt for that species of professional mountebankery that seeks to secure public favor and pecuniary advantage, by foisting upon public attention, through newspapers and otherwise, the peculiar qualifications of their author to treat particular diseases, either in the department of medicine or surgery.

Notwithstanding that advertising was strongly condemned as "derogatory to the dignity of the profession" by the Code of Ethics of the American Medical Association just adopted by the State Society, disapproval of the practice was sufficiently intense among the delegates that Spencer's additional resolution was adopted unanimously. Cooper was yet to realize the implications for him of this evidence of the delegates' uncompromising position on the subject.

The third and final day of the Convention was devoted to various items, among which the following are the most noteworthy.

Dr. Logan reported the recommendation of the Committee on a Medical Journal that the State Medical Society support the publication of a medical journal to be edited by Dr. Morse. The recommendation was approved and Dr. Morse became editor of the California State Medical Journal which he agreed to publish as a quarterly provided two hundred subscribers could be obtained at the rate of five dollars each per annum. The first issue of the Journal was for the month of July 1856 and included the Minutes and Proceedings of the Convention and First Meeting of the Medical Society of the State of California. However, Morse was able to publish only three more issues (October 1856, January 1857 and April 1857) and was then forced by lack of funds from subscribers to discontinue this valuable journal.

As he previously had done at the Illinois State Medical Society, Cooper seized the opportunity once more to call for liberalization of laws regarding anatomical dissection. He introduced the following preamble and resolutions that were referred to the Committee on Legislation (where they died):

Whereas, The laws of our State render surgeons obnoxious to prosecution and liable to heavy damages if they operate wrongfully through ignorance, at the same time making no adequate legal provision for obtaining knowledge of the human system; therefore, be it

Resolved, That in view of the good of the profession as well as of the community, dissections should be legalized under all proper restrictions.

Resolved, That a committee of five (5) be appointed to memorialize the Legislature upon the subject.

Cooper's Scientific Paper

On motion of Dr. Dustin, the delegate from Nevada County, Cooper was invited to deliver the only scientific paper of the meeting. He chose to report the following experiments on ligation of the abdominal aorta in dogs.

As already mentioned, ligation of major vessels, usually for aneurysm or trauma, was among the "capital" operations of the day. The aorta, being the largest vessel of all, was the Mount Everest of vascular surgery. No patient had ever survived ligation of the abdominal aorta. Three such cases were described by Pancoast in his Treatise on Operative Surgery [12]. The causes of death were not specified,

but it had always been assumed (but not proven) that the most likely complications of aortic ligation would be gangrene of the lower extremities, peritonitis and hemorrhage.

After the attention of the profession was called to this subject, more than forty patients were reported to have survived gradual obliteration of the abdominal aorta by tumor or other cause. Survival in these cases was thought to be due to maintenance of circulation through development of collateral vessels that carried blood around the point of obstruction.

In December 1855 Cooper began a series of experiments on dogs to determine the cause of death in acute occlusion of the abdominal aorta and to devise a method to prevent it. Cooper's animals all died shortly after ligation of the vessel. By post mortem examination he determined for the first time that the cause of death in dogs under these circumstances was intense engorgement of the proximal arterial circulation above the ligation as well as the heart. This he attributed to cutting off nearly one half the vascular system, thus confining the arterial blood to a markedly reduced circulation.

He then decided to induce slow obliteration of the aorta, as occurred in the surviving human cases, so that collateral circulation would have time to develop. He invented an instrument that encircled the aorta and came out through the wound. The instrument could then be tightened from the outside so as to obstruct the aorta by degrees rather than acutely. By this procedure, he diminished the circulation in the vessel about one-half immediately, and on the seventh day obstructed it completely. The animal lived for four days with the aorta completely closed before dying from hemorrhage during the fourth night, presumably from having violently displaced the instrument with its teeth. Such an accident would not occur in a human patient. Post mortem examination showed that collateral circulation had already begun to develop around the dog's obstructed aorta and would apparently have sustained a permanent recovery had not the hemorrhage supervened. [13]

Cooper's animal studies demonstrated uncommon initiative and indicated that he was making productive use of the surgical laboratory he had established. He was an enthusiastic teacher, normally involving others in his projects. For example, Drs. Beverly Cole and C. A. Kirkpatrick, among others, assisted Cooper in the aortic ligation experiments. Cooper never attempted to ligate the abdominal aorta in a patient but his experiments suggested a method of accomplishing the feat with survival. For years to come no other surgeon on the Pacific Coast was to address surgical questions in the laboratory with the combined objective of research and education. Meanwhile Cooper was developing a small but loyal group of physicians who recognized in him the genuine devotion to teaching and investigation that distinguished him from the critics who ridiculed his efforts.

Cooper's paper was very well received by the members of the State Society who voted to request him to report further on his experiments at the next meeting.

Summary

When the Convention and first meeting of the State Medical Society adjourned on 14 March 1856, all concerned had reason to be gratified. From Cooper's original letter to Logan on 27 August 1855 proposing organization of a State Society to the opening of the Convention in Sacramento on 12 March 1856, only six and a half months had elapsed. Cooper and the San Francisco County Medico-Chirurgical Association initiated and aroused wide professional interest in the proposal, while Logan and the Sacramento Medical Society sponsored and organized the Convention with consummate finesse. When the delegates assembled in Sacramento, the order of business was so well managed by the host Society that by the end of the second day the California State Medical Society had been founded, Constitution and By-Laws adopted, and officers for the ensuing year elected.

Cooper's contribution to the process was appropriately recognized by his election as First Vice President. Nevertheless, he felt a tinge of disappointment at not being named President. Among his papers there is the undated draft of an address obviously prepared for delivery when taking high office in the State Society. In the draft, Cooper states the objects and advantages of the new Society and includes the following high-minded advice to his enemies from San Francisco whom he suspected would try to infiltrate the organization. [14]

> The legitimate objects of our Association are not to meet as a set of politicians in convention to try who can secure the greatest advantage over his opponents, but we should meet and try who can contribute the most largely to the general fund of practical knowledge by which the sphere of usefulness of all may be widened…
>
> To the energetic and worthy medical men throughout the State therefore we say come and join us. We shall increase your energies. To the enthusiastic we say come. It shall be our delight to make you our companion; and to the ambitious we say come, our association is calculated to enkindle in your breast a burning desire to win the highest honors of our profession, but at the same time to chasten your ambition by assisting you in cultivating a sacred regard for the rights and feeling of all deserving Medical Men.

The Minutes of the first meeting of the State Society contain not the slightest hint that the proceedings were marred by contention of any kind. However, Cooper was uneasy to find that Dr. Gray, with whom he was at odds over the Travers case, and Dr. Stout, Gray's fellow member from the despised Pathological Society, were both present and taking an active part in the parliamentary maneuvering. Also present was a third member of the Pathological Society, Dr. J. P. Whitney, whom Cooper was later to accuse of making slanderous remarks about him. Imagine Cooper's annoyance when Drs. Gray, Stout and Whitney were all three elected to the seven-member Board of Censors of the State Society for the ensuing year.

Could this mean that members of the Pathological Society, who prior to the Convention had shown no interest in a State Society, were now positioning themselves to control the new organization in order to attack him in the state-wide forum he had worked so hard to create? The following incident during the Convention led Cooper to believe that such an intrigue was indeed afoot. When his name was proposed for some inferior office in the State Society, Stout rose to move a change in the mode of procedure, urging as the reason that otherwise "some member from San Francisco might obtain office who was not qualified." To the suspicious Cooper, that "some member from San Francisco" could be none other than himself. His suspicion was justified for Stout later confirmed that he had attempted to discredit Cooper at the first meeting of the State Society. [15]

With the relations between Cooper and the Pathological Society in a delicate state at the end of the Convention, it is necessary temporarily to leave the field of petty medical skirmishing and take note of the more lethal conflict about to erupt in the public sector - the murder of James King of William and revival of the Vigilance Committee.

Endnotes

1. Correspondence 1855 - Box 1, Folder 2, Elias Samuel Cooper Papers - MS 458, California Historical Society, North Baker Research Library
2. Correspondence 1855 - Box 1, Folder 2, Elias Samuel Cooper Papers - MS 458, California Historical Society, North Baker Research Library
3. Correspondence 1855 - Box 1, Folder 2, Elias Samuel Cooper Papers - MS 458, California Historical Society, North Baker Research Library
4. Correspondence 1856 - Box 1, Folder 3, Elias Samuel Cooper Papers - MS 458, California Historical Society, North Baker Research Library
5. Correspondence 1856 - Box 1, Folder 3, Elias Samuel Cooper Papers - MS 458, California Historical Society, North Baker Research Library. The Preamble and Resolution and a mailing list of prominent physicians, in Cooper's handwriting, were found among his papers. Although no letter of transmission from Cooper to Logan was present, Logan's letter to Cooper of 13 February 1856 acknowledges that he received and concurred with Cooper's Preamble
6. Correspondence 1856 - Box 1, Folder 3, Elias Samuel Cooper Papers - MS 458, California Historical Society, North Baker Research Library
7. Correspondence 1856 - Box 1, Folder 3, Elias Samuel Cooper Papers - MS 458, California Historical Society, North Baker Research Library
8. Correspondence 1856 - Box 1, Folder 3, Elias Samuel Cooper Papers - MS 458, California Historical Society, North Baker Research Library
9. Folder: Correspondence 1856 (CHSL Box #1. Folder #3), File of California Historical Society Library, E. S. Cooper Collection, Lane Medical Archives, Stanford
10. Correspondence 1856 - Box 1, Folder 3, Elias Samuel Cooper Papers - MS 458, California Historical Society, North Baker Research Library
11. Arthur B. Stout et al, Committee on Publications, "Minutes and Proceedings of the Convention and of the Medical Society of the State of California, Held in Sacramento, March, 1856," California State Medical Journal 1 (Jul 1856): 4-34 Lane Library catalog record
12. Joseph Pancoast , A Treatise on Operative Surgery (Philadelphia: A. Hart, late Cary and Hart, 1852), pp. 68-69 Lane Library catalog record
13. Elias S. Cooper , "Remarks upon the practicability of obliterating the abdominal aorta by gradual pressure, illustrated by vivisections," California State Medical Journal (Jul 1856): 69-72 Lane Library catalog record
14. Correspondence, 1856 - Box 1, Folder 3, Elias Samuel Cooper Papers – MS 458, California Historical Society, North Baker Research Library
15. Correspondence - No Date, Elias Samuel Cooper Papers – MS 458, California Historical Society, North Baker Research Library

Chapter 11. The Vigilance Committee of 1856

Medical Aspects

Crime in San Francisco subsided briefly following the hangings and deportations of notorious felons by the Vigilance Committee of 1851. But it was not long before lawlessness was again rampant in the streets while embezzlers invaded commercial enterprises, and corrupt public officials undermined confidence in the government. By 1856 conditions had deteriorated to the point that a fearless and independent press was the community's last remaining defense against the criminal elements.

James King of William (1822-1856), editor of the San Francisco Evening Bulletin, dared to expose scoundrels in both public and private domains; and by relentlessly pursuing a campaign against them, he changed the course of history in the beleaguered city. It is of special interest to us that the violence erupting as a result of his biting editorials had extraordinary medical dimensions.

The memory of James King of William continues to be honored in California while, at the same time, his unusual name is still a source of some confusion that we shall promptly dispel.

He was born at Georgetown in the District of Columbia on 28 January 1822, the youngest of a numerous and respectable family. His father was named William and to distinguish himself from a number of other James Kings then living in Georgetown, James took and retained the name of "James King of William," (that is, "James King, son of William").

He was an eager student, acquired a fair knowledge of Latin and English literature, and learned to speak French, Spanish and some German. After a variety of jobs as a clerk, and brief stints on newspapers, he was engaged in 1841 as a bookkeeper in a Washington bank. He was married in 1843 and, in 1848, departed for the Pacific Coast by sea via the Isthmus of Panama to improve his prospects and establish a new home for his family whom he left behind. While en route to the West, word reached him of the discovery of gold in California. Therefore, when he arrived in San Francisco in November 1848 he went directly to the gold fields. After a brief and profitable mining venture at Placerville, and temporary engagement in mercantile business in Sacramento, King returned briefly to the East where he made arrangements to open a banking business in the name of James King of Wm. on Montgomery Street between Clay and Merchant in San Francisco.

King was soon widely known and highly regarded as a banker throughout the State. His wife and four children joined him in 1851 and his successful banking business flourished until 1854. It was at this point that an irresponsible agent, to whom he had entrusted large sums to purchase gold dust, invested the money in worthless stock. As a result, King was forced to close his bank and become an employee of the express firm of Adams and Company. In return for King's depreciated assets, the firm agreed to reimburse all his creditors.

However, the tribulations of the honorable James King were far from over. He had not been long in the employ of Adams and Company when he discovered that they were insolvent. When he warned the San Francisco manager of impending ruin and urged him to take steps to protect the depositors, his advice was ignored and on 22 February 1855 the company failed with disastrous losses by thousands of industrious persons throughout the State. Fortunately, King's reputation was unsullied by the bankruptcy for he had always acted in good faith towards creditors, but public sentiment was hostile to banking and his attempt to reenter the field was unsuccessful. With the financial help of some friends he then began publication on 8 October 1855 of the San Francisco Daily Evening Bulletin which he described as "a truly independent journal - one that (would) support the cause of morality, virtue and honesty, whether in public service or private life, and which, regardless of all consequences, would fearlessly and undauntedly maintain its course against the political and social evils of the day." [1]

The crusading editor began immediately to attack those who he believed to flout moral standards or betray the public trust. It was not long before threats upon his life began to occur, to which the defiant King replied in the November twenty-second issue of the Bulletin: [2]

> Bets are now offered, we have been told, that the editor of the Bulletin will not be in existence twenty days longer, and the case of Dr. Hogan of the Vicksburg paper, who was murdered by the gamblers of that place, is cited as a warning. Pah! We passed unscathed through worse scenes than the present at Sutter Fort in '48. War, then, is the cry, is it? War between the prostitutes and gamblers on one side, and the virtuous and respectable on the other! War to the knife, and the knife to the hilt! Be it so, then! Gamblers of San Francisco, you have made your election, and we are ready on our side for the issue!

To a gambler named Selover, who made threat's against the editor's life following the latter's refusal to meet him in a duel, King responded in the Bulletin of December sixth: [3]

> Mr. Selover, it is said, carries a knife. We carry a pistol. We hope neither will be required, but if this rencontre cannot be avoided, why will Mr. Selover persist in periling the lives of others? We pass every afternoon about half past four to five o'clock, along Market Street from Fourth to Fifth Street. The road is wide and not so much frequented as those streets farther in town. If we are to be shot or cut to pieces, for heaven's sake let it be done there.

The purpose of King's contemptuous response to Selover was to rate the gambler as unworthy of consideration as an adversary in a duel, but it also laid out for him and any other enemies, the ground on which the editor could be violently attacked. Given the uncontrollable emotions of the day, and the reckless disregard of life, King's audacious challenge placed him in almost daily jeopardy of deadly assault on the road he usually followed in going home.

When the inevitable confrontation occurred, it was not with the gambler Selover but with a prominent politician and ex-convict known as James P. Casey whose special genius was for the fixing of elections by the stuffing of ballot-boxes. Casey's most recent feat was to gain election as Supervisor of a district of which he was not even a resident. He was thought to have accumulated by various nefarious transactions a fortune that enabled him to start a newspaper, the Sunday Times, regardless of the fact that he was incapable of writing a word for publication. Casey was especially sensitive on two subjects - ballot-stuffing and his term of eighteen months at hard labor in Sing Sing for robbing his mistress.

On 14 May 1856 King published in the Bulletin the following editorial that referred to a Mr. Bagley and his quarrel with Casey: [4]

> Our impression at the time was that in the Casey fight Bagley was the aggressor. It does not matter how bad a man Casey had been, nor how much benefit it might be to the public to have him out of the way, we cannot accord to any one citizen the right to kill him or even to beat him, without justifiable personal provocation.
>
> The fact that Casey has been an inmate of Sing Sing prison in New York, is no offense against the laws of this State; nor is the fact of his having stuffed himself through the ballot-box as elected to the Board of Supervisors … any justification for Mr. Bagley to shoot Casey, however richly the latter may deserve to have his neck stretched for such fraud on the people … However much we may detest Casey's former character, or be convinced of the shallowness of his promised reformation, we cannot justify the assumption of Mr. Bagley to take upon himself the redressing of these wrongs.

About four o'clock on the afternoon of Wednesday the fourteenth of May, an hour after the Bulletin containing the above editorial appeared on the streets, James P. Casey stormed into King's office and demanded to know: "What do you mean by that article?" [5]

> "What article?" asked the editor.
> "That which says I was a former inmate of Sing Sing prison."
> "Is that not true?" shot back James King.
> "That is not the question," retorted Casey. "I don't wish my past acts raked up; on that point I am sensitive."
>
> "Are you done?" demanded King, pointing. "There's the door - go! Never show your face again."
>
> Casey started toward the open door; but paused there long enough to fling out, "I'll say in my paper what I please."
> "You have a perfect right to do as you please. I'll never notice your paper."
>
> As far as King was concerned, the matter was now closed; but Casey, slipping his hand to his breast, uttered the warning, "If necessary, I shall defend myself!" At these words, the editor of the Bulletin arose from his seat. "Go!" he repeated with such force that Casey immediately disappeared.

The Shooting of James King

At five o'clock on the same afternoon, as was his custom, King left his office at Merchant and Montgomery Streets to go home for dinner. As he approached the corner of Washington and Montgomery, Casey stepped into the street from behind a horse and wagon standing in front of the Pacific Express Company and confronted him. According to his own testimony, King was taken utterly by surprise. He heard someone cry out "Come on!" Then, looking up, he saw Casey, only a few paces away, throwing off his short cloak and aiming a revolver. The weapon was fired instantly. King staggered under the impact of the bullet as it drove completely through his left chest, entering in front just below the outer third of the clavicle and exiting from the back. At the same moment a certain Edward (Ned) McGowan, a judge of the Police Court and a good friend of Casey's, was seen hurriedly leaving the vicinity.

Bleeding profusely from his wounds, King was assisted into the Pacific Express Office nearby where the first medical man to arrive and examine his wounds was Dr. R. K. Nuttall, (MD Aberdeen, 1847; Licentiate of the Royal College of Surgeons, Ireland) who had arrived in San Francisco from Australia in 1850. King was by this time unconscious due to shock from loss of blood. The wound was explored with the finger and found to course upwards, inwards and backward through the chest wall. The bleeding was thought to be venous because of the dark color of the blood. There was no pulse at the left wrist and only a weak one at the right. The great question then and later was whether the subclavian artery had been severed.

Dr. Nuttall had hardly completed his examination when Dr. Beverly Cole arrived to find King pulseless. Although bleeding was by this time only slight, the patient was still in shock. Cole applied mustard plasters and heat to his extremities to reinstate the circulation and King rallied sufficiently to grasp his hand and plead: "Oh Cole, in the name of God stay by me!" [6][7][8]

Meanwhile, news of the tragedy spread rapidly among the medical community. Cole and Nuttall were soon joined by Dr. H. M. Gray. Dr. William Hammond was next to arrive. Since he had previously been King's personal physician, he officiously took over control of the patient who had now been laid on a counter in the Pacific Express Office. Although hemorrhage had essentially stopped and Nuttall on making another examination could feel a clot in the wound, it was felt that movement might start bleeding again. Therefore, Gray and Nuttall suggested putting a plug into the wound. The only thing available was a large piece of white sponge. Cole objected to anything being put into the wound. In any case he would use lint rather than sponge which he thought would become adherent in the wound during the healing process and, by blocking drainage, worsen the infection that was bound to occur in such a wound. He was overridden by the others, however, and a piece of sponge the size of a goose egg, too big for the wound on the anterior chest wall, was soaked in water and shoved into the wound with considerable pressure, then secured in place with wet compresses and bandages. There was, of course, no conception of antisepsis in that day and Gray and Nuttal lacked Cole's conviction, based on his surgical experience, that tight closure of a deep and contaminated wound is a recipe for fulminant infection.

At eight o'clock that night King's condition was so poor that Dr. Hugh Toland, popularly considered the foremost surgeon of San Francisco, was called in consultation. He arrived to find an immense crowd within and without the Pacific Express Building. He had to fight his way through the emotional bystanders to the semiconscious patient who was surrounded by fifteen or twenty physicians taking his pulse,

making suggestions and filling the air with tobacco smoke. On account of the confusion, Toland did not examine the wound but concluded from general observation and the accounts of Nuttall and others that the subclavian artery might be severed. He feared more bleeding if King were moved and advised that a surgeon be in attendance throughout the night. Hammond agreed to stay until 1 A. M. and Cole volunteered to watch until dawn.

When the morning of the first day, Thursday May fifteenth, came with no improvement in King's condition, Hammond summoned Drs. Gray, C. Bertody and Toland to an urgent consultation at seven A. M. Cole and Nuttall were still there but were pointedly excluded from the conference. Nevertheless, Cole offered the unsolicited advice that the sponge should be removed from the wound and, if the subclavian artery bled, it should be ligated. Nuttall added that the sponge had been inserted only as a temporary measure and also advised that it be removed. The comments of Cole and Nuttall were coldly ignored except for Hammond's haughty remark that: "Well, I guess I have some crude notions on the subject myself."

It was at this point that Elias Cooper entered the sickroom. During the past year he and Cole had become friends and colleagues, Cole frequently attending operations, anatomical dissections and animal experiments at Cooper's Infirmary. He had learned to respect Cooper's knowledge of anatomy and skill as a surgeon, particularly with respect to vascular procedures. Therefore Cole, before he found the King case taken out of his hands by Hammond, sent word to Cooper asking that he come to examine King and give his opinion on management. Cole's invitation was reinforced by a personal request to Cooper from the patient's brother, Thomas King. Nevertheless, when Cooper arrived at the Pacific Express Office on the morning of the fifteenth and sought to speak with Cole, he was not allowed to do so. Cooper was deeply offended by the rude reception he received and gave this account of the incident: [9]

> (Dr. William Hammond was one of the medical attendants of James King of William after he was shot by James Casey on 14 May 1856.) It is to Hammond, as I afterwards learned, that I am indebted for the very civil treatment of being forced out of Mr. King's room by a Police Officer under threats of being arrested if I attempted to enter again. It is true I was not invited there by Dr. Hammond, but I was invited by Dr. R. Beverly Cole who was with Dr. Hammond and both facing me and within five steps distant, when the Officer forced me out in the most unceremonious manner which I submitted to without the least resistance rather than make a disturbance that might prove injurious to the patient though I had been specially invited by Mr. Thomas King to examine his brother's wound. Dr. Hammond was personally a stranger to me at the time but Dr. Cole witnessed my treatment and assured me afterwards that he would have had it otherwise if he could.

By this time, Cole was thoroughly outraged by the treatment he had received from Hammond, especially since he had preceded Hammond on the scene and the patient had pled with him to stay. Furthermore, his advice to remove the sponge was being ignored. There was nothing more he could do. Renouncing all responsibility for King's care, Cole withdrew from the case.

The bulletin at the end of the first day, Thursday May fifteenth, announced that the left arm was entirely paralyzed, cold, blue and swollen; that it was pulseless and without sensation or motion; that hemorrhage had stopped;… that it was feared the subclavian artery was cut, but that Mr. King's condition was too precarious to permit operation.

During the second day, Friday May sixteenth, there was no improvement and as the day dragged on King's attendants sought to make him more comfortable by moving him to the Montgomery Block, a large office building across the street where a sick room had been made ready for him.

In the days that followed the course was one of mounting sepsis and continuing unwillingness of the doctors to remove the sponge that was plugging the wound for fear of hemorrhage from a severed subclavian artery. On the fourth day, Sunday May eighteenth, a former army surgeon, Dr. John S. Griffin, arrived from Los Angeles as a consultant and advised against removing the sponge, again for fear of hemorrhage from the subclavian artery. By this time the Infection had become so severe that it was necessary on this day to drain considerable pus by an incision in the left armpit under chloroform anesthesia. There was still no improvement.

At the dawning of the sixth day following the wounding, Tuesday May twentieth, King's condition was worse. Following a restless night, his right pulse was now faint and rapid, his breathing labored. At thirty minutes past one o'clock in the afternoon, the last bulletin was posted - James King of William was dead. He left a wife and six young children.

According to the report of the post mortem examination on James King, the subclavian artery was not injured; there was some damage to and considerable phlebitis of the subclavian vein; the nerves of the brachial plexus were torn apart; caseous (tuberculous) masses were found in the lungs; and there was inflammation of the pleura and over a pint of bloody serum in the left chest cavity. By implication, the cause of death was infection.

The momentous consequences of King's death imparted historic significance to the treatment he received. Was his wound by its nature a lethal one, or was its management responsible for the fatal sepsis? Simply put: did the sponge packed into the wound to prevent subclavian artery hemorrhage serve instead to block drainage of the sepsis raging in its depths, with fatal results?

Why was the sponge not removed? The answer is that the doctors responsible for the patient's care feared bleeding from a severed subclavian artery which they had not the anatomical knowledge and technical ability to expose surgically and ligate. Both Elias Cooper and Beverly Cole accused King's treating physicians of incompetence and malpractice but before returning to their outspoken criticisms, we will provide further information about King's physicians, and report on the civic unrest precipitated by his death.

Dr. William Hammond (1824-1905), who summarily usurped the care of the patient from Drs. Cole and Nuttall on the day of the injury, was born in Hagerstown, Maryland. His father, an army doctor, was transferred in 1843 with his family to Jefferson Barracks in St. Louis

where William began the study of medicine by taking courses in chemistry and anatomy at St. Louis University. In the fall of 1844 he continued his medical studies in Baltimore at the Faculty of Physic of the University of Maryland and was granted the MD degree in 1845. In 1847 we find him in Galena, Illinois. He was engaged in general practice but it proved uncongenial and in 1848 he followed his father into the U. S. Army. Under commission as an army surgeon he was posted to the general hospitals in Mexico City and Hualapa until the army evacuated Mexico in 1848. After serving in several army posts around the United States he was ordered to report for duty in Oregon in 1853, but on reaching California he sent in his resignation from the army and remained in San Francisco. There he was successful in a practice devoted principally to medical conditions. It is not evident that he ever had significant practice in the field of surgery. Like Dr. Gray, whom we previously introduced, he was a member of the Pathological Society. [10][11]

Regarding Dr. Charles Bertody we know little beyond the facts that he graduated from Harvard Medical School in 1838 and was elected Corresponding Secretary of the Second San Francisco Medical Society in 1853. Whatever his accomplishments, they were not such as to leave an imprint on the medical literature of his day. Specifically, there is nothing to suggest that he brought to the King deliberations any special knowledge or experience relevant to the management of gunshot wounds. As for Dr. Toland, we have already sketched his background and remarked on his prominence as a surgeon and his aloofness from medical societies.

Finally, there was the consultant, Dr. John Strother Griffin (1816-1898), a Virginian by birth and fellow Southerner of Toland. Unable to make up his own mind regarding the treatment of King, whose condition was growing worse by the day, Toland requested that Griffin be brought up from Los Angeles to consult and, not incidentally, share the onus for a disaster that Toland was astute enough to suspect was in the offing. Griffin arrived on Sunday May eighteenth, the fourth day after the injury. Specifically, Toland asked him to advise whether to remove the sponge from King's wound as Cole and Nuttall had so unequivocally recommended three days previously.

Griffin was the best known surgeon in the Los Angeles area and because of his prestige was an excellent choice as a consultant. He received his MD degree from the University of Pennsylvania in 1837 and practiced medicine in Louisville, Kentucky, for the next three years. In 1840 he was commissioned as a surgeon in the U.S. Army, a post he held until 1854 when he resigned to settle in Los Angeles.

Griffin's fourteen-year career in the army was distinguished by his service as a medical officer during the occupation of California by U.S. Forces in 1846-47. At that time he was attached to the expeditionary force of General Stephen W. Kearny who set out overland on 25 September 1846 from Santa Fe (New Mexico) with a force of 121 men, including Assistant Surgeon Griffin. Kearny's orders were to join in the pacification of California at this most turbulent and confusing juncture in the State's history.

After a punishing journey across over a thousand miles of mountainous and desert wasteland, guided by Kit Carson, the exhausted troops of General Kearny attacked a cavalry force of rebellious Californians at the Indian village of San Pasqual near San Diego. The encounter took place in the chilling rain and fog on the early morning of December 6th 1846. Although the Californians retreated and the Americans remained in possession of the battlefield, their victory was a pyrrhic one for their attack was ill-conceived and many American lives were recklessly and needlessly sacrificed. A report of American battle casualties is found in the communications of Assistant Surgeon Griffin who listed eighteen killed and eighteen wounded. The Californians were led by Captain Pico. As far as can be determined, none of the Californians were killed and Pico claimed that only 11 were wounded, none seriously. Nevertheless, the battle of San Pasqual was a decisive one and has since been described as the most famous and deadly in California history.

Dr. Griffin's conspicuous army service in Southern California combined with his sterling personal qualities no doubt contributed to his rapid rise to leadership in civic and business affairs in Los Angeles, and to his acquisition of a large surgical practice within a few years. Although memorial statements about his career say that he sought new treatments and was not hesitant to discard old methods, we have no specifics as to the meaning of these generalities and we have no information about his experience with vascular surgery. In any case, we know that he sided with Toland's timid colleagues and advised against removing the sponge. Assuming that it was not already too late to make a difference, we must conclude that it was Griffin's opinion that sealed the fate of James King of William. [12][13][14][15][16]

Vigilance Committee Revived

On the evening of May fourteenth, the news of King's wounding by Casey spread like wildfire. The streets were at once filled with a frenzied mob that surrounded the County Jail on Broadway where Casey was held. "Take the jail! Hang Casey!" was the cry. The militia under the command of Major Isaac Rowell, MD, later Professor of Chemistry in the Medical Department of the University of the Pacific, was summoned to restore order. Casey was greatly alarmed when he learned that Major Rowell and the militia not only refused to guard the jail but that they disbanded and in a body joined the Vigilantes. [17]

Confusion persisted around the jail until the crowd finally agreed to disperse and to reconvene at nine P.M. that evening in the Plaza. There, and later in permanent headquarters at 41 Sacramento Street, the Vigilance Committee of 1851 was swiftly revived as a formidable military-style force of more than eight thousand members, about three fourths of the adult male population of the city. William T. Coleman, prominent merchant, a man of common sense and determination, was named President of the Vigilance Committee of 1856. The leadership of the Committee differed from their brethren of 1851 in having a sufficient number of solid business men and broad-minded conservatives to control hot-headed radicals who might discredit the proceedings by rash disregard for due process. Dr. Beverly Cole was made Surgeon General of the medical staff of the Vigilance Committee with some eighty physicians under him.

As a counterbalance to the Vigilantes, a Law and Order Party was hastily organized including the politicians, lawyers, members of

government and the small number of common citizens who opposed the Vigilance Committee. The overwhelming support of the Committee by the people of San Francisco rendered the Party as well as the law enforcement agencies of the City and State largely ineffectual during the Committee's reign.

The Committee immediately turned 41 Sacramento Street into a combined courtroom, jail, armory and command post for its civil and military operations. The stronghold was referred to as Fort Vigilance. Opponents of the Committee dubbed it Fort Gunnybags because of the rampart of sand-filled gunnybags piled to a height of eight or ten feet across the entire frontage as a defense against attack by government forces.

Never had the West seen a popular tribunal that so effectively marshaled the citizens' collective wrath to curb lawlessness. Within hours of its convening the Committee defined its objectives and began to round up known criminals still at large, and to bring in James Casey and Charles Cora from the County Jail. Cora was a gambler and powerful figure in town who shot the unarmed United States Marshal William Richardson dead in the street on 18 November 1855. The reason for the murder? Richardson on the night before had made a slighting remark about Cora's paramour, Belle, the madame of a notorious bordello. Cora pleaded not guilty, his trial ended in a hung jury, and he was sent back to jail awaiting a new trial. His eventual release by the lax San Francisco courts was confidently anticipated until he was swept up with Casey by the wave of public revulsion against actions such as theirs.

At noon on Sunday, May eighteenth, the day of Consultant Griffin's crucial visit to the sickbed of the failing James King, 2600 armed men, divided into 26 companies of 100 each, quietly assembled at Fort Vigilance. Immediately, they began a silent march by different routes to converge upon the County Jail, surrounding it completely with a wall of gleaming bayonets. A loaded artillery piece was drawn up with its muzzle pointed at the front door of the building, and a match lighted as if for instant action. Marshal Doane of the Vigilance force rode up to the prison entrance and demanded of Sheriff Scannell that he surrender the jail. After brief and futile objection, the Sheriff complied with the Marshall's demand in order to avoid bloodshed and Casey and Cora were whisked away by carriage to cells in Fort Vigilance. Their trial by the Committee was conducted in general accordance with judicial process. Unequivocal evidence as to the offenses of the prisoners was presented.

King's death on Tuesday, May twentieth, the sixth day after his injury, plunged the city into general mourning for the courageous editor. His valiant efforts in life to expose crime and corruption in San Francisco, and by opposing end them, have continued through his martyrdom to inspire future generations. Like martyrs before and since, King probably accomplished more in the manner of his passing than he could have hoped for in a longer life.

Two days later, on Thursday May twenty-second, James King of William was borne to his resting place in San Francisco's Lone Mountain Cemetery. The hearse was drawn by four white horses draped in black, followed by a cortege of mourners two miles long. Drs. Hammond and Gray preceded the hearse in a carriage.

At the same hour, a grim drama was in progress at Fort Vigilance. The trials of Casey and Cora were over and they were sentenced to death by hanging. The militia drew up on all sides of Fort Vigilance and scaffolds were extended from two windows on the second floor. While all the bells in the city tolled for James King, the sentences were carried out. [18][19][20][21]

Dr. Charles Bertody was not the only graduate of Harvard Medical School to participate in these violent affairs. Dr. Washington Ayer, also a Harvard graduate, was practicing in San Francisco at the time. His "Personal Recollections of the Vigilance Committee (of 1856)," published thirty years later in the Overland Monthly are the source of many of the details found in the accounts of other historians already cited. [22]

Washington O. Ayer (1823-1899) was born in Haverhill, Massachusetts, on the 18th of July. Being of a studious nature he completed primary and secondary schooling with an eminently satisfactory record but lacked the means to go on to college. In keeping with the self-reliance and industry of the ambitious youth of his generation he sought to acquire the necessary funds for a higher education by his own efforts, which he devoted to teaching school for three years. His first school in his native town of Haverhill was near the home of the honored Quaker poet John Greenleaf Whittier who, with his sisters, encouraged the young Ayer. It was possibly due to association with the supportive Whittier family that Ayer developed strong literary interests, and even aspirations as a poet which he modestly fulfilled.

Ayer was of delicate health so that both illness and lack of financial resources led him to forego college and enter a preceptorship in medicine with practitioners in nearby Bradford, Massachusetts. This was followed by a successful course of study at Harvard Medical College where he received his MD degree in 1847. While a Harvard medical student he was present at the first public demonstration of ether anesthesia at the Massachusetts General Hospital on 16 October 1846. Ayer's description of the procedure he witnessed that day is a classic rendition of the historic scene. [23]

Upon graduation from medical school Ayer settled in Lawrence, Massachusetts. Practice came slowly to the eager young doctor until accidental circumstances brought him to the favorable notice of the public. One day when crossing the bridge over the Spigot River, swollen to flood-stage by a recent storm, Ayer saw a woman struggling in the raging torrent. Without a moment's thought he plunged into the stream and rescued the drowning woman whom he resuscitated on the river bank, while many on the bridge above witnessed his bravery and professional skill. Newspapers on the following day were full of praise for his heroic deed. Now widely known in the community for his courage and medical readiness, It was not long before he had an abundance of patients.

When his health, never robust, began to fail again he was forced to seek respite from his busy practice. The opportunity for a change arose when he was invited to go to California as physician to the New England Trading and Mining Association. On 4 February 1849 he sailed from Boston aboard the Association's ship Lenore. She dropped anchor in San Francisco Bay just five months later on 5 July 1849 at the height of the Gold Rush.

Soon after his arrival Ayer proceeded up the Sacramento River to the heart of the Gold Country where he settled in the town of Vernon, a village on the right bank of the Sacramento at the mouth of the Feather River. During the next five years his seemingly boundless energy was devoted to an extraordinary variety of activities ranging from doctoring to mining, ranching, and the freighting of supplies by wagon and riverboat. He was proudest of the hospital he established at Vernon to serve the mining community where accidents and other emergencies prevailed and fevers, dysentery and infectious diseases were rampant. He was highly successful in his enterprises from the beginning and rapidly acquired valuable holdings in land and profitable businesses. Then disaster struck during the winter of '49-'50. The Feather and Sacramento Rivers rose in a devastating flood that within hours swept away his hospital and other fruits of his toil, leaving him marooned for three weeks atop an Indian Mound, a tiny island in a sea of rushing water.

To recoup his losses Ayer returned to mining but, after prospecting several sites to no avail, he resumed the practice of his profession - first in Sacramento, next in Mokelumne Hill and then in Volcano, Amador County. Finally, in 1854, after a visit of five months to his home in the East, he abandoned the Gold Country and made his permanent residence in San Francisco where he was soon ranked among the ablest practitioners in the city. There he met Elias Cooper and became his good friend and loyal supporter. Years later, in 1893, Ayer read before the San Francisco Medico-Chirurgical Society a glowing eulogy entitled "Reminiscences of the Life and Labors of Elias Samuel Cooper." [24][25][26][27]

Cooper's Critique of the King Case

There is no predicting the course of history had King survived the gunshot wound. It is certain that Casey would not have been hanged. As far as King's treatment is concerned, it is fair to state that neither Cole nor Cooper, had they been in charge of the case, would have hesitated to remove the sponge from King's wound on the first day and that this would likely have forestalled a fatal infection. Both Cole and Cooper were staunch disciples of Joseph Pancoast and thoroughly versed in the surgical approach to the subclavian artery, which is beautifully illustrated in anatomical plates in Pancoast's Treatise on Operative Surgery. Had the artery bled, they could have ligated it. On the other hand, the treating physicians (even Toland) were obviously unprepared to cope with subclavian artery hemorrhage. With these considerations in mind, neither Cooper nor Cole was inclined to overlook what they viewed as the incompetence of King's doctors. We shall refer now to Cooper's verdict on the case, and later to that of Cole.

Cooper resented the affront he suffered when he attempted to consult on James King on May fifteenth, but the treatment of the unfortunate patient by Hammond, Gray, Toland, et al made him furious. His only recourse at the time, about mid-1856, was to make a scathing attack upon King's doctors in a Letter to the Editor of one of the local newspapers. Although Cooper's personal papers contain several drafts of such a Letter, we have no clipping or other evidence to confirm that it was ever published. Nevertheless, the following reconstruction of Cooper's Letter is inserted here in order to convey his surgical views, and underline his increasing hostility toward the medical elite of San Francisco whom he suspected of conspiring against him. [28]

Oh! What Muggins

Mr. Editor,
What a set of Medical Muggins we have in San Francisco!

Oh, shades of Aesculapius, has the middle of the 19th century come to this! The embodiment of surgical knowledge of a city of 60,000 inhabitants so ignorant of surgical anatomy! Cannot some industrious French Veterinary Surgeon accustomed to dissecting horses instruct by comparative anatomy these lazy medical men of San Francisco who never dissect?

Have we no qualified surgeons among us? This inquiry is made in consequence of having heard it stated frequently within a few days past that the subclavian artery could not be tied above the clavicle. I know that the thing can be done. However skillful our medical men as practitioners of medicine may be, and of whom I know many in this city, still the people require some surgeon who from constant dissections has that perfect knowledge of the human system that enables him to perform without a moment's tarrying any operation known formidable.

Mr. Editor, I should like therefore to have some of the learned gentlemen who cared for James King attempt to prove that the most consummate ignorance was not displayed in his treatment from the moment of his injury to the period of his death. If there is anyone of this clique who dares to come out over his own signature and say that the treatment of Mr. James King of William was judicious, I will prove that plugging up a gunshot wound to arrest hemorrhage under the impression that the subclavian artery was shot away denotes more consummate ignorance of the principles of surgery on the part of anyone practicing the same than can be often found at this enlightened day.

This plugging operation did surpass anything of the kind I ever knew. Only think of attempting to plug up and prevent hemorrhage from the subclavian artery. Now confess the truth, Gentlemen, you who profess to be at the head of the profession of San Francisco: Did you not ignorantly fear that bleeding might again occur if this plug was removed? And did you not know that you could not tie the vessel but that some one else would be called in who could?

Where is the intelligent medical man of this city who doubts you killed that patient? You are the men whose influence like an incubus has rested upon the spirit of improvement among medical men in California from an early period up to the present time. You are the men who assume to hold in complete contempt the strangers who come here and attempt to establish themselves by potently laboring for the good of the profession. You are the men who have always thrown discord and confusion into all associations for medical improvement in this city, and chafe like alienated furies because

> you can't do it still. You, gentlemen, are a disgrace to the medical profession. Who are they that give evidence in our courts of justice "according to the clique" and whence the discordant testimony among medical witnesses so keenly and appropriately commented upon by our city papers?
>
> Such men as you would disgrace any cause. It is to you, the would-be leaders of the medical profession of San Francisco, we owe the odium under which that profession now rests and must rest until your true position in it is fully known by the people. You are the criminally ignorant surgeons who in the case of James King tried to plug up a wound as you ignorantly supposed of the subclavian artery. Where is the intelligent medical man of this city who doubts for one moment you killed that patient?
>
> In conclusion, I should not omit to state that the opinion prevails among medical men here that the surgical treatment of the late Editor of the Bulletin caused his death. I take this occasion to call (King's doctors) to account for the criminal ignorance they displayed in his treatment.

Cooper's harsh indictment was typical of the bitter exchanges that frequently occurred between individual physicians and medical cliques in his era. Inevitably, the contentious and vindictive spirit endemic within the medical community of San Francisco created instability in personal relations and professional organizations. These conditions constantly threatened to frustrate Cooper's plans but, mirabile dictu, failed to do so. As we suggested earlier, the reason for Cooper's ultimate success in spite of severe impediments, was the respect and loyalty he inspired in able associates who supported his efforts. It was during the Vigilante period that Beverly Cole emerged as one of the most valuable of these associates. Therefore, let us return to the operations of the Vigilance Committee of 1856 and the extraordinary services rendered to it by Surgeon General Cole.

The Stabbing of Sterling Hopkins

In the course of the drive to rid San Francisco of its criminal elements, the Vigilance Committee encountered growing resistance from the Law and Order Party, aroused to action by such anti-Vigilance partisans as Judge David Terry, Justice of the State Supreme Court. Terry already had earned the reputation of a vicious bully by previous assaults on various citizens - on J. D. Purdy of San Francisco, on a Mr. Evans of Stockton, on a Mr. King at the charter election at Stockton, and on a Mr. Broadhurst in the Stockton Court house.

In addition to the threats and rumblings of the Law and Order Party, the vacillating Governor of the State, John Neely Johnson, declared San Francisco to be in a state of insurrection on 3 June 1856, twelve days after King's funeral. The Governor then ordered Major General William T. Sherman to restore government control of the city. General Sherman, saying that he lacked the forces needed to disarm the Vigilantes, resigned his Commission. Fortunately for the Vigilantes and for the outcome of their brief reign in San Francisco, the government never acquired sufficient military strength to engage them. The streets were actually safer during the Vigilance Committee's tenure than they had been before.

During the first three weeks in June the situation grew increasingly tense as the Vigilantes consolidated their control of the city by seizing the arms being imported for use by government troops. In a daring raid on the night of June 20-21 a small band of Vigilantes confiscated a large shipment of government guns and sabers from the sloop Julia as she lay over for the night in the lee of a small group of islands called "The Sisters" in San Pablo Bay. Reuben Maloney who had chartered the boat and two other crew members were drunk and sound asleep. They were in no condition to resist the raiders who transported them back to Fort Vigilance with the arms. The Committee sequestered the arms but ordered Maloney's release because he had committed no crime. However, when he grossly abused their clemency by making boisterous threats against various members of the Committee, the order immediately went out to bring him back to the Fort.

The assignment for the seizure of Rube Maloney was given to Sterling A. Hopkins, the dependable and unflinching man who had already carried out for the Committee a most unenviable task - he served as the hangman of Cora and Casey. In the afternoon of Saturday, June twenty-first, he set out with three or four followers in search of Maloney. Hopkins found him in the office of the United States Navy Agent, Dr. H. P. Ashe. Also present with Ashe were Judge Terry and several companions who cocked their guns and ordered Hopkins to leave, which he hastened to do in order to obtain reinforcements.

As soon as Hopkins left, Maloney, Judge Terry, Ashe and the others left the building and sought to escape from the area. Before they had gone far Hopkins returned with a number of aides and, after an exciting chase, caught up with the fleeing group on Jackson Street. In the furious melee that ensued Hopkins wrested a gun from the hands of Judge Terry who reacted by whipping out a bowie knife and plunging it deep into the left side of Hopkins' neck. Blood streaming from his mouth and neck, and reeling from shock and pain, Hopkins was taken by friends to a nearby dwelling while Terry and Maloney eluded their pursuers and found refuge in the Armory of the Blues. Agitated crowds almost instantly thronged the streets and Vigilante troops en masse surrounded the Armory. An ultimatum was issued by the Committee to surrender Terry and Mahoney as well as all arms within the Armory immediately. There was no recourse but to comply. The arms were confiscated without a contest and Terry and Maloney were soon lodged in cells at Fort Vigilance.

With Terry's arrest, danger of attack on the Fort was so far heightened that the Vigilance forces marched out again in battle formation and stripped all remaining armories of their weapons.

This decisive action secured the Committee's position for the present, but the incarceration of a Justice of the California Supreme Court who was also a leader of the Law and Order Party placed the Committee in a difficult predicament. Should Sterling Hopkins die of his wound, must Judge Terry follow Cora and Casey to the gallows? If so, would the de facto legitimacy of the Vigilance Committee, thus far assured by overwhelming public support, then dissolve in a constitutional crisis and bloody conflict in the streets? These were questions that faced the Committee following the incident on Jackson Street.

Dr. Cole, who was almost constantly on duty at the Fort during this period, had no time for such disturbing thoughts as he raced to the aid of Sterling Hopkins. When Cole reached him at three thirty in the afternoon, he found him sitting erect in a chair and bleeding profusely from the mouth. Soon after Cole's arrival, Hopkins fainted due to loss of blood. With the patient briefly unconscious, the doctor was able for the first time to probe the depths of the wound in the left neck and determine that the pharynx and larynx had been slashed open and either the internal carotid or other large artery had been severed. Hoping to gain time that would enable the patient to recover from shock, Cole packed the wound with cotton compresses to stop the bleeding.

This temporizing measure controlled blood loss until around eight P. M. when life-threatening arterial bleeding suddenly recurred, forcing Cole to intervene immediately. Of antisepsis there was none, and there was no time to administer anesthesia, nor was it needed, for Hopkins was barely conscious from loss of blood. Never were Cole's anatomical dissections in the laboratory of Professor Pancoast more gratefully remembered than when he began this emergency operation by flickering candlelight in the semi-darkness of a summer evening. Poor illumination of the operative field forced Cole to rely as much on touch as on sight when locating the jugular vein and vagus nerve and protecting them from injury. This done, he felt the barely pulsating common carotid artery in the depths of the wound and passed a ligature around it. When he tied down the ligature, all bleeding ceased. These were his words: "The plug was now removed from the wound without the least hemorrhage following, establishing in my mind at least, not only the success of the operation, but also the necessity for it." By this memorable operation, performed under most trying conditions, Cole saved not only Hopkins' life but that of Judge Terry as well; and the operation's favorable outcome prevented the unleashing of forces beyond the Vigilance Committee's control. [29][30][31][32]

Hopkins' postoperative course was a stormy one, complicated by wound infection and erysipelas. He had great difficulty eating because of leakage of food out through the neck wound until the opening in his pharynx healed. But his recovery was complete and in five weeks he was attending to business as usual. Judge Terry was therefore not guilty of murder, a charge that would certainly have led to his execution by the Vigilance Committee, so bitterly was he detested by the rank and file of the Vigilantes.

Terry's trial in Fort Vigilance lasted five weeks and one hundred and fifty witnesses were called to testify. Although the trial ended on July twenty-second, the Committee spent another two weeks in deliberation over the disposition of his case. Since he was not a murderer and his victim had recovered, the Committee's only means of punishment was banishment, a penalty that was clearly not enforceable in his case. The Committee finally settled for the passing of a stigmatizing resolution declaring that he was unworthy of the confidence of the people and should resign his judgeship. The vengeful elements among the Vigilantes were so outraged at the leniency of this decision that, in order to protect him from mob violence when he was released, the Committee spirited him out of the Fort on 7 August 1856 at two A.M. with the advice that he leave San Francisco. This the Judge hastened to do and boarded a steamer for Sacramento where he arrived to a hero's welcome from his supporters. Within a few weeks he resumed his seat on the bench of the Supreme Court of California. We have no evidence that he ever acknowledged his debt to Dr. Cole, but the following brief sketch of the Judge's career shows that he was a vicious killer whose narrow escape from the Vigilance Committee chastened him not at all. [33]

Judge David Smith Terry (1823-1889), native of Kentucky and Texas Ranger in the Mexican War, rode into San Francisco in 1849. He was soon involved in politics and was elected Associate Justice of the California Supreme Court in 1855. When he stabbed Sterling Hopkins he precipitated the most dangerous crisis to occur in the affairs of the Vigilance Committee of 1856, a crisis mitigated only by Dr. Cole's surgical virtuosity. In view of the Judge's singular role in the turbulent events of 1856, it will be of interest to outline the remainder of his career

Terry became Chief Justice of the California Supreme Court in 1857. As an aggressive advocate of California's admission to the Union as a slave state, he came into conflict with David Broderick, vigorous campaigner for the free soil position that finally prevailed. Broderick was elected to the United States Senate for the term 1857 to 1863 on an antislavery platform. During Terry's campaign for reelection to the State Supreme Court, he harshly attacked Broderick's antislavery stance and he and Broderick exchanged charges and personal insults in the manner of the day.

Being a Southerner to the core, Terry piously resigned his post as Justice of the Supreme Court before his term expired in order to demand retraction by Broderick or "satisfaction on the field of honor." There followed the most infamous duel in California's bloody history of this mindless rite, a cowardly variant of which had cut down James King of William in his prime. The impending duel attracted so many spectators that it was delayed a day and moved to a secret location south of San Francisco. The duel took place on the early morning of 13 September 1859. Choice of weapons was settled by lot. Terry won the draw and chose that the duel be fought with hair-trigger pistols, a weapon with which he was thoroughly practiced. Faced off at ten paces, on the word to "fire" Broderick's finger barely touched the trigger as he raised his hand to aim and the pistol instantly discharged, its ball ruffling the turf at Terry's feet. The latter poised his weapon, took deadly aim and shot Broderick through the left chest. He survived three days and died on 16 September, another casualty in the long war to end slavery.

As for Terry, there was a vigorous but unsuccessful movement to revive the Vigilance Committee and hang him, because it was feared the courts would set him free - which indeed they did. Terry went through the formality of a trial for murder and was speedily acquitted. But an avenging angel stalked this violent man. Thirty years later he made threats against United States Judge Stephen J. Field who had handed down a decision unfavorable to Terry in a lawsuit. As a result of Terry's threats of bodily harm against Judge Field, the Attorney General of the United States assigned David Neagle to Field as a body guard. On 14 August 1889, while Field and Neagle were having breakfast in a railroad restaurant at Lathrop, California, Terry approached Field and struck him twice. Neagle, taking no chances, with one revolver shot put an

end to Terry's troubled career. Neagle was arrested, tried on a charge of murder, and acquitted. [34][35][36]

Last Days of the Vigilance Committee of 1856

On June eighteenth a special committee was appointed to advise on the question of adjournment of the Vigilance Committee of 1856, but the Terry episode delayed action on the subject. With the conclusion of the trial of Judge Terry, the Committee began to urgently consider how to disband while preserving the gains it had made in restoring public order and reforming government agencies. Meanwhile a U.S. Navy Sloop of War, the John Adams under Captain E.B. Boutwell, had dropped anchor at the foot of Sacramento Street. The sloop was only a small single-masted vessel with a mainsail and jib, but Fort Vigilance was within easy range of the artillery pieces on her deck. Furthermore, her position provided ready access to the sewers running beneath the Fort where explosives could be detonated to demolish the Vigilance headquarters. Although the Vigilantes could easily overwhelm the John Adams, an attack upon a U.S. Navy warship, no matter how insignificant the vessel might be, had dire implications that even exceeded those associated with the seizure and trial of a Justice of the California Supreme Court.

In spite of mounting pressure to suspend operations of the Committee after the completion of the trial of Judge Terry on July twenty-second, the Committee brought Philander Brace and Joseph Hetherington to trial for murder. They were both convicted on July twenty-seventh and executed by hanging on July twenty-ninth. The event took place before companies of infantry, artillery and cavalry, and against the backdrop of a multitude of spectators crowding the streets and housetops for many blocks around the Fort.

Its purpose served, the Vigilance Committee of 1856 suspended its functions on August eighteenth. On that date, three months after the Committee assembled in response to the deadly assault on James King, the citizens of San Francisco were treated to a triumphal procession. The thousands of the Committee members marched to martial music in imposing ranks according to their military units, with glittering bayonets, artillery, and cavalry all manifesting readiness and power. The parade that wound through the crowded, flag-decked streets of the city could not but impress the onlookers with the resources of the Vigilantes. The message was implicit that, although the Committee was disbanding, it stood ready to spring to life again if circumstances required.

Accomplishments of the Vigilance Committee of 1856

Failure of medical treatment in the case of James King of William sparked the powerful outburst of popular indignation that led to activation of the grimly determined and widely respected Second Vigilance Committee. Successful treatment in the case of Sterling Hopkins relieved the Committee of the responsibility to execute Judge Terry, and made it possible for the Committee to disband in minimal jeopardy of later criminal indictments against its members for their actions.

The Vigilance Committee of 1856, like that of 1851, was an extra-judicial movement of private citizens democratically organized to administer justice in lieu of government agencies that had failed in this responsibility. These Committees were not common mobs. On the contrary, their deliberations were documented and were conducted in accordance with the rules of evidence and penalties for crime accepted by civilized nations. Importantly, their power was derived from the overwhelming support of the public.

During the three-month period from its revival on 15 May to its adjournment on 18 August 1856, the Second Vigilance Committee executed four murderers (Cora, Casey, Hetherington and Brace). For lesser crimes, twenty-five men were deported and the order for a number of others to leave led to the voluntary departure of some 800 malefactors and vagabonds. Stirred by fear and the example of the Committee, the delinquent government officials hastened to carry out their responsibilities to try and sentence the occupants of the well-filled county jail so that not a single prisoner remained awaiting trial when the Committee retired.

The Committee's objective was not only to put an end to the epidemic of robbery and mayhem by common criminals, but also to wrest the city government from the grip of corrupt interlopers such as Cora. On the approach of the first city election following the retirement of the Committee, some of the members of the Committee organized the People's Party. The Party's slate of candidates was elected and proceeded at once to reform a profligate city government riddled with political tricksters. The new administration was a marvel of economy, efficiency and enlightened public policy, leading to the success of its candidates in the next election also. [37][38]

Crime never again reached dangerous proportions in the city and respect for its municipal government was restored. At the time of Richard Henry Dana's return visit to San Francisco in 1859, to which we have already referred, the acts of the Second Vigilance Committee were still fresh in the minds of the people and Dana marveled at the changes that had occurred in the city. [39]

How strange and eventful has been the brief history of this marvelous city, San Francisco! In 1835, there was one board shanty. In 1836, one adobe house on the same spot. In 1847, a population of four hundred and fifty persons, who organized a town government. Then came the auri sacra fames, the flocking together of many of the worst spirits of Christendom; a sudden birth of a city of canvas and boards, entirely destroyed by fire five times in eighteen months, with a loss of sixteen millions of dollars, and as often rebuilt until it became a solid city of brick and stone, of nearly one hundred thousand inhabitants, with all the accompaniments of wealth and culture, and now (in 1859) the most quiet and well-governed city of its size in the United States. But it has been through its season of heaven-defying crime, violence, and blood, from which it was rescued and handed back to soberness, morality, and good government, by that peculiar invention of Anglo-Saxon Republican America, the solemn awe-inspiring Vigilance Committee of the most grave and responsible citizens, the last resort of the thinking and the good, taken to only when vice, fraud, and ruffianism have entrenched themselves behind the forms of law, suffrage, and ballot, and there is no hope but in organized force, whose action must be instant and thorough, or its state will be worse than before. A history of the passage of this city through these ordeals, and through its almost incredible financial extremes, should be written by a pen which not only accuracy shall govern, but imagination inspire.

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Chapter 12. Second Annual Session of the State Medical Society and Some Notable Surgical Cases

Transactions of the State Medical Society, 1857

The Second Session of the Medical Society of the State of California met in Sacramento, 11-13 February 1857. This meeting marked the high point of Elias Cooper's success in the furtherance of organized medicine in California. We shall now see how the Society became the focal point of professional discord that made the next few years the most contentious in California's medical history.

The first President of the Society, Dr. B. F. Keene, died on 5 September 1856. Therefore, when some forty-five members of the Society convened in Pioneer Hall at noon on 11 February 1857 for its Second Session, Senior Vice President Elias Cooper, serving as acting president, took the chair and conducted the initial proceedings. Dr. Henry Gibbons was promptly elected next President of the Society and took office during the Session.

Dr. Cooper, as the outgoing acting president, delivered the Annual Presidential Address. He chose a topic on which he had spoken previously at the Illinois State Medical Society in 1854: "Deformities of the Locomotive Apparatus." In this presentation before the California Medical Society, he again described his orthopedic splints and ingenious spring boot for the treatment of deformities of the lower extremities, and once more demonstrated by case reports how walking can be made the primary element in the cure of certain locomotor disabilities.[1][2]

Consistent with his policy to contribute liberally to scientific programs at medical meetings, Cooper read a second paper in which he reported the case of Frank Travers whose external iliac artery and vein were ligated in December 1855 with successful outcome. We have already referred to this operation and to Dr. H. M. Gray's criticism of Cooper's operative technique. The animosity between Cooper and Gray over this case, which was by this time well-known among the profession, had continued to smoulder. By presenting the Travers case before the Society in convincing detail along with the animal experiments, Cooper succeeded in discrediting the petty views of Gray who was present in the audience. By thus demeaning Gray in a public forum, Cooper made an eventual open clash between them inevitable.[3]

The scientific papers so far published by Cooper, and those to follow during the next five years as listed in his bibliography, record his significant efforts to define basic surgical principles, particularly in vascular and orthopedic disorders These efforts, and his commitment to dissection, animal experimentation and teaching, served increasingly to set him apart from his California contemporaries.

Even more distinctive and visionary was Cooper's unwavering faith in the ultimate success of his covert plan to establish a medical school in spite of mounting odds. For example, the Committee on Medical Education, chaired by none other than the respected John F. Morse, delivered its first report during the Second Session of the California Medical Society. The conclusion was discouraging. In the view of the Committee, conditions in California were so unfavorable that the issue of medical education was essentially irrelevant: [4]

> The subject of medical education is at all times a source of great interest and of infinite importance to the welfare of the profession, to the success of science, and to the protection of the highest objects of humanity. But still there are circumstances in which the discussion of the question becomes of subordinate importance, and by such circumstances we believe the subject is at present surrounded in this State.
>
> We have no schools in which medical science is being taught, nor are there any immediate indications of the practicability of the founding or sustaining of such institutions.
>
> When our county hospitals are elevated into institutions worthy of the name of public charities, when the munificent hand of support is so opened to them as to endow them with the means of establishing clinical schools for students and practitioners, then it would be consistent and natural to have an elaborate report upon the subject which you have referred to our consideration. Such, however, is not the condition of our hospitals, and we confess that in our opinion there is little more than a microscopic probability of their becoming so… (Therefore, until California provides adequate support for its public hospitals), it will be a useless thing to attempt the establishment of clinical schools of medicine… Hence the reason your Committee deemed it unnecessary to trouble you with a very lengthy report.

Although we have no record of Cooper's reaction to the above report, his future course showed that he ignored it. Perhaps he even welcomed the Medical Education Committee's firm stand against a medical school in California as a deterrent to some rash entrepreneur other than himself attempting to found one.

Administrative decisions by the Second Session which proved to be of significance during the Third Session of the Society in 1858 were the appointment of Dr. Cooper as a member of the Committee on Surgery and of Dr. Beverly Cole as chairman of the Committee on Obstetrics. Also of importance was the decision to hold the Third Session of the Society in San Francisco.

Surgeon General Cole's Report to the Society

When the Society convened in 1857 for its Second Session, only six months had passed since disbandment of the Vigilance Committee of 1856. The medical aspects of the Committee's operations were still a matter of lively debate among the physicians of the State. Anticipating their interest in the subject Dr. Cole, Surgeon General of the Vigilance Committee and delegate to the Second Session from the San Francisco County Medico-Chirurgical Association, read a paper entitled "Successful Ligation of the Common Carotid" in which he described the formidable procedure on Sterling Hopkins to which we have already referred. [5]

Eager for more details on related issues, the members of the Society, by unanimous vote on the final day of the meeting, requested that

Cole report “all the facts and points within his knowledge” pertaining to the case of James King of William. The Minutes of the Society contain no mention of this request to Cole and no record of his response to it. This is not surprising for it was not unusual for medical society minutes to omit controversial material, which the remarks of Dr. Cole certainly were. Therefore, we must depend on reports published in the Sacramento and San Francisco press, as reviewed in the excellent articles by Gardner [6] and Lyman [7], for the following account of Cole’s unsparing criticism of King’s treatment as delivered extemporaneously before the Society.

Cole told members of the Session how he was among the first to attend to King. He described the injured man as having received a flesh wound that with ordinary care and judgement would not have been life-threatening. Cole further stated that leaving the sponge in the wound for six days was contributory to King’s death and he did not hesitate to pronounce it a case of gross malpractice. Dr. William Hammond, King’s chief physician, was present at the Session as a delegate from the San Francisco Pathological Society. Also present was one of the consultant’s on the King case, Dr. H. M. Gray, who was serving as chairman of the Society’s Committee on Surgery.

It is hardly surprising that Cole’s charges against King’s doctors created an uproar among the medical men present at the Session as well as clamor in the press. On 14 February 1857, the Sacramento State Journal appeared with these glaring headlines: “James Casey innocent of murder. Death of James King caused by doctors.” Another paper quoted Cole as saying that King’s doctors were ignorant and unprofessional practitioners and that King would have recovered if they had exercised ordinary skill and prudence.

According to Alta California for 5 March 1857, Cole received the following letter immediately upon his return to San Francisco from the Society meeting in Sacramento:

> San Francisco, California, 2 March 1857
> To Dr. R. Beverly Cole, Sir:
>
> We understand that you related a history of the injury and last illness of the late Jas. King of Wm. before the State Medical Convention of California, at its last session, together with comments upon the treatment instituted in his case. Will you be kind enough to inform us upon what data, and from whence derived, you founded your knowledge of the case?
>
> Respectfully,
> Dr. Hammond Dr. Toland Dr. Bertody Dr. Gray

Cole replied as follows, not directly but through the columns of Alta California:

> San Francisco, California, 4 March 1857
>
> Gentlemen,
> Yours of yesterday was received, and in reply I have only to say, that the information upon which was based the history of Mr. King’s case, as given by me, without comment, before the State Medical Society, at their last meeting, in Sacramento, was acquired through personal observation and reliable sources.
>
> Respectfully,
> Beverly Cole, M.D.

To this brief note, Drs. Hammond et al issued a rebuttal in the press claiming that Cole never had an opportunity to make personal observations and that he was never for a single moment in charge of the patient either as an attendant or consultant, nor was there any possibility that he would have been allowed to participate in King’s care because of his previous professional misconduct (The nature of Cole’s alleged misconduct was not specified and the gratuitous slur was simply a clumsy attempt to discredit him.)

Cole terminated this acrimonious correspondence with a brusque retort, likewise in the press. The Gentlemen were wrong, he wrote, to say that he was not present at any of the examinations of the wound. In fact, he had arrived at the office of the Pacific Express Company only seven minutes after the shot was fired. Dr. Nuttall was the only medical man who preceded him and they were considerably in advance of all other physicians. He and Dr. Nuttall had thoroughly examined the wound digitally and visually, and Nuttall had felt a clot formed in the wound. As to Cole’s presence at any subsequent examinations of the wound, he declared: “I should regret to acknowledge any participation in them.”

The Trial of Edward McGowan

We are now to see how this dispute between Cole and King’s doctors figured in the last act of the James King tragedy when it was finally staged in a Napa courtroom. We earlier called attention to the report of witnesses who saw Edward (Ned) McGowan, a judge of the Police Court and intimate of James Casey, running from the vicinity of the shooting of James King on the afternoon of 14 May 1856. McGowan was an unsavory character who arrived in California in 1849 from Pennsylvania where his alleged involvement in political scandals and bank robbery prepared him well for successful maneuvering within the San Francisco judicial system. His proximity to the scene of the King shooting, and his unseemly haste to depart, led to the suspicion that he was guilty of conspiracy for inciting the inflammable Casey to assassinate King. To escape capture and trial by the Vigilantes, which may well have been a lethal experience for McGowan, he immediately vanished from the city and only ventured back to the area a year later when he turned himself in to the Sheriff at Napa, just north of the Bay. He petitioned the State Legislature to change the venue of his trial for “conspiracy as an accessory to the murder of James King” from San Francisco to Napa. The trial opened on 29 May 1857 in Napa Courthouse, Judge E. W. McKinstry on the bench.

By the time of the trial, Cole’s widely publicized statement that King had not been killed by Casey’s bullet, but by the gross malpractice of his doctors, had drastically changed the issues before the court. If Cole was right, Casey was not a murderer, McGowan was not an accomplice, and the conspiracy charge against him was moot. Medical testimony had therefore now become the keystone of the case. Hugh Toland was called by the prosecution and Beverly Cole by the defense.

When he took the stand, the austere and imposing Toland described King’s wound and its treatment with cold self-assurance and disarming candor. He admitted that the sponge was left in the wound because of fear that the subclavian artery was injured and might bleed if the sponge were removed. He reported that the autopsy showed no disruption of either the subclavian artery or the vein, but pointed out that King’s lungs contained tuberculous masses and that he was not in good health. It must be conceded on this account, he declared, that King was unable to survive a wound which might not have been mortal in a robust man. Cole’s allegations of malpractice were never once mentioned by Toland who delivered his testimony with such consummate restraint and authority that the jurors possibly did not perceive that he essentially concurred in Cole’s sternly negative assessment of King’s treatment.

When the volatile and now impatient Cole was finally called to testify, he was asked about Toland’s standing in the community. He ungenerously replied that Dr. Toland’s reputation in the community was one thing, and his standing among the medical profession was another - the implication being that Toland was in some way unethical in his practice. When asked about Hammond, Bertody and Gray, he referred to them as “careful practitioners” - adding scornfully that “it often happens that fatal errors are made by careful men.” The next question came from Counsel for Defense, Colonel E. D. Baker, the most eloquent of all California attorneys: “Do you think Mr. King died of his wound or from the treatment he received?” This was the moment of truth for the prideful Cole, still seething with resentment over his rude dismissal from the bedside of his friend James King: “In my opinion,” he said, “the wound was not a mortal one. The treatment was of such character as to cause death!”

Determined to drive home his point with the jury, Cole concluded his testimony by wheeling into the courtroom a cart bearing the shrouded and indifferently-preserved body of a prisoner executed the year before. As the fetid aroma from the cadaver permeated the warm summer air, Cole launched into a detailed anatomical lecture, illustrating on the subject as he went, the course of the bullet, the position of the wound, the effect of the sponge and other pertinent facts. The exhibition was too much for the spectators who quietly slipped away. Only the helpless jury and legal staffs remained in the courtroom for Cole’s concluding flourish.

Bewildered by the medical and anatomical technicalities of the doctors’ testimony, and swept up in the spell-binding rhetoric of Colonel Baker, the jury retired at ten minutes to twelve. Ten minutes later they were back with their verdict: They voted for acquittal. Sponge or no sponge, James King of William had died as a result of a bullet wound inflicted by one James Casey. There was no conspiracy. Ned McGowan walked from Napa Courthouse a free man.

As for the malpractice charge, the sheer weight of Toland’s dignified bearing and impassive objectivity evenly countered the fervent advocacy of the younger man. Although Cole lost his case at the bar, the merit of his argument was widely recognized among his peers, and his resolute challenge of “the medical establishment” elevated his professional stature in the community. On the other hand, his zealous approach to the issues hinted at an impetuosity that detracted from his emerging genius for leadership. As might be expected, the relations between Cole and Toland were decidedly strained after King’s death. They remained so until fourteen years later in 1870 when the dour Toland swallowed his pride and invited the irrepressible Cole to become Professor of Obstetrics and Dean of his struggling medical school - about which we shall hear much more in due course.

Let us now return to a consideration of the affairs of Dr. Cooper and two difficult surgical cases operated on by him in 1857: (1) Removal of a Foreign Body from beneath the Heart and (2) a Cesarean Section. Although these were the two most remarkable surgical cases in early California history, and their outcomes successful from the surgical viewpoint, they were followed by unexpected consequences that threatened to extinguish Cooper’s budding career.

Removal of a Foreign Body from beneath the Heart

Cooper described this case as follows: [8][9]

> Mr. B. T. Beal, aged twenty-five, of Springfield, Tuolumne County, California, with some other young men, in a frolicksome mood, resolved to burst an old gun, and accordingly loaded it with about eighteen inches of powder, to which they connected a slow match and then endeavored to seek security by flight. Unfortunately a brisk wind blew up the powder with great rapidity and the gun exploded before they reached far. A slug of iron had been driven into the gun as a temporary breach pin, which bursting out in the explosion struck Mr. Beal in the left side below the armpit, fracturing the sixth rib, entering the chest and lodging, as was afterwards found, beneath the heart upon the vertebral column, just to the right of the descending aorta where it had evidently remained from the period of the injury on January 26th, 1857, until it was removed April 9th, seventy-four days after. In a state of extreme prostration he was brought to the city, having had frequent discharges of several ounces of purulent matter at a time from the chest through the original wound.…
>
> He came to my Infirmary on Mission Street on the 8th of April, and during the night following had alarming symptoms of suffocation, so much so that I entertained most serious apprehensions that he would not live till morning. So urgent had his symptoms become that after his arrival he was constantly in absolute danger of dying from suffocation, so that no time was to be lost, even for him to obtain rest from the fatigues of his journey. Under the greatest disadvantages, therefore, the operation had to be performed; otherwise he must be abandoned to his fate, which a surgeon feels but little inclined to do in case of such a brave patient who is willing to endure any operation however painful or hazardous to save life.

It is appropriate here to point out that removal of an iron foreign body measuring an inch long and three-quarters of an inch thick, lodged in the deepest recess of the chest bounded by heart, spine, aorta and diaphragm, and associated with extensive pleural infection, was one of the most formidable procedures to be successfully undertaken anywhere up to that time. X-rays had not yet been discovered so that localization of the foreign body in the chest was impossible and, as mentioned previously when describing other operations, aseptic surgery was unknown.

The Operation, 9 April 1857

A few details will suffice to depict the setting. Cooper regarded every operation as an opportunity for teaching and customarily invited interested colleagues to attend his operating sessions. On this occasion seventeen observers were present including Beverly Cole, Isaac Rowell and representatives from the State Medical Society, San Francisco Medical Society and, of course, the San Francisco County Medico-Chirurgical Association. The patient understood the ordeal he faced, yet insisted on being given the chance for survival. His condition was so precarious that no anesthetic was administered until the last stages of the tedious search of the left chest cavity when some chloroform was used. In the course of the exploration it was necessary to remove portions of the fifth, sixth and seventh ribs and drain multiple pockets of infection. After the foreign body was eventually discovered by extensive probing with a metal sound, beating of the overlying heart prevented a secure grip upon the elusive object. Finally Cooper succeeded in grasping it with an unusual pair of forceps that some strange intuition had led him to put in his pocket before the case. This incident was later referred to as follows by Levi C. Lane in Cooper's obituary: [10]

> Concerning the operation just mentioned, (Elias Cooper) has often spoken to me - he did this but a few days before his death. In speaking of it, he has frequently said, that, in the selection of his instruments, preparatory to his commencing, he had certain impulses which were most extraordinary, and which would seem supernatural. He said that, after he had selected all the instruments which appeared requisite in the case, another one kept constantly suggesting itself to his mind, which he could see no propriety of taking - still the impression was so strong that he finally slipped it into his pocket; this was a pair of very awkward and ungainly appearing forceps. When, during the operation, after the chest was opened, and after an excessively long and tedious exploration, the foreign body was found, beneath and behind the heart, failing with every other instrument that he had selected to grasp it, he withdrew from his pocket the pair of forceps mentioned, and on trying them, they were exactly suited for extracting the piece of metal.
>
> The boldness of this operation, together with the success attending it, was the keystone to his reputation on this Coast. It placed his name, at once, among the first medical men of this country. The great majority of the cases requiring capital surgical procedure came to him, so that there was opened, at once, for him, a wide-spread field for the employment of that varied store of surgical knowledge which he had been laying up for so many years.

The operation lasted an hour and a half. After a hectic postoperative course, complicated by lingering pleural sepsis and a bronchopleural fistula, the infection subsided, the wound healed and the patient returned to a normal life.

17 July 1857

On this date, the Second Annual Meeting of the San Francisco County Medico-Chirurgical Association was convened, fourteen members being present. The Minutes included two significant items. First, officers for the ensuing year were chosen. Beverly Cole was elected president and Cooper was re-elected Corresponding Secretary.

Second, Cooper brought his recovered patient, B. T. Beal, to the meeting and introduced him to the members of the Association. Some of them had attended his operation and could now hardly recognize him, so improved was his appearance. Dr. Rowell unhesitatingly pronounced Beal's operation to be without parallel in the annals of Surgery and challenged anyone to produce the history of another like it. He said that had the patient died under the knife the attempt to relieve him would have been justifiable because the patient could not have lived many days without an operation, but now was alive and well. Rowell declared that he was proud to have vindicated the operation even when it was expected that death would result. After some further remarks along the same lines, he proposed that Dr. Cooper be requested to prepare a report of the case and present the same to the Medico-Chirurgical Association for publication. The resolution was promptly adopted.

31 July 1857

Buoyed up by the warm reception his account of the Beal case had received, Cooper "donated to the Association the sum of $300 to be offered to competitors throughout the State as a prize for the best Essay based upon statistics and surgical facts showing that the climate of California is favorable to longevity and probably the best in the world for the recovery of patients after receiving severe injuries or undergoing formidable surgical operations." In response to the generous "prize donation" the Association at once went about setting up the necessary committees to administer the fund, advertise the "Prize Essay" and select the winner of the competition.

14 August 1857

At the regular meeting of the Association on this date, ten members were present. Dr. David Wooster, who had arrived in San Francisco the previous year and whose biography has already been briefly sketched, was elected to membership in the Association. Cooper then presented a full report of the case of Mr. Beal suitable for publication as previously requested. Two weeks later, Cooper received the following formal request from the Association: [11]

> San Francisco, Sept. 1st, 1857
> E. S. Cooper, M.D.,
>
> Dear Sir,
> At a meeting of the San Francisco County Medico Chirurgical Association, held on Friday Evening , Aug 21st, 1857, the undersigned were appointed a Committee to publish the case of Mr. Beal, by authority of the Association. For this object we have the honor to request a copy of your Report of said case at your earliest convenience. The Committee undertake the discharge of their duty in the premises with pleasure, the more so, since the successful result of the extraordinary operation upon Mr. Beal must, when fully known, be alike honorable to Surgery, and consoling to Humanity.
>
> Very Respectfully,
>
> M. B. Angle, M.D.,
> J. P. Macauley, M.D.,
> P. J. Reilly, M. D.,
> R. Beverly Cole, M.D.,
> David Wooster, M.D.
> Committee

(Report of an Operation for Removing a Foreign Body from beneath the Heart. See Cooper Pamphlets, Vol. 10)

On the same day that he received the above letter from the Publications Committee, Cooper delivered to it the completed manuscript of the Beal paper entitled: "Report of an operation for removing a foreign body from beneath the heart by E. S. Cooper, A. M., M. D." On 12 September 1857, the Publications Committee submitted the manuscript to Whitton, Towne & Co., a San Francisco Printer, with instructions that the title page should state "Published by the San Francisco County Medico Chirurgical Association as an additional paper to its Transactions for the year 1857." An order was placed with the Printer to print and bind 500 copies of the Report. [12]

However, when the Publications Committee received the bill from the Printer it contained two items:

Printing and Binding 500 copies of the Report $ 30.00

Printing 5500 unbound copies of the Report $ 160.00

The Committee quickly determined that Cooper had ordered and paid for an additional 5500 unbound copies of the Report which, nonetheless, continued to bear the inscription: "Published by the San Francisco County Medico Chirurgical Association, etc. " The obvious conclusion was that Cooper planned personally to distribute thousands of copies of the Report around the country. Whether he realized it or not, the fact that the Report was published by the Association led the Committee to believe that Cooper's plan had the appearance of involving the Association in puffery on a grand scale. Given the prevailing sentiment among the profession against self-advertising, a strong adverse reaction was to be expected. We have commented previously on Cooper's insensitivity on the issue of advertising. Although he had so far been fairly successful in fending off criticism for his practices in this regard, he was about to encounter a devastating backlash on several fronts.

We now enter a period during which the Minutes of the Medico-Chirurgical Association become decidedly irregular. After the meeting of 2 October 1857, which was uneventful, many sections of the Minutes have been "expunged" by drawing a line through the text with revised versions pasted over them, and two pages of Minutes have been eliminated entirely by cutting pages out of the Register. Therefore, the following account of the dispute between the Association and Cooper over his printing 5500 additional copies of the Beal Report is uncertain as to some of the details, but nevertheless generally reliable. [13]

The first move toward clearing up the misunderstanding was made by the Publications Committee. They wrote to Cooper requesting him to provide the Association with a written explanation of his reason for ordering 5500 extra copies of the Report. Unfortunately, no copy of the Committee's letter or of Cooper's response to it can be found.

9 October 1857

A regular meeting of the Association was held on this date. Dr. Cooper did not attend. Eight members were present but the new President of the Association, Beverly Cole, was unaccountably absent. Nor was Dr. Cole present during any of the succeeding meetings that dealt with the Beal Report. After a reading of the minutes and the transaction of some unimportant business, the members got down immediately to a review of the above-mentioned Publications Committee letter, and Cooper's response which they found entirely unsatisfactory. In fact, they considered Cooper's language to be insulting, which led the group to appoint a Special Committee of four members who were charged to write again to the recalcitrant Cooper. Accordingly, on the next day they dispatched the following letter: [14]

> San Francisco, 10 October 1857
> Dr. E. S. Cooper
>
> Dear Sir,
> At a meeting of the San Francisco County Medico Chirurgical Association held Friday evening October 9th, the undersigned were appointed a Committee to whom was referred your Communication without date, a copy of which is herewith enclosed.
>
> The Committee are authorized by the Association to request from you an explanation whether or not you intended in that Communication to offer disrespect and insult to the Association as a body.
>
> Also, whether or not you intended through the Association to offer insult to any member or members thereof, and if so to whom.
>
> Also, whether or not you intended to withdraw the "Prize Donation" from the control of the Association by depositing the same in the Banking House of Davidson and Co. subject only to the order of a part of the Committee appointed by the Association.
>
> The committee are unwilling to believe that any insult or even disrespect was intended to be offered in your Communication, either to the Association as a whole or to any of the officers or members thereof, and therefore hope that you will disclaim if no such construction was intended to be conveyed.
>
> Please answer at your earliest convenience and oblige,
> Yours, etc.,
>
> Drs. J. M. Tewksbury
> J. M. Sharkey
> M. B. Angle
> J. M. Williamson

16 October 1857

A regular meeting of the Association was convened Twelve members including Drs. Cooper and Wooster were present. Cooper explained his position on the ordering of extra copies of the Beal Report (details of his statement unknown). There followed a brisk discussion during which the opinion was expressed that his explanation was unacceptable, whereupon Cooper abruptly rose to leave and, on departing, told the assembled members: "You may go to Hell!"

Deeply offended by Cooper's shocking behavior, there was an

immediate consensus that the Association's response should be prompt and severe. In rapid succession the following resolutions were adopted:

> That Dr. Cooper be expelled from the Association on account of disrespectful, profane and insulting language used toward the Association; that henceforth he is no longer entitled to the rights and privileges of membership thereof; that the Secretary be instructed to inform Dr. E. S. Cooper of his expulsion from this Association
>
> That all references to the $300 for a Prize Essay offered by Dr. Cooper to the Association be expunged from the records of the Association; and that the Secretary be requested to inform the Awarding Committee that the prize donation is withdrawn.
>
> That the communication received from Dr. Cooper preferring charges against Drs. H. H. Toland and Dr. William Hewer (details unknown) be returned to Dr. Cooper by the Secretary.

The signature of Dr. Cooper on the official membership roster of the Association appended to the Constitution was conspicuously crossed out and followed by the word "Expelled."

Official membership roster Medico-Chirurgical Association

With the departure of Cooper, the spark went out of the Medico-Chirurgical Association. At the meeting of 23 October 1857 several of the members got into a pointless wrangle over the accuracy of the Minutes of the previous meeting. The Secretary disputed the assertions of a member who stormed out of the meeting in such a rage at being contradicted as to cause another member to wonder whether he had gone out to "procure his pistols." Members then began to leave one by one until there remained only Dr. Macauley who, in disgust, "dowsed the glim and seized the candles."

Subsequent meetings were also disorganized with various members serving in turn as temporary chairman because President Cole was still in absentia. Resignations were submitted by a few and others simply ceased to attend the meetings so that the average attendance at meetings in November was only four. Toward the end of November Cole returned to chair the meetings which showed flickering signs of life for a few weeks but the Minute Book shows no more entries after 15 January 1858. The Association then entered a phase of suspended animation, its bright flame extinguished by Cooper's callous disregard for the ethical concerns of the members who had no recourse but to expel him for his intemperate behavior.

Among Cooper's papers we find evidence in a set of Minutes dated 31 July 1858 that the Association was revived, probably by his own efforts. The Minutes were written by Beverly Cole and stated that Elias Cooper "was in the chair." We know that the Association continued to be active, sponsored chiefly by Cooper and his friends, for many years thereafter. We shall refer later to the auspices under which the Association resumed regular meetings.

It is difficult to account for Cooper's self-destructive performance with respect to ordering 5500 extra copies of the Beal Report. His quixotic confrontation with highly supportive colleagues and friends in the Medico-Chirurgical Association was so unnecessary and counterproductive that one is inclined to wonder whether his chronic and progressive neurologic disorder contributed at that time to transient emotional instability under stress. The instability thesis is somewhat borne out by the following letter, found in draft form among Cooper's papers and dated a year after the incident. It was presumably intended for the Association: [15]

> San Francisco
> Cal. 2 November 1858
>
> Honorable Sirs,
> I acknowledge the justice of your censure. If in future an opportunity should ever occur which enables me to secure forgetfulness of what occurred at a period of worse than insanity, in view of my own interest and the character of that noble profession I so much love and admire, that shall be accomplished.
>
> Yours respectfully,
> E. S. Cooper

Cesarean Section

In 1857 the operation of cesarean section (that is, delivery of a baby through an abdominal incision) was generally looked upon as a procedure of last resort to be undertaken rarely and only when other measures were inappropriate or had failed. Although many such operations were performed in the major European centers, especially Paris, the maternal and fetal death rates were extremely high. Most American doctors considered the cesarean to be unduly hazardous and seldom, if ever, justified. Thus there were few reports of maternal survival after cesarean section in the American literature, and no case had been reported from the Far West. However, Cooper let it be known in conversation with Dr. Wooster and others that while in practice in Peoria he had performed a cesarean with success to both mother and child. The mother was a German woman who was still living in Illinois.[16][17] He was soon to have occasion to perform the procedure again in what proved to be the first successful cesarean section on the Pacific Coast. The circumstances that led him to the fateful decision to operate were these.

Dr. Martha Thurston, graduate of the New England Female Medical College in Boston, and certainly one of the earliest women to practice in San Francisco, had frequently consulted Cooper in whom she had great confidence. In December 1856 she sought has advice about a particularly delicate problem. The patient was Mrs. Mary Hodges, a thirty-five year-old school teacher, whose recent marriage had not been consummated because her vaginal orifice was firmly occluded except for an opening "the size of a quill." With Dr. Thurston as his assistant, Cooper operated on Mrs. Hodges and relieved the obstruction by removing considerable tissue "of ligamentous hardness," which was followed by two weeks of packing for dilatation. Cooper warned Mrs. Hodges that she would be uncomfortable after the operation. Nevertheless, during the early postoperative period a friend invited her and her husband to a party. which the poor woman attended and, so that no one would know or suspect that she had had an operation, danced the whole night until she fainted away in the arms of her husband. In his notes Cooper describes the operative findings and procedure in such a manner as to indicate that residual thickening or fibrosis in Mrs. Hodges' vaginal wall might later cause obstruction to normal obstetrical delivery. [18]

In view of the possibility of persistent narrowing of the vaginal canal, Dr. Thurston advised Mrs. Hodges against having children. It was therefore with some apprehension that Drs. Thurston and Cooper learned a few months after the operation that Mrs. Hodges was pregnant. Following a period of despondency and desire to have an abortion, Mrs. Hodges was reconciled to having a baby and returned to see Dr. Cooper who advised that she might have difficulty delivering a full-term infant and should have her delivery at seven months when the baby was small. After discussing the matter with her husband, who was fearful that early delivery might harm the baby, Mrs. Hodges returned to say that she was determined that the pregnancy should go to full term, and that Dr. Cooper should attend her at her confinement - there being no one else whom she could trust.

Mrs. Catherine Roper, Matron at Dr. Cooper's Pacific Clinical Infirmary, recalled the following exchanges which then took place between the Doctor and Mrs. Hodges:[19]

> [Mrs. Hodges] was but just well from the first operation[for vaginal occlusion], when she came[to Dr. Cooper] and said that she was pregnant. She said she knew she could not be delivered without an important operation. She asked the Doctor if he would attend her at her confinement. The Doctor told her that that was impossible. He said: "Mrs. Hodges, the condition of my health is such - I have a paralysis in my head and face - and if I lose a night's rest, I have to keep my bed for some time, and cannot attend to my patients in the institution." He said: "I would not be justified in taking that kind of practice." She appeared to be even much distressed when the Doctor told her this. She said she had so much confidence in the Doctor's skill that she did not know what she would do if he did not take her. She said that there was not a man on this coast that she had the confidence, as a medical man and a surgeon, that she had in him. The Doctor said: "There are many skillful accoucheurs in this city," and the Doctor mentioned the names of many persons - half a dozen or more - whom he could and would recommend. She did not say whether she would take one of them or not. She seemed to be very much discouraged. She said she would tell her husband what the Doctor had said. The Doctor told her again that he could not possibly attend her. He said that if he lost a night's rest there was a spasm came over him. He said that he was afraid of the effects of his disease, if he did not take care of himself. She then said: "Certainly, I would not desire you under such circumstances." She said: "I will tell my husband what you have said, Dr." The next time I saw her, she said that her husband was very much disappointed… She said that she had told her husband, and that he was very much disappointed, and she said she wanted to know if the Doctor would promise not to leave the city, if she would let him know when she was taken with labor. The Doctor promised her that he would[not leave]. "Let me understand you rightly," she said - I give you her exact language now - "Let me understand you rightly; if it is necessary that an operation should be performed, you will come and perform it?" "I will," he says….
>
> She said - and I give you her language - "I am as confident that there will have to be an operation performed, before I am delivered, as I am that I have got to die before I go to heaven" - that's exactly what she said….
>
> She came again[to the Infirmary], and I had an interview with the Doctor, and he told her that he would advise her to have her labor brought on in seven months. He thought that a small child could be born alive, but that a large child could not. I told her she had better take the Doctor's advice, and have labor in seven months. She said that her husband was so anxious for the child that she did not know what to do - she would consult him. She came back again and said that her husband was anxious for her to go the full time[full term] and have the child. She said she was afraid, but she said that she felt that she was almost willing to be sacrificed if the child could be born alive….
>
> [She came again] … about a week before the day on which I heard that she was[in labor] … "Well," she said, "if I could only have had you Dr. Cooper, I do believe I should be reconciled - I think I dream of it. It appears to me now, that if you would only say that you would come to me when I am taken in labor I would be reconciled and delivered." The Doctor told her that it was impossible for him to lose a night's rest. She said: "I know my age is against me, and that I must expect considerable suffering." She said, too: "Maybe you would not lose a night's rest." The Doctor said: "Mrs. Hodges, I cannot take your case. I have constantly to send such cases as yours to others." She seemed to me as though determined to make the Doctor take the case. The Doctor repeatedly told her that there were plenty of very skillful medical men, who would come and do as well for her, as an accoucheur, as he would….
>
> When the Doctor said that, she said: "I doubt it." Finally she said: "Well, then, Doctor, this is the last time I expect to see you before[I go into labor]. Now, you promise me here, before Mrs. Roper, that you will not leave town, till you hear from me." Then she turned to me and said: "You will keep reminding the Doctor of his promise to me, not to leave the city, wont you, Mrs. Roper?" I said: "Don't be alarmed, Mrs. Hodges; I will remind the Doctor every morning." I knew that as he had so many patients and so much on his mind, the promise might slip, if it was not recalled. She said that she would depend upon me to keep fresh the Doctor's memory. The Doctor recommended a number of physicians - Dr. Rowell, Dr. Williamson, Dr. Sheldon and some others, whose names I do not now recollect.

Dr. Cooper next heard from Mrs. Hodges early on the morning of 8 November 1857. Now at full term, she informed him by messenger that she was in labor and wished to see him. When he arrived he found that she had not engaged an accoucheur as he had advised and that she wished him to take the responsibility for her delivery. Whatever Cooper's thoughts might have been at this turn of events, he agreed to be of assistance. As he had previously made clear, he would not manage her labor. Nevertheless, he set out to find someone who would attend upon her. According to his notes, he made the following arrangement:[20]

> I then called upon Dr. Wooster, a medical man of more than

> ordinary medical reading, but a comparative stranger with a family and whom I was endeavoring to introduce into family practice. I requested him to take charge of the case at the same time giving him a history of the lady's pelvic examination and previous operation and expressed my apprehensions in regard to the possibility of delivery in the natural way… I advised him to wait patiently and let nature do her best seeing that the obstruction in the soft parts might yield to long continued pressure but at the same time stated by way of encouragement to him, as he appeared to falter slightly in view of the impending difficulties, that if it came to extreme measures not to fear the responsibility as I should be unwilling to place it upon him in that case and to send for me at any time when he gave up all hope of a natural delivery. I promised to call occasionally in the meantime which I did.

On the evening of November the 10th at 7, while Dr Cooper was having supper in the dining room at the Pacific Clinical Infirmary, Mr. Hodges came with a note from Dr. Wooster desiring Dr. Cooper to come in great haste, and requesting him to bring instruments as Mrs. Hodges was rapidly sinking. The Doctor left immediately with Mr. Hodges without finishing his meal.

On arrival at the Hodges' residence Cooper went at once to the small upstairs bedroom and examined the patient. She had then been in labor for sixty hours and now lay moaning, and semiconscious from intermittent inhalation of chloroform. Dr. Wooster reported that he had given her the maximum amount of ergot to stimulate uterine contractions. In spite of the ergot and prolonged labor, the head was tightly lodged at the vaginal level (in a rare occipito-posterior position), the baby was dead and the patient was exhausted. In this situation, the strongly-favored obstetrical approach would be to deliver the baby per vaginam by forceps. It might be necessary also to reduce the size of the head by opening the cranium with a hook-like instrument known as a "crotchet" and removing the cranial contents. Another possible option was to dismember the infant. When Cooper decided not to use these conventional measures but to resort to the drastic cesarean section instead, his judgement and motives were questioned and he was sued for malpractice by Mr. and Mrs. Hodges. In his personal notes on the case, he cited the following exceptional circumstances as justification for his decision to perform the controversial operation:[21]

> Owing to the almost unparalleled rigidity of the vagina, I entertained most serious apprehensions that neither the forceps nor the crotchet could be used and was confirmed in that opinion on my arrival.
>
> A portion of the scalp the diameter of nearly a dollar could be distinctly felt but it was utterly impossible to introduce the end of the finger between it and the walls of the vagina and no one could possibly form any opinion of the presentation. All parts of the vagina were equally unyielding so that it was plain to perceive that neither the forceps nor the crotchet could be used without first cutting through the walls of the vagina both posteriorly and anteriorly for the space of from one and a half to three inches and with very uncertain prospect of success (but with very real prospect of serious consequences such as producing a fistula between bladder or rectum and the vagina). To this I preferred the caesarean section and this operation appeared to become the more imperatively demanded since we had diagnosticated twins and Dr. Wooster assured me that a few minutes previously to my arrival he had distinctly heard the pulsation of the fetal heart.
>
> I was (also) led to mistake the case for one of twins in consequence of Dr. Wooster permitting the urine to accumulate to the amount of more than a gallon while he assured me that it had been drawn a few moments prior to my arrival. The bladder had attained almost the hardness of a child and the major portion of the child being high up in the abdomen a deep depression was formed between the prominence formed by the bladder below and the child above.
>
> I think we might possibly have tried the crotchet but for this mistake. We might have done so to have said that we tried the crotchet first as a matter of self protection against the accusations of a combination of medical men in this city who with a zeal and industry worthy of better causes had pursued and thrown obstacles in my professional path ever since my arrival in this city.
>
> But under the impression that there were twins and one of these alive a moment before and possibly then in a state of suspended animation, I forget to think of the means of protecting my own reputation in view of my duty to the patient.
>
> I considered it utterly impossible to dissect one child and bring it away without cutting or lacerating the woman and of course a second (child) would be (injured) much worse.
>
> Dr. Wooster opposed the caesarian section at first while he admitted the impossibility of extracting two children through that passage and have the patient survive and said in the most emphatic manner that it would be better to let the woman die than for us to perform the caesarian section with the (small) chance of recovery and run the risks of censure should she die, referring at the same time to the combination of malignant medical men who he said "are always like a pack of bloodhounds on your track," or words to that effect.
>
> He appeared alarmed beyond anything I had met with in view of the immense responsibility I had been the unintentional means of throwing upon him and from that moment I conceived a feeling of contempt for him which never could have been removed even had he remained my friend and an honorable man as I supposed him then to be.
>
> Our consultation was hastily dissolved when I assured him that if that was the only reason why we should not operate I was going to proceed at once and thereby give this woman what I considered the only remaining chance of recovery and take all responsibility let the case result as it may.
>
> Whereupon he agreed to the operation then and said, "I will defend it from the obloquy of the curious and the reprobation of the ignorant to the best of my poor ability."

The Operation, 10 November 1857

Cooper's decision to operate without delay was ultimately based on the diagnosis of twins which in turn rested on two critical observations. Although he and Wooster agreed that the baby in the birth canal was dead, Wooster was sure that he had heard the beating of a second fetal heart only moment's before Cooper's arrival. Furthermore, the patient's abdomen was markedly distended, far beyond that consistent with a single pregnancy, and Wooster assured him that he had emptied the bladder with a catheter only shortly before. At the time Cooper said, "If there are not twins, I don't know how to account for the shape of the abdomen." If twins were indeed present, the life of the second one could only be saved by prompt action such as an experienced and confident surgeon could take.[22][23][24][25]

The setting for the operation was stark. It was 10 P.M. and several candles shed an uncertain light on the bed where lay the restless and semi-stuperous patient. Preparation by Cooper and Wooster consisted of taking off their coats, rolling up their sleeves and laying out a few instruments from the small case Cooper always carried with him. The only other person present was Mrs. Kriemer, the grocer's wife who had ministered to Mrs. Hodges since her labor began. She was so aghast at the thought of an operation that she agreed to stay only if she might sit in a corner of the room and shut her eyes.

The surgeons faced each other across the bed for a few tense moments awaiting the deep narcosis of chloroform and then, said Wooster, "We operated, he using the knife." At the first stroke of the blade in making the incision a stream of fluid under pressure shot out eight or ten feet across the room striking Cooper in the face, blinding him, and forcing him to lay down the knife to wipe his eyes. Said he:

> A considerable amount of fluid spouted out striking me about the mouth and nostrils imparting at once the taste and smell of urine. This surprised me very much and I hastened to finish the incision through the abdominal wall which being done, the bladder was exposed to view distended to its utmost capacity. Dr. Wooster now confessed having deceived me in regard to the condition of the bladder, said he had twice tried to introduce the catheter but could not and was ashamed to acknowledge to me that he failed in so simple an operation. I therefore concluded there must be some slight rent at that point in the bladder through which urine that I tasted had passed and might still escape slowly into the abdominal cavity so without losing any time I punctured the bladder at the usual point above the pubis and discharged the major portion of its contents by inclining its fundus forward over the loins after which the uterus was incised and the child extracted.

There was only one baby, weighing a hefty eleven and a half pounds, its head and face badly misshapen from being tightly impacted in the lower strait. The patient's unduly enlarged abdomen was caused by a bladder distended with several quarts of urine. So much for the diagnosis of twins. During the operation hemorrhage was profuse and the patient stopped breathing repeatedly, requiring heroic feats of hemostasis and resuscitation, problems Cooper managed with cool efficiency - and also requiring better light provided by the horrified Mrs. Kriemer who was routed from her corner to hold a candle over the bloody field. Innovative as always, Cooper defied contemporary obstetrical authorities by closing the uterus with sutures to control bleeding, citing as his reason the high incidence of post-cesarean death from hemorrhage following non-suture of the uterus.

Postoperative Recovery

Cooper summarized the postoperative course in a few words:

> The patient remained feeble for many days but finally recovered rapidly and in three months was able to walk with ease from her residence north of Greenwich to Pacific Clinical Infirmary on Mission near 3rd, a distance of near two miles which she did of mornings occasionally before nine o'clock when she was engaged in teaching school. The puncture in the bladder as might be expected healed at once and gave not the least inconvenience.

During the postoperative period, Wooster and Cooper followed Mrs. Hodges together. Wooster was particularly attentive, taking great pride in her progress. Never once did Cooper bring up with him the subject of the misdiagnosis of twins and the reasons for it. On the contrary, he encouraged the continuance of the cordial relations they had enjoyed prior to the operation. During the several months of their joint attendance on the convalescing Mrs. Hodges they were on the best of terms. It was Wooster's ambition to found a medical journal and Cooper agreed to finance the venture.

The cesarean operation, being the first successful procedure of its kind in the city, was much discussed among the local profession. Although some were critical, the early reaction seemed generally favorable. Wooster relished having participated in the case and during the months of November and December 1857 stated frequently to physicians that "I and Dr. Cooper performed the operation;" that "it was advisable and necessary to perform it and that it was successful and a great triumph of surgery," or words to that effect.

Overview

Cooper could look back on the events of 1857 with mixed emotions. The State Medical Society had weathered its Second Annual Session and appeared to be gaining in acceptance, but Beverly Cole's outright denunciation of the surgical management of James King of William created the first open rift in the membership and thereafter the Society became increasingly an arena for factional conflict.

Cooper's behavior in the dispute with the Medico-Chirurgical Association over publication of his case report on removal of a foreign body from beneath the heart was so arrogant and out of character as to raise the question of his being emotionally disturbed at the time. His summary expulsion from the Association was a staggering blow to his prestige and to the collegial spirit he sought to promote. He appears, however, to have realized his error and taken prompt steps toward reconciliation.

With respect to the cesarean section, we shall soon learn how Cooper's failure to report fully on the circumstances leading to performance of the procedure enabled "a medical Judas and a conspiratorial clique" to put his motives and veracity on trial before the State Medical Society in February 1858, and in a court of law later that year.

With regard to the question of a "conspiratorial clique," Cooper was convinced that such a group existed and was plotting his downfall. The following are excerpts from a rambling, belligerent Circular on this subject which he probably composed in late 1857 but, as far as we

know, never published. By reproducing portions of the Circular here, we can let Cooper identify some of his adversaries and convey his low opinion of them in his own words.

To the Medical Profession of California

It has doubtless been noticed by many members of the profession of the State that I (previously) commenced an exposition of the ignorance, perfidiousness and villainy of some of the medical men of San Francisco. This step may by those not knowing the circumstances be condemned as a suicidal act seeing that whatever detracts from the interests of the medical profession injures more or less every member of the same. This I know but, while I am in professional honor bound to respect and treat respectfully all worthy medical men, I am not compelled by any professional obligations to keep quiet while a set of medico-political wire pullers attempt to trample under foot all my rights as a medical man - rights which I will stand upon and defend regardless of the smiles or frowns of any person or combination of persons (and) without reference to the position or influence which an early residence here and a keen extra professional tact associated with an uncommonly fine personal address may have given them.

I state without fear of successful contradiction that, while there are some most worthy exceptions, for the most part the older medical men of San Francisco are unexampled as prominent medical men in a city of this size for their want of skill in practice, want of industry in the cultivation of medicine, want of moral principles and want of harmony among each other, and I wish to avow at once and forever my disapprobation of the course and example of these men. It is they who have succored quacks on the Pacific Coast by the discredit into which they have sunk the regular profession by their unskillful practice. I defy the world to produce more frightful examples of want of skill than has been displayed among regular practitioners and the would-be leaders of the regular profession of San Francisco both in our public hospitals and in private practice. . . .

Further, these men derogate from the good name of the regular profession of San Francisco by keeping up constant broils among the members and, as it has been one of the chief pleasures of my professional life to make every effort in my power to promote unanimity of feeling and concurrence of action among medical men, so I consider it a duty to expose those who delight in and do all in their power to sustain discord and strife among the same.

Again, such is the ingenuity and audacity with which some of these men have asserted positive falsehoods to calumniate my professional character that I consider it absolutely a duty to myself to use all proper efforts to disarm them of their weapons by which they could injure me. Because it mattered not to what extent my reputation had suffered by their statements or however false they were, all my kindliest efforts to obtain explanations only met with the rebuke of additional insult or silent contempt. I have therefore no apology to make to the profession of the state for the step taken, however extraordinary it may appear, because I honestly believe that nothing more has been done than making a justifiable effort to defend myself against one of the most villainous assaults upon professional character ever attempted to be perpetrated by any combination of medical men, and this combination is known as the "Pathological Clique."

Oh surgery, what cruel but fatal destiny of which the world knows little is wrapped in thy magic power! Oh fatal science, how many murders are committed in thy name! Oh shade of Hippocrates, what ignorance curses thy noble art and thy noble science in the middle of the 19th century! Look at this lengthened picture, you drunken libertines who lead the Pathological Clique!

Now it may be thought that these allusions which cannot be mistaken in their application are rather harsh. Possibly that may be the case but only think of the contemptible course of the individual (Dr. H. M. Gray) who complelled me to institute (my own self-defence) by his gaining access to a surgical operation through the means of bland smiles and assumptions of friendship and who afterwards under a pompous affectation of superiority would try to hold himself above an explanation, however false his statements in regard to the matter. For many months as is well known I heard his abuse without an unfriendly reply but when circumstances compel me I will speak out regardless of consequences…

You are the men who abused my friends and myself beyond measure for (our action in) originating and carrying through the call for a convention to organize a State Medical Society. You are the men who cannot comprehend a higher aim in associations of medical men than that of gaining strength to discuss more forcibly large measures of brandy and water. You are the men who treated with contempt the gentlemanly members of the Sacramento Medical Society because, for sooth, they did not ask you if they might concur in calling a convention of medical men to meet at that place. You are the men whose unblushing impudence made you declare but too publicly for your own good that you would control that convention or break it up. . . .

(Who are members of this Pathological Clique? They are Drs. Gray, Stout and Hammond.) What great injury have I done Dr. Gray that justified him in calling me a d-d son of a b- because I wrote him a friendly note demanding explanation in regard to the most false and malicious statements made by him touching on my professional character? I would ask what gives Dr. Stout the privilege of stating almost in so many words that I was unfit for an inferior office in the State Medical Society? (Why did that surgical imbecile, Dr. Hammond, deny me the right to examine James King?). . . .

The Reason. We have at last ascertained the reason why the Pathological Clique of medical men are making such herculean efforts to put Dr. Cooper down. (Whereas) these men spend all their leisure time in drunkeness and vice, Dr. Cooper is a normal man and a most devoted student. He had not been in San Francisco two weeks before commencing to lecture on Anatomy and Surgery and has from the periodof his arrival exerted his utmost energies to improve and elevate the medical profession and, in spite of the efforts of the Clique, ranks among his medical friends as all the more moral, studious and learned.

We would advise all medical men of this coast to call at their convenience at Doctor Cooper's Eye Infirmary. They will find his Institution between 2nd and 3rd on Mission Street (in San Francisco) and on visiting it they can judge for themselves whether he is not perfectly posted in Medicine and Surgery.

During the previous three years the uncompromising and nettlesome Cooper had vilified and by his aggressive tactics offended, some of the most influential members of the self-ordained elite of the San Francisco medical profession whom he denounced as, with intentional double entendre, the "Pathological Clique." Cooper scornfully challenged their principles and their competence. Hence they considered it their duty to bring him to book, which they now undertook in various devious ways to do.

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Chapter 13. Conspiracy and Betrayal

A New Medical Journal

With respect to medical literature, the most significant event in California at the beginning of 1858 was the publication of Vol. 1, No. 1 of the monthly Pacific Medical and Surgical Journal edited by Drs. John Trask and David Wooster. At the time of its publication the Journal was the only medical periodical in California. Before this, only two other medical journals had been published in the State and both were short-lived. The first of these was the San Francisco Medical Journal of which only one issue (Vol. 1, No. 1 for January 1856) was published. We previously noted that the Proceedings of the San Francisco County Medico-Chirurgical Association for October and November 1855 were included in that issue. The second journal to be published in the state was the quarterly California State Journal of Medicine, born during the Convention of the State Medical Society and designated the official organ of the Society with Dr. John F. Morse as the editor. This excellent journal lasted just ten months. With publication in April 1857 of its fourth and last number, it expired for lack of sufficient paid subscriptions.[1][2][3]

From 1858 to 1860, except for the sporadic publication of the provincial Marysville Medical and Surgical Reporter, the Pacific Medical and Surgical Journal was the sole local medium for the publishing of scientific papers and editorial commentary on medical affairs. This virtual monopoly on medical communications by the PMSJ could, in partisan hands, be used with devastating effect. However, such thoughts never occurred to Cooper when the first issue of the journal appeared in January 1858.

As already mentioned, while attending to Mrs. Hodges during the final months of 1857 Cooper discussed the founding of a medical journal with Wooster and agreed to provide start-up funds, which presumably he did. Thus It was late in 1857 that arrangements for publishing the Journal were completed and the make-up of the January issue was decided. The January number included an article by Toland "On the reproduction of bones" and an article on a similar subject by Cooper entitled: "On exsection of bones - Reproduction of parts, etc."[4][5]

The January issue also included, in the section devoted to editorial comment and referred to as "Editors' Table," the following item:[6]

> Surgery in San Francisco. Dr. E. S. Cooper, of this city has recently ligated the primitive carotid artery in two cases, the external iliac in one, the axillary in one, removed a large fibro-cartilaginous tumour from the uterus; made the Caesarean section in one; exsected parts of three ribs and removed a foreign body from beneath the heart; exsected the sternal extremity of the clavicle and a portion of the summit of the sternum; together with the exsection of nearly all the joints, in different cases, all successfully.
>
> This embraces a list of formidable operations, which, being attended with favorable results, are worthy of note. The uniform success in operation of such magnitude, must, in part, be attributed to the effects of our climate, which, for the recovery of patients after receiving serious injuries, is, at least, unsurpassed in any part of the world. . .

Singling out Cooper, in the first issue of the Journal, for a laudatory editorial that listed his operations and characterized them as "formidable" and "worthy of note" was bound to strike the uncharitable reader as bordering on puffery. It might even raise the suspicion of collusion between the editor and Cooper, which indeed there was, if we are to believe the later claim of Wooster that, except for the last sentence, Cooper himself wrote the above two paragraphs and submitted them to Wooster for publication.[7]

The purpose of citing the above editorial is to show: first, that during the preparation of the first issue of the Pacific Medical and Surgical Journal in December 1857, Cooper was on good terms with Wooster who was presumably obligated to him at the time for providing financial backing for the Journal; and, second, that Cooper continued to be insatiable in his desire to publicize his practice.

Betrayal by Wooster

In view of his good relations with Wooster during the recovery of Mrs. Hodges and Dr. Wooster's friendly attitude as shown by his publication of the above editorial, Cooper was shocked to receive the following letter dated 23 January 1858 from the editors of the Journal:[8]

> San Francisco
> January 23, 1858
> Dr. E. S. Cooper
>
> Dear Sir,
> We would respectfully invite your attention to an article which appeared in the San Francisco Daily Times, of the 22nd of January. If you wish to avail yourself of the pages of the Pacific Medical and Surgical Journal for the publication of your cases, we shall require you to free yourself of complicity in that species of Quackery. We shall await your answer till Monday the 25th of January, 8 o'clock, P. M.
>
> Very respectfully, etc.,
> John B. Trask and David Wooster,
> Editors

The pompous editors gave Cooper just two days to respond to their ultimatum. He immediately denied all responsibility for publication of the article in the Daily Times and, on the following day (24 January), submitted the issue for adjudication to the recently organized Pacific Medical and Surgical Association of which both he and Wooster were members. Cooper was promptly acquitted of "complicity in quackery" by a unanimous vote of the Association.[9]

Furthermore, on the 28th of January Cooper obtained the following affidavit from H. DeGroot, Editor of the San Francisco Daily Times, and submitted it to Trask and Wooster:[10]

> I am Editor of the "San Francisco Times," and wrote the article in regard to Dr. Cooper's operations on the ankle joint, which appeared in that paper on the 22d of January, unsolicited by the Doctor or anyone else. I had frequently seen the patient previously,

> and being convinced that the case was a great triumph in surgery, voluntarily recorded it as such. Dr. Cooper requested me, a few days afterwards, not to publish anything more of the kind.
>
> Subscribed and sworn to before me this 28th day of January, A. D. 1858
>
> Wm. L. Higgins,
> Notary Public

Keep in mind that the newspapers of California frequently published reports of medical cases, with and without the encouragement of the physician involved, and were fully as likely to pillory the doctor as to praise him. Under the circumstances, then, it seemed to Cooper that by the end of January he had convincingly refuted the charge of complicity with the editor of the Daily Times in "puffing" a case of ankle surgery - a relatively unimpressive operation by Cooper's standards. He was, however, particularly troubled and mystified by the apparent turnabout in Wooster's attitude toward him. Had not Wooster on the night of December thirteenth, only six weeks previously, summoned him urgently to the bedside of his own child who was near suffocation from respiratory infection and laryngeal edema and might require tracheostomy? Did not Wooster say then that Cooper was the most skillful surgeon on the Pacific Coast? And were not Wooster and his wife supremely grateful that both Cooper and Dr. Rowell came to the Wooster home and stayed until it was determined that tracheostomy was unnecessary?[11]

Although Trask was the senior editor of the Journal, he was hardly known to Cooper who therefore spoke personally with Wooster about the Daily Times episode and confirmed that he, not Trask, was behind the peremptory charge of puffery. But it was not until he received the February 1858 issue of the Journal that Cooper was fully convinced that Wooster had betrayed his trust in their friendship and revoked their understanding with respect to the financing of the Journal. The lead original article in the February issue was the report by Cooper of a rare and hazardous operation to remove an extensive osteosarcoma involving the clavicle, sternum and adjacent musculature, and also adherent to the innominate vein in the mediastinum. The operation was witnessed by a numerous assemblage of observers including Drs. Isaac Rowell, Washington Ayer and others. The procedure was done on 3 December 1857, the patient did well and Cooper submitted the manuscript to Wooster in mid-January 1858 for publication. It was the last paper ever published by Cooper in the Journal he had helped to found. The type for the osteosarcoma article had already been set up by the printer before Wooster's decision to anathematize Cooper, otherwise Wooster would have prevented its publication, as he later declared.[12]

There were four other items in the February issue of the Journal with special implications for Cooper. Two of these items were articles by H. H. Toland , one reporting a right thyroid lobectomy for goiter and the other a resection of the elbow joint for infected gunshot wound. Two papers by Toland in the same issue suggested to Cooper's suspicious mind that Toland had replaced him as financial backer of the Journal, a not unlikely possibility.

The third item was the following threatening editorial: [13]

> With regret, not on our own, but on his account, we are compelled to announce that no more of Dr. E. S. Cooper's communications, will appear in this Journal. We have long been on terms of friendship with him, have repeatedly defended him, against even just censure, in reference to his allowing himself to be puffed to repletion in the newpapers. On 22 January 1858 an article appeared in one of the dailies of this city, purporting to be editorial, redolent with the most noisome flattery, such as no wise man could tolerate to be said concerning himself without disgust. It was not the matter so much as the manner and the medium (both notoriously unprofessional) and the author. We asked Dr. C. to deny his complicity in its publication, or allow us to forego his literary aid in future. He called and requested us not to publish the communication which appears in this number under his signature (the "Case of osteo-sarcomatous affection, etc."). It had already been struck off, and we could not comply with his request. We do not believe he intended to injure the Journal, but still, it would not have been a difficult matter for him, to have ignored the fulsome quackish article to which we have alluded. (The curious will find it in the Daily Times of the 22nd of January.)
>
> We have not the least personal feeling in this matter, and if the profession which we desire faithfully to represent, will hereafter accept his apologies, the Journal will again receive his contributions.

The above editorial appeared in the Journal after Wooster had already received the affidavit from the editor of the Daily Times exonerating Cooper; and after the Pacific Medical and Surgical Association had unanimously cleared him of collusion in the affair. Bitter thoughts crowded Cooper's mind and led to but one conclusion: Wooster - his erstwhile friend - had become an agent of that clique of malignant medical men who were always "like a pack of bloodhounds on his track;" and, furthermore, Wooster was now the hireling of a new financial backer of the Journal, H. H. Toland.…

Finally, the last item in the February issue of the Journal with sinister connotations for Cooper was an editorial on the subject of professional ethics. This sanctimonious piece is, in the light of later developments, highly suggestive that Trask and Wooster, the editors, had both joined the cabal of San Francisco physicians who were conspiring to attack Cooper during the forthcoming meeting of the State Medical Society and expel him from the organization. The following is an excerpt from the editorial in question. [14]

> The Faculty of the State will not forget that on February 10th, 1858, the State Medical Society is to meet in this city. It is most desirable that high ground be taken, in reference to professional ethics. No man should be admitted to any sect, club or circle of society, who will not conform to the usages thereof. It is correct enough, abstractly, for one to read a newspaper, but exceedingly impolite for one to read a newspaper in church during service, and the church officers would lead such an ill-bred man out by the collar, and would serve him right to kick him out of the portico of the temple. So in our venerable circle of society, we have a code as old as Hippocrates, and everyone who comes into our order swears tacitly to conform to immemorial usage… If it were possible for a low blackguard to be at the same time an excellent scholar, and a skilful physician or surgeon, we would not, because of the qualities of his head, ignore the unpardonable vices of his heart, and admit him to the intimacy and equality of our social life. We are all liable, to commit some discourtesy which we shall have to regret, and which our brethren are ever ready, like true gentlemen to forget and forgive; but those who wantonly, and defiantly, persist in notorious professional impropriety, without manifesting either regret, or a disposition to amend, should be cut off from all intercourse with that profession whose dignity they insult, and whose honor they would sully by their pen, their words and their daily actions.

The accusatory tone of the above editorial leaves no doubt that its author (surely Wooster) is censuring the unethical behavior of some specific member of the State Society. Cooper had no difficulty in recognizing that he was himself the "low blackguard" referred to in the editorial malediction.

As we shall soon see, the defection of Wooster, the hostile editorial policy of the Journal, and the harsh indictment of Cooper for unethical conduct by the editors of the Journal were the carefully orchestrated prelude to a concerted attack upon him at the impending meeting of the California State Medical Society. Therefore, let us now turn our attention to an account of that meeting.[15]

Third Annual Session of the Medical Society of the State of California San Francisco, 10-13 February 1858

Before discussing the events of the third annual meeting of the State Medical Society we should again take note of the practice of early California medical societies to omit reference in their minutes to controversial matters. Although the 1858 session was the stormiest in the Society's history, the official minutes of the session provide hardly a clue to the dissension involving Cooper that erupted during the meeting. The chief source of information on this subject is contemporary newspaper articles in the San Francisco Daily Evening Bulletin.[16] Enlightening references to the 1858 session are also found in the transcript of Cooper's trial for malpractice in the cesarean case to which we have already referred.[17]

The first and second annual sessions of the State Society met in Sacramento, which was neutral ground as far as Cooper was concerned. On the other hand, the holding of the third session of the Society in San Francisco made it convenient for the physicians of that city to attend and Cooper had long feared that, under such circumstances, his enemies would turn out in force. He also suspected that they would seek election as officers of the Society in order to gain control over its proceedings.

Day 1. Wednesday,10 February

President Henry Gibbons called the third session of the Society to order at 11:30 A. M. in the chamber of the U.S. District Court at the Merchants Exchange in downtown San Francisco. No official roster of attendees is available, but a count of members named in the minutes indicates that about sixty physicians were present during the session.

The first item of business was the report of the Committee of Arrangements which, according to the Society's constitution, had the following responsibilities:

> The Committee on Arrangements shall, if no sufficient reason prevent, be mainly composed of members residing in the place at which the Society is to hold its next annual meeting, and shall be required to provide suitable accommodations for the meeting, to report on the credentials of membership, and to receive and announce all voluntary communications made to the Society.

All the members of the Committee on Arrangements were from San Francisco and its membership included Dr. H. M. Gray. As soon as the Committee's report (of which we have no copy) was read, Dr. Gray moved that the report be referred to the Society's Board of Censors. Whereupon, according to the Daily Bulletin:

> A bitter debate immediately occurred. Some of the delegates deplored that private and personal difficulties in the profession of this city, should so soon be lugged in to distract and disturb the harmony of the Convention. A sort of guerrilla warfare, consisting of stray shots from various parts of the room, took place for an hour or two and finally, after considerable trouble and disorder, discussions of the constitution and making allusions and innuendoes, the Arrangements Committee's report was referred to the Censors.

Unfortunately, we know nothing of the subject of the bitter debate, referred to above, that disturbed the harmony of the Society for an hour or two after introduction of the Arrangements Committee's report. We can, however, reasonably deduce that the heated exchange was precipitated by an attack by Dr. H. M. Gray on the credentials of Dr. Cooper. Future events tend to support this conclusion.

There is no mention of this episode in the minutes of the Society which state simply that, after a brief recess, the Board of Censors reported their approval of all delegates and members proposed by the Arrangements Committee. In an unprecedented action, the Censors also granted delegate status to three members of the San Francisco City and County Hospital Staff, a status restricted by the Society's constitution to members of "permanently organized local medical societies." The three new delegates thus admitted to voting membership in the State Society were Drs. J. M. McNulty, William Hammond and Charles Bertody - all of whom Cooper considered to be ill-disposed toward him.

The next order of business was the election of officers of the Society for the ensuing year. In accordance with the Constitution, the President and other newly-elected officers take office immediately after the election and are responsible to conduct the remainder of the program of the session. Dr. A. B. Stout of San Francisco was unanimously elected President. Dr. H. M. Gray was elected Chairman of the nine-member Board of Censors. In addition to Dr. Gray, there were three other Board members from San Francisco - Drs. A. J. Bowie, J. M. McNulty and S. R. Gerry.

Cooper was not among the Society's elected officers. President Stout appointed the Standing Committees and excluded Cooper from all nine of these bodies. The San Francisco contingent achieved their aim

They shut him out from participation in the direction of the Society.

Dr. Stout, on taking the chair as President, addressed the Society. In these inaugural remarks, presumably meant to define the goals of his presidency, Dr. Stout chose to emphasize his determination to maintain, as far as possible, the code of ethics and to be governed by it and the Society's Constitution, which he held as inviolable as the Constitution of the United States. As far as we are able to learn from the available record, he expressed little or no concern for the Society's role in advancing the science of medicine, the public health and the enlightenment and comity of the profession.

Day 2. Thursday, 11 February

The main event of the second morning of the session was the valedictory address of the retiring President, Dr. Henry Gibbons. In his quite lengthy remarks, Dr. Gibbons, like the kindly but exasperated father of a large family, deplored the sad state of the medical profession in general and of the California branch in particular. The following excerpts impart the gist of his remarks:[18]

> We are a heterogeneous mass - an army of incompatibles. No country in the world is supplied with physicians so diverse in character. We have all the peculiarities of all the schools in the world, coupled with all the peculiarities of all the nations in the world. The physicians of California know less of each other than the physicians of any other land; and they care less for each other. There is no fraternity. Every man is for himself, and thinks the best way to raise himself is by treading down others. All through the country, in every town and village, there can be but one doctor in the same field. We live in continual war with each other - an internecine war, murderous and suicidal. It is so elsewhere, but more so in California…
>
> Perhaps my brethren will object to this picture of the profession in California as overdrawn. Happy should I be to think so, but I fear there is no room for such consolation. To detect jealousies, and contentions and bickerings, and tale-bearing, in shameful and ruinous abundance, requires no great skill in diagnosis. I am afraid the case is beyond my range of therapeutics. One thing, however, is palpable, that no remedy can be so effectual as the organizing and cherishing of medical associations in every possible locality. This is one of the main purposes of the State Society…
>
> Private and exclusive medical organizations have shown themselves capable of doing much mischief in the profession, out of their own limits… My own conviction is, that medical societies should be founded on a broad, catholic basis, and should be open to all worthy members, and that they cannot work well in the dark for the good of the entire profession. The tendency of private and exclusive associations is to establish cliques, and create jealousies and suspicions. Besides they are apt to degenerate into drinking clubs…
>
> The temptation to advertise is sometimes strong enough to induce physicians to disregard our code of ethics, and to bring themselves to notice through the newspapers. To what extent a physician may advertise with propriety, is a difficult matter for settlement… . Thus, in Philadelphia, it is enough to place the name and profession on a small sign-board; and any addition, such as "surgeon" or "accoucheur," savors of charlatanism. There, one is scarcely suffered to publish his card in a newspaper. In New York, where things are done on a larger scale, the sign may be as large as that of an eating house, and may contain a little information. In Boston, specialties are advertised extensively. The practice of medicine, and of surgery, and of obstetrics, being separate in some countries, it is necessary to modify the sign accordingly. In California we have neither rule nor custom. Physicians have brought their customs and their signs from elsewhere, and we have a variety… .
>
> In my strictures on professional character, all I ask is for credit for honesty and for freedom from personal motives. My personal relations with my brethren are, happily, such as to preclude suspicion in this respect. It is quite possible that I have trodden hardest on the toes of my best friends. And if any such should be conscious of the fact, I hope they will consider it a proof of the high regard I feel for them…

Gibbons' earnest call for improved relations among local physicians and his emphasis on the importance of the State Medical Society in achieving this goal were timely but, as he feared, too late. The divisive forces within the Society, united by their common resentment of Cooper's aggressive advertising of his surgical practice and his presuming to teach anatomy and surgery, had already chosen this third annual session of the Society for a concerted attack on the crass interloper from Peoria.

The wise words of Dr. Gibbons were followed by a lengthy report on meteorological observations in California by Dr. Logan. After other assorted business and a recess of half an hour, the Society reconvened at 2:30 P. M.

President Stout resumed the chair and called upon Dr. H. M. Gray, Chairman of the Board of Censors, to report the names of new members whose applications for permanent membership in the Society had been approved by the Board. it is of interest that the list of new members included both Drs. John Trask and David Wooster, editors of the Pacific Medical and Surgical Journal. In spite of the fact that they had been just admitted to the Society, they were well prepared to play significant roles in its proceedings.

In an unusual departure from the pre-arranged agenda, President Stout asked the indulgence of the Society to read the following Article from the Code of Ethics:[19]

> Chapter II, Art. 1, Sec. 3. It is derogatory to the dignity of the profession, to resort to public advertisements or private cards or hand bills, inviting the attention of individuals affected with particular diseases - publicly offering advice and medicine to the poor gratis, or promising radical cures; or to publish cases and operations in the daily prints, or suffer such publications to be made; to invite laymen to be present at operations - to boast of cures and remedies - to adduce certificates of skill and success, or to perform any other similar acts. These are the ordinary practices of empirics, and are highly reprehensible in a regular physician.

The reason for President Stout's digression from the regular order of business and his invocation of the above Article of the Code of ethics now became clear. He proceeded without explanation to read an anonymous communication that had been laid on his table, requesting that the Report of the Committee on Surgery (prepared by Dr. Cooper) and the Report of the Committee on Obstetrics (prepared by Dr. Cole) not be received for the time being, and virtually charging Drs. Cooper and Cole with violating the Code of Ethics by getting newspaper notoriety.

The anonymous communication was handwritten and unsigned except by the words "Many Members." It would be disingenuous to believe that there had not been collusion between Stout and the authors of the anonymous letter in order for an irregular and provocative communication to be thrust before the assembly in such an arbitrary manner. Perhaps Stout and the other planners of this stratagem thought that sufficient members of the Society would be sympathetic to their initiative so that they could move at once to expel Cooper and, for good measure, impeach the troublesome Cole. In this expectation the plotters were mistaken.

A delegate from Yuba immediately objected, and said that the communication should not be received unless signed by real names. Dr. Cooper demanded to know the names of those who charged him with violating the Code of Ethics. Dr. Cole said that he considered that a personal attack was being made upon him. Dr. Gibbons, in an effort to calm the waters, suggested that President Stout had paid more attention to the matter than it deserved. Finally, after considerable heated discussion and several lost motions, Dr. Williamson moved that "the Society refuse to entertain the communication." His motion was carried and a recess was called, but emotions continued to run high.

During the recess brisk discussion of the anonymous letter continued as the members gathered in small groups to exchange views. Cooper was moving about among them when he chanced to encounter H. M. Gray. Tempers flared and harsh words were exchanged. Then, according to Cooper's friend Washington Ayer who was present, Gray suddenly found himself throttled by Cooper's powerful hand that seized his necktie with such force as to threaten suffocation, while a clasp on his shoulder fixed him as in a vice. Members intervened and Cooper released his grip on the helpless victim. Gray, a member of the Pathological Society, was in the company of the Society's President, Dr. A. J. Bowie, when the clash occurred. As a polished Southern gentleman and firm believer in the "code of honor," Bowie did his best to arrange a duel, offering Gray his services as a second so that the insult might be wiped out. When Gray declined to challenge Cooper, the disillusioned Bowie changed sides and became a fast friend of Cooper. Indeed Bowie later became a member of the faculty of the Medical Department of the University of the Pacific and, when Cooper died, he succeeded him as Professor and Chairman of Surgery.[20][21]

The above anecdote as told by Dr. Rixford, for which no source is cited, is presumably from the frequently unreliable oral tradition of events in the life of Elias Cooper. It is undoubtedly a garbled rendering of the encounter between Cooper and H. M. Gray during the 1858 meeting of the California State Medical Society which we have described. There are the following discrepancies in Dr. Rixford's version of events. (1) Dr. Cooper was persona non grata to the San Francisco Pathological Society and it is most unlikely that he would have ever attended one of its meetings. In any case there is no evidence that he ever did. (2) The President of the Pathological Society throughout the period in question was Dr. A. J. Bowie himself, making his role in the affair as described by Dr. Rixford implausible.

Bowie was a friend of Gray and the record (Daily Evening Bulletin, February 12 and 13, 1858) shows that he was with Gray when he was accosted by Cooper during the 1858 meeting of the State Society. Bowie was therefore in a position to propose a duel between Gray and Cooper, and to offer his services to Gray as a second. This would have been a perfectly credible thing for him to do. Therefore, we have taken the liberty of preserving this feature of Dr. Rixford's colorful anecdote in our description of the Cooper-Gray scuffle at the 1858 meeting of the State Society.

Immediately upon the reconvening of the Society, Dr. Mackintosh of San Francisco rose and stated that a disgraceful scene had been enacted in the convention during the recess. He called for an investigation into the matter and demanded that the conduct of Dr. Cooper in grossly insulting Dr. Gray be examined by the Board of Censors. Dr. Gibbons, ever the peace-maker, hoped that the matter would be allowed to drop. Another member said there was a question as to who had struck the first blow. He thought that Dr. Cooper had been attacked first. Another complained that the Society was becoming ridiculous, and that remarks were made on the streets that "the doctors ought to carry buckets with them to the hall of the Convention to catch the blood to be spilled." Dr. Logan called for an explanation of Dr. Cooper's expulsion from the San Francisco County Medico-Chirurgical Society, and said that he would not belong to a Society when there was a doubt hanging over the honor of any member, and moved that the matter of Cooper's expulsion should also be referred to the Board of Censors.

Finally, after a great deal of heated, disorganized and unprofitable discussion, pursued intermittently into the third day of the meeting, the question of Dr. Cooper's having insulted a member of the Society was referred to the Board of Censors for adjudication. After a recess of fifteen minutes the Board returned to report that Dr. Cooper had presented a written apology for his conduct following reading of the anonymous communication. The Board recommended that Dr. Cooper's apology be deemed satisfactory and the recommendation was approved by a vote of the Society.

This decision then touched off another debate on the subject of the anonymous letter. Some members considered the issue closed, others called for an apology from Dr. Stout, the President, for having read the unsigned communication to the Society, thus precipitating the unfortunate events which followed. After considerable rancorous discussion, Dr. Stout acknowledged that he had erred in reading the communication, but said that he had been deceived in regard to its character. Thus the clumsy attempt to indict Cooper and Cole for unprofessional conduct on the basis of unsubstantiated charges in an anonymous letter failed. But the reputation and morale of the State Society, to which Cooper had devoted so much effort, suffered grievously from the dissension and polarization fomented by the plotters of the anonymous letter fiasco.[22]

Cooper on the Anonymous Letter

Before continuing with our report on the 1858 meeting of the State Society, it will be instructive to interpolate Cooper's personal opinion of the anonymous letter affair. The following is from a handwritten statement prepared by him a few months after the event. It was found among his personal papers as the very rough draft of a Circular intended for distributions to physicians. There is no evidence that the Circular was ever distributed but the draft is a pungent commentary and our only source of his views on the episode.[23] He entitled the statement:

Vindication

(The Circular "To the Medical Profession" which I prepared on 10 February 1858) was only distributed among a few members of the profession. I wanted to see if the Editors of the Pacific Med and Surg Journal would not voluntarily make amends for the gross injustice they had done me.

Having, however, given them several months in which to do this I am now fully satisfied that these gentlemen intended to publish a false and defamatory accusation against me without the least apology for the same.

The statement of the Editors of the Pacific Medical and Surgical Journal or anyone else that I have ever been in the habit of resorting to the newspapers to publish my surgical operations is an unmitigated falsehood. It is true that some of my surgical cases have been noticed in the daily papers but they were such operations as have been and are still noticed in every city in the civilized globe, in nonprofessional publications. They were generally sought by the reporters of the papers and (were sometimes) items given by the different medical men who were present at the operations. The cures resulting from these operations have been truly miraculous, not that I claim any great skill in their performance because any other surgeon might have done as well in this climate, but I mention this fact to show that it is not strange they should have been sought for as interesting items for our daily papers.

In fact these cures have been made the basis of several newspaper articles, the design of which was to encourage emigration to California by showing the results of our unparalleled climate. But this was a public matter with which I had nothing to do, even if so disposed, and those who know how many scurrilous articles touching myself have been published in our inferior public prints in this city and have passed unnoticed by me will readily see that I would have little disposition to spend my time in attempting to regulate the tone of the public press whether favorable to myself or otherwise. There are medical men in this city who never do anything very creditable, and who at the same time seek every possible opportunity of getting noticed in our daily papers but yet who are constantly complaining of others securing public attention in that way.

This is not however the only calumny I have been slow in contradicting. I have permitted to pass unnoticed the grossest defamation of character which malice and envy could suggest. I exercised much forbearance in this as in many other cases from the fact of having early seen that dissension would rend the profession to atoms in this city unless a compromising spirit were shown by all who had its elevation in view.

Recent insults and outrages require that I should expose not only the course of the Editors of the Pacific Medical and Surgical Journal but that of other medical men in this city who use these individuals for the purpose of defaming me.

There is a combination of medical men in this city most of whom belong to the pseudo medical association called the Pathological Society who meet in drinking saloons and other public places and traduce my professional character in the presence of ignorant persons.

These medical men of whom Gray, Stout, Bertody and Hammond stand at the head are constantly alleging professional crimes against me but they are low and cowardly in their attacks and never dare to face their charges but endeavor to use low and despicable men such as Wooster and Trask.

As an example I might mention that attack made in the State Medical Society last February (1858) when they attempted to accomplish their object by an anonymous communication accusing myself and others of non-professional conduct.

This communication was recommended by the (weak) but willing Chairman, Dr. Stout, to be at once acted upon as a charge indicating clearly that the Code of Ethics had been grossly violated although he dared not even mention the name of the individual who made the charge or the nature of the professional crime of which we were accused. He however said of the one who made the charge that he "was a very respectable person."

The penmanship afterwards being recognized as that of Dr. Trask, he confessed to having written (the anonymous letter) and gave as his apology for the disturbance he caused the Society that he found the paper on the table but the penmanship being scarcely legible thought best to copy it.

I am tired of these indiscriminate condemnations made by persons who condemn without knowing me and hence I make this exposition. (These outrages accumulated to such an extent that in two instances in an unguarded moment I resorted to personal violence for redress but my men in each case displayed so much ill-timed prudence that they restrained me.) I hope by this means to avoid the necessity of a repetition of the scene which occurred in the State Medical Society last February (1858). I never again wish to have the Society disturbed as in that case by the unhealthy noise which this class of excessively prudent individuals make when called upon somewhat briskly to account for falsehoods and defamations of character of which they have been the perpetrators.

But as an apology for having surrendered the dignity of the profession by having ever resorted to personal violence which I abhor for the purpose of redress, I would say that for 2 1/2 years I have borne abuse such as no one possessed of an honorable (character) could bear longer without resorting to the only means that brings to their senses those persons who are destitute of that courage which makes a man a gentleman to respect the rights of others.

In conclusion, I may state that I challenge any medical man on this coast to say truthfully that I have not treated him kindly whenever opportunity has afforded. I challenge anyone to say in truth that I have not spent my entire time in efforts to cultivate and advance the medical profession or that I have not constantly assisted others in doing the same.

So far as newspaper notoriety is concerned all I have to say is that as a surgeon my professional course becomes public property subject to praise or censure according to the prejudice, form or information of parties concerned and that I shall spend no time which should be directed to the cultivation of my profession in attempting to regulate the tone of the press either the one way or the other unless I am outraged as in this case until silence becomes a tacit confession of the justice of my accusers.

Day 3. Friday, 12 February; and Day 4. Saturday, 13 February

We now return to the proceedings of the final two days the 1858 Session of the State Medical Society and have selected for review only those items of business that are of special interest to us. Because of their long range effects on the course of events, we have chosen the Reports of two of the Standing Committees of the Society: the Committee on Obstetrics (Beverly Cole reporting) and the Committee on Surgery (Elias Cooper reporting).

Report of the Committee on Obstetrics[24]

The Report of the Obstetrics Committee was read by Dr. Cole who was known to be at times impulsive, flamboyant and outspoken in his comments. This tendency to colorful speech was common in the West but, when Cole indulged in loose and florid language in the Obstetrics Report which dealt with delicate issues, he offended the sensibilities not only of many members of the Society but also the public.

When he read the Report before the Society, Cole began by saying that, since other members of the Obstetrics Committee had not responded to his request for contributions to the Report, he had "consequently during the past twenty-four hours thrown together some few facts and reflections in an exceedingly rude shape." The following are a few of Cole's offhand "reflections" which were deemed outrageous and an insult to California womanhood.

Now let us inquire into the general character of the female immigration to this country; we find them for the most part young, inexperienced women, and more properly girls, who at the most critical period of their lives, and dangerous to their chastity and virtue - when the bud is about bursting into the rose - when is just developed and released from the thraldom of girlhood, the woman, with her passions, alike to the smothered ember, requiring but a breath to fan it into a consuming flame. At this period they are removed from the proper guardianship and healthful advice of their mothers, their minds being not yet fully matured and consequently prepared to resist temptation, they yield to the solicitations of the opposite sex and seductive allurements of dissipation, and find themselves in a short time the prey of disease. This applies equally to the married and unmarried - and so general is it that I believe I am correct when I estimate two in every three females, who have reached the age of fifteen, to be victims of this dissipation and fashionable life.

At this very period when a girl most requires the advice of a mother based upon experience and observation, she herself either assumes the duties of a parent or gives herself up (being relieved of restraint) to every species of immorality; she occupies her leisure hours with the reading of exciting novels, and as a patient told me ten days since, she passed most of the night in the reading of such trash, and never slept but through the influence of laudanum or ether, which had been recommended by a girl somewhat more mature in years, and who had been in the habit of resorting to the use of these agents for an indefinite period. The only exercise of these girls is of that character which, so far from being attended with benefit, only serves to hasten the dire disease that is destined to speedily destroy their happiness and greatly shorten their lives.

Cole's Report elicited no unfavorable comment when delivered before the Society. It was approved by the Publications Committee and duly published in the Transactions of the Society. The Report was then available to the press which had a field day with the subject matter, especially the highlighted portions of the above paragraphs. Dr. Stout, President of the Society, was deluged with complaints not only from citizens, but also from members of the Society who demanded prompt action against Cole. We shall return to the subject of Dr. Cole's rash commentary on the depraved state of California womanhood when we discuss the Fourth Annual Session of the Society convened in Sacramento in 1859.

Report of the Committee on Surgery[25]

We will now conclude our consideration of the Third Session of the Society in 1858 with a review of Cooper's Report of the Committee on Surgery delivered on the third day of the meeting.

Cooper thought that the plans of his enemies to malign him consisted solely of the failed anonymous letter gambit of the previous day. Therefore, he was relaxed when he took the rostrum to make his presentation. He was confident that his Report entitled "The Results of Important Surgical Operations in California" (most of which he had performed himself) would add substantially to his reputation as one of the State's premier surgeons. The Report included accounts of some operations already familiar to us such as the exsection of bones, osteosarcoma of clavicle and sternum, removal of a foreign body from behind the heart, and the cesarean section on Mrs. Hodges. The description of the cesarean case was necessarily sketchy for lack of time. The diagnosis of narrowed birth canal was given as the reason for the failure of normal delivery and the necessity for cesarean section. The erroneous diagnosis of twins was not mentioned.

To Cooper's utter surprise, when he had completed his presentation David Wooster took the floor to present a paper giving his version of the cesarean case. He ridiculed Cooper, saying that the operation was unnecessary and needlessly endangered the life of the patient. He charged that Cooper falsely stated that the operation was undertaken because of a diagnosis of narrowed birth canal when in fact it was

their wrong diagnosis of twins that led them to perform the procedure. Using vituperative language and caustic humor, Wooster denigrated Cooper's surgical ability and ethical standing, and accused him of lying about the reason for the operation in order to cover up the error of diagnosing twins, and to bolster his surgical reputation.

That evening, on the street outside the assembly hall, in an ostentatious display of malice and bravado, Wooster was heard to say that Cooper should be sued for malpractice in the cesarean case and that, if Cooper tried to attack him, he would shoot him down like a dog.[26]

On the following day, the fourth and last of the meeting, the presumptuous Wooster (he and Trask had been admitted to membership in the Society only two days before) had the audacity to move that the portion of Cooper's Surgical Report dealing with the cesarean section be expunged from the record, but that the Wooster paper on the subject be included in the Transactions. After heated discussion, the following Resolution was adopted:[27]

That the Society instruct the Committee of Publication to suppress from the Report of its Annual Transactions all reference to a certain Cesarean Operation, appearing in the report … of the Committee on Surgery; and also all reference to the same subject in a communication of Dr. Wooster, and that Dr. Wooster be allowed to withdraw his communication.

Although Cooper voted for the Resolution and tried to downplay its implications, it was a severe blow to his pride and credibility. Throughout the Third Annual Meeting of the State Society he had been on the defensive. The experience left him embittered and certain now that the conspiratorial clique had co-opted Wooster and Trask, thus bringing them and the Pacific Medical and Surgical Journal into the service of the conspirators. At this point the prospect of Cooper's reputation surviving the assaults of the malicious and powerful coalition arrayed against him seemed dim. Nevertheless, it would be wrong to assume that because of these reverses Cooper would alter his plans for a medical school or fail vigorously to counter the attacks of his enemies.

As a result of the above Resolution banning their publication, there is no record in the Society's Transactions of either Cooper's or Wooster's paper on the cesarean section. However, Wooster lost no time in placing his version of the case and his charges against Cooper before the medical profession at large. The March 1858 issue of the Pacific Medical and Surgical Journal contained an article by Wooster entitled: "Cesarean Operation-Case - False Diagnosis - Recovery of the Woman."[28]

In this self-serving article Wooster summarized the general indications for cesarean section, traced the historical background of the procedure, and quoted the dismal contemporary mortality rates. He then described Mrs. Hodges' labor, the decision to operate, the operation itself, and the postoperative course and recovery.

In his discussion of the diagnosis of twins and the operative procedure, Wooster made no reference to his failure to catheterize the patient or to his reporting of fetal heart sounds in a non-existent second infant - when these were in fact the key determinants of Cooper's decision to operate. Furthermore, according to Cooper's unpublished notes:[29]

> (When Wooster and I discussed the case after the cesarean), we both agreed that notwithstanding the incorrect diagnosis that it was well for the patient that the cesarean operation had been adopted because the child was exceedingly large (nearly 12 pounds, I believe) and an effort to take it away through the vagina by instruments, adopt what method we might, would under the false impression that the bladder was empty, have resulted in the wounding of that organ. Its enormous distension was such as to have rendered it impossible to have avoided this, and any person who might have seen it would have said so at the time.

Nor did Wooster mention that Cooper had previously operated upon the patient for vaginal stenosis and that, according to Cooper, the fetal head was so densely impacted in the lower strait as to preclude safe use of forceps, crotchet, perforator or craniotomy forceps.

Wooster concluded the article with a lengthy condemnation of Cooper from which the following is an excerpt:

> There is no doubt but that an immense mistake was made in this case. There is now no doubt in the mind of any one, with the facts before him, that the operation should not have been performed. It was plainly a mistake of diagnosis which any one might commit. Well knowing these facts, the principal in this operation being determined at all hazards to make reputation out of it, now denies that he ever diagnosed twins, but says that we operated, or that he did, because of malformation. Now fortunately for truth, and unfortunately for prevarication, malformation of the organs concerned, is not a matter upon which there can be different opinions; it is not a matter of argument, but of simple observation… So to lay down such a reason to cover up an error of diagnosis, or for any other cause, is beneath criminality. It does not suppose the penetration and intellect necessary to criminality, but indicates simple stolidity… .
>
> [Note. - With a view of ascertaining the propriety of allowing the pregnancy to reach term, Dr. C. examined this case at the seventh month, and assured the woman she had nothing to fear from malformation of bones. Five months after he asserts in the presence of 150 medical gentlemen, that we operated on the same case, in consequence of Malformation of Bones, &c. The patient is still alive, and in good health, and I hope she will yet live many years, to benefit all her acquaintances with the excellent qualities of her head and heart.]

As far as we can determine Cooper never published a rebuttal to Wooster's accusations. However, his unpublished notes describe in detail the labor, cesarean delivery, and postoperative course of Mrs. Hodges, including Wooster's participation in her care. In these notes Cooper gives the following reasons for not mentioning the erroneous diagnosis of twins.[30]

First, (because of the limited time available; and)

> Second, (because) an immense blunder (in diagnosis) had been committed prior to the operation in consequence of false statement(s) made to me by another medical man (Wooster) between whom and myself confidence existed at the time of the occurrence and which (could) not have been explained and justice done to myself without being injurious to him and, whatever change may have taken place since in our feelings towards each other, it did not, could not, obliterate the sacred obligation of confidence once reposed.

Thus Cooper claims that he did not refer to the misdiagnosis of twins in his Report on Surgery because he felt duty-bound not to expose Wooster's deception regarding catheterization and his error regarding fetal heart sounds of a second baby. Although Cooper later openly labeled Wooster a "Professional Traitor" and a "Medical Judas," he was true to his "sacred obligation of confidence" until legal considerations forced him to make public disclosure of Wooster's deceit with respect to the patient's urinary retention, the simple relief of which by catheter would have avoided the cesarean section.

Endnotes

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3. Frances T. Gardner , "Early California Medical Journals," Annals of Medical History Third Series, Vol. 1, no. 4 (Jul 1939): 325-342 Lane Library catalog record
4. Elias S. Cooper , "On exsection of bones - reproduction of parts, etc," Pacific Medical and Surgical Journal 1, no. 1 (Jan 1858): 9-13 Lane Library catalog record
5. Hugh H. Toland , "On the reproduction of bones," Pacific Medical and Surgical Journal 1, no. 1 (Jan 1858): 6-9 Lane Library catalog record
6. David Wooster , ed., "Editors' Table: Surgery in San Francisco," Pacific Medical and Surgical Journal 1, no. 1 (Jan 1858): 43 Lane Library catalog record
7. Proceedings in the Case for Damages for Alleged Mal-Practice in the Performance of the Caesarian Operation: Elkanah H. Hodges and Mary E.P. Hodges, plffs., vs. E.S. Cooper, defendant, tried in the Fourth District Court, San Francisco, John S. Hager, judge, November, 1858, (San Francisco, 1859), pp. 41-42
8. Proceedings in the Case for Damages for Alleged Mal-Practice in the Performance of the Caesarian Operation: Elkanah H. Hodges and Mary E.P. Hodges, plffs., vs. E.S. Cooper, defendant, tried in the Fourth District Court, San Francisco, John S. Hager, judge, November, 1858, (San Francisco, 1859), p. 39
9. Proceedings in the Case for Damages for Alleged Mal-Practice in the Performance of the Caesarian Operation: Elkanah H. Hodges and Mary E.P. Hodges, plffs., vs. E.S. Cooper, defendant, tried in the Fourth District Court, San Francisco, John S. Hager, judge, November, 1858, (San Francisco, 1859), pp. 40-42
10. Printed Materials - Box 1, Folder 7, Elias Samuel Cooper Papers – MS 458, California Historical Society, North Baker Research Library
11. Proceedings in the Case for Damages for Alleged Mal-Practice in the Performance of the Caesarian Operation: Elkanah H. Hodges and Mary E.P. Hodges, plffs., vs. E.S. Cooper, defendant, tried in the Fourth District Court, San Francisco, John S. Hager, judge, November, 1858, (San Francisco, 1859), pp. 42-43
12. Elias S. Cooper , "Case of osteo-sarcomatous affection, embracing the left clavicle, the sternum, sterno-cleido-mastoid, and scalenus anticus muscles, and adherent to the vena innominata, the 1st intercostal muscle, etc.," Pacific Medical and Surgical Journal 1, no. 2 (Feb 1858): 49-52.Lane Library catalog record
13. David Wooster , ed., "Editors' Table. We are compelled to announce that no more of Dr. E. S. Cooper's communications will appear in this Journal," Pacific Medical and Surgical Journal 1, no. 2 (Feb 1858): 83. Lane Library catalog record
14. Editors' Table (untitled editorial), Pacific Medical and Surgical Journal 1, no. 2 (Feb 1858): 75. Lane Library catalog record
15. Transactions of the Third Session of the Medical Society of the State of California Convened at San Francisco, February, 1858 (Sacramento: James Anthony and Company, Printers, 1858) 168 pp.
16. San Francisco Daily Evening Bulletin, February 10, 11, 12, 13, and 16, 1858.
17. Proceedings in the Case for Damages for Alleged Mal-Practice in the Performance of the Caesarian Operation: Elkanah H. Hodges and Mary E.P. Hodges, plffs., vs. E.S. Cooper, defendant, tried in the Fourth District Court, San Francisco, John S. Hager, judge, November, 1858, (San Francisco, 1859), 256 pp.
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19. "Minutes of the Proceedings of the Convention and of the Medical Society of the State of California, held in Sacramento, March 1856," California State Medical Journal 1, no. 1 (Jul 1856): 29-30 Lane Library catalog record
20. Washington Ayer , "Reminiscences of the life and labors of Elias Samuel Cooper," Occidental Medical Times 7, no. 11 (Nov 1893): 602. Dr. Ayer witnessed the confrontation between Drs. Cooper and Gray during the 1858 meeting of the California State Medical Society. Our description of Cooper's behavior is based on his observations. Lane Library catalog record
21. Emmet Rixford , "Early history of medical education in California," Annals of Surgery 88, no. 3 (Sep 1928): 323. In this paper, Rixford describes an episode said by him to have occurred at a meeting of the San Francisco Pathological Society during which the Society President criticised Cooper severely for advertising. "Cooper who was present then strode to the chair, shook his fist in the President's face and threatened to thrash him if he uttered another word against him. Dr. A. J. Bowie, a scholar and polished gentleman, a southerner who believed in the code, did his best to arrange a duel, offering the President his services as a second so that the insult might be wiped out, but the President's valor oozed out in the drink emporium nearby, whereupon Dr. Bowie changed sides and became a fast friend of Doctor Cooper. Not long after Cooper started his medical school Bowie became Professor of

Clinical Medicine. Lane Library catalog record
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26. Proceedings in the Case for Damages for Alleged Mal-Practice in the Performance of the Caesarian Operation: Elkanah H. Hodges and Mary E.P. Hodges, plffs., vs. E.S. Cooper, defendant, tried in the Fourth District Court, San Francisco, John S. Hager, judge, November, 1858, (San Francisco, 1859), p. 46
27. Transactions of the Third Session of the Medical Society of the State of California Convened at San Francisco, February, 1858 (Sacramento: James Anthony and Company, Printers, 1858), p. 21
28. David Wooster , "Cesarian operation-case - false diagnosis - recovery of the woman," Pacific Medical and Surgical Journal 1, no. 3 (Mar 1858): 89-96 Lane Library catalog record
29. Cooper-Hoges Malpractice Suit, Cooper's notes - Box 2, Folder 13, Elias Samuel Cooper Papers – MS 458, California Historical Society, North Baker Research Library
30. Cooper-Hoges Malpractice Suit, Cooper's notes - Box 2, Folder 13, Elias Samuel Cooper Papers – MS 458, California Historical Society, North Baker Research Library

Chapter 14. The Malpractice Trial

By late February 1858 Mrs. Hodges had completely recovered from the cesarean operation. She was enjoying good health and had a cordial relationship with Dr. Cooper to whom she was effusively grateful. According to Cooper's notes: [1]

> (It was at about this time) that Wooster went to her and represented that his conscience troubled him because of the great injury he had been accessory to inflicting upon her (by the cesarean operation), and said he could not rest satisfied until he had confessed to her. This is her story. She was loathe to believe his confession. But then what could it mean? He was a good friend of herself and of Dr. Cooper and what would he do it for unless it was to relieve his troubled conscience. Not a word was said against Dr. Cooper that day excepting such remark as that it was a pity he was so fond of operating he might otherwise be so useful, etc., and … stated that Dr. Cooper wanted to operate upon his own child's throat when it was not necessary. All of which astonished the lady and her husband beyond measure as they had never heard anything like it before.
>
> At this juncture some parties gave money to (support) the Pacific Medical and Surgical Journal conducted by Trask and Wooster which had been sustained alone up to that time through the liberality of Drs. Cooper and Rowell, and that Journal was at once prostituted to the purpose of publishing false and defamatory accusations against Dr. Cooper. Likewise at the same period a report of the caesarian section case teeming with falsehoods was published by Dr. Wooster in the same Journal.

On future visits to Mrs. Hodges, Wooster further "confessed" that her operation was unnecessary and insinuated that she could have had a living child if she had been properly managed. He examined her on several occasions during this period and informed her that she had adhesions between her womb and bladder and between bladder and abdominal wall. He advised her that such adhesions might at some time be responsible for a disturbance of the nervous system referred to in that day as "hysteria," and a not uncommon affliction of women. Being of a suggestible and emotional nature, Mrs. Hodges began at once to complain of tiredness, abdominal pains and was easily moved to tears and irrational behavior, whereas before she had appeared to be in remarkably good health.

The following is an example of the change which occurred in Mrs. Hodges. Just prior to the first "confessional" visit of Dr. Wooster one of Mrs. Hodges' friends, a Mrs. Margaret Karr with whom she had formerly boarded, called on her and was pleased to find her in good health and spirits. Mrs. Hodges expressed herself as very much pleased with Dr. Cooper and grateful for his surgical skill. Following the visit of Dr. Wooster Mrs. Karr returned to find her friend disheartened, low spirited in regard to her health, and very dissatisfied with Dr. Cooper. She now thought she had been dealt with very unjustly by him. She said that Dr. Wooster and some other physicians had told her she was made a dupe of by Dr. Cooper. She wept and vowed she would make him pay dearly for operating on her. Not long thereafter she and her husband filed a suit against Cooper for malpractice, claiming damages of $25,000. There can be no doubt that Wooster incited her to this action.[2]

Cooper claimed, and not without grounds, that Mrs. Hodges was henceforth the pawn of a conspiratorial faction of older San Francisco physicians united by their dislike for him and by their determination to drive him out of practice. He was certain they recruited Wooster to their cause by convincing him that the cesarean section, in which he had initially flaunted his role, was a gross error, and that his publishing enterprise would be better supported under other auspices than Cooper's. We shall never know the actual reasons for Wooster's sudden desertion to the anti-Cooper forces and his subsequent relentless hounding of Cooper in the pages of the Journal. Since money was involved in his case and that of Mrs. Hodges, perhaps avarice played a role in both.

It was in the Fall of 1858 that Mr. and Mrs. Hodges filed against Dr. Cooper probably the first malpractice suit against a medical man ever tried in San Francisco. They claimed damages for a cesarean section, the first successful operation of the kind in California. [3] Their Complaint bristled with charges that only Wooster could have instigated:[4]

The Complaint

> The above Plaintiffs[Elkanah H. Hodges and Mary E. P. Hodges], complain of the above Defendant[Elias S. Cooper] and allege -That … Mary E. P. Hodges, then being pregnant … and she being in need of the professional aid and attention of a skillful Surgeon and Accoucher, said Defendant, at the instance and request of Plaintiffs, then and there engaged and undertook to afford and render such aid, assistance, relief and professional attention as said Plaintiff, Mary E. P. Hodges might need, and as her case required …. That, under the direction, management and control of said Defendant, said Plaintiff's labors of parturition were unnecessarily protracted to the space of sixty hours and upwards, the life of her said child destroyed, and finally on or about the 10th day of said November at about 10 o'clock P.M., said Defendant performed upon said Plaintiff, Mary E. P. Hodges, the operation technically known as the "Caesarian section …."
>
> That the aforesaid operation, called the "Caesarian section," is a highly dangerous operation - the patient scarcely ever surviving it - and in said Plaintiff's case unnecessary, uncalled for, unwarrantable, and in every way reprehensible - there being no reason why the child should not have been delivered through the ordinary natural passage - and the Plaintiff thereby saved an almost ineffable amount of suffering.
>
> That, from facts and circumstances which have come to their knowledge, Plaintiffs are led to believe and do believe, and therefore charge the fact to be - That said Defendant, in neglecting said Plaintiff, Mary E. P. Hodges as aforesaid, and in performing upon her the said operation of the "Caesarian section," was actuated by wicked and corrupt motives, and that his negligence, omissions, acts, conduct and treatment of said Plaintiff, Mary E. P. Hodges, as herein above set forth, were and are wrongful, willful and malicious, and without any justifiable cause whatever.

> That said operation of the "Caesarian section" was very unskillfully performed by the Defendant upon Mary E. P. Hodges - That in performing it, the bladder of said Plaintiff was incised and wounded, and in the healing of the wounds, made by said operation, the bladder, womb and intestines of said Plaintiff became, and now are, so blended, attached and connected together and with the abdomen, that they must always be in an unnatural position, and occasion said Plaintiff, Mary E. P. Hodges, much pain, discomfort, and suffering.
>
> … That by reason of the premises and matters herein set forth … Plaintiffs have been greatly wronged, outraged and injured, and have sustained great damages; namely, damages to the amount and value of twenty-five thousand dollars, which sum with costs, Plaintiffs claim to recover of said Defendant in an action, and therefore bring suit.

Defendant's Answer to the Complaint

The following is a summary of Dr. Cooper's response to the allegations contained in the Plaintiffs' Complaint:[5]

> It was the particular and distinct agreement and undertaking between Plaintiffs and the Defendant that he would not take charge of the Plaintiff Mary Hodges as her accoucher, but that he would only take charge and care of her in the event she should require the aid of a surgeon in the labors of parturition.
> Defendant denies that he took the direction, management or control of the case of said Mary except as a surgeon or that the labors of parturition were protracted and the life of the child destroyed by reason of any want of proper care or skill on his part while engaged by the Plaintiffs in the capacity of a surgeon.
> Defendant admits the performance by him and Dr. Wooster of the operation known as the "Caesarian section," as is alleged, except that the same was done by the advice and with the assistance and approval of Dr. Wooster.
> Defendant denies that said operation was unskillfully performed or that wounds of the bladder, womb or intestines are now so blended, attached or connected together, or with the abdomen, that they must always be in an unnatural position, or occasion to said Mary much pain, discomfort or suffering as is alleged.
> Further answering, this Defendant says that during the protracted labors of said Mary, the urine was suffered to accumulate in her bladder by Dr. Wooster, who had charge of said case as the attending accoucher, and who made the diagnosis previous to said operation, and stated to and assured this Defendant that the urine had been drawn off. That said Defendant acted upon said statement, information and diagnosis of said Wooster, and said accumulation of urine was not known to or discovered by this Defendant until during the performance of said operation when it became and was necessary to puncture the bladder, and it was done; but this Defendant denies that such puncture was either dangerous or uncommon, or that any injurious effects resulted therefrom.
> The Defendant further denies that the said Mary has by reason of any negligence, unskillfulness, unwarrantable or unjustifiable treatment, as alleged, suffered any anguish, grief, pain or any injury of any kind whatsoever. Wherefore in consideration of the premises, the Complaint should be dismissed.

Here in this response to the complaint Cooper publicly and for the first time reveals Wooster's responsibility for the massive urinary retention which was the primary factor in the decision to perform a cesarean. Wooster, in his Journal article condemning Cooper for the operation, deceitfully made no mention of a distended bladder.

The trial opened on 22 November 1858 in the Fourth District Court of San Francisco before Judge John S. Hager, and closed some two and a half weeks later in early December. During this seventeen-day period, nine days were devoted to the questioning of a seemingly endless parade of professional and lay witnesses, and to other aspects of the trial. The proceedings were taken down verbatim in shorthand and, when the sessions extended into the evening as they sometimes did, the Court Reporter continued his recording by candlelight.

For their attorney, the Hodges first applied to Mr. J. S. Manchester who acted on their behalf for a brief period during which he learned that eighteen or twenty medical men were at the bottom of the prosecution, leading him to withdraw in disgust. Next the Hodges approached the eminent Colonel Baker who declined to represent them when he learned the nature of the case. Finally, unable to obtain an advocate from among the honorable barristers of the city, they retained as their chief attorney the notorious Judge A. M. Heslep. He was assisted by Ed. Stanly, Esq., a lawyer destitute of all claims to the title of gentleman. These are Cooper's observations about the plaintiffs' attorneys and are to be found in his notes.[6]

For his advocates Cooper engaged three attorneys: "General" McDougall and Mr. Sharp (of the firm of McDougall and Sharp) and George Barstow.

James A. McDougall, Esq., (1817-1867) was one of the most learned and successful attorneys in the State and an admirable choice by Cooper to manage his defense. He was born in the State of New York in Albany County and received his basic education in the local Grammar School. At an early age he found a job on the laying of the first railroad in the State of New York - the track connecting Albany and Schenectady. Out of that experience grew his life-long interest in railroads and his later advocacy of the first transcontinental line.

Upon completion of the Albany line he decided to read for the law and with characteristic determination soon mastered the elements of the profession. In 1837, at the age of twenty he migrated to Pike County on the Illinois frontier in the farthest southwest corner of the State. There his natural talents enjoyed full rein and in 1842 he was elected Attorney General of Illinois, and reelected in 1844.

In 1849 he organized and led an expedition cross-country from Illinois to California. He promptly opened a law office in San Francisco and from the outset was recognized as a man with a future. After winning a number of important cases in court, he stood at the head of the California bar. Preeminence in the law soon led to political preferment. He was elected Attorney General of California on the Democratic ticket in 1850, and Representative to Congress in 1853. He declined to run for reelection to the Congress in 1955. Instead, he returned to the practice of law in San Francisco and to his avocation - championing construction of the western sector of the transcontinental railroad. During this period of temporary retirement from national politics, McDougall was engaged by Cooper to represent him in the Hodges suit.

In 1861 "the General," as he was called by his legal colleagues in deference to his service as Attorney General, returned to politics and was again elected to the Congress, this time as Senator from California.[7]

George Barstow, Esq.(c. 1825-1883) was a native of New Hampshire. Although a junior member of Cooper's team, he conducted a major portion of the cross-examination for the defense. As a young man, his short stature and hardy physique earned him the sobriquet of "Little Ironsides." After education in the law and travels in Europe, he moved to Massachusetts. There he ran unsuccessfully as a Democrat for the state legislature and for Congress. He wrote a highly regarded History of New Hampshire which was published in 1852.

Barstow migrated to California in 1858 and shortly after his arrival was recommended to Cooper. Although the Hodges' lawsuit must have been among the first of Barstow's appearances in a California court, Cooper was so impressed with his forensic skills and breadth of learning. that he arranged Barstow's appointment as Professor of Forensic Medicine on the faculty of the new medical school then being organized. In recognition of Barstow's scholarly interests, he was chosen to give the Introductory Address when the school was inaugurated. Barstow served with distinction on the faculty until the school was temporarily suspended in 1864.[8]

Barstow had more success in politics in California than he did in Massachusetts. As a Republican, he was elected Speaker of the 13th California State Assembly in 1862, the year in which Republican Governor Leland Stanford took office. Barstow was intensely patriotic and unreservedly opposed to slavery. When the California Assembly convened on January 6th he spoke earnestly of the menace to the Union of the black clouds of civil war that had gathered over the country since the first gun of the insurrection was fired against Fort Sumter on 12 April 1861.[9][10]

During the trial neither Cooper nor Mrs. Hodges took the stand, and Mrs. Hodges never appeared in court.

Opening for the Plaintiffs by Mr. Heslep

The proceedings of the trial began with an Address for the Plaintiffs to the twelve Gentlemen of the Jury by Mr. Heslep in which he enlarged eloquently on the condemnation of Cooper's judgement, technique and integrity found in the Complaint. Surprisingly, and no doubt on recommendation of the cunning Wooster, he made a special point of ascribing the patient's preoperative urinary retention entirely to Cooper's neglect. He further stated that "the whole difficulty" could be attributed to Cooper's failure to assure evacuation of the bowels and bladder, resulting in such narrowing of the pelvic outlet as to make the labor complicated and dangerous. As for adhesions, he told the Jury, when they are the result of an unskillful operation as in this case, "hysteria must exist," rendering the life of the patient forever miserable and unhappy. As was foreshadowed in Wooster's Journal article on the cesarean, Heslep concluded his Address with a vicious attack on Cooper's character:[11]

> I here state the ground we shall assume from that important fact, - that this operation was performed willfully, wantonly and maliciously. It was performed for the purpose of making a reputation, or in the hope of so doing. It was unnecessary, improper, inhuman, brutal. It was the intention of the defendant to build up a reputation upon it, after the life of Mrs. Hodges had passed away. Dr. Cooper expected, as I believe, that Mrs. Hodges would die, and his object was to make capital out of having performed the Cesarean operation. Therefore it is, that in this aspect of the case, we have called the operation brutal, wanton and malicious. The facts carry us out in the deductions and conclusions which I have made. If the facts are as stated, then the damages cannot be measured, but you must assess them as the whole amount claimed, $25,000. There is no compensation for a life-time of misery.

Before continuing with the next phase of the trial, the calling of witnesses, let us reflect for a moment on the Complaint and on Judge Heslep's Address for the Plaintiffs. Although we have not presented these documents in full, it should be clear from the excerpts that they could not have been prepared except by a physician intimately familiar not only with the clinical aspects of the case but also with the distortions of events and decisions that would most discredit Cooper, and absolve Wooster of all responsibility. On the basis of this premise, we can reasonably conclude that Wooster drafted both documents and that he had now become the ringleader in a conspiracy to destroy Cooper by fair means or foul.

Prior to the trial, attorneys for the plaintiffs lined up eighteen witnesses. There were two women friends of Mrs. Hodges and sixteen prominent physicians including such now familiar figures as Ayres, Bertody, Bowie, Coit, Nuttal, Stout, and Toland. With this array of leading members of the San Francisco profession prepared to testify, all selected in the belief that their testimony would be favorable to the plaintiffs, there seemed to be little doubt, going in, that the Cooper forces would be easily routed.

Testimony by Dr. David Wooster

Wooster was the first witness to be called to the stand. Laying the groundwork for the plaintiffs' claims, Heslep methodically led Wooster through a full account of the Hodges' case (Wooster version, of course), details of which including the operative procedure we have previously covered. Wooster's testimony was intended to achieve several main objectives.

Foremost, Wooster sought to exonerate himself from any responsibility whatever for the patient's management. He emphasized that he was never in charge of the patient and that he merely served as a "watcher," "substitute," or "locum tenens" for Cooper who asked him to cover at nights because, according to Wooster, Cooper said that "if he was broken of his rest, he was subject of attacks in the head, of the nature of paralysis. He said that he would try and take as much care of the patient as he could in the day-time, and he requested me

to make that condescension for a friend." Whatever Cooper may have expected of him, Wooster claimed that his only responsibility was to carry out Cooper's orders. He did not appear to have monitored the fetal heart rate or the urinary output, or to have administered any medicines except ergot and chloroform. There is no indication that he ever examined for fetal distress. He had only a general idea of when the baby died. Wooster's gross neglect of the patient during her labor is apparent in the following excerpts from his testimony as elicited by Heslep: [12]

> [Heslep]. I desire you Dr. to describe to the jury how far the labor had advanced at the time the operation was performed? In other words, state the situation of the head at the time the operation was performed?
>
> [Wooster]. A space on the top of the child's head was presented, as large as the circle which might be described in the palm of my hand[visible just within the vaginal orifice]….
>
> Q. Is there any particular name used to describe the portions through which the child had passed, and in which at the time of the operation it was situated?
> A. Yes sir. The child had passed what is called the upper or superior strait, and was presented at the outlet of the inferior strait. It had passed the superior strait entirely….
>
> Q. How long had the head of the child been in that situation before the operation was performed?
> A. I said in my deposition, given a short time since, that I believed that it was forty-eight hours in that position. Then I was not positive; now I am positive that it was not so long.
>
> Q. How long do you say it was now?
> A. I think that it was a little less than twenty-four hours in that position.
>
> Q. Was the child alive when it reached the lower strait?
> A. I dont know; I did not examine particularly.
>
> Q. Was it dead at the time the operation was performed?
> A. Undoubtedly.
>
> Q. In your judgement, how long had it been dead at that time?
> A. I think about fifteen hours.
>
> Q. You were in attendance from the night of the 8th up to the time the operation was performed on the 10th? Do I understand you right there?
> A. Yes sir.
>
> Q. During that period, was the bladder of Mrs. Hodges discharged or emptied?
> A. Not to my knowledge.

By this line of questioning Heslep inadvertently demonstrated the total irresponsibility of his witness. A medical student with a copy of Churchill's Midwifery would as a matter of common concern for Mrs. Hodges' well-being have followed the course of her labor to far better purpose than the self-styled "watcher" in whom Cooper had placed his trust. To this judgement a later witness will attest.

Now Barstow pressed Wooster further, insisting that he try to recall whether he had carried out any other treatment aside from ergot and chloroform. Here is the exchange that followed:[13]

> [Wooster]. The only treatment Mrs. Hodges had, until the opera[t]ion was performed, consisted of ergot and chloroform. When that was commenced I don't know.
>
> [Barstow]. Was there no variation?
> A. None that I know of.
>
> Q. Did you do anything more on the day of the 10th[the day of operation] than administer ergot?
> A. I tried to introduce the catheter into the bladder, and draw off the urine.
>
> Q. Well did you introduce the catheter?
> A. I could not do so without using more force than I was willing to use on another man's patient….
>
> Q. How late on the day of the 10th was the last attempt made to introduce the catheter?
> A. I don't know that it was attempted on the tenth. It was attempted sometime on the 8th or 9th or 10th. I think that I told Dr. Cooper in the morning of the 10th that the bladder ought to be emptied. He replied that he thought that the process of labor would squeeze out enough to render the introduction of the catheter unnecessary.

The above evasive recital by Wooster on the subject of catheterization, a procedure about which a responsible physician would have had a very precise recollection, suggests not forgetfulness but fabrication. As we have already noted, Cooper claimed that prior to the operation Wooster assured him that he had catheterized the patient. Now in his court testimony Wooster "thinks" he informed Cooper before the operation that the bladder had not been emptied. On this question, we have Wooster's word against Cooper's. Given Wooster's manifest duplicity, we are persuaded to believe Cooper.

Throughout this testimony Cooper, sitting at his attorneys' table and facing Wooster who was on the stand, eyed his adversary with loathing and contempt. Cooper recalls the occasion:[14]

> We shall never forget the convulsive tremor which several times shook him, while, transfixed at his overwhelming falsehoods, we gazed upon him in utter astonishment. Never can we forget his cadaverous appearance, during one of these periods, when, in a fit of desperation, endeavoring to relieve himself from our look, he thrust out his arm, and holding up a finger, exclaimed: "If Dr. Cooper wants to look at anything, let him look at my finger," while he continued pointing at us for some time to the no little amusement of the spectators, and chagrin of his counsel, until finally he was permitted to take a seat with his back towards us, in which position he afterwards gave his evidence, whenever his sensibilities required it. We could have compelled him to let us look him in the face, while giving his testimony, had we been so disposed; because it is and has been a law in all civilized nations since the time of Lycurgus, that the "accused may confront the accuser," but we saw the future, and let him have his way. But in addition to this source of Dr. Wooster's embarrassment, he knew that he had either to ruin the cause of the prosecution, of which his testimony was the entire bulwark, or otherwise falsify under oath, statements which he had been constantly making for two months after the operation, as well as those which he had carefully written and published subsequently…

Here was the moment to unleash Barstow to accuse Wooster of lying about the catheterization, and to declare that it was Wooster's false statement in this regard which led to the diagnosis of twins and an unnecessary operation. But hold. Had not Cooper reported to the State Society that obstruction in the birth canal was the indication for the operation and had he not failed even to mention urinary retention and the misdiagnosis of twins? However noble his motive for withholding this information, as we have already explained it, Cooper's lack of candor in his paper before the State Society had swept the moral ground from under his feet. He could not challenge Wooster on this crucial aspect of the case without acknowledging that he had lied to the State Society about the circumstances that led to the cesarean operation. Cooper signaled Barstow to cease his line of questioning, which he abruptly did.

On resuming his cross-examination of the now sullen and defensive Wooster, Barstow hammered away at his credibility. During the weeks immediately following the cesarean section, Wooster boasted of his part in the procedure. He stated that the operation was necessary, skillfully performed and a great triumph of surgery. He referred pridefully to Mrs. Hodges as "my patient" and expressed high regard for Cooper as a surgeon and teacher. Barstow had the word of specific physicians (Grover, Sheldon, Rowell, and Williamson) that Wooster had indeed made such statements, and many more in like vein. Now, under oath, Wooster flatly denied that he had made these statements. Barstow insisted that he repeat each denial once over so that the Jury would surely not forget the shameless perjury of the plaintiffs' star witness.

In the final phase of the cross examination, Barstow called on Wooster to explain his sudden turn against Cooper in January 1858. He pressed for an explanation of Wooster's harsh editorial attacks upon Cooper in the Journal and required that the editorials be read aloud to the Jury. He asked Wooster whether he had anything to do with the attempt to expel Cooper from the State Society on the basis of complaints against him in an anonymous letter. Wooster denied complicity in the affair. Nevertheless, the probability of Wooster's collusion in the expulsion effort was by this question called to the Jury's attention. After all, it was well known that Trask, Wooster's associate editor on the Journal, had transcribed and delivered the anonymous letter to Dr. Stout, the State Society President. Barstow demanded that Wooster produce the caustic paper full of abusive epithets that he read before the State Society in rebuttal to Cooper's report on the cesarean operation. Wooster refused to produce the paper, saying "I think it is destroyed;" and when Barstow insisted that he at least tell the court what epithets were used, the insolence of his reply - "I cannot recollect the terms.".- was thinly veiled.

Growing impatient, Judge Hager intervened:

Judge Hager. Well, what do all these questions amount to?

Barstow. We intend to prove that there has been a conspiracy here, to break down Dr. Cooper.

When he concluded his cross-examination of Wooster, Barstow had not proven that a conspiracy against Cooper existed. Be that as it may, Wooster's evasive answers, obvious hostility and the treacherous attacks on Cooper at the State Medical Society, were sufficient to plant the suspicion of conspiracy in the minds of the Jurors, with further evidence to be added as the trial progressed.

Heslep, when he resumed his questioning of Wooster, turned to the allegation that the cesarean was unskillfully performed. Various technical aspects of the operation were ridiculed. For example, the abdomen was opened with a gross "zig-zag" slash of over a foot in length extending from pubis to well above the navel. Moreover, the incision was made with a "sharp-pointed convex-edged bistoury," said to be an inferior instrument for the purpose. Then there was the necessity to drain the bladder which "was distended to the size of a man's head," the implication being that Cooper had failed to assure its evacuation preoperatively. Finally, the wound in the uterus was closed with sutures to control bleeding, now normal practice but then considered unnecessary and inappropriate by "the authorities." According to Wooster, these and other technical deficiencies contributed to the adhesions which were the cause of the patient's disabling hysteria. By his leading questions Heslep escorted Wooster through every gory detail of the operation in order to impress the Jury with the enormity of the cesarean procedure. As an ultimate censure of Cooper, Wooster pronounced the operation completely unjustified because he had determined by his own measurements that the patient's pelvic and vaginal proportions were perfectly adequate for a normal delivery. "I find no malformation," he said, "either of the bones or the soft parts. I should think and say that Mrs. Hodges was a well formed woman."[15][16]

The physician witnesses for the plaintiffs who followed Wooster to the stand were quizzed endlessly by Heslep and Stanly about pelvic anatomy, fetal positions, and methods of managing obstructed labor, including cesarean section. The plaintiffs' attorneys had prepared themselves thoroughly by studying three of the best known midwifery textbooks of the day, authored respectively by Churchill,[17] Dewees[18] and Ramsbotham.[19] Large anatomical charts of the pelvic area were brought to the courtroom so that the stages of labor could be pointed out to the Jury. The attorneys particularly liked to engage the witnesses in technical repartee on pelvic measurements and fetal positions in order to extract their concurrence that Mrs. Hodges' pelvis was of ample proportions for a normal delivery, as Wooster now asserted. Throughout the trial there appeared to be general acceptance, as a baseline, that the risks and indications for cesarean section were about as stated by Churchill: [20]

> Mortality Rate: 75% (Based on the combined total of 43 cases reported from Britain and America.) Only one in four patients survived the operation.
> Justification: "As the danger is greater than from any other operation…, in cases where we cannot deliver the patient by any other means, and when, consequently, both mother and child would inevitably die, if left unaided, we may afford each a chance by performing Caesarian section."

The plaintiffs' attorneys had three major objectives: (1) to discredit Cooper's claim, stated in his Report to the State Medical Society, that the cesarean section was necessary because of narrowing in the patient's birth canal; (2) to establish through the testimony of expert witnesses that delivery could and should have been accomplished by safer means than cesarean section; and (3) to convince the jury that Mrs. Hodges was suffering from disabling hysteria and related problems caused by abdominal adhesions from an ineptly performed cesarean section.

It is plain to see from this outline of the prosecution's strategy that Cooper's erroneous statement in his Report to the State Society that obstructed labor was the indication for the cesarean, and his failure even to mention the distended bladder and misdiagnosis of twins, placed him in a well-nigh indefensible position. Now, unless he could produce convincing evidence for pelvic obstruction at some level, the claim in his Report to the State Society that the operation was justified on that account would be demolished. Furthermore, to attempt now to clear himself by blaming Wooster and the patient's urinary retention for the fiasco would be inconsistent with his Report. Wooster was quick to recognize Cooper's vulnerability on the issue of his personal integrity and therefore was emboldened not only to attack him on this ground in a Journal article, but also to foment a malpractice suit against him.

Under the circumstances, Cooper had no option but to keep silent, not take the stand in his own defense, and trust that the arrogant Wooster would perjure himself. How apt the poet's words: "Oh, what a tangled web we weave, when first we practice to deceive."

Testimony by Dr. P. J. B. Dupuytren

When a chastened Wooster stepped down after one and a half days of grueling testimony, he was followed on the stand by Dr. Dupuytren, no doubt chosen as a witness for the luster of his family name rather than his eminence as an accoucheur. He was questioned by Mr. Heslep: [21]

> Heslep. State your name and occupation?
> A. My name is Pigne J. B. Dupuytren, I am a physician and surgeon and accoucher, including all the branches of the profession.
>
> Q. Where and when did you graduate?
> A. I graduated in Edinburgh, in 1848.
>
> Q. Did you pursue your studies on the continent?
> A. I studied in Paris and Germany. I studied in the hospitals in Paris.
>
> Q. You are a nephew of the celebrated surgeon Dupuytren are you not?
> A. I am.
>
> Q. State under what circumstances, in a case of pregnancy, the performance of the Caesarian section is required and justified?

Mr. Heslep tried in vain to get straightforward answers to this and other questions from Dupuytren who was quite talkative without being sufficiently definitive for the attorney's purpose. The doctor did, however, provide the following awesome intelligence gleaned from his Paris training:

> In Paris that operation, the operation for the Caesarian section, has been performed perhaps - I don't know how many hundred times; perhaps a thousand times, and never succeeded, never succeeded…. On the contrary, I know perfectly well that that operation is very light and inoffensive in other countries. I was present in -----, in France, when this operation was performed the 7th time on the same wife, and the operation succeeded seven times. I know perfectly well that in some countries it has been performed eleven times on the same wife.

Dr. Dupuytren's marvelous statistics thoroughly negated his testimony and Mr. Heslep hastened to call more credible witnesses such as the meticulous Dr. Ayer.

Testimony by Dr. Washington Ayer

The testimony of Dr. Ayer was of a quite different order from that of Dupuytren, and was directly relevant to the issue of birth canal obstruction: [22]

> [Heslep]. When did you become acquainted with them[Mr. and Mrs. Hodges]?
>
> [Ayer]. I first saw Mrs. Hodges professionally on the 5th of March 1857….[Note: A date consistent with an early stage of her pregnancy.]
>
> Q. Have you been consulted by Mrs. Hodges in regard to her capacity of giving birth to a child? If so, state the time and circumstances of the consultation and examination.
> A. The only time that I ever saw her she called upon me in March 1857, and stated that she believed she was pregnant, and she wished me to examine her, and tell her if pregnancy existed, and if it did to say whether she could be safely delivered. I made the examination and told her at that time that there was no certainty of pregnancy - a probability but not a certainty. I told her that if pregnancy did exist, there was nothing that I could detect which would prevent her from being safely delivered. I thought that there might be delay, but nothing to prevent safe delivery. I took the measurement of the pelvis. I have looked on my books since, and I find that the antero-posterior diameter of the upper strait was four inches and one sixth… I made a note also of the transverse diameter of the lower strait. It was between two inches and three-quarters and three inches. I could not give the measure certainly, but it was not less than two and three-quarter inches.[Note: These measurements are adequate for normal delivery according to Churchill.]
>
> Q. Did she say anything to you about an operation that had been performed on her by Dr. Cooper?
> A. In connection with this, she told me that an operation had been performed upon her by Dr. Cooper, as I understood for an occlusion of the vagina. I took advantage of the examination to see if there was likely to be any difficulty from this case. I found nothing in the vagina which led me to infer that that would produce any obstruction. There was nothing different from the ordinary form. The hard parts were too small (3 inches,) but still not so small but that a child could be delivered or born by the natural passage. She might need some assistance I thought, but still there was nothing to prevent the birth of a healthy child.
>
> Q. Dr., what evidence of an operation at a former period, did you find, if any?
> A. I found no trace of an operation..
>
> Q. Did you examine her carefully?
> A. Yes sir, I examined her with care. I did not know or understand precisely what had been done, and I took advantage of[the opportunity] to examine with my finger, and see if anything showed a hardness of the parts and I was unable to find any indication of an operation and, except from what she told me, I should never have known that any had been performed.
>
> Q. State whether there was anything unusual in the structure of the vulva?
> A. Nothing.
>
> Q. No stricture?
> A. No, sir….
>
> Q. If there had been an occlusion of the vagina, it had been taken away so as to leave no cicatrix?
> A. I could find no traces of any previous difficulty or obstruction; I think if there had been I should have detected it, though I can conceive it to be very possible that the vagina had been restored to a normal form, and no trace left.

As a friend of Dr. Cooper, we might expect any bias in the testimony of Dr. Ayer to be in Cooper's favor. On the contrary, Ayer's testimony provides evidence suggesting that there was no significant narrowing of Mrs. Hodges' birth canal at any level. Unfortunately Cooper himself, in an extensive apologia for his conduct of Mrs. Hodges' case, never once describes a prepartum vaginal examination or records pelvic measurements. Could he have simply assumed, without verifying it, that the vaginal stenosis which he relieved by the previous operation was associated with residual narrowing of the passage?

Testimony by Dr. H. H. Toland

Next to take the stand was the Dean of San Francisco surgery, Dr. H. H. Toland, impeccably conservative in dress, cool and aloof in demeanor, his responses to Heslep's questions brisk and authoritative: [24]

> Mr. Stanly. If a woman was taken in labor on the 8th of November 1857 at 8 o'clock in the evening, and on November the 9th at 11 P. M. the bag of water broke, and the head presented itself at the superior[inferior] strait, and things remaining in that condition on the 10th of November, labor not having advanced during the day, the color or the hair on the head of the foetus easily determinable, with an occipito-posterior presentation, what measures should be resorted to for the relief of the patient at that time?
>
> [Toland]. I dont know of but one course to pursue? I should think that the forceps ought to have been applied.
>
> [Heslep]. What next?
> A. If you failed with the forceps, then craniotomy should be performed.
>
> Q. State whether under any circumstances the operation of the Caesarian section was then warranted or justified. A. I don't think of a any circumstance which in that case would at all justify the operation.
>
> Q. Now take this case: the child alive - would the Caesarian section be warranted or justified then?
> A. If the child was living there would be no difficulty in delivering with the forceps, if the pelvis was of ordinary dimensions.
>
> Q. State in your judgment, where the child has reached the lower strait, the head resting in the perinaeum, whether or not the very position of the child does not demonstrate the capacity of the pelvis?
> A. I think it does. Where the pelvis is very small, it is impossible for the child to pass into the superior[lower] strait.

The subsequent physician witnesses for the plaintiffs were in general agreement with Toland that the cesarean section was not justified. As a result, the weight of their combined testimony against Cooper's decision to perform a cesarean section was highly significant. Because such testimony was repetitive, we shall quote very little of it. The strong disapproval of the cesarean by the plaintiffs' numerous expert witnesses placed Cooper in a most precarious position. We shall see how Barstow rose to his defense, and how some of the plaintiffs' own witnesses weakened the Hodges' case.

Returning to the interrogation of Toland, Barstow began the cross-examination and, in his relentless search for evidence of a cabal against Cooper, questioned Toland about his possible support of the Pacific Medical and Surgical Journal: [23]

> [Barstow]. Do you recollect an article published in the Medical and Surgical Journal last February, concerning Dr. Cooper?[Reference here is to the editorial in the February 1858 issue of the Journal announcing that communications from Cooper would no longer be accepted by the Journal.
> A. I recollect the article.
>
> Q. Do you know who furnished the money to carry on the Review at that time? (Objected to.)
> A. No, sir, I don't know.
>
> Q. Do you know the origin of that February article?
> A. I know nothing about it.
>
> Mr. Heslep. Well, if the Court pleases, we object to these questions. They are impertinent and altogether improper.
>
> Q. Were you not on particular friendly terms with the editors and publishers? (Objected to.)
> A. No, sir.
>
> Q. Had you anything to do with furnishing the capital of that Medical Review.
>
> Judge Hager. Supposing he had?
>
> Mr. Heslep. We object to that question, to this whole series of interrogatories. All out of the way.
>
> Barstow. Suppose it should appear that Dr. Toland acted in conjunction with Dr. Wooster, in the publication of that Review?

Toland. I did not - I had nothing to do with it.

Judge Hager. Well, he says he had nothing to do with it.

Mr. Barstow. We are satisfied.

Mr. Heslep. We are satisfied.

Judge Hager. Well, Dr., they are all satisfied with you, so you may go.

Cooper firmly believed that Toland provided funds for the Journal beginning with the 1858 February issue in which Wooster ran the editorial denying Cooper access to its pages. As we can see by the above testimony, Toland declared under oath that he was not financing the Journal. Then who did underwrite its publication when Cooper and Rowell ceased to do so in February? Toland was the main contributor of articles in the Journal during the next two years of its publication, being the author of over thirty communications in 1858 and over twenty in 1859. Except for Wooster, who was one of the editors, there was no other major source of papers. Therefore, In spite of Toland's denial of a financial interest in the Journal, the suspicion remains that he supported it with his purse as well as his pen. Certainly he was among the few who had the motivation and the resources to do so, thus securing to himself an outlet for his papers and to Wooster a pulpit for his diatribes against Cooper.

Testimony by Dr. R. K. Nuttal

Dr. Nuttal held diplomas in obstetrics from both the Royal College of Dublin and the London Lying-in-Hospital and was also separately licensed as a surgeon. Thus he was thoroughly grounded in the pragmatic, no-nonsense tradition of British medicine. We have already met him as the first physician to reach the side of the mortally wounded James King of William. In response to Mr. Heslep's now standard catechism on obstructed labor, Dr. Nuttal responded with a well-organized dissertation on the subject, delivered with self-assurance and avoidance of dogmatic statements. But when the attorney sought to extract from him criticism of Cooper's operative technique, Nuttall responded bluntly:

[Heslep]. In the performance of the Caesarian section … what instrument should be used[in making the incision], and how ought it be used ?

[Nuttal]. … I think that a good surgeon can act with any form of a knife that was ever made, provided it has a good edge upon it.

Mr. Heslep. Well I think that is the most sensible remark that has been made during the whole trial.

Judge Hager. Would you operate with a sharp axe?

Witness. An axe is not a knife, your Honor. I would not be afraid to undertake the operation with any form of a knife, if it has a good edge..

Q. Is there such an instrument as a bistoury?
A. There is.

Q. Is it not, or would it not be a dangerous instrument to use under such circumstances?
A. All operations are dangerous and a fool should not meddle with edged tools, but I cannot but believe that a good surgeon would make a good operation with any knife.

Q. Do you not think that there is at least a preference? Is not the bistoury more dangerous at such a time than a scalpel?
A. I think not. If the instrument is in the hands of a stupid ignoramus, it will very likely do harm; otherwise, whatever be its name, it will do good.

When Heslep opened up a line of questions about the state of the patient's bladder prior to the cesarean section, Nuttal again surprised him with some unwelcome comments:

[Heslep]. Before performing the operation, should any attention be given to the bladder?
A. In cases of protracted labor the gentleman left in charge of the patient, should see to the emptying of the bladder.

Q. Suppose the man was merely left as a locum tenens, would he then be authorized to perform such an act?

I should say he would have the authority, and it would be his duty; otherwise the principal physician might as well have left his umbrella, or hat, or stick in the room.

Mr. Heslep. That will do.

Barstow now took up the cross-examination of the witness.

Barstow. Dr., had you been left in charge of a patient, by another physician, would you have adopted means to have relieved the bladder?
A. Yes sir, certainly.

Q. If you had been left there at Mrs. Hodges on the 9th of November, would you have adopted means for her relief, as your judgment dictated?
A. Certainly. I don't imagine any physician would be left there as a mere umbrella.

Q. Is there any such a thing as a locum tenens? A person left temporarily in charge of a patient?
A. I continually have to do it.

Q. Is there such a thing as a man's being left in charge of a patient, with no responsibility, and nothing to do?
A. In that case I don't know what the man is left there for, unless he is very handsome and he is left for ornament. I should suppose that if a man, if he is full grown and has brains, was left at all, for an object, it is to be presumed that he will do right.

Q. State whether these facts in regard to physical condition, mentioned by the other side - hysteria, etc. - are not common with women who have not been delivered of children?
A. They are not very common in any case.

Q. Does it make any particular difference whether an operation has been performed or not? Take a case of nervous derangement, such as was described, is there anything in it peculiarly attributable to the Caesarian operation?
A. Well sir, the Caesarian operation has been repeatedly performed, without any of these symptoms following. Sometimes hysteria depends upon other causes.

Q. If any existed after such an operation as this, it would not absolutely follow that they were the effects of the operation, per se, would it?
A. I think not

Q. In regard to adhesion, I will ask you: Upon examination of the patient after the operation had been performed, could you determine the nature and locality of the adhesion?
A.I believe that in any case where the Caesarian section is performed, adhesions to a certain amount always do take place. As far as a man's capacity to know whether adhesions have taken place and where they have taken place, after an operation, and without previous knowledge of the case, I should reply that he might be able to ascertain as to whether the womb was fixed lower down in the abdominal parts. But I think you would have to get a spiritual physician to tell the precise locality of the adhesions.

Q. State as to whether any surgeon can say what operation ought or ought not to be performed, without seeing the patient?
A. His opinion will be only an approximate one. I don't think that any human being, however skillful, can say definitely what ought, or what ought not to be done, in a case he never laid eyes on.

Q. Then a man can form no valuable opinion of a case which he has never seen?
A. No man can form a just and complete opinion of the state of a patient, except by the use of his own individual faculties, his senses - his eyes, his ears, his sense of touch, etc. No other man's eyes can look for me; no other man's head can convey to my head the exact condition of the patient.

We have already outlined the strategy of the plaintiffs' attorneys. They were confident that their impressive train of expert witnesses, who were in general agreement that the cesarean was an egregious error, would override any doubts of the jurors and clinch the verdict in favor of their clients. Their further object was to appeal to the sympathies of the jurors on behalf of just compensation for a woman doomed to intractable post-cesarean hysteria. When they took the case Heslep and Stanly did not perceive, or they chose to ignore, the ulterior motives of the unprincipled Wooster who had involved his trusting patient in a scheme that had nothing to do with her welfare.

Barstow's plan of defense, or counter attack, was now emerging. He would avoid pointless wrangling over pelvic measurements and indications for cesarean section. Instead he would impeach the star witness, Wooster, on grounds of swearing to false statements. He would expose Wooster's gross incompetence in care of the patient during labor, and reveal his base motive for instigating the malpractice suit. He intended to show that many of the expert witnesses were biased against Dr. Cooper and their opinions therefore not objective. He would make the point, as he did in the interrogation of Dr. Nuttal, that expert witnesses who had not actually examined the patient were unreliable judges of the decision to operate. Finally, he would in due course call witnesses to testify that Mrs. Hodges made a good recovery from the operation and was pleased with the outcome until suborned by Wooster.

In the excerpts of testimony quoted so far we can discern the unfolding of Barstow's plan which we will now trace through the responses of additional witnesses.

Testimony by Dr. A. B. Stout

Heslep called Dr. Stout to the stand and began by leading him through the standard litany of questions on cesarean section put earlier to Toland and others.

[Heslep]. Dr., in the case stated, either with a living or a dead child, is there anything, which in your judgement would warrant or justify the Caesarian section?

[Stout]. Nothing whatever sir.…

Q. In the case stated, so far as the position of the child is concerned, I will ask you now, in the exercise of reasonable and ordinary judgment, what professional deduction would follow from the position of the child, in reference to obstructions anywhere in the passage of the vagina or upper strait?
A. The deductions that would necessarily be drawn would be that there are no such obstructions; it is evident that if there were, the child had already passed them.

Q. In case you were called upon to perform the Caesarian section, what would you do in reference to the bladder and rectum?[Note: This question was for the purpose of inferring that Cooper was to blame for the patient's urinary retention at operation.]
A. I should prepare my patient for the operation by emptying the bladder of its contents, and also discharging the rectum.

Cross-examination conducted by:

Mr. Barstow. The opinions you have given Dr. are founded upon the details of the particular case[of cesarean section] that has been given you?
A. All except the last answer.

Q. If the circumstances were different from these stated to you, you would have different opinions?
A. Certainly I would.

Q. Dr., would not a person be better able to judge of a case if he saw it, than if it was merely reported to him?
A. Unquestionably.

Q. Dr. Stout, do you know Dr. Cooper?
A. I never speak to Dr. Cooper.

Q. Have you ever had a controversy with him?
A. I never had any controversy with him myself.

Q. Have you not spoken of Dr. Cooper frequently?
A. I have spoken of him occasionally.

Q. Do you belong to the Pathological Society?
A. Yes, sir.

Q. Have you not spoken of him as a "quack"?
A. It would be impossible for me to call him a quack, because he has a diploma.

Q. Have you not said that he was a quack, or a humbug?
A. I may have used that language towards him; I don't recollect. I have spoken very little of him.

Q. Have you not spoken censoriously of Dr. Cooper in the Pathological Society?
A. I have never spoken of him to the Society.

Q. Have you not censured and condemned his[cesarean] operation?
A. Yes. sir.

Q. Have you not stated that he ought to be indicted for manslaughter for performing certain operations?
A. Never.

Q. Have you not spoken of operations of his which proved successful, saying that if they had proved otherwise he would have been guilty of manslaughter?
A. I have once stated, that if the woman had died in this case, it would have been equivalent to murder.

Q. When did you say so?
A. Within this last week.

Q. What do you know about this operation?
A. I know what Dr. Cooper related in the paper read by him in the Medical Convention, and the comments made by Dr. Wooster in another paper.

Q. Did you hear Dr. Wooster's paper read?
A. Yes, sir, I was chairman of that Convention.

At this point Barstow shifted to Stout's role in the attempt to expel Cooper from the State Medical Society in 1858 on the basis of charges against him in an anonymous letter. He drew out all the details of Stout's irresponsible introduction of that unsigned letter into the agenda of the Society Meeting.

Heslep objected to the testimony as irrelevant. Barstow contended that it was important to show the bias of the witness. Then Judge Hager intervened:

Judge Hager. There has been a great deal of unnecessary evidence elicited by both sides. If this practice is continued, we shall not, in all probability, get through this term. Now, this Medical Convention difficulty has nothing whatever to do with this case. If the examination on your side[Barstow] is carried to the same extent we might as well discharge the jury here.

Heslep then resumed the questioning:

Heslep. As regards your feelings towards Dr. Cooper, are they of a personal or professional character?

[Stout]. I have said that they were professional in their character.

Q. Give us some reason why they were of a professional character?
A. Because from the time of the arrival of Dr. Cooper in San Francisco, I considered that he took steps towards the profession which were bold and assuming, and from that time other testimony came to my knowledge which lowered my estimation of Dr. Cooper's professional character. I consider his treatment of the profession, and his assumption, as contrary to the ethics of the profession.

Q. What were the acts of Dr. Cooper, which led you to distrust his professional character?

A. From the time Dr. Cooper arrived in this city, he circulated through the city, to most of the medical men, a card, inviting them to receive medical instruction - that he was going to give cliniques. Besides, he variously advertised himself in an unethical and unprofessional manner. It was that unethical conduct, and that alone, on which rested my disregard for Dr. Cooper, professionally. For that reason alone I opposed his nomination or election to an office (in the State Medical Society) in 1856 in Sacramento, and for that reason I have opposed him ever since. It was that kind of conduct on his part, which I have described, that made me consider that Dr. Cooper's course in California was one of assumption, and that is the only reason why I ever opposed him. Probably, for the same reason, I shall continue to hold the same feelings towards him, as long as I live.

Cross-examination resumed by--

Mr. Barstow. You say that Dr. Cooper "took steps which were bold and assuming, from the time he arrived here, which was contrary to the ethics of the profession, " etc.?

[Stout]. I do say so.

Q. How did he advertise himself?
A. By the cards which he circulated, professing himself to be a very great surgeon, and proposing to teach all the Doctors in the State.

Q. Well, what other means did he employ by way of advertising?
A. I cannot give any other myself - I have heard of other means.

Q. Did he say directly in his card, that he proposed to teach all the other Doctors in the State?
A. That was the inevitable inference - that he was competent to instruct them all in surgery, and would do so.

Q. Is there any difference between Dr. Cooper giving demonstrations and lectures, and anybody else doing the same?
A. I think his proposition was an unprofessional one.

Q. Has not any professional man a right to give lectures, if he can find an audience?
A. He may do that, without assuming to teach men as competent as himself, and perhaps much more so.

Q. Then you consider it "bold and assuming" and "contrary to the ethics of the profession," for a medical man to propose to give anatomical demonstrations and lectures?
A. No, sir. I believe that Dr. Cooper did not propose to give popular lectures; I believe he invited surgeons to visit his dissections.

Q. Is not Dr. Cooper the only one who dissects in this city?
A. I am inclined to think he is not.

Q. Who else?
A. I think I dissect a little myself, when I get an opportunity.

Q. Have you a dissecting room?
A. No sir, I never had one unless it was at the hospital.

There is more testimony from Dr. Stout but this is enough to expose the grounds for his hostility to Cooper, and that of the professional faction in San Francisco of which he and Wooster had become the most active elements. This self-anointed elite among the city's physicians had exhibited no interest in raising the standards of the profession by promoting scientific observations and continuing education, yet they were determined to extinguish the efforts of anyone outside their circle who endeavored to do so. The aggressive methods of the intruder from Peoria had offended their sensibilities and this malpractice trial was to be the final solution to his "bold and assuming" presence in their midst.

Testimony by Mrs. Elvira Pond

For evidence intended to impress the jury with the sad state of Mrs. Hodges' health since the cesarean, the plaintiffs' attorneys called two lay witnesses, Mrs. Elvira Pond and Mrs. Margaret Hosmer who were old friends of the patient. A short excerpt from the testimony of Mrs. Pond, in whose home Mrs. Hodges previously served as a governess, will suffice to provide a glimpse of the patient's alleged hysterical condition during the six months preceding the trial.

[Heslep]. How long have you known her[Mrs. Hodges]?

[Mrs. Pond]. I have known her for five years… She was in my father's family as a governess for some time, and I was in the habit of being with her day and night. She was in very good health at that time, I may say she was in perfect health…. I have lived in her family for the last (six months) and I have seen her at all times….

Q. What has been the condition of her health since you came to reside in her family?
A. She has been in very delicate health; she has had no health at all.

Q. Tell the jury how her health is affected?
A. Well, she has been and is in a very poor state of health. For the last six months she has not breakfasted with the family. She would not have been able to get up half the time, in season to come down to breakfast. She is always obliged to retire immediately after dinner. She is unable to attend to any of her domestic duties. Often times I have known her to be taken from the table by her husband, in convulsions of pain and agony.

Q. Describe where she has suffered pain, as near as you can?
A. Owing to the agony which she endures, she suffered so much from hysteria, as almost to amount to insanity.

Q. Where does she experience pain?
A. In that portion of her body where the operation was performed.

With the above responses of Mrs. Pond, we conclude our series of excerpts from the testimony of witnesses introduced by the plaintiffs' attorneys. Heslep and Stanly rested their case, doubtless confident of a favorable outcome for the Hodges.

Opening for the Defendant by Mr. Barstow

It was now Barstow's turn to present evidence in defense of Dr. Cooper. Five lay persons and ten physicians were called for that purpose. We shall quote segments of their testimony that make points in Cooper's favor.

Barstow's objective during the questioning of the next few witnesses was to convince the jury that Mrs. Hodges had in fact made a quite satisfactory recovery from the cesarean section. We previously referred to the testimony of Mrs. Margaret Karr regarding Mrs. Hodges' health after the operation. When called to testify, Mrs. Karr gave a full account of Mrs. Hodges' change of outlook following her subversion by Wooster. We shall now hear from several other witnesses regarding the health of Mrs. Hodges since the cesarean operation.

Testimony by Dr. Martha A. Thurston

As we have already related, Dr. Thurston brought Mrs. Hodges to Cooper who operated on her for stenosis at the vaginal orifice. Soon after the operation Mrs. Hodges became pregnant. Dr. Thurston followed the case with interest and, as the referring physician, was rather disappointed that Dr. Cooper had not invited her to at least observe the cesarean section. Nevertheless, there were no hard feelings and Dr. Thurston called on Mrs. Hodges after the cesarean "as a friend."

[Barstow]. Did you see her after the performance of the Caesarian operation?

[Thurston]. Yes, sir. I saw her while she was in bed, before she had recovered from her labor, before the wound had perfectly healed.

Q. What did she say at that time?
A. She spoke of her wonderful escape from death; how happy she felt, and how gratified she was on account of the operation. She spoke of the great satisfaction Dr. Cooper had given her; she spoke highly of the operation and highly of him….

Q. When did you see her again after that?
A. Of course.

Q. When?
A. …It might have been in February[1858]….

She said that Dr. Cooper could have used instruments and delivered the child, without resorting to the Caesarian operation. I told her that I looked upon her condition as better and far preferable to that of very many who had been operated upon otherwise. She did not seem to fall in with me on that point….

I told her that I thought that the Dr. had done the very best possible for her, and I would advise her not to say anything against the Dr. She said she would do all she could to injure him. She said she meant to do him all the harm she could; she meant to stop his practice if possible. She seemed very much exasperated indeed. That is all she said in reference to the Doctor.

Q. Describe to the jury the appearance of Mrs. Hodges at that time, so that the jury may be enabled to form a correct opinion as to the state of her health at that time….
A. I can testify as to her appearance. She appeared to be very comfortable….

She appeared from all indications I could elsewhere[see], to be enjoying very good health. I remember that she went out doors to take her meals.

Q. How far did she go to take her meals?
A. She went the distance of a long block - to the end of it.

Testimony by Mrs. Catherine Roper

As matron of Cooper's Pacific Clinical Infirmary, Mrs. Roper was well

acquainted with Mrs. Hodges and followed her progress from the time of her operation at the Infirmary for vaginal stenosis. She was on friendly terms with the patient who sent for her after the cesarean section. Mr. Stanly, one of the plaintiffs' attorneys, conducted the following interrogation:

[Stanly]. Do you remember her[Mrs. Hodges] coming to the infirmary after her confinement?

[Roper]. Yes sir, but I first saw her at her own house after her confinement.

Q. Did you visit her while she was sick in bed?
A. She sent for me.

Q. Was this before the child was taken out?
A. Oh no. I did not see her during her labor and for some time afterwards. I did not think that it was right for visitors to go and see her for the first few days after the operation, and I didn't go.

Q. How long after the operation was it before you visited her?
A. I should think that it was four or six weeks after the operation before I went to see her.

Q. How was she then.
A. She appeared in good spirits. She laughed, she talked, she drank some porter, she jested, and seemed to be in a good condition altogether.

Q. What did she say?
A. After I had been there a little while, she said she would like a drink of porter. I handed her a tumbler of it, and she drank it nearly all. Then she asked me if I would like to see the incision. I told her that I would. She showed it to me. I told her that I was very much astonished to see how it had healed, and how well it looked. It looked red, but perfectly healthy and well.

Q. When did you see her again?
A. Not for some weeks afterwards, and then she came out to the infirmary.

Q. Did she walk out?
A. It was rather early in the morning when she came. Dr. Cooper had gone out. It appears to me that it was about nine o'clock. I said that I was very much surprised to see her. I asked her how she came. She said that she had waited for an omnibus, but as she did not see any, she had walked the whole distance. I said: "You must be very tired." "Oh, no," she said, "I feel excellent - I feel excellent." "Why," said I, "I would not walk to your house; I am sure you didn't do right. I wish you to lay down and rest." I fixed her a comfortable bed on the sofa, but I could not get her to lay down. She seemed to feel too proud to lay down. In a few moments Dr. Cooper came in. He was very much pleased to see her, and she said she felt very well, indeed, and that she felt that she owed her life to him. She said: "Dr. Cooper, I could not stay away any longer. I had such a propensity to come here that I think I could have walked twice the distance." The Doctor told her that he did not expect to see her out so soon, and that she must be careful and not overstrain herself.

Q. Do you know whether she was engaged in teaching at that time?
A. No - not that day.

Q. When did you see her the next time?
A. The next time I saw her was a week, or perhaps two weeks, after the first visit. She came down to the infirmary, and it was early in the morning and I told her, I recollect, that she must rise very early, because it was not long since we had been at breakfast. She said: "I am going to give a lesson to a family. I called in at the place where I am teaching, and they were at breakfast, and I thought that I would just run down and see you." I asked her if she walked, and she said "Yes." I asked her what she gave lessons in. She said: "You know, Mrs. Roper, that there are a great many persons in this city of the mushroom quality. They came to California poor and ignorant, and as they have had good luck and made money they want to put on the finest airs. But they never learnt anything scarcely at home." She said that most of them were married ladies, and I supposed from what she said that this woman she was teaching was married. She said she gave lessons in reading and writing. I asked her if she was going to walk back? "Why?" she said, "I have no difficulty in walking at all."

Q. In this interview did she say anything about Dr. Cooper?
A. While she was there talking with me that morning, the Doctor came in. She looked up and said: "Oh! you dear man! How I do love you! You saved my life." I give her exact words, I dont use my language.

Mr. Stanly. Of course not. Please say that exactly over again, and slowly, so that I can write down the whole of it.

McDougal (Cooper's attorney). She'll repeat it with pleasure.

Stanly. Well, don't superintend the counsel on both sides, and answer for the witnesses too.

McDougal. I was telling you how accommodating our witness would be.

Stanly. I thought you promised to behave yourself the balance of this trial. Go on, or repeat that last exclamation of yours, Mrs. Roper, if you please.

Roper. It was not what I said; it was what Mrs. Hodges said. When the Doctor came into the room she lifted up her hands and said: "O! you dear, good man! How I do love you, for you saved my life." (Loud laughter outside and within the bar. The Court commanded silence.)

Q. Was anything said concerning the operation that was performed?
A. Mrs. Hodges said: "I don't know of a man on the coast to whom I am so much indebted , or in whom I have so much confidence. Why, Doctor," said she, "I am indebted to you for my life. I am so grateful that I don't know how to express myself." The Doctor said that he was glad that she recovered so quick. He didn't appear to like much the way Mrs. Hodges endeared him.

Mr. Stanly. Of course not.

Mrs. Roper. (Continuing.) The Doctor left the room and went down stairs. When the Doctor had gone out, Mrs. Hodges said: "O! I couldn't express my feelings; I felt like following and embracing him." She said that the Doctor had saved her from a separation from her husband; that but for the Doctor she should have had to have gone to New York, so that the whole city would not know that she was mal-formed. "Dr. Cooper," said she, "has saved my life, and I shall never be able to repay him for what he has done for me.": I give you the language in which she expressed herself.

The guileless and explicit testimony of the gossipy Mrs. Roper must have shaken the confidence of Mrs. Hodges' attorneys in the poor woman's claims of disability. In a crude effort to discredit Mrs. Roper by implying a liaison with Dr. Cooper, Stanly put the following questions to Dr. Wooster when he later returned to the stand:

Mr. Stanly. I want to ask about Mrs. Roper. Have you known her?

[Wooster]. I know the woman by sight. I have seen her often.

Q. Is she a married woman?[Note: Mrs. Roper had already responded fully and satisfactorily during her testimony to detailed questions regarding her marital and family status.]
A. I always supposed her to be single.

Q. Where have you seen her?
A. I have seen her with Dr. Cooper, once at the Lyceum, and once with him at the Mechanic's Fair. She is frequently present at his operations.

Mr. Barstow. We protest against this attempt to injure the character of Mrs. Roper.

[Wooster]. I know nothing against the woman's character at all. I only say that I never saw her husband, or heard that she had one.

Hoping that he had planted suspicions regarding Mrs. Roper's morals in the minds of the jurors, Stanly changed the subject.

Testimony by Mrs. Barbara Kriemer

Mrs. Kriemer and her husband, Jacob, were the proprietors of the neighborhood grocery store where Mrs. Hodges frequently shopped. She and Mrs. Kriemer became friends and Mrs. Hodges employed her to stay with her throughout her labor. As we have seen, Mrs. Kriemer was an unwilling assistant during the cesarean operation. After the operation, Mrs. Kriemer continued to be sociable and was even a confidante of Mrs. Hodges. The following selections from Mrs. Kriemer's testimony were chosen because of their relevance to Mrs. Hodges' health following the cesarean.

[Barstow]. Did you call upon her[Mrs. Hodges] at any time when she informed you about her sleeping with her husband?
A. About three months ago she come down to my house, and she say she was in the family way again. She say she felt very sorry, and she didn't know what she could do. After that she told me she took some medicine.

Q. What kind of medicine?
A. She told me it was a kind of [yellow] powder. She got a pint of gin at my store, and she say she take that with some powder. She told me the powder, but I forget what it was.

Q. Did she tell you what she took the powder for?…
A. She said she took the medicine so that she would not have that.

Q. Have what?

Mr. Heslep. O, the jury understand.

A Juryman. We understand….

Q. What is her appearance in regard to health, since the operation?
A. She has got good health; she is perfect well and fat. She told me, about two or three months ago, that she is so fat that she is ashamed. She is perfect well….

Judge Hager. Did you know Mrs. Hodges before she was confined?
A. Yes sir - three or four months before.

Judge Hager. What was her appearance then, as to health, compared to what it is now, or at the time you last saw her?
A. She was not then as fat and hearty as she is now. Now she is perfect well. She looks fatter since her confinement…

[Heslep]. How long was she confined to her bed[after the cesarean]?

[Barbara Kriemer]. She was in bed about a month after the operation, before she set up. She had the operation on the 10th of November, and she was down to dinner on Christmas.

Q. You have been asked about her health since you were there. Are you any judge as to whether a person is in good or bad health?
A. I think I can see if a person is in health or not.

Q. Have you any other sign of Mrs. Hodges' health, except her looks and general appearance?
A. She looks perfect well, that's all I know.

Q. Have you had any experience in determining as to whether a person is in good or bad health?
A. I see a person look perfect well, and I think so.

Q. Was there not a large lump where she was cut?
A. No sir, no marks at all. It looked smooth, like a little cut on my hand.

Q. Were there no lumps or rough surfaces?
A. No sir. It was all nice and perfect smooth. You can hardly see it where it is cut.

Q. When did you see these wounds last?
A. I seen them after Christmas. It was about six or seven weeks after the operation….

Testimony by Jacob Kriemer

The residence of Mr. and Mrs. Kriemer was located "about thirty feet" from that of Mrs. Hodges. Thus the Kriemers had a well-positioned observation post and they enjoyed a neighborly informality of relationship with Mrs. Hodges that enabled them to provide the Jury with intimate details of her condition.

[Barstow]. Have you been in the habit of seeing her[Mrs. Hodges] frequently during that time[the past two years]?

[Jacob Kriemer]. Yes, sir.

Q. Were you at her house at the time she was ill?
A. Yes, sir. I watched there 14 or 15 days after the operation.

Q. Did you see the wound upon her person?
A. Yes. sir….

She asked me to come up stairs one day. She said, "Mr. Kriemer, just come here; I want to show you my wound - how nice I get cured."
I said I was very glad to hear it. She said, "Mr. Cooper do me great

work, and Mrs. Kriemer do me good work." Then she opened her clothes outside and showed me her wound, it was pretty near healed.

Q. Was it grown together?
A. It was, it was.

Q. Did you observe whether there was anything rough in the appearance of it?….
A. I feel it healed up right smooth. Of course it was so; the woman herself say she feel it right straight smooth.

Q. Have you been in the habit of seeing Mrs. Hodges since that time?
A. I frequently goes up there, and she comes many times to my house.

Q. What has been her appearance as to health?
A. She very well, she say.

Q. Did she ever tell you about her being too fat?
A. About 4 or 6 months ago she come down to my store, and she say: "I been perfectly well. I'm most ashamed I get so fat." She asked me to feel of her arm, she was so fat.

Q. Was your wife present at that time?
A. Yes, sir.

Q. Have you seen her since?
A. I see her pass my house in the street.

Q. How often do you see her pass your house?
A. Most every week, twice or three times.

Q. How does she appear?
A. She appears pretty good.

Q. All the times you have seen her, did you notice how she was traveling?
A. I see her traveling nicely this week. I believe I saw her last Saturday on this week, on a milk dray. I think I see her with her brother taking a ride.

Q. Have you seen her on foot within the last 2 or 3 months?
A. I saw her this week; no, not this week - I saw her last Saturday.

The testimony of Dr. Thurston, Mrs. Roper and Mr. and Mrs. Kriemer essentially dissolved the plaintiffs' claim that Mrs. Hodges was disabled by hysteria or other alleged sequelae of the cesarean section. She was not only reliably observed to be well nourished and physically active, but her pelvic organs had so far recovered from the operation that within a few months thereafter she was again pregnant. Mrs. Hodges had a stillborn baby on 14 April 1858, just five months after the cesarean. The yellow powder in a pint of gin must have had the desired effect although Mrs. Kriemer's recollection as to the date Mrs. Hodges took the potion seems to have been about six months off the mark.

Ludwig A. Emge, "San Francisco's first successful cesarean section." Western Journal of Surgery, Obstetrics and Gynecology. Part 2. 1938 Mar; 46 (3): 169.

To counter the testimony of the plaintiffs' expert witnesses who condemned Cooper's cesarean section out of hand, Barstow called to the stand his own corps of experts who emphasized the principle, already stated by Dr. Nuttal, that a surgeon could not render a valid opinion in a case without personally examining the patient.

Testimony by Dr. R. Beverly Cole

Dr. Cole, Surgeon General of the Vigilance Committee and adversary of Toland in the McGown trial of the previous year, was a Cooper supporter and on frigid terms with the Pathological Clique. He doubtless welcomed the opportunity to discomfit the medical establishment by his testimony in this trial:

[Barstow]. Will you state Dr. whether in your judgment a surgeon can determine the operation which ought or ought not to be performed in any case of importance, without seeing the patient?

[Cole]. I should judge not - not unless you might say he might approximate to an opinion, all the circumstances of the case being present. Without every circumstance, and even the minutiae of the case be detailed, it would be impossible for him to give an intelligible opinion.

Q. In a case stated thus (Stanly's notes of Wooster, on the position of the child), can you determine from this, what operation ought or ought not to be performed.?
A. I cannot sir….

Q. State whether you have seen Mrs. Hodges repeatedly?
A. Yes, sir.

Q. What was her appearance as to health in that intercourse.
A. She appeared in perfect health. I have never seen her when I could have judged that she was in ill-health.

Q. Where have you seen her?
A. I have seen her walk in the streets repeatedly. I have seen her once on Stockton street, and several times on Washington street. Once I rode in the omnibus by her side. I have never seen anything in her carriage or countenance that exhibited bad health.

At this juncture, counsel for the plaintiffs conducted a cross-examination and asked the now familiar "tricky" questions about pelvic measurements, the smallest dimension compatible with normal delivery, etc. Counsel began his interrogation with a sly "friendly" question intended to disarm the witness:

Mr. Heslep. I recognize in the witness before me a good anatomist.

Witness[Cole]. Thank you.

Q. Now you and I will get along together.

Judge Hager. Well, proceed together in some form.

Mr. Heslep. You stated that you could not form an intelligent opinion as to what ought or ought not to be done, from the statement of the case given?

Cole. I am quite sure that no one could, for the reason that there has not been a sufficient detail of the case stated…

Q. Did you not give an opinion as to the King case without seeing it?
A. No, sir.

Q. Did you see him the day he died?
A. No, sir. I saw him however when he was ill, and after he was dead.

Heslep was frustrated at being unable to trap Cole in an inconsistency with respect to the treatment of James King of William, and was wary of the self-confident doctor because of his reputation as a truculent witness in the McGowan case. Therefore, Heslep changed course and put to Cole for analysis some complex clinical scenarios designed to elicit from him an inadvertent response at odds with his initial position on the necessity to see a patient before deciding on treatment. Failing again, Heslep played his trump card, a futile attempt to insinuate bias by identifying Cole as an employee of Cooper and implicated with him in a questionable enterprise.

Heslep. Are you employed now in the Infirmary of Dr. Cooper?

Cole. I lecture there, sir.

Q. You are building up a Medical Institute there, are you not?
A. I am engaged in an enterprise of that kind.

Q. You hope to be one of the professors. Dr. Cooper is the chief man, isn't he?
A. No, sir; I don't know as his relations with the concern are any more intimate than my own.

Q. What are your relations now?
A. I am a lecturer now.

Q. Not in a professorship?
A. I am merely giving informal lectures at present.

(Witness excused.)

We must forgive Dr. Cole for his evasive answer to the final question posed to him by Mr. Heslep. On 22 September 1858, exactly two months prior to the beginning of the malpractice trial of Dr. Cooper, the Board of Trustees of the University of the Pacific in Santa Clara established a Medical Department in response to a petition submitted by Drs. E. S. Cooper, Isaac Rowell, James Morison and R. Beverly Cole. On the same date, the University appointed each of these petitioners to a professorship in the new Medical Department. Dr. Cole was named Professor of Obstetrics, Diseases of Women and Children and Physiology and Dr. Cooper was appointed Professor of Anatomy and Surgery. The founding of Cooper's long-envisioned medical school had quietly taken place even as his trial for malpractice was pending on the docket of the Fourth District Court in San Francisco.

Testimony of Dr. Isaac Rowell

Unknown to the court at the time of the trial Dr. Rowell had become Professor of Materia Medica in the new Medical Department of the University of the Pacific. There was something else about Dr. Rowell unknown to the attorneys for the plaintiffs. Immediately after Rowell's swearing in to testify for the defense, someone whispered to Mr. Heslep that the doctor was reputed to be an atheist. If this allegation were true, his oath which called upon a Supreme Being to aid the witness in telling the truth ("so help me God") would be null and void. Heslep at once seized the opportunity to embarrass the defense and possibly disqualify Rowell as a witness:

Mr. Heslep. I wish to question this witness in regard to his views in regard to the obligations involved by the administration of an oath.

Mr. McDougal. What is the object?

Mr. Heslep. It is to determine the competency of the witness.

Mr. McDougal. Well, we object. The laws of this State do not require of a witness that he shall belong to a church before he can go on the stand.

Mr. Stanly. Now, who's said anything about a church, Gen. McDougal?

Mr. Heslep. The object of the enquiry is to ascertain whether the witness believes in future rewards and punishments, and that he will be held accountable hereafter for perjury committed in this life. In other words it goes to determine the degree of conscience that controls the infant witness. Now we may suppose that in a case of this character, the witness in his statements does or does not regard a future accountability.

Mr. Barstow. (Interrupting.) I object to any statements of this kind. I object to any such an assault on the character of this witness.

After extensive legal sparring and repeated objections from the defense, Dr. Rowell finally conceded that, although he belonged to no church, he believed in one God; and that, although he did not believe in happiness beyond this life, he prayed for it. At this point Judge Hager intervened mildly but for some unaccountable reason allowed the plaintiffs' attorneys to continue harassing Rowell about theological issues until they literally tired of the game. As they suspected, Rowell's testimony would be adverse to their case.

In accordance with his strategy, Barstow again called attention to the principle that a surgeon must see the patient before deciding on treatment in a complex case:

[Barstow]:[Wooster's history of the Hodges case was read to Dr. Rowell.] Will you say whether, upon that statement of the case, a surgeon could determine what operation ought or ought not to be performed, for delivery without being present and seeing the patient?

Rowell. I should think that it would be a question of great magnitude, and one in which any one might doubt what it was best to do, not being present.

Q. Would not surgeons differ in such a case?
A. Able surgeons might differ in such a case, and certainly they could not determine what ought to be done without seeing the case.

Q. Then take the case as given thus: (Stanly's notes of Wooster on the child's position,) what opinion could you give under such a statement?
A. I should be very unwilling to risk my reputation upon any act that I might recommend, without I saw the case myself. I don't think that any prudent man would be willing to give advice under such circumstances. It would be very unwarrantable advice to follow, unless he saw the case.

With such testimony as the above from Rowell and other witnesses, Barstow undermined the plaintiffs' experts who, without seeing the patient, had contended dogmatically that the cesarean section was completely unjustified. The plaintiffs' attorneys were now in a perfect

frenzy to counteract the contrary statements of Barstow's witnesses, but without success. The outlook for Cooper, so bleak at the outset of the trial, was beginning to look more hopeful.

Furthermore, Wooster's credibility was seriously in doubt. The following testimony by Rowell (also confirmed by other witnesses) contradicts statements made by Wooseter under oath at the beginning of the trial, and stamps him as a perjurer "of the blackest dye."

> [Barstow]. Do you recollect hearing him[Dr. Wooster] speak [in November or December 1857] of an operation for the Caesarian section?….
>
> Judge Hager. Did you hear him speak with regard to that operation, as to whether it was performed on his patient or not?
>
> Rowell. He spoke of the woman as his patient - "my patient," he said. He said that he had a difficult case, and that his time was entirely occupied with that case….
>
> [Barstow]. Did he state whether Dr. Cooper performed the operation or not?
>
> Mr. Heslep. Stop! We object to that question?
>
> Judge Hager. Did Dr. Wooster speak in regard to the propriety of the operation, whether it was right or wrong?
>
> [Rowell]. He did say that he approved it.
>
> Barstow. Did he say whether it was advisable or necessary, or well performed, or skillfully performed, and a great triumph in surgery, or words to that effect?
> A. He did.
>
> Q. Did he converse about the operation?
> A. He did.
>
> Q. Where was this?
> A. It was upon the sidewalk where we met, and after the usual salutation about business, etc., I asked him where he had been. He said that he had been engaged in a very responsible and a very tedious case, and he went on to relate what it was. He said: "We had finally to resort to the Caesarian section." That was the first intimation I had had that it had been performed in town. The question very naturally arose on my part, as to why he performed the operation. He said, in the course of that conversation, that the operation was necessary, and that I would have seen that it was necessary, or that I would have decided that it was necessary, if I had been present. He said that the operation was "inevitable" - I think that that was about the language he used. He said that the operation was well performed, and then bid fair to result favorably.
>
> Q. When was this?
> A. A few days after the operation had been performed. I don't recollect precisely the number of days…
>
> Q. Did you have any other conversation with him at any other time, on the same subject, or did he afterwards speak to you about it?
> A. It was a subject of frequent conversation for some weeks after the patient was convalescent….
>
> I cannot give the precise dates. I recollect of his speaking of the operation as "a great triumph in surgery," as "a big thing for our climate," and as "a big feather in our cap."
>
> Q. He spoke then of himself and Dr. Cooper?
> A. I believe that was his language and that his reference, at one time….
>
> Q. Have you had any other conversations since that time, Dr.?….
> A.[After the published notice of the operation in the January 1858 issue of the Pacific Medical and Surgical Journal], Dr. Wooster spoke to me …and said that a more extensive notice should have been given of it, but modesty on his part forbade it, as he was connected with the case.

The Verdict

Here we conclude these highlights of the trial. The purpose of providing excerpts of testimony rather than a narrative account is to reveal the character of the witnesses in their own words. After seven days and 240 pages of preliminaries and testimony, the counsel for the plaintiffs and the counsel for the defense each made several hours of closing argument. Unfortunately for the annals of colorful rhetoric, and our knowledge of the specific questions they debated, no transcription of the final lengthy summation by the attorneys has been found.

Judge Hager's charge to the Gentlemen of the Jury was a masterful analysis of a complicated medical case He advised jurors that it was now their duty to examine the highly conflicting testimony and, where doctors disagree, they must decide. They must determine whether, as claimed by Doctor Cooper the defendant, he acted as a surgeon in the case, but not as an attending accoucheur; that he performed the cesarean operation as a surgeon; and that it was a necessary operation performed with a reasonable degree of learning, judgement and skill.

The Jury was supposed to retain in memory as a guide to their deliberations the relevant technical details of normal and abnormal pelvic measurements; stages of labor; passage of the head through upper and lower straits; positions of the head at delivery; and indications for use of instruments in delivery, including cesarean section. All this as expounded by expert witnesses who sharply disagreed. In view of these complexities, Judge Hager's further advice had an ironic tone:

> A great deal of testimony has been introduced before you, but the greater portion has been from professional medical gentlemen who have been called as experts to give their opinion upon the facts presented before you, and upon such hypothetical propositions as have been presented by the counsel on either side.
>
> You may not find the testimony as exact and uniform as you might wish; but whilst it may be a matter of regret that there is so much uncertainty in matters of science, and that there should be such a want of harmony among the members of a learned profession claimed to be scientific, you must if possible arrive at a verdict, and draw your conclusions as to facts from the testimony such as it is…

The jury then retired. After remaining out all night and a portion of the next day, the Court became satisfied they would not agree, and they were discharged. They stood, according to report: for plantiffs - six; for defendant - six.

The trial began on 22 November 1858 and concluded about eighteen days later on approximately 10 December.

Cooper was exonerated. The trial exposed the malice and hypocrisy of his professional enemies who shamelessly victimized a credulous but avaricious patient in their plot to destroy him. As Cooper himself wrote: [25]

> To prove that there was professional treachery and perjury of the blackest dye will be an easy matter but to prove the actual existence of a conspiracy may be somewhat more difficult though it is the only inference which can with any propriety be drawn from the facts of the case.

A conspiracy was never proven, but Wooster was unanimously charged by a Grand Jury of twenty-one citizens of San Francisco County with the crime of perjury for his testimony in the Hodges malpractice trial. He was summoned to court with an outcome to which we shall later refer. Meanwhile his vicious attacks continued unabated on Cooper who answered in kind while forging ahead with his projected medical school, the historic enterprise to which we shall now turn our attention.

Endnotes

1. Cooper-Hoges Malpractice Suit, Cooper's notes - Box 2, Folder 13, Elias Samuel Cooper Papers – MS 458, California Historical Society, North Baker Research Library
2. Proceedings in the Case for Damages for Alleged Mal-Practice in the Performance of the Caesarian Operation: Elkanah H. Hodges and Mary E.P. Hodges, plffs., vs. E.S. Cooper, defendant, tried in the Fourth District Court, San Francisco, John S. Hager, judge, November, 1858, (San Francisco, 1859), pp. 167-169 Lane Library catalog record
3. Illustration Face page of Proceedings in Malpractice Suit
4. Proceedings in the Case for Damages for Alleged Mal-Practice in the Performance of the Caesarian Operation: Elkanah H. Hodges and Mary E.P. Hodges, plffs., vs. E.S. Cooper, defendant, tried in the Fourth District Court, San Francisco, John S. Hager, judge, November, 1858, (San Francisco, 1859), pp. 9-10 Lane Library catalog record
5. Proceedings in the Case for Damages for Alleged Mal-Practice in the Performance of the Caesarian Operation: Elkanah H. Hodges and Mary E.P. Hodges, plffs., vs. E.S. Cooper, defendant, tried in the Fourth District Court, San Francisco, John S. Hager, judge, November, 1858, (San Francisco, 1859), pp. 251-253 Lane Library catalog record
6. Cooper-Hoges Malpractice Suit, Cooper's notes - Box 2, Folder 13, Elias Samuel Cooper Papers – MS 458, California Historical Society, North Baker Research Library
7. Oscar T. Shuck , ed., Representative and Leading Men of the Pacific (San Francisco: Bacon and Company, Printers and Publishers, 1870), pp. 690-692 Lane Library catalog record
8. Charles F. Ritter and Jon L. Wakelyn , American Legislative Leaders, 1850-1910 (New York: Greenwood Press, 1939), p. 41
9. James D. Driscoll , California's Legislature (Sacramento: California State University, 1986), p. 184
10. Theodore H. Hittell , History of California, Vol. 4 (San Francisco: N. J. Stone and Company, 1897), pp. 292 and 303
11. Proceedings in the Case for Damages for Alleged Mal-Practice in the Performance of the Caesarian Operation: Elkanah H. Hodges and Mary E.P. Hodges, plffs., vs. E.S. Cooper, defendant, tried in the Fourth District Court, San Francisco, John S. Hager, judge, November, 1858, (San Francisco, 1859), p. 15 Lane Library catalog record
12. Proceedings in the Case for Damages for Alleged Mal-Practice in the Performance of the Caesarian Operation: Elkanah H. Hodges and Mary E.P. Hodges, plffs., vs. E.S. Cooper, defendant, tried in the Fourth District Court, San Francisco, John S. Hager, judge, November, 1858, (San Francisco, 1859), p. 17-18 Lane Library catalog record
13. Proceedings in the Case for Damages for Alleged Mal-Practice in the Performance of the Caesarian Operation: Elkanah H. Hodges and Mary E.P. Hodges, plffs., vs. E.S. Cooper, defendant, tried in the Fourth District Court, San Francisco, John S. Hager, judge, November, 1858, (San Francisco, 1859), p. 31 Lane Library catalog record
14. Elias S. Cooper , "Editorial from Editor's Table," San Francisco Medical Press 1, no. 2 (April 1860): 114 Lane Library catalog record
15. Proceedings in the Case for Damages for Alleged Mal-Practice in the Performance of the Caesarian Operation: Elkanah H. Hodges and Mary E.P. Hodges, plffs., vs. E.S. Cooper, defendant, tried in the Fourth District Court, San Francisco, John S. Hager, judge, November, 1858, (San Francisco, 1859), p. 51 Lane Library catalog record
16. Proceedings in the Case for Damages for Alleged Mal-Practice in the Performance of the Caesarian Operation: Elkanah H. Hodges and Mary E.P. Hodges, plffs., vs. E.S. Cooper, defendant, tried in the Fourth District Court, San Francisco, John S. Hager, judge, November, 1858, (San Francisco, 1859), pp. 23-28 Lane Library catalog record
17. Fleetwood Churchill , Theory and Practice of Midwifery, 2nd American Edition (Philadelphia: Lea and Blanchard, 1846), pp. 525
18. William P. Dewees , Compendious System of Midwifery, 11th edition (Philadelphia: Lea and Blanchard, 1847), pp. 562 Lane Library catalog record
19. Francis H. Ramsbotham , Principles and Practice of Obstetric Medicine and Surgery (London: John Churchill,1841), pp. 672 Lane Library catalog record
20. Fleetwood Churchill , Theory and Practice of Midwifery, 2nd American Edition (Philadelphia: Lea and Blanchard, 1846), pp. 370-371 Lane Library catalog record
21. Proceedings in the Case for Damages for Alleged Mal-Practice in the Performance of the Caesarian Operation: Elkanah H. Hodges and Mary E.P. Hodges, plffs., vs. E.S. Cooper, defendant, tried in the Fourth District Court, San Francisco, John S. Hager, judge, November, 1858, (San Francisco, 1859), pp. 53-54 Lane Library catalog record
22. Proceedings in the Case for Damages for Alleged Mal-Practice in the Performance of the Caesarian Operation: Elkanah H. Hodges and Mary E.P. Hodges, plffs., vs. E.S. Cooper, defendant, tried in the Fourth District Court, San Francisco, John S. Hager, judge,

November, 1858, (San Francisco, 1859), pp. 66-68 Lane Library catalog record

23. Proceedings in the Case for Damages for Alleged Mal-Practice in the Performance of the Caesarian Operation: Elkanah H. Hodges and Mary E.P. Hodges, plffs., vs. E.S. Cooper, defendant, tried in the Fourth District Court, San Francisco, John S. Hager, judge, November, 1858, (San Francisco, 1859), p. 86 Lane Library catalog record

24. Proceedings in the Case for Damages for Alleged Mal-Practice in the Performance of the Caesarian Operation: Elkanah H. Hodges and Mary E.P. Hodges, plffs., vs. E.S. Cooper, defendant, tried in the Fourth District Court, San Francisco, John S. Hager, judge, November, 1858, (San Francisco, 1859), pp. 71-74 and 84-86 Lane Library catalog record

25. Lane Medical Archives, Stanford. E. S. Cooper Collection. File of California Historical Society Library. Folder: Miscellaneous (CHSL Box #2. Folder #13)

Part III.

Founding of First Medical School and Successions 1858-

Chapter 15. Founding Medical Department of University of the Pacific 1858

The Way Prepared

For Elias Samuel Cooper the year of 1858 was truly the worst of times. We have already seen the misfortunes he endured in that year. He narrowly escaped expulsion from the State Society by a hostile clique of San Francisco physicians. Furthermore, these same forces of conspiracy and betrayal later instigated the Hodges' malpractice suit as a more certain means whereby to administer a coup de grâce to the "presumptuous" Cooper.

Adversities such as these, augmented as they were by failing health, could scarcely fail to break the spirit of a man. Yet even in the shadow of such threatening conditions, Cooper's master plan continued to unfold and in 1858 his ultimate goal was achieved. He founded a medical school. In the light of this achievement, the year of 1858 was also for him the best of times.

Over the previous three years Cooper had developed his Pacific Clinical Infirmary, a capacious building of several stories in downtown San Francisco on Mission Street between Second and Third Streets, into a mini-medical center. Facilities comprised an ambulatory clinic, hospital beds, an operating room, anatomy and animal surgery laboratories and, on the top floor, a large room for lectures and demonstrations. There were doctors' offices, living quarters for the matron, and doubtless for himself as well. Not only did Cooper encourage the attendance of local and visiting doctors at his clinics and operations in the Infirmary for teaching purposes, but he also conducted there an ongoing series of formal courses of anatomical and surgical lectures and demonstrations. These he had initiated and advertised widely within a few months of his arrival on the Coast in 1855.

As participants in his clinical and laboratory teaching exercises, he co-opted a select-few able physicians who shared his interests in medical education and enthusiastically participated in his programs. Among these were Dr. Beverly Cole who lectured at the Infirmary and Dr. James Morison who rented an office in the Building. Both later became professors in the new school To complete the small inner circle of confidants to be included in his plan to found a medical school, Cooper chose Dr. Isaac Rowell. During the summer of 1858, in the lull between the State Society meeting in February and the malpractice trial in November, Cooper and his three colleagues, their confidence in him unshaken, defined their strategy for implementing the plan. They agreed to act on it promptly without awaiting the outcome of the Hodges suit.

A Bold Proposal

The first objective was to conclude an affiliation with a college or university authorized to award the MD degree. Dr. Cole acted as the representative of the group. With discretion to avoid rumors that would frustrate his efforts, he approached various members of the Board of Trustees of the University of the Pacific. As previously noted, the University was established by the Methodist Church and chartered by the State of California in 1851. It was the first college in California to receive a charter from the State and was empowered to grant degrees. The institution was located in the town of Santa Clara, 48 miles south of San Francisco, but has since been moved to Stockton. At about the time of Cole's negotiations there was a faculty of six dedicated men, four of whom held A. M. degrees and four were protestant ministers. The school offered a two-year (high school) preparatory program, and a four-year college curriculum leading to the Baccalaureate degree. The school's catalogue for 1859-60 lists 82 students in the Preparatory Department and 26 in the College for a total of 111 students. For the time and place, the University of the Pacific was a substantial institution.[1][2][3]

The trustees whom he consulted advised Cole to submit a proposal from the Cooper group to the University of the Pacific for creation of a Medical Department, with appointment of the group as its faculty. With this encouragement, Cole dispatched the following letter to the Board of Trustees:[4]

> San Francisco
> (c. 10 September 1858)
> Reverend E. Thomas
> Board of Trustees
> University of the Pacific
>
> Dear Sir,
> Accompanying this note you will find the "Proposition" of which we have before spoken and will confer a favor upon those interested by presenting the same to the "Trustees of Pacific University." Any reasonable and proper assistance you may be enabled to render us in its support and adoption will be duly acknowledged.
>
> I would, however, make this remark, that should it meet with much opposition we should prefer to have it withdrawn for the reason that we are determined to establish a school and in making this proposition we have asked no pecuniary aid and feel prepared at once to furnish everything necessary to the commencement of such an enterprise.
>
> As circumstances may favor we shall increase our faculty so as in a short time to number at least eight. This will be one chair more than exists in any of the older schools and which will enable us to give instruction in a much neglected yet very important Department of Science. I refer to Forensic Medicine.
>
> Should the proposition be accepted, of course in making other appointments they would be subject to your approval or rejection. Hoping to hear from you early,
>
> I remain, Dear Sir,
> Yours c and e,
> R. Beverly Cole

Proposal to the Board of Trustees University of the Pacific

> San Francisco
> (c. 10 September 1858)
> Board of Trustees
> University of the Pacific
>
> Gentlemen,
> In view of the existing and growing necessity for a Medical School upon this Coast, the hereinafter named gentlemen, medical practitioners of San Francisco, have associated themselves and organized for the purpose of establishing the same and, believing the Institution over which you preside the one best calculated to advance the great cause of education, they would respectfully ask to be constituted the Medical Department of the "Pacific University."
>
> In making this request they ask no pecuniary aid and, yet, believe the connection may be made mutually advantageous.
>
> The faculty as now organized consists of the following named gentlemen:
>
> - Dr. E. S. Cooper Prof - Anatomy and Surgery
> - Dr. Isaac Rowell Prof - Materia Medica and Forensic Medicine
> - Dr. James Morrison Prof. - Pathology, and Principles and Practice of Medicine
> - Dr. R. Beverly Cole Prof. - Obstetrics and the Diseases of Women and Children, and Physiology
>
> In this connection I am authorised to state that the faculty as at present constituted have in contemplation (should circumstances favor) an augmentation of their members so that each professor shall fill but one chair and, further, that the character and standard of instruction imparted, together with the facilities offered for the proper and thorough study of the Sciences of Medicine and Surgery, shall be equal to those given at the commencement in the first schools of the East.
>
> Should the above proposition meet with your approbation you will confer a favor by making the appointments herein named and communicating the same at your earliest convenience to
>
> Yours very respectfully,
> R. Beverly Cole, Registrar

Board of Trustees Accepts the Proposal

Minutes of the Board, 16 September 1858. "Rev. E. Thomas presented a proposition from R. Beverly Cole in reference to a medical department of the U. of the P. Moved it be referred to a committee of three to take the matter under consideration."

Minutes of the Board, 22 September 1858. The Board met on this date and approved Cole's Proposition in accordance with a Resolution which is quoted in full in the following cordial letter to Cooper and associates.[5][6]

> Santa Clara, 18 October 1858
>
> To: Members of the Medical Department University of the Pacific: Dr. E.S. Cooper, Dr. Isaac Rowell, Dr. Jas Morrison, Dr. R. Beverly Cole
>
> From: Board of Trustees
>
> University of the Pacific
>
> Gentlemen,
>
> On account of some strange misapprehension under which the President and Secretary of the Board of Trustees of the University of the Pacific have, until this hour, been labouring, you have waited for information which you ought to have received immediately after the adjournment of Conference. It was no neglect of the Board for they authorized us to inform you of their action and assure you that they accepted with pleasure the proposition by which you were constituted the Medical Department of the University of the Pacific. I now transmit you a copy of this action and hope we shall not again be guilty of such a mistake.
>
> President E. Thomas presented a proposition from R. Beverly Cole in reference to a Medical Department of the University of the Pacific. On motion a committee of three was appointed (viz., Messrs. Thomas, Blain and Briggs) to whom the
>
> The following report was read and after a few verbal alterations was adopted:
>
> Whereas Drs. E. S. Cooper, Isaac Rowell, James Morrison, and R. Beverly Cole, medical practitioners in San Francisco, State of California, have associated themselves for the purpose of establishing a Medical College in San Francisco; and whereas the above named gentlemen have through their representative R. Beverly Cole, M.D., submitted a proposition to this Board to come under its supervision and control as the Medical Department of the University of the Pacific; and whereas it is distinctly stated and understood that in accepting the proposition of Messrs. Cooper, Rowell, Morrison and Cole, no pecuniary liabilities, or responsibilities are assumed by this Board.
>
> Therefore Resolved that the proposition submitted to this Board by the Gentlemen above named be and it is hereby accepted and they are hereby constituted the Medical Department of the University of the Pacific in San Francisco, it being understood that the Scientific and Medical departments shall be confined in their administrations to their respective departments.
>
> On motion the following gentlemen were elected professors in the Medical Department:
>
> - Dr. E. S. Cooper Professor of Anatomy and Surgery
> - Dr. Isaac Rowell Professor of Materia Medica
> - Dr. James Morrison Professor of Pathology and Theory of Medicine
> - Dr. R. Beverly Cole Professor of Obstetrics, Diseases of Children and Women, and Chemistry
>
> Resolved that the President and Secretary of this Board be instructed to inform R. Beverly Cole, M. D., of our action upon his proposition and to assure the gentlemen above named as medical professors in the University of the Pacific of our pleasure upon the consummation of the agreement by which they are constituted the Medical Department of our University. By order of the Board.
>
> C. Maclay, Secretary

Organization of the Medical Department University of the Pacific

The above anxiously-awaited letter was received with jubilation by the

Cole, and deep satisfaction by Cooper whose vision of a medical school was beginning to materialize. Now he was determined to sustain the momentum by promptly organizing the faculty and inaugurating the teaching program before his predators recovered from their surprise and their preoccupation with the looming Hodges case. To this end Cooper promptly called together the Professors of the Medical Department to establish the Faculty as a self-governing body and to adopt the instruments of governance.

Minutes of First Faculty Meeting, 31 October 1858 [7]

At a meeting of the faculty of the Medical Department, University of the Pacific, held at the office of Professor Cooper, on Monday evening October 31st, the following named gentlemen were present: Drs. Cooper, Rowell, Morrison and Cole. Professor Morrison in the Chair. Professor Cole presented a Constitution designed for the organization of the faculty.

On motion it was adopted and signed by each member of the faculty.

A motion was made that Professor Cole draught by-laws for the government of the faculty in their relations and conduct of business. Carried.

After which adjourned to meet in one week for the purpose of electing officers in accordance with the requirements of the Constitution, and the transaction of other business.

R. Beverly Cole
Acting Secretary

Constitution of the Medical Department University of the Pacific

Adopted 31 October 1858

Article 1st. The officers of the Medical Department of the University of the Pacific shall be a President, Treasurer, and Dean, each of whom shall be elected annually on the 1st Monday in November and shall hold their offices until their successors are elected; and in case either of the offices become vacant by death, resignation or removal, they shall be filled by a majority vote of the members of the faculty at any regular meeting thereafter.

Article 2d. The duty of the President shall be to preside at all of the meetings of the faculty.

Article 3d. The duty of the Treasurer shall be to receive all monies of the Institution from the Dean and deposit or disburse the same according to the directions of the faculty and to keep an accurate account of all receipts and expenditures. He shall pay no order drawn upon him until it be endorsed by the President and Dean. His books shall at all times be opened for the inspection of the members of the faculty and he shall when requested furnish a statement of the funds in his possession and when called upon deliver all monies, books and other property of the Institution to his proper successor in office.

Article 4th. The duty of the Dean shall be to keep a correct record of the minutes of each meeting of the faculty, in a proper book provided for the same; also to answer all communications, to institute correspondence in accordance with the authority of the faculty, receive all monies due (such as matriculation fees, graduation fees and such other monies as are the dues of the Institution) and pay the same monthly to the Treasurer taking his receipt for the same. He shall also keep a book in which shall be registered the names, age, nativity, residence, character of primary education, and term of medical study of each student together with the name of his preceptor. He shall also have the custody of the archives of the Institute and be responsible for their safe keeping

Signed on 31 October 1858 by:

E. S. Cooper
I. Rowell
J. Morison
R. Beverly Cole

Minutes of Second Faculty Meeting, 7 November 1858 [8]

At a faculty meeting held in accordance with adjournment on Sunday evening November 7, 1858 at Professor Cooper's office, Professors Cooper, Rowell and Cole were present.

Professor Cooper called to the Chair and Professor Cole acting as Secretary.

On motion of Professor Cole the by-laws as read by committee with additions be adopted. Carried.

Professor Cole moved that the election for officers of the Medical Department , University of the Pacific, be proceeded with in accordance with the action of last meeting. Carried.

On first ballot, Doctor Cooper was declared to be elected President.

On first ballot for Treasurer, Professor Rowell was declared elected.

On first ballot for Dean, Professor Cole was declared elected.

On motion of Professor Rowell, adjourned until next Sunday evening at same hour and place

R. Beverly Cole
Acting Secretary

Bylaws of the Medical Department University of the Pacific

Adopted 7 November 1858

Article 1st. The regular meetings of the faculty shall be held on the evening of the first Wednesday of each month for the transaction of business.

Article 2d. The funds of the Institution shall be derived from the Graduation and beneficiaries fees. These shall be devoted to the support of the Institution, and the purchase of apparatus and library whilst any surplus shall be invested by the Treasurer in accordance with the instructions of the faculty.

Article 3d. The Matriculation fee, which shall be paid but once by each student, shall constitute the fee of the Dean for his services in that capacity.

Article 4th. The fee to each Professor is thirty dollars, payable in advance. (As amended at the Faculty meeting on 21 December 1858.)

Article 5th. The certificate of the Dean in the case of beneficiaries shall entitle such to the ticket of each professor without charge.

Article 6th. The Dean shall in no case furnish beneficiaries with certificates until the requirements of the bylaws are complied with and he shall render a report at each meeting of the faculty of the number and names and circumstances of applicants, and issue certificates only in accordance with the instructions from the faculty.

Article 7th. The fee of all students making application to be admitted as beneficiaries shall be twenty-five dollars for each course, except after the 2d when they shall be admitted as others, gratuitously, by first matriculating.

Article 8th. The regular Course of Lectures in this Institution shall commence on the 1st Monday in May of every year and be continued for the term of eighteen weeks.

Article 9th. The following shall be the order in which the lectures shall be given. (No list provided in original document.)

Article 10th. Independent of the regular course of lectures each professor shall give a preliminary course gratuitously commencing one month in advance of the regular lectures.

Article 11th. Any alterations, amendments or additions to these bylaws may be made at any meeting by a vote of the faculty.

Two Additional Faculty Appointments

As the year of 1858 drew to a close, Dean Cole addressed a progress report to the Board of Trustees. He included in the report a recommendation for appointment of two additional Professors, B. R. Carman and George Barstow, and for redistribution of the subjects to be taught by the faculty.[9]

San Francisco,
6 December 1858

To: Board of Trustees, University of the Pacific

Gentlemen,
It becomes my pleasurable duty as Dean of the Medical Department of the University over which you preside to acknowledge the receipt of a communication through your Secretary announcing the acceptance of the proposition by which the Medical Department was created and the gentlemen whom I represent were appointed to the respective professorships in the same.

The necessity for the establishment of a Medical School upon this Coast has long been apparent. The assistance we have received at your hands in this important step in the great cause of education we hail as an additional evidence of the deep interest your Church has all ways taken in the diffusion of knowledge.

The prospect for the future success of our school is most flattering, at least far exceeding our most sanguine hope. For some weeks past there has been a series of lectures delivered in the institution constituting a preliminary course and, though the existence of a Medical School has not yet been announced formally, our class numbers some twelve or fourteen students. Hence we may reasonably conclude that when the regular collegiate course convenes this number will be greatly increased.

The requirements of students and regulations governing the faculty are essentially the same as those of sister institutions in the eastern states and the faculty are determined that the qualifications of applicants for the degree of M. D. shall be of the highest order.

As it will become necessary to make an announcement early, we have been considering the propriety of first augmenting the number of the faculty so as to have the chair of Chemistry represented which by the first arrangement was omitted, and also to add the chair of Forensic Medicine. In order to effect this arrangement satisfactorily, it becomes necessary for Professor Rowell to relinquish Materia Medica and substitute Chemistry, whilst we would politely suggest for your consideration the name of B. R. Carman, M. D., formerly of Nevada, for the Chair of Materia Medica and the Hon. Geo. Barstow for that of Forensic Medicine.

These gentlemen are well known and highly esteemed in their respective professions. Dr. Carman I have known personally for the past twenty years and feel free to commend him as a gentleman in every way worthy, whilst Mr. Geo. Barstow's name is doubtless familiar to you as the author of a history of New Hampshire. He is a gentleman whose mind is well stored and whose taste and practice are of such a character as to render him peculiarly qualified to fill with ability and credit to himself and the School, the chair of Forensic Medicine.

The Announcement of the Medical Department of the University of the Pacific will be issued between this and January.

R. Beverly Cole, M.D., Dean
Professor of Obstetrics, the Diseases of
Women and Children, and Physiology

On this occasion the Board of Trustees lost no time in responding to a communication from the San Francisco doctors. The following reply to Cole's letter of December 6th was dispatched by the Secretary of the Board on December 8th:[10]

Santa Clara, 8 December 1858
To: R. Beverly Cole, M.D.

Very dear Sir,
We are instructed to communicate to the Faculty of the Medical Department of the University of the Pacific, through you, that the Board of Trustees, at a called session held yesterday, heartily acquiesced in all the wishes you were pleased to express in your communication to the Board, dated the 6th of the present month.

Professor Rowell was transferred from the Chair of Materia Medica to that of Chemistry, R. Carman, M.D., was elected to the Chair of Materia Medica, and Hon. George Barstow to that of Forensic Medicine.

Yours with sentiments of esteem,
M. C. Briggs, C. Maclay
President of the Board of Trustees Secretary
University of the Pacific

The formal negotiations to found the first medical school on the

Pacific Coast were completed in less than three months. By this time prospective students for the first teaching session of the Medical Department were already receiving lectures at the Pacific Clinical Infirmary. Relations between the Department and the University were harmonious from the beginning and remained so throughout their affiliation. We should note in passing that Cooper's group had a trusted friend, Dr. Henry Gibbons, on the Board of Trustees when the Proposal for a Medical Department was originally submitted to it. Dr. Gibbons became a member of the Board in 1855 and was serving on the Board when the Medical Department was established.[11]

Teaching Program of the Medical Department

Planning for faculty, courses and graduation requirements in the new Department, or "medical school" as we shall now call it, was a comparatively easy task for the following reason. All American medical schools, of which there were 42 in operation in 1859, were structured along quite similar lines. The curriculum consisted primarily of an Annual Course of Lectures, usually of four months' duration. In designing the program, Cooper simply adopted the generally accepted principles or "formula" followed by existing schools as published in their Annual Announcements, of which Cooper had numerous copies among his personal papers. In addition to these useful documents, the Proceedings of the National Medical Conventions of 1846 and 1847 that founded the American Medical Association were available to him, as were the subsequent Reports of the A. M. A. Standing Committee on Medical Education.

The following is the standard format of American medical education on which Cooper based his program:[12][13][14][15]

Main Features of an Average American Medical School in the 1850's

Professors: 7 (i. e., one for each of the following subjects)

Lecture Subjects (Number of Lectures in each subject per Annual Course):

- Theory and Practice of Medicine (100)
- Anatomy and Physiology (100)
- Materia Medica and Therapeutics (75)
- Medical Chemistry and Toxicology (75)
- Surgery (75)
- Obstetrics and Diseases of Women and Children (75)
- Medical Jurisprudence (40)

Annual Course of Lectures:

- Duration of the Annual Lecture Course - usually 18 weeks (4 months)
- Frequency of Lectures. - 5-6 one-hour lectures or demonstrations were delivered daily on 5-6 days of each week.
- Number of lectures delivered by an individual Professor during a Course varied from 50 to 110.
- Total lectures during a Course ranged from 400 to 550, depending upon the school.
- The same lectures were delivered in every Annual Course (i. e., students who took two Annual Courses heard the same lectures twice).
- A concurrent special course of Clinical lectures and bedside teaching in a well-regulated hospital was considered essential. Such a course was actually provided by only about half the medical schools due to lack of suitable hospital facilities.
- A Preliminary Course of free lectures was commonly given during the month preceding the Annual Course.

Requirements for MD Degree

The Candidate must:

- Be a man of good moral character and at least 21 years of age
- Complete two Annual Lecture Courses, one of which must be in the school awarding the degree
- Have studied medicine for three years (including the time in lecture courses) with a respectable practitioner
- Submit an acceptable Medical Thesis of his own composition
- Pass an examination
- Pay the following fees

Fees:

- Each Annual Course of Lectures $105
- Matriculation Fee (paid only once) 5
- Annual Fee for Instruction by Demonstrator 5
- Graduation Fee 30

Financing Medical Education

American medical schools in the 19th century were normally self-supporting and self-governing. Arrangements with universities and state legislatures were mainly for the purpose of acquiring authority to award the MD degree. Formal authorization as a "state school" was often sought for the additional purpose of obtaining state funds for operational support and building programs. In any case, medical schools were essentially autonomous from the programmatic standpoint and therefore highly resistant to educational reform. They derived their support primarily from Lecture and Graduation Fees which were commonly divided among the Professors after the modest cost of operating the school was deducted. This method of allocating funds encouraged large classes. In the larger schools, student fees were the source of considerable income, and medical education was profitable to the faculty. As an example, the following are 1859 data from Jefferson Medical College of Philadelphia (the nation's largest medical school at the time):[16]

Students	Lecture Fee	Graduation Fee	Income
570	$105		$59,850
256 graduates		$30	7,680

Annual Receipts from Lecture and Graduation Fees = $ 67,530

(If $ 10, 000 were allocated annually for operational expense, the seven Professors would earn $8,000 each, a handsome return considering the purchasing power of the dollar in Philadelphia in 1859.)

Status of American Medical Education in 1858

It is not difficult to identify serious deficiencies in the education provided by American medical schools in Cooper's day. Modest changes such as the following were recommended by the A. M. A. Standing Committee on Medical Education, with little early success:

- Make prior collegiate studies a requirement for admission
- Lengthen the Annual Lecture Course to six months
- Provide for substantial clinical experience in a hospital

The Standing Committee compared European and American medical education and found the American far less rigorous than the European schools. For example, the University of Edinburgh program had the following characteristics:[17]

- Admission requirement: A certificate of premedical studies plus an examination in Latin
- 13 Professors and 13 subjects
- Each Professor delivered 180 lectures annually
- 4 years of study required including a total of 8 courses (2 courses annually, one of 6 and one of 3 months).

During the eighty-odd years between Morgan's founding of the first medical school in 1765 and the mid-1800's, would-be reformers like Daniel Drake decried the low standard of American medical education and made valiant but futile efforts to improve it. Despite the discouraging prospect, Dr. Nathan S. Davis, a country practitioner of Binghamton, New York, initiated a reform movement in 1845 that was the major positive influence on medical schools during the years prior to the genuine revolution in medical education sparked by the Flexner Report of 1910.

At the annual meeting of the New York State Medical Society in 1845, Dr. Davis rose to submit the following resolution:[18]

> Resolved, That the New York State Medical Society earnestly recommend a National Convention of delegates from medical societies and colleges in the whole Union, to convene in the city of New York, on the first Tuesday in May in the year 1846, for the purpose of adopting some concerted action "that would be conducive to the elevation of the standard of medical education in the United States."

The proposed National Medical Convention met in New York on 5-6 May 1846 and a committee chaired by Dr. Davis submitted a series of memorable resolutions which were adopted. Pursuant to the first and second of these resolutions the Convention was reconvened in Philadelphia on 5-7 May 1847 for the purpose of founding a National Medical Association which was named the "American Medical Association." We will again mention that Dr. Davis, for his role in this transaction, is often referred to as the "Father of the A. M. A."

At the New York session of the National Medical Convention in May 1846, the Davis Committee also submitted the two other resolutions with major significance for the future of American medical education. These were approved as follows:[19]

> Resolved, That it is desirable that a uniform and elevated standard of requirements for the degree of M. D., should be adopted by all the Medical Schools in the United States, and that a Committee of Seven be appointed to report on this subject, at a meeting to be held in Philadelphia, on the first Wednesday in May, 1847
>
> Resolved, That it is desirable that young men before being received as students of Medicine, should have acquired a suitable preliminary education; and that a Committee of Seven be appointed to report on the standard of acquirements which should be exacted of such young men, and to report at a meeting to be held on the first Wednesday in May, 1847.

In response to these two resolutions of the Davis Committee, the newly-established American Medical Association appointed a Standing Committee on Medical Education. During the remainder of the century, the A. M. A. continued through this Committee to strive diligently to improve medical education but, unfortunately, with limited success. Dr. Davis was the "untiring, irrepressible, uncompromising and incorruptible" leader of the Association's campaign to raise standards. However, since the A. M. A. could do no more than exhort, the medical schools had little incentive to change. Few schools were willing to increase standards when this would result in the loss of many students (and significant income) to the schools that refused to reform. Therefore, medical schools in the United States remained distinctly inferior to European institutions and, as a result, American students flocked to Europe for the education necessary to fulfill their professional aspirations. Upon returning home, many served to revitalize their native institutions.

The Civil War years of 1861 to 1864 were as disastrous for progress in medical education as they were for the nation as a whole. In the decades that followed, however, the insistence of the A. M. A. on increasing premedical requirements, lengthening the curriculum, and strengthening the examinations began to have an effect. Finally, at the turn of the century, Johns Hopkins provided the definitive model and Abraham Flexner the stern indictment that led at last to fundamental and widespread reform.[20][21][22]

As the figure most responsible for the constant prodding that led to such reform in medical education as occurred in the 19th century, and as a benefactor of Elias Cooper, Nathan Smith Davis (1817-1904) deserves our further consideration. He was another of those remarkable sons of the American frontier whose native ability and devotion to independent study overcame the handicap of limited opportunity. Born in the log house built by his pioneer father on a homestead in Chinango County, south-central New York State, he was the youngest of seven children and his mother died when he was only seven. He spent the first sixteen years of his life on the farm, and in 1833-34 attended a single six-month term at Cazenovia Seminary where he studied English grammar, chemistry, natural philosophy, algebra and Latin.

The following summer, at the age of seventeen, he began the study of medicine as an apprentice to a local doctor who provided room and board for his help in the office, caring for the horses and doing the chores. While continuing apprenticeship with another physician in the village of Binghamton, New York, not far from his birthplace, he attended three courses of lectures at a country medical school known as the College of Physicians and Surgeons of the Western District of the State of New York. The school was commonly referred

to as Fairfield Medical College and ceased operation in 1840. Dr. Davis received his MD degree from Fairfield in 1837 at the age of twenty and the same year began practice in Binghamton. He remained in practice there for nine years and from the outset was active in the County Medical Society. He soon became Secretary of the Society and was the Society's delegate to the New York State Medical Society at its meeting in 1845 where he introduced the resolution to which we have referred.[23][24]

In 1849, Dr. Davis accepted the Chair of Physiology and Pathology at Rush Medical College and there made the acquaintance of Elias Cooper, probably during the Anatomy Concours in 1850. As one of the organizers of the Illinois State Medical Society, Davis certainly crossed paths with Cooper at Society meetings. As we have seen, he thought well enough of the Peoria Surgeon to recommend him to prominent surgeons in New York in 1854.

Davis was no armchair medical philosopher. While Dean Daniel Brainard was on a trip to Europe in 1858, Davis persuaded the Rush Faculty to adopt the A. M. A. recommendations for preliminary education and a longer, graded curriculum. When Brainard returned from abroad, he vetoed the reforms approved in his absence. Whereupon Davis and several other faculty members resigned from Rush to found the Medical Department of Lind University in Chicago in 1859. The new school, which became in 1862 the Chicago Medical College and in 1892 the Northwestern University Medical School, from its inception "boldly adopted and enforced" all of the A. M. A.'s recommendations, except those concerning preliminary education. By 1862 when the new school became known as the Chicago Medical College, the entrance requirements had been raised (candidates were required to be a college graduate or pass an examination) and the course lengthened to three years with a "graded curriculum," i. e., primary subjects were given to entering students while advanced subjects were taught to separate classes of students who had satisfactorily passed the primary courses.[25]

These elementary reforms, implemented for the first time by the Chicago Medical School, were rejected by other schools who were firmly committed to the traditional curriculum, and for the following reasons. It required minimal resources. As befitted a frontier democracy, it was applicable to very large classes of students who commonly had negligible premedical preparation. Faculties were self-appointed and content to allocate more than two-thirds of the period of "medical study" to an apprenticeship which, depending on the preceptor, varied from excellent to worthless. Last and not least, the system was unreservedly laissez faire and normally capable of generating ample income from student fees. With such lenient requisites, small wonder that a plethora of medical schools sprang up in the 19th century, some of them founded by men like Drake, Brainard, McDowell and Cooper who were impelled by a combination of ambition and idealism "to impart this Art by precept, by lecture and by every mode of teaching."

But for the intervention of President Eliot of Harvard, the lonely example of reform at Chicago Medical College would have had little influence on a national pattern of medical teaching that had resisted change for a century. When Charles Eliot assumed the presidency of Harvard College in 1870, Harvard Medical School was a proprietary school of the primeval sort with a faculty of seven lecturing professors that included such medical legends as Henry J. Bigelow (Professor of Surgery) and Oliver Wendell Holmes (Professor of Anatomy and Physiology). The curriculum consisted of four months of identical lectures during each of two years. There were so many semi-literate students in the classes that written examinations were impracticable.

President Eliot first attempted to persuade the faculty to raise the standard of the Harvard medical program, but was vehemently opposed by a group led by Professor Bigelow who was particularly caustic and overbearing. The following year, in 1871, finding it impossible to gain a faculty consensus, President Eliot with the backing of the Harvard Corporation installed a program similar to that of Chicago Medical College. At the same time Harvard Medical School was brought under the firm control of Harvard University.

Chastened by his defeat, Professor Bigelow backed down completely and made the following conciliatory remarks in an address before the Massachusetts Medical Society on 7 June 1871: "I heartily join with my associates in hoping that these carefully considered measures will accomplish the special purpose for which they were adopted, which is the raising of the standard of medical education in this country." And such was indeed the result. Harvard's example broke the national logjam on reform. Pennsylvania, Syracuse, Michigan and gradually other enlightened medical schools adopted the A. M. A. agenda. After twenty-five years the efforts of Nathan Smith Davis were finally being rewarded.[26][27]

Announcement of Lectures, Session of 1859 Medical Department, University of the Pacific

During the month of December 1859 the Faculty prepared the customary Announcement which included a listing of the Professors and of the subjects taught, and a summary of the requirements for graduation. The school's program was in all respects consistent with the standard formula followed by other American medical colleges. The preface to the Announcement began as follows:[28]

The regular Annual Course of Lectures in this Institution will commence on the first Monday in May, 1859, and be continued for eighteen weeks.

The Medical Faculty of the University of the Pacific, in announcing this, the first course of medical instruction ever given upon this coast, feel warranted in claiming for San Francisco a superiority in climate over either of the Eastern cities; which will render the otherwise arduous labors of the student comparatively easy and agreeable on the one hand, and facilitate the study of practical Anatomy irrespective of season on the other.

The Medical Faculty

There were six Professors:

J. Morison, MD
Professor of the Principles and Practice of Medicine and Pathology

Isaac Rowell, MD
Professor of Chemistry

R. Beverly Cole, MD, Dean
Professor of Obstetrics and Diseases of Women and Children , and Physiology.

E. S. Cooper, MD
Professor of Anatomy and Surgery

B. R. Carman, MD
Professor of Materia Medica

Hon. George Barstow
Professor of Medical Jurisprudence

Elias Cooper, as Professor of both Anatomy and Surgery, was in his element. Exceptionally well-versed in these subjects, he had established anatomy and animal laboratories in the Infirmary and for over three years had been engaged in dissection, experimental surgery, scientific publication and postgraduate teaching. No one in the West had comparable "academic" credentials. His extensive surgical practice included many "capital" operations which he duly reported in national journals. As a surgeon he displayed a surgical virtuosity and self-assurance that impressed and enlightened a host of physician observers. He was, in short, an experienced and committed teacher in the laboratory and clinical arenas. On the other hand:[29]

> As a lecturer, he possessed by nature no extraordinary gifts; speaking, with him, always required an effort, - still it was ever impressive, characterized by deliberateness and coolness, to which was added an earnestness which ever firmly seized the attention of the student, and rendered him, though not an orator, still an effective and successful teacher. By the members of his class he was deeply and sincerely respected; he gradually infused into them that enthusiastic zeal for the profession of Medicine of which he possessed so large a share himself. No one could be associated with him without being imbued with a high interest for a science which he so ardently loved.

In contrast to Cooper, Beverly Cole was fluent and embellished his sometimes rambling lectures with a wealth of anecdote based on personal experience. Never at a loss for words, he was an eloquent extemporaneous speaker with a tendency to be unduly expansive in his "off-hand" remarks. We recall that in February 1858 he made an ill-considered Report on Obstetrics to the State Medical Society. Even as the new school was being organized in the fall of 1858, a storm was brewing over the Report and, as we have seen, he narrowly escaped expulsion from the Society in February 1859. The experience seems not to have quenched his spirit. After all, Cole's reputation throughout the West as the dashing Surgeon General of the Vigilantes and fiery critic in the King case was far too lustrous to be dimmed by a semantical row among the local doctors.

Richard Beverly Cole (1829-1901)

As out-going in manner as Cooper was reserved, Cole proved invaluable as the school's representative and Dean. He and Cooper were second to none in California as anatomists and as clinicians in their respective fields. Happily, instead of the rivalry so prevalent among San Francisco physicians, there was mutual respect between them from their first acquaintance in 1855.

Cooper conceived the school, organized its curriculum and selected its faculty. He was its inner strength and zealous defender against incredible odds. Cole was the chief executive officer whose dynamic style and gregarious nature invigorated the faculty and helped disarm the critics who assailed Cooper. They were a well-matched pair with a fortunate combination of complementary traits.

Isaac Rowell, Professor of Chemistry, was born in New Hampshire in 1818. He was descended from Pilgrim ancestors, and educated in the arts, sciences and medicine at Dartmouth where he received an MD degree in 1849.[30] We have little additional information regarding his early years in New England except that he was in medical practice in Gardiner, Maine, at the time of the discovery of gold in California.

In 1849, at the age of thirty-one, he joined the "innumerable caravan" bound for a new life in the farthest West, arriving in San Francisco by way of Cape Horn on the 16th of June. He made no detour through the gold fields, but at once entered medical practice and was soon popular and successful. Although his credentials as a "Forty-niner" were impeccable, he was never associated with the snobbish clique of the Pathological Society.

In addition to his local distinction as an able practitioner generous in his care of the poor, Dr. Rowell was universally respected as a resolute man of action in military and public affairs. In 1852 he organized the first cavalry company on the Pacific Coast, the Eureka Light-Horse Guards. This unit under Captain Rowell later became the First Light Dragoons, and eventually combined with other companies to form the First California Mounted Battalion. At the first meeting of the Battalion, every member voted for Dr. Rowell as commander. We have already referred to the crucial decision of Major Isaac Rowell, MD, when serving as commanding officer of the San Francisco militia at the outbreak of civil unrest in 1856. Upon being ordered by the government to restore order and guard the jail, he disbanded his forces and went over with them to the Vigilantes. This bold and controversial defection by Major Rowell and his troops enabled the Vigilance Committee of 1856 to

prevail at a critical stage of its revival.

Dr. Rowell's qualifications to serve as Professor of Chemistry are unknown except that the science was doubtless included in his liberal education at Dartmouth. Whatever his background, his Introductory Lecture on 12 May 1859 defined the subject and objectives of the Chemistry Course in vivid terms that appealed to the impressionable students:[31]

> Chemistry, what is it? Gentlemen, Chemistry is that science which today holds the sway over all other sciences! It is that science to which all others must pay their tribute! For I tell you that there is no substance in existence the nature of which can be known, or understood, until it is decomposed and recomposed! No material thing in the universe can be comprehended until it has been analyzed.
>
> Chemistry is that science which holds the magic wand which, by its touch, makes the most solid fabrics melt and the most ethereal vapors grow dense!
>
> Everything that exists in the natural world around us is subject to the laws of Chemistry!
>
> These laws, and the phenomena that are produced by chemical action, in their application to the study of medicine, are the things that I am called upon to teach you.

It was customary in medical schools of the day for students to request permission from the Professor to publish a lecture of which they highly approved. The Introductory Address on Chemistry was the first to be chosen for publication by the students of the new school.

Professor Rowell's son Charles, age 34 and born in New Hampshire, was among the students in the first class to be matriculated. His signature is the first to appear on the Student Roster of the new school. He served a three-year apprenticeship under his father in San Francisco and received his MD degree from the Medical Department in 1861. Chester Rowell, another New Hampshire-born son of Professor Rowell, also served an apprenticeship with his father. Chester graduated from the Medical Department in 1870.[32][33]

While the Cooper's infant medical school struggled for recognition and survival, the nation was being impelled inexorably toward civil war by the unyielding demands of southern states for extension of slavery into the western territories and California. Rowell was among the California's most vocal and determined opponents of slavery. He temporarily suspended his practice in order to traverse the State at his own expense, appealing for preservation of the Union and strict enforcement of California's laws excluding slavery.[34][35]

Professor James Morison (whose date and place of birth are unknown) began the study of medicine in 1838, presumably as an apprentice, and graduated from the University of Maryland Medical School in 1846. After serving four years as resident physician at Baltimore Infirmary, he succumbed to the lure of the West and migrated to San Francisco in 1850.

He immediately entered practice and became active in medical affairs. He joined the short-lived First San Francisco Medical Society. Founded in June 1850, the Society dissolved four months later in October due to a controversy over the setting of physicians' fees. Dr. Morison was a member of the group that organized the Second San Francisco Medical Society in 1853 and was named Treasurer. The Second Society was only slightly more robust than its predecessor and accomplished little. After a few years it ceased to be active. Meanwhile in 1854 Dr. Morison departed for a period of study at European hospitals in Edinburgh, Dublin, London and Paris.[36][37]

Upon his return from Europe he resumed practice and in 1856 joined the San Francisco County Medico-Chirurgical Association. There he met Elias Cooper for the first time and was an active member of the Association at the time of Cooper's expulsion in October 1857. We next meet Dr. Morison in February1858 at the stormy third session of the California State Medical Society where Cooper came under attack. At that time, Morison was serving as a delegate to the Society from the newly established Pacific Medical and Surgical Association which, as we have learned, exonerated Cooper from Wooster's charge of advertising. During the 1858 meeting of the State Society, Morison's regional stature in the medical community was recognized by his election as one of the five Vice Presidents for the coming year, and by his appointment to the Committee on Publications. We know little else of Dr. Morison's professional life except for these medical society affiliations.[38]

We can at least be sure that he was well acquainted with Cooper and his problems. Notwithstanding, it is obvious that Morison had confidence in him for he rented an office in the Pacific Clinical Infirmary on the 20th of July 1858. It is also evident that Morison's confidence was reciprocated by Cooper who had him called as a witness in the Hodges Trial. On the witness stand Morison asserted, citing the famous Baudeloque of France as his authority, that cesarean section is a safer operation than the craniotomy procedure being touted by the plaintiff's witnesses. In response to their claim as to the extreme difficulty and deadly risk of the cesarean operation, Morison said that the dangers of the procedure are much exaggerated and that he looked upon it as one of the most easy to perform. On the whole Morison's testimony was notable for its candor and prudence. Unable to discredit the witness, as was the usual strategy, the frustrated attorney for the plaintiff finally concluded his lengthy interrogation with a sarcastic: "That will do Professor Morison."[39]

These generalities are all we have been able to learn about Dr. Morison's career. Certainly he was an experienced and respected professional. In the Annual Announcements of the University of the Pacific for 1859-60 he is listed as a member of the University's Board of Trustees, presumably as a replacement for Dr. Henry Gibbons.

Benjamin R. Carman was, like Isaac Rowell, a bona fide "forty-niner," a distinction of some importance in the medical hierarchy of early California. As we have seen, he was warmly endorsed for the Chair of Materia Medica by Dr. Cole who wrote to the Board of Trustees, with characteristic hyperbole, that he had known Dr. Carman personally for the past twenty years. If true, Cole would have been about nine years old when first they met.

Carman (whose date and place of birth we do not know) and Cole probably met in Philadelphia where Cole received his MD from Jefferson Medical College in1849. Carman graduated from the University of Pennsylvania in the same city, possibly at about the same time, although the date of his graduation is unknown.[40] We know nothing further of his career in the East, nor do not we know how or when he reached California. Our next information about Dr. Carman comes from newspaper notices which place him in Sacramento on 8 December 1849 engaged in closing a deal to purchase an interest in Sutter's Fort Hospital. It was also in December 1849 that J. D. B. Stillman and John F. Morse were building a hospital in Sacramento which they opened on Christmas Day.

We again lose track of Dr. Carman. There is no record of his having been a member of either the Sacramento Medico-Chirurgical Association or the Sacramento Medical Association. At some time between 1849 and 1858 he moved from Sacramento to Marysville in Yuba County (about 40 miles north of Sacramento) for his name appears on the roster of the Marysville Medical Society. He seems not to have been active in regional medical affairs for he is not mentioned in the Transactions of the California State Medical Society for the sessions held in 1856, 1857 and 1858.

We assume that at some point he moved from Marysville to Nevada City for Cole informed the Board of Trustees in his letter of 6 December 1858 that Carman "was formerly from Nevada," no doubt meaning Nevada City located 50 miles northeast of Sacramento.[41][42]

Under the circumstances, we are forced to acknowledge that we know little about Dr. Carman's life and professional qualifications.

Five physicians and George Barstow made up the first faculty of the Medical Department of the University of the Pacific. Their ages were Cooper, 38; Cole, 29; Rowell, 40; and Barstow, 33. The ages of Carman and Morison are unknown. Most, if not all, of the faculty were relatively young men. Their indispensable attribute was loyalty to each other and to the school in the face of vicious opposition soon to come.

Curriculum, Requirements & Meetings

The following information on the Curriculum and Requirements of the Medical Department of the University of the Pacific is excerpted from the first Annual Announcement of the School published in 1859.

Lecture Courses

The following standard courses comprised the Annual Lecture Series of the curriculum:

- Pathology and Principles and Practice of Medicine
- Chemistry and Toxicology
- Physiology
- Anatomy (fully illustrated by preparations and the cadaver)
- Surgery
- Obstetrics and Diseases of Women and Children
- Materia Medica and Pharmacy
- Medical Jurisprudence

The Announcement also included a brief description of the content of each of the courses of which the following are interesting examples:

> Physiology. The lectures in this Department will embrace a consideration of both general and special physiology, including all that has been developed through the microscope, up to the present time, and will be illustrated by the largest and most complete series of colored drawings in the United States, prepared expressly for these lectures…
>
> When expedient, the microscope, an instrument to which the science of physiology is much indebted, will be used for illustrating important facts and principles, and the student will not only receive instruction in theory, but in the means of arriving at facts in this important science.
>
> Surgery. Instruction in this Department will embrace:
>
> - Lectures on the principles and practice of Surgery.
> - Demonstrative Surgery upon the cadaver.
> - Experimental Surgery, by vivisection, in which many of the most important principles are indelibly impressed upon the mind of the student. Members of the class are permitted to assist in these experiments upon animals, and afterwards expected to repeat them under the eye of the Professor of Surgery. This is an exercise above all others calculated to school the hand, the nerve, and the eye of the pupil, and thereby give him the experience he at once requires in performing the duties of an operative surgeon; a feature in medical education, however, almost entirely neglected in many other medical schools.
>
> In this State where, from numerous casualties, practitioners are constantly liable to encounter injuries requiring the gravest surgical operations without counsel or time to prepare themselves for the duty, all candidates for graduation will be expected to show themselves experts in vivisection, which can be so favorably conducted at all times in this city. (Sound educational policy in an era of almost universal general practice, and the need for the practitioner to know how to control hemorrhage, suture wounds, drain sepsis and amputate for gangrene.)

In keeping with common practice in other American medical Schools, a Preliminary Lecture Course upon subjects of importance was offered without charge to the student during the month immediately preceding the regular annual series.

Clinical Instruction

As we have already noted, during the 1850s about half the medical colleges failed to provide clinical instruction in a well-managed hospital. They instead relied on private clinics conducted by the Professors, a situation criticized by the A. M. A. as quite unsatisfactory.

Lacking a hospital affiliation, and well aware of this important deficiency, the faculty organized teaching clinics at the Pacific Clinical Infirmary The Medical Clinic was under the direction of Professor Morison, the Surgical Clinic under Professor Cooper and the Obstetrical Clinic (including Diseases of Women and Children) under Dr. Cole. In addition, as was the common practice in medical colleges nationally, each of the Professors served as Preceptor to one or more students

who saw patients with him in his private office.

> Requirements for the M. D. Degree:
>
> The candidate must be of good moral character, and at least twenty-one years of age.
>
> He must have attended two full courses of lectures in some regular and recognized medical school, one of which shall have been in this college.
>
> He must have studied medicine for not less than three years, and have attended at least one course of clinical instruction in an institution approved by the Faculty.
>
> He must present to the Dean of the Faculty a thesis or dissertation upon some medical subject, in his own handwriting, and of his own composition; and exhibit to the Faculty, at his examination, satisfactory evidence of his professional attainments.
>
> The degree will not be conferred upon any candidate who absents himself from the public commencement, without the special permission of the Faculty.

These Requirements are similar to those listed above for the average American medical school.

> Fees:
>
> The fee to each Professor is thirty dollars, payable in advance.
>
> The Matriculation fee is five dollars - to be paid but once.
>
> The graduation fee is fifty dollars
>
> Students may obtain good board in San Francisco at from six to ten dollars per week, and if they desire, may live at a less expense.

This concludes our summary of information from the first Annual Announcement of the Medical Department.

Further Highlights of Minutes of Faculty Meetings
Third Faculty Meeting, 21 December 1858:

Present: Professors Barstow, Cole, Cooper, Morison and Rowell.

The faculty had already begun to discuss the possibility of constructing a medical school building, and Sam Brannon had made a proposition to Professor Rowell in reference to a plot of ground. To look into this matter, Professor Rowell was appointed chairman of a Building Committee.

In order to settle once and for all the troublesome issue of admitting women to the new medical school, "Professor Rowell moved that such females as may desire to attend the lectures and graduate be accepted." As foreordained, the motion was lost unanimously. Thus the Medical Department of the University of the Pacific took the precaution in advance of its first Annual Session to slam the door on women applicants. With rare exception, the exclusion of women was standing policy in all other American medical schools at the time.

The Medical Department of Geneva College, a country medical school in Geneva, New York, was such an exception. This school accepted the 26 year-old Miss Elizabeth Blackwell for the fall term in 1847. In 1849 she completed the two-year course with honors and became the first woman to graduate in medicine in the United States. Miss Blackwell, a dedicated and courageous woman, had been previously refused admission to the medical colleges in both Philadelphia and New York. When the Dean and trustees of Geneva Medical College were unable to decide whether to accept her application in 1847, the faculty referred the question to the medical students. They graciously replied "that the application of Elizabeth Blackwell to become a member of our class meets our entire approbation; and in extending our unanimous invitation we pledge ourselves that no conduct of ours shall cause her to regret her attendance at this institution."

Dr. Blackwell's graduation from Geneva encouraged many other women to apply to medical colleges only to experience almost universal rejection. In response to the pressure from women and the stubborn refusal of medical schools to admit them, the first Female Medical College was chartered in Philadelphia in 1850. This school, precursor to the Medical College of Pennsylvania, admitted forty women to its first class in the fall of 1850 and graduated eight of them at its first commencement in 1851. However, it was not until after the close of the Civil War in 1865 that American medical schools, other than the four women's medical colleges that existed by that time, began gradually to open their doors to women.[43]

Fourth Faculty Meeting, 25 January 1859:

Present: Professors Barstow, Carman, Cole, Cooper and Rowell.

The Building Committee was granted more time to negotiate with Sam Brannon.

A Room Committee to be chaired by Professor Rowell was appointed to secure a room for the regular lecture course.

A Memorial Committee, chaired by Professor Barstow, was directed to draft a bill for presentation to the California Legislature asking an endowment for the Medical Department of the University of the Pacific.

Professor Barstow was appointed to deliver the Introductory Lecture at the Opening Ceremony of the school to be held on 5 May 1859.

Fifth Faculty Meeting, 1 February 1859:

Present: Professors Barstow, Carman, Cole, Cooper and Rowell.

Professor Rowell's Building Committee reported progress and was granted additional time; the Room Committee similarly;

Professor Bastow, chairman of Memorial Committee, read a bill requesting endowment from the Legislature. Professor Carman read a testimonial to accompany the bill (Copies of the bill and testimonial have not been found.)

"On motion, adjourned to Thursday evening the 4th inst."

(Note: There is no record of a Faculty Meeting being held on 4 February, 1859.)

Sixth Faculty Meeting, 25 February 1859

Present: Barstow, Carman, Cole, Cooper and Rowell.

The object of the meeting was to consider appointing a Committee to visit Sacramento for the purpose of presenting a Memorial and bill to the Legislature asking an appropriation to the Medical Department of the University of the Pacific.

On motion of Professor Cole, Professors Cooper and Rowell were appointed said Committee.

(Note: The bill was duly conveyed to the California Assembly of 1859. The Assembly took no action but referred the bill to the Committee on State Hospitals. There it failed, this negative decision being consistent with the Legislature's reluctance to support schools of higher education.)[44]

This concludes our selected excerpts from Minutes of Faculty meetings held during the period prior to the formal Opening of the Medical Department. As we see from the Minutes, Cooper organized the professors with dispatch and finesse, and they began at once to address practical issues facing new medical schools - such as space and money. In the short term Cooper would provide space for the teaching program in the Pacific Clinical Infirmary, and the school would be self-supporting. In reality, the founding of a medical school on the American plan was not a complex or expensive undertaking. That, in large part, accounted for the plethora of them.

Cooper Rebukes Dr. J. P. Whitney for Slander

From time to time we must interrupt our account of the evolution of the new school to touch on the concurrent vicissitudes of Dr. Cooper. The favorable outcome of the Hodges malpractice trial in early December 1858 did not moderate the Pathological Society's campaign of vilification. The dissemination by the clique of false and defamatory rumors about Cooper continued unabated. As an example of this pernicious behavior, we must now introduce Dr. J. P Whitney, a rather loquacious member of the Society. He testified during the trial that he graduated from the Jefferson Medical School and that he could think of nothing that would justify the performance of a cesarean section on Mrs. Hodges. At some time around the termination of the trial, in the presence of attorneys from the trial and various bystanders, Dr. Whitney initiated a sidewalk gossip-fest during which he made untrue and derogatory comments about Cooper, who curtly demanded an explanation:[45]

> San Francisco, 5 February 1859
> To Dr. J. P. Whitney
>
> Sir,
> I learn that in the presence of Mr. J. C. Cramony, the Honorable Ed Stanley, General McDougal, Dr. B.A. Sheldon, and others you made the following extraordinary statement, viz., that I had said I had left the Atlantic states because of being disgusted with the medical profession there and came to this coast for the purpose of making money, regardless of the rules of the medical profession, or words to that effect; and that you could prove the same by the oath of Dr. White, the former surgeon on the S. S. Sierra Nevada.
>
> The statement that I had made such a remark is unqualifiedly false.
>
> I never was disgusted with the profession anywhere. On the other hand, I have always sustained the highest regard for all honorable medical men and formed my strongest friendships and most intimate acquaintances among them.
>
> In the presence of Messrs. McDougal and Sharp (Cooper's attorneys during the trial), the latter being called specially as a witness to the conversation, Dr. White denied ever having authorized you either directly or indirectly to make such a statement. Now I am not aware whether you and your associates, who have I believe been in the habit of falsifying and in every possible way traducing my professional character without any cause, profess to be guided by the principles of gentlemen, viz., truth, honor and courage; and I am doubtful even now whether the only punishment a gentleman is justifiable in administering you is not that which I have invariably resorted to heretofore, viz., to treat all your statements with silent contempt.
>
> A copy of this communication will be sent to each of the parties above mentioned and you simply left at liberty to rest under the charge of having made a false statement or not, as you may feel disposed; but you must bear in mind that the odium of having uttered a falsehood for a malicious purpose takes from you forever the name of gentleman and that those who receive the copy of this note must regard you accordingly unless you free yourself from the charge.
>
> Yours,
> E. S. Cooper

As time passed Cooper was increasingly embittered by the unremitting hostility of an intransigent element within the medical profession in San Francisco, leading him on 20 October 1859 to inscribe the following comment as a footnote on his file copy of the above letter:

> The inexpressible feeling of contempt evinced in the above communication for this traducer of character and his associates has heretofore been the cause of (my) not noticing the unparalleled abuse which this clique of medical men have constantly heaped upon (me).

In due course Cooper's steadfastness, and vigorous rejoinders to his critics, were rewarded by defection to his Faculty of Dr. A. J. Bowie, the first President of the Pathological Society, and also of Dr. J. P. Whitney who later developed a personal interest in the new school.

Fourth Annual Session of the Medical Society of the State of California
Sacramento, 9-11 February 1859

Whereas the Third Annual Session of the State Society had been the occasion for a concerted assault on Elias Cooper in an unsuccessful effort to expel him from the Society, the principal business of the Fourth Annual Session was the attempt to censure Beverly Cole and terminate his membership in the Society because of the Obstetrics Report.[46]

On the first day of the Fourth Session, President Stout in the chair, Dr. Bertody took the floor to offer the following Resolution:

Whereas, we, the members of the Medical Society of the State of California, have discovered with deep mortification that a paper of an offensive and unjust character was received at our last annual meeting and published in our volume of Transactions, as a Report by the chairman of the Committee on Obstetrics, without arresting the attention of the Society; and whereas, the slanderous nature of the language used in said Report makes it incumbent upon us, inasmuch as it has apparently received the indorsement of the Society, to disavow the same, we herewith make the following statement in the premises: To all persons accustomed to attend an annual meeting of a Society it can be readily understood how speeches, motions or communications generally meet with attention in proportion to the respect and confidence which the respective authors are capable of enlisting, and how these circumstances may enable an individual, through a passive indifference and inattention on the part of the Society, to engraft offensive or objectionable articles upon the rapidly current proceedings. We believe that this must be taken as an explanation of the manner in which the article of Dr. R. Beverly Cole was incorporated with the business and publication of our Society - the paper having been read towards the close of the Session, when not more than from twenty to twenty-five members were present, who, with the President and Secretaries, were much engaged with the preceeding business which had accumulated on their hands, and the committee on Publication having no discretionary power to alter or amend a Report after its reception by the Society; therefore

Resolved, That the Report of R. Beverly Cole, read at the last session of this Society, and conveying a slander upon the female portion of our population, is an abuse of our opinions, false, in fact, calumnious of our true sentiments and entitled to our unanimous repudiation…

Resolved, That by the disgrace which Dr. Cole has entailed upon the Society through said Report, he has forfeited all claim to our respect as a member of this Society, and that his name be stricken from the roll.

There was a determined effort (supported by President Stout) to pass immediate summary judgement on Dr. Cole by trying his case before a Committee of the Whole of the Society. After extended debate, it was decided that a Select Committee of Five should be established to investigate the charges against Dr. Cole and to prepare a report and recommendations to be voted on by the thirty-nine members then in attendance. Thirty-four members were absent, making a total of seventy-three members enrolled in the Society at the time of the Fourth Annual Session. Henry Gibbons was appointed chairman of the Select Committee of Five which included the respected Thomas Logan among its members.

In the usual order of business, Dr. R. B. Ellis of Sacramento was elected President of the Society to replace Stout. According to normal procedure, the incoming President of the Society should assume the post immediately upon election and serve until new elections at the next Annual Session. In a highly irregular move, Stout attempted to delay Dr. Ellis's assumption of the Presidency until after the report of the Select Committee so that he, Stout, could preside over the debate on the report. When Stout was challenged and defeated on this underhanded maneuver, he teamed with Bertody to seek passage of a motion to require the Select Committee to report their findings without further delay. At this point Gibbons, master parliamentarian, blocked the move and secured deferral of the Committee's report until the evening of the second day of the meeting when all witnesses and Dr. Cole had received a proper hearing. The following report was then submitted:

The committee on the case of Dr. Cole report: that they have given the subject a patient and deliberate investigation, and heard all the testimony bearing upon it, within their reach.

The most obnoxious passages in the report of Dr. Cole, are - First, that which has been construed to charge that two -thirds of the women of California are subjects of the venereal disease. Second, the declaration that unmarried females are guilty of "every species of immorality." As the meaning of the author in both these cases is, to say the least, ambiguous, the committee requested Dr. Cole to explain it to them. They received from him besides a verbal statement, the following declaration in writing:

To the Special Committee of the California State Medical Society

Gentlemen,
My "Report on Obstetrics and Diseases of Women" was written hurriedly during the sessions of the Society, and without any view to its publication, much less the expectation that it would be subjected to censorious criticism by the public press, and by individuals in and out of the profession personally hostile to me. In the portions which had given offense, I had not the slightest design to impugn the chastity of the females of California.

So far from asserting that two-thirds of them are the victims of prostitution, the idea of prostitution or of veneraal disease did not enter my mind in connection with the statement. I referred exclusively to diseases directly and remotely involving the uterine system and to which women alone are subject. The expression "every species of immorality," as to unmarried females, was used in a qualified sense, and intended to apply to the common dissipation of fashionable life, as explained in the context immediately following. Though the language was certainly ambiguous and calculated to give an impression different from what I intended, yet I do most unqualifiedly and indignantly disclaim the construction that has been put upon it. It seems to me that the context and the general nature of the report might lead to a different version, unless with individuals desirous to make mischief and to do me an injury.

I am, gentlemen, yours, etc.,
R. Beverly Cole

The idea that two-thirds of the females in California are prostitutes, or are victims of veneral disease, is so preposterous that no sane man would be likely to utter it. And the fact that Dr. Cole's report was read before the Society and adopted, and then passed through the hands of the Committee of Publication, and was printed without conveying either to the Society, or the committee that impression, indicates that it does not necessarily bear that construction; and that however unfortunate the author has been in his choice of language, he did not intend to perpetrate such an infamous slander.

Being acquitted of slanderous intent, it remains to be considered how far the author of the report has offended in the careless use of language conveying false and unjust impressions.

The action of the Society in adopting the report, and the subsequent action of the Committee of Publication upon it, constrains us to the exercise of charity on this head. There can be no doubt that the language of the report in question was very loose and improper. But in this regard, having adopted and indorsed it, no matter under what qualifications, or with what mitigating circumnstances, we are sitting in judgement on ourselves. Further, it should not be forgotten, in this relation, Dr. Cole has already suffered an extreme penalty for his share of the error.

It is evident that the principal difficulty in this case has resulted from the injudicious conduct of the press, in calling the document under consideration from its privacy within the limits of the profession, and exposing it to the public view, with the worst possible interpretation. The whole subject of obstetrics and female diseases belongs to the closet of the medical practitioner, and not to the newpaper. For the curious stranger to intrude into the lying-in chamber, is not more improper than for the public press to criticise and expose this department of medical literature. Had no notice been taken of the report in the newpapers, it would have slumbered quietly on the pages of our proceedings.

The committee would avail themselves of this opportunity to pronounce a condemnation on the practice of getting up hasty reports on the important topics alloted to the standing committees. For such neglect of duty there is no excuse. An entire year is given for preparation. The members of the committee, especially the Chairman, are notified of their appointment. Under these circumstances, the objects of the Society are completely frustrated by procrastinating the subject till the last day, and then hurrying up crude and ill-digested papers as a nominal fulfillment of duty. Papers drawn up in such haste are not likely to do credit to the writer, nor to the society. It is to be hoped the present instance will be a warning to all for the future.

In conclusion, your committee recommend the adoption of the following resolution:

Resolved, That while the language used by Dr. Cole in his report is ambiguous and susceptible of a bad construction, his disclaimer, together with the general results of our investigations, entitle him to acquittal from the charge of intentional slander against the women of california.

H. Gibbons
Wm. P. Tilden
Thos. M. Logan
Ira E. Oatman
Jno. T. McLean.

The careful wording and moderate tone of the report reflect the fine hand and impartial spirit of Henry Gibbons. After a lengthy discussion and the defeat of several contrary motions, the question of the adoption of the report of the Select Committe of Five was finally put to the vote. The Report was adopted by a majority of 22 to 8. Although Cole was properly chastised by the Committee for his unwarranted and offensive "reflections," he was not censured or expelled, thanks in large part to the involvement of Gibbons in the proceedings.

Among those voting "aye" on the Committee Report was Elias Cooper who maintained a low profile during the meeting. Uncharacteristically, he did not submit a single proposal from the floor. No doubt he was still smarting from the criticism he endured at the Third Annual Session of the Society the previous year.

Among those voting "no" on adoption of the Report were C. A. Bertody, H.M. Gray, A. B. Stout and J. P. Whitney - all allied with the faction of San Francisco physicians that Cooper dubbed the "Pathogical Clique," who were almost as hostile to Cole as they were to Cooper.

The reputation of the State Society and its usefulness as a forum for professional discourse were further diminished by the dissension over the Cole case. Before the Fourth Annual Session ended on 11 February 1859, eleven disgruntled members (i. e. , fifteen percent of membership) had resigned from the Society. Eight were from San Francisco, most of them identified with the Pathological Clique: (Bertody, Gerry, Gray, Sharkey, Stout, Trask, Whitney and Wooster). Stout chose to show his displeasure at the outcome of the Cole case by refusing to deliver his valedictory address as the outgoing President. Instead, he took the podium to blast Cole, to preen himself on his zeal in promoting the welfare of the Society, and to announce his resignation from it.

The other three members who resigned were from Sacramento. They were Fourgeaud, Hatch and, alas, Thomas M. Logan, collaborator with Cooper in founding the Society. He was perhaps the most highly regarded of all its members. The loss of his participation was a near fatal blow to the organization.

The further dissolution and ultimate demise of the Society were now only a matter of time. Ironically, it was the ill-considered actions of Cooper and Cole that set the State Society on a downhill course at the very time when they were laying the foundation for another worthy enterprise, a medical school in San Francisco.

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Chapter 16. 1st and 2nd Annual Sessions Medical Dept, University of the Pacific 1859 - 1860

Opening Ceremony Medical Department, University of the Pacific

At eight o'clock on the evening of Thursday May the 5th a large and intelligent concourse of persons convened to witness the ceremony attendant on the formal opening of the Medical Department of the University of the Pacific. At a little after the hour the Board of Trustees and Faculty of Medicine entered and took seats on either side of the stage. The exercises were opened with prayer after which the Honorable George Barstow, Professor of Medical Jurisprudence, delivered a Salutory Address to the Board of Trustees of which the following are the fervent introductory passages:[1][2]

> My colleagues have confided to me, on this occasion, the agreeable duty of giving formal expression of our thanks to you, that in this great state, so recently called into existence by the power of the American people in their triumphant progress, you have seen fit to establish an institution of learning.
>
> We thank you that in this, the chief city of that new world which American enterprise has built upon the shore of the Pacific ocean, at once a witness and a monument to the irresistible energy of Freedom - that here in San Francisco you have, with wise forethought, established the Medical Department of the University of the Pacific.

The President of the Board, Reverend Briggs, was unable to attend the Ceremony and the responsibility to deliver a response to Professor Barstow's eloquent salutation fell at the last moment upon the Reverend Jesse T. Peck. He rose to the occasion with an impromptu peroration of which the following is the remarkably insightful passage he addressed directly to the Faculty of the Medical Department:[3]

> But, gentlemen, to you belongs not merely the credit of maturing and bringing forward the plan, but also that of making the sacrifices and performing the labor of its inauguration; and I need not tell you that these sacrifices and exertions must be of no ordinary kind. No institution can raise and gain an elevated rank without a struggle. Every truly great idea must battle for its place amid the selfish ambition and the fierce antagonisms of this frenzied age; and no one of us here can claim the prophetic gift in so high a degree as to venture to indicate the conflict you are destined to pass in the development of your favorite scheme. We doubt not you will maintain your position with becoming energy and with high professional ability; and I have no hesitancy in pledging to you, on the part of the Board, a firm and hearty cooperation. Other similar institutions will doubtless arise, each fulfilling its peculiar claims to the public consideration and patronage; but as the Medical Department of the University of the Pacific will inevitably be the oldest school of medicine and surgery on the Pacific Coast, let us resolve that it shall be the best.

Now Professor Barstow returned to the podium to deliver an eloquent and wide ranging Introductory Address dealing with the intellectual and moral obligations of the physician, and the importance of education to the future of the nation. The reporter from the Alta California who covered the proceedings described his discourse as a masterly effort that throughout its delivery riveted the attention of the audience.

The Reverend Mr. Cutler, a clergyman not associated with the University of the Pacific, gave the final address of the evening. Speaking for the community at large he welcomed the inauguration of the Medical Department as adding another force to the great cause of education and mental culture on the Pacific coast where "a new society has come into being and is in the process of crystalization."[4]

> All honor, then, to the zeal and enterprise of those men who have founded this Department of the University of the Pacific. It should bear the name of Cooper, written on its very front. By its success and stability as an institution for the promotion of surgery and medicine - the first established on the Pacific ocean - it will carry down to posterity the names of Cooper, and Morison, and Rowell, and Cole, and Carman, and Barstow; names already honorably associated with learning, ability and skill in their professions; and the deep satisfaction will be theirs, of here planting a seed, the leaf of whose tree shall be for the physical healing of this and generations to come.

We shall leave the last commentary on this memorable occasion to the reporter from Alta California who wrote:[5]

> Thus was duly inaugurated the first Medical College on the shores of the Pacific. May it go forth "with healing on its wings," and be the means not only of alleviating the distresses of suffering humanity at home, but elevating and improving the character of our educational institutions abroad.

First Annual Session of the Medical Department May to September 1859

Twelve students[6] were matriculated during the First Session, a respectable beginning for a pioneer medical school on the educational frontier of the country. The question of finding a room for the lectures and of constructing a medical school building had already been discussed in Faculty meetings, reflecting the desire of the Professors to establish the School's independence from any individual's practice or facilities. At the outset, no other suitable accommodations having been secured by the Room Committee, lecture sessions were held in the top story of Cooper's Infirmary. Dean Cole felt that these modest, rent-free quarters were beneath the dignity of the first and only medical school on the Pacific coast and continued to urge the renting of a separate and more conspicuous site. In fact, for a time, he paid the rent out of his own pocket for a part of Union Hall, but it was not many months before classes were moved back to the top floor of the Infirmary. There they remained until three years later when other arrangements were finally made.[7][8]

The Lecture Plan for the year was worked out at a Faculty Meeting on 2 April 1859. According to later commentary by Cooper, the Professors were most conscientious in the performance of their duties and rarely if ever missed a class. Cooper himself carried a heavy teaching load with a one-hour lecture at three p. m. on Monday, Tuesday, Thursday and Friday, and a two-hour clinical session on Wednesday and Saturday at two o'clock. As mentioned, students in American medical schools often requested a professor to permit them to publish a lecture which pleased them. Also, Introductory and Valedictory Lectures were commonly published by the school. Under the circumstances we are surprised to find that none of Cooper's lectures were ever published.

Early in the First Session of the Medical Department, Dean Cole journeyed to Santa Clara and made a progress report to the Board of Trustees of the University. According to the following excerpt from the Minutes, the Board took the occasion of his visit to establish the procedure for awarding the M. D. degree:[9]

> Santa Clara, 7 June 859
>
> Dr. R. Beverly Cole was invited to take a seat with the Board and at their request made an interesting statement of the condition and prospects of the Medical Department. Dr. Peck then offered the following resolution and preamble which were adopted;
>
> First - That upon the recommendation from the Faculty of the Medical Department certifying the proper qualifications in character and acquirements, this board will issue its mandamus for the graduation of candidates to the degree of Doctor of Medicine; and the same order shall be observed in conferring the Honorary title of Doctor of Medicine.
>
> Resolved second - That the Diplomas of graduates in this Department shall be signed by the President of the University and Professors of the Medical Department and sealed with the Medical seal of the University.

From the standpoint of the internal affairs of the Medical Department, the first Annual Session went very smoothly. Two of the twelve matriculated students had previously taken a full course of lectures elsewhere and were therefore awarded the M. D. degree at the close of the Session on 13 September 1859. These two graduates, the first to receive the M. D. degree west of the Mississippi Valley, were:

Alfred Atkinson

Charles E. A. Hertel.

The Board of Trustees were gratified by the performance of the new Department, as briefly recorded in the Minutes of 13 September 1859:[10]

> The Medical Department has just closed its first session under auspicious circumstances. The Faculty matriculated thirteen students of whom two received the degree of M. D. The Department appears to be in a flourishing condition.

Petition for Access to the San Francisco City and Count Hospital

We have already pointed out the need for a medical school to have access to a sizeable, well-managed hospital for clinical teaching. The forward-looking Cooper was, of course, eager to make such an arrangement as soon as possible and to that end submitted the following petition to the San Francisco Board of Supervisors early in 1860:[11]

> Date: (Early 1860)
>
> To the Board of Supervisors, City and County of San Francisco:
>
> We the undersigned members of the Faculty of the Medical Department of the University of the Pacific, having established in this city the above institution as a permanent College of Medicine and Surgery, are desirous of throwing around it all those aids which are the bulwarks of medical education everywhere, and among which clinical teaching occupies the first place. We would therefore respectfully represent to your Honorable Board that you have it in your power to do much towards encouraging and furthering the interests of this College without any expense or inconvenience to the Commonwealth which you represent, but on the other hand the high estimation in which we hold clinical advantages to students of a Medical College are such as to induce us to make a proposition to you at once advantageous to yourselves and constituents as property holders and citizens.
>
> We propose as follows: that our faculty (who are practitioners as well as teachers) will give all the necessary attention as visiting physicians and surgeons to the City and County Hospital free of charge provided we can have the privilege of delivering clinical lectures to the pupils of our Medical College in the Hospital. This, as your intelligence and experience must enable you to know, is almost universally done in large cities in which there are Charity Hospitals and Colleges of Medicine.
>
> We will further propose and agree to appoint two of our most competent graduates of each year as resident physicians and surgeons and will hold ourselves individually and collectively responsible for the faithful performance of the duties of the same at a salary each of five hundred dollars per annum with board and lodging in the Hospital.
>
> In making this proposition as may readily be seen, we have no pecuniary advantages to gain, our sole motive being the advancement of our College of which the honor as well as our own reputations are hereby pledged for the faithful discharge of our duties to the sick poor if our proposition be accepted. Besides the acceptance of this proposition would save the City and County of San Francisco the sum of thirty-eight hundred dollars a year.
>
> With this guarantee in favor of the patients of the Hospital, associated with the fact that the interests of the whole community will be subserved in the acceptance of our proposition, we trust that your Honorable Board will not hesitate to take a step so well calculated to promote the cause of medical education on this coast as well as to save the expenditure of a large amount of money each year to the City and County you represent. The latter consideration is rendered the more worthy of mention when it is remembered that the City and County of San Francisco have constantly to support an immense number of indigent sick from all parts of the State while none of their paupers are supported by other counties.
>
> The change which is hereby proposed by us is by no means new, but is exactly similar to that which has long been adopted by the

> Board of "Ten Governors" of New York City in the management of Bellevue Hospital and those of Blackwell's and Randall's Islands, as well as by the Commissioners of Emigration of the State of New York in the Hospitals which are under their control. Experience has there long since indicated that propriety of this system as by far the most economical, whilst at the same time, there is secured by it every attention to the unfortunate poor who are compelled to resort to such institutions.
>
> Respectfully,
> E. S. Cooper, M. D.
> and other undersigned Faculty

In the above letter Cooper made a persuasive case for converting the City and County institution into a Teaching Hospital by delegating responsibility for medical care to the Faculty of the Medical Department of the University of the Pacific. Cooper's proposition also included the establishment of a rudimentary graduate training program by the assignment of two graduates each year to the Hospital Staff as Residents to serve under the supervision of the Faculty. However, as is usually the case in public hospitals, local physicians were already serving in salaried positions as Hospital Staff, and the Board of Supervisors were reluctant to replace them. We shall later see how Cooper decided to cope with the political realities of this situation.

Extracurricular Events

We must now turn reluctantly to the far from auspicious circumstances to be found in the local medical community where the new school and its founder were viewed by some of the prominent San Francisco doctors with strong disapproval. Close behind Professor Cooper in the disfavor of the self-styled medical elite was Dean Beverly Cole. We have already reported his arraignment before the State Medical Society in February 1859, just prior to the opening of the school, on the charge of libeling the women of California.

Santa Clara College Distances itself from the Medical School

The Faculty of Santa Clara College were painfully aware of the criticism of the medical school and certain of its Professors emanating from a prominent faction of the medical profession in San Francisco. They were therefore anxious not to be associated in the mind of the public with the controversial new institution. There was the real possibility that this might occur because the little town of Santa Clara was the site not only of the University of the Pacific but also of Santa Clara College (now the University of Santa Clara), a Catholic institution chartered in 1855. Although chartered four years later than the University of the Pacific, Santa Clara College had the distinction of awarding the first baccalaureate degree in California, to a single candidate in 1857. Nevertheless, "there was a ringing note of triumph at commencement time in 1858 when the graduating class (of the University of the Pacific), five young men and five young women, stepped proudly forth to receive the first baccalaureate degrees ever conferred in the state of California," - with the exception, it was necessary to add, of a graduate from Santa Clara College in the previous year. There was, naturally, keen competition between the two schools.[12]

About the beginning of the first session of the Medical Department, the agent of Santa Clara College became fearful that his school would be stigmatized by a supposed connection with the Department because Santa Clara College was located in the same town as the University of the Pacific. To forestall this unwelcome prospect, he ran an advertisement for some months in the San Francisco newspapers stating that the "Medical Department of the University of the Pacific is in no way connected with Santa Clara College, established by the Fathers of the Society of Jesus."[13]

The Scalpel Affair

Cooper himself was under heavy fire. He had hoped that interest in the Hodges malpractice suit would rapidly fade but he underestimated the persistence and treachery of his enemies. They conspired to revive the issue just as the first Session of the School was getting under way. We refer to a scurrilous article in a New York medical journal, The Scalpel for April-June 1859. The journal's editor, Dr. Edward H. Dixon, was a surgeon and self-anointed defender of "abuses of Medicine and Domestic Life." He had literary pretensions and was noted for his savage verbal assaults on medical miscreants, as he defined them. In an opinion piece entitled An Awful case of Malpractice; Cutting through the Abdominal walls and the Uterus to extract the child, when there was ample room for delivery by the Forceps or Perforator, he pronounced the following ex cathedra judgement on Cooper:[14]

> A much-esteemed friend has sent us a voluminous phonographic report of two hundred and fifty pages, consisting mostly of the testimony of experts, summoned in the suit for mal-practice in the performance of the Caesarean operation … by Dr. E. S. Cooper, of San Francisco…
>
> It is impossible for us to give our medical readers any part of the voluminous evidence in this truly horrible case; for horrible it was, beyond any transaction we have ever read in the history of our profession. It was performed without a shadow of necessity, at the end of a labor of sixty hours, during the last twenty-four of which the head was in the lower strait, the vertex distending the vulva, and the child dead! all of which was proved by all the testimony for and against the operator. The consulting physician, Dr. Wooster, seems to have been a wretched tool in the hands of Dr. Cooper.. .
>
> Horrible, however, as the operation was, (and we do not propose to repeat the sickening details,) what will the reader say when he learns that the urine had not been drawn off at all, and the bladder was absolutely incised above the pubes to evacuate it! …
>
> The judge gave a lucid and extremely fair charge to the jury, although there was in reality but one side to the case; the prosecution having fully proved, by nearly every one of the medical experts summoned - some of whom were very able, "that the operation," in the language of the prosecuting attorney, "was unskillfully, brutally, wantonly, and maliciously performed." The jury remained out all night and a portion of the next day, and were then discharged by the court, because they could not agree; they stood six for plaintiff and six for defendant! so much for a jury trial in California, when the defendant is a very popular man.
>
> We have been at some pains to inquire of others residing here, as well as ourselves, what could have influenced Dr. Cooper to perform this operation, and what his actual attainments and position were in California, to permit him to perform an act so defiant to humanity and science; entirely unacquainted as we are with any of the parties or witnesses, our sympathies would have been with him, as a persecuted man, on learning from an intimate friend in this city that he occupied that position towards nearly all of the faculty of San Francisco, as possessing the indisputable popular one of "being the first surgeon on the Pacific coast;" we have been forced, in a fair analysis of the evidence, to the melancholy conviction that the operation was not ignorantly, but wantonly performed, and for reputation alone…
>
> Enough of this sickening case; why do we publish it, we presume will be asked by some wretched medical conservatist or selfish and cold-blooded reader. Because this is the Scalpel, and we are - what we are.
>
> The chamber of the parturient woman is as sacred as the grave of a dead mother, and every act there performed by the surgeon, should be weighed in his conscience as though the spirit of that mother looked down upon him. We hope Dr. Cooper will live to take a manly and humanitary view of that profession which we revere as the noblest man can exercise. As for Dr. Wooster, we earnestly advise him to quit the profession.

Soon after the April-June 1859 issue of the Scalpel containing the above article reached San Francisco, a person or persons unknown reprinted the article in an elegant circular and distributed it widely up and down the Pacific coast. The circular included the full text of the Scalpel article except that the final sentence earnestly advising Dr. Wooster "to quit the profession" was omitted. Without doubt, the perpetrators of this anonymous stratagem to discredit Cooper belonged to that cabal of San Francisco physicians who instigated the Hodges suit and co-opted Wooster as a willing dupe in the scheme. Unfortunately for our efforts to round up all the suspects in the plot, Dixon never disclosed the name of the "much-esteemed friend" who sent him the transcript of the trial.

We shall now attempt to relate in chronological order the subsequent events in a controversy kept alive by the gullibility of Editor Dixon and his unfortunate tendency to publish anonymous communications.

First let us mention that we found the following handwritten letter from Cooper to Dixon dated 20 August 1859 among Cooper's papers:[15]

> San Francisco, California,
> 20 August 1859
> Dr. Edward H. Dixon (Editor, Scalpel, New York City)
>
> Sir,
> There is circulating in California at this time a paper apparently a Scalpel extra the object of which appears to be to condemn my course in a certain Caesarian Section and to deplore the unjust verdict of a California jury for not finding me guilty of malpractice as alleged by Dr. Wooster and others.
>
> You are entirely deceived in regard to the true state of this case if you depend upon the report of it as published in the (Pacific Medical and Surgical Journal).
>
> The whole of the allegation for malpractice rested upon Dr. Wooster's testimony and his testimony was entirely a manufactured case.
>
> The child's head never came within two inches of the vulva though an ecchymosis of the scalp of two inches in thickness had protruded into the constricted vagina.
>
> E.S. Cooper

Dixon never acknowledged the above letter but a communication from Dr. Meredith Reese to Dr. Cooper (which we shall reproduce later) indicates that Dixon did receive it.

Next in chronological order, we find published in the Scalpel for July-September 1859 "A Letter of Encouragement" from a San Francisco correspondent who signed himself only as "H." This lengthy communication, dated 1 January 1859, appears to be from an eccentric or, more likely, an impostor who thanks Dixon for his "glorious journal" and urges him to "Go on then with your bold and glorious course. Here in San Francisco there are many who know how to appreciate your journal; and no matter what 'the profession' may say, it is destined to occupy a niche in the temple of fame, which he only can hope to reach, who shall be as bold and as true to mankind as you have proved yourself to be." The rambling letter concludes with the following paragraph:[16]

> Your review of the trial of Dr. Cooper, for the terrible abuse of his professional character by that dreadful operation you so fearlessly rebuked in your last number, has stamped your journal as the truly independent and fearless advocate of conservative surgery and humanity. You have before you, I hope, a long and glorious career; here, it is useless to decry your efforts; all your opponents can do is to be silent; the people are with you, and it reflects disgrace upon those who oppose you.
>
> (Signed:) "H"

This essentially anonymous letter is probably a hoax. It is dated 1 January 1859 which is six months prior to Dixon's review of the cesarean operation in the April-June issue of the Scalpel. Dixon's vanity and desire to take another dig at Cooper led him into gross editorial impropriety in printing an unsigned letter so dated.

At about this time, Cooper received the following friendly communication from Dr. Meredith Reese, Editor of the American Medical Gazette, a New York medical journal to which Cooper had submitted a number of manuscripts:[17]

> New York,
> 23 October 1859
>
> Dear Sir,
> Every article you have sent us has been inserted in the Gazette, including the one you countermanded, your letter reaching me after the number was out.
>
> So much for explanation. And now let me say to you, as your friend,

that your defence of your operation of cesarean section, (about which the Scalpel has made such an onslaught upon you), is due to yourself. The voluminous trial which Dixon has, is the basis of his abuse. Why not publish a Report of that case from your own pen? and thus do yourself justice and disarm your enemies.

May I say confidentially to you, that it is bad policy and worse taste for you to provoke a war with the editor of the Scalpel. Somebody, as I hear rumored, has written him a defiant letter, imputing black mail etc., which is anonymous. The same (post) brought a letter from you in a different tone, but he, I learn, ascribed both to you, and will publish both with comments which I fear will be in his savage style and bode you no good.

As your friend, I think your explanations and defence should be sent to him, asking him to do you justice, but you must not involve me as this is strictly sub rosa…

How comes your school? Let me hear.

Yours truly,
D. M. Reese
Editor, American Medical Gazette

Dixon's transcontinental crusade against Cooper made such good copy that he chose to continue it in the pages of the Scalpel. Handicapped by an unfamiliarity with the gorilla methods of the San Francisco medical mafia, Dixon published the following anonymous letter which was doubtless instigated by them. The letter appeared in the Scalpel for October-December 1859. He erroneously attributed the letter to Cooper whom he proceeded to ridicule unjustly on account of it.[18]

A Letter of Reproof from California

San Francisco
Aug 26 '59

(Dear Dr. Dixon:)
"If it is really so that the Ed of the Scalpel has authorized his California agent to have 25,000 extras distributed on this coast, he has descended from the high position in which his talents and reputation heretofore placed him; he has indeed permitted himself to become the tool of pupies, conspirators, and professional traitors.

"If Dr. Dixon thinks to Levy Black Mail upon Dr. Cooper he has calculated without his hoast (sic). Dr. Cooper knows too well the importance of attending to his own business and disregarding the dastardly attacks of his enemies."

(Unsigned)

For the above encouraging and polite letter, although without the usual courtesy of a super or subscribed name, we presume we are indebted to Dr. E. S. Cooper of San Francisco in return for our review of his trial for malpractice in that city. It was accompanied with the remarks we made, very elegantly printed on a fine letter-sheet, and duly credited to the Scalpel. We had already received the circular, with congratulatory comments for our "humanity, boldness, science," etc. etc., from two other gentlemen, to whom, with Dr. C., we return our sincere thanks for the courtesy, but assure them we are entirely unconscious of the admirable qualities they so generously concede us. Dr. Cooper will pardon us for suggesting to him that the mode of levying black-mail usually adopted by the practitioners of that honorable process is, to send the proof of the article, with a polite request to the proposed victim to read it and correct any inaccuracies, previous to its intended publication, with the assurance of its valuable properties as good reading matter, to the editor, and the value of the space should the party most interested wish to see it otherwise occupied. "Our agent," as Dr. C. would say, has calculated without his "hoist" (sic) in publishing so largely. We assure Dr. C. we are perfectly innocent of the enterprise, and presume it was done by some of the "pupies" he so naively speaks of; such "tools" as are fashioned out of good Scalpel metal are rather dangerous to handle. Dr. C. is evidently lame in his judgment of such cutlery.

In January 1860 Cooper began to publish the San Francisco Medical Press, an event which we shall discuss in more detail shortly. We mention this important development now because Dixon's harassment was so obnoxious to Cooper that he felt obliged to defend himself in print. This he did in the following moderate editorial in the first issue of the Medical Press: [19]

The New-York Circulars - Some months since, there were distributed freely among members of the profession, as well as laymen, circulars purporting to be extracts from the New-York Scalpel, in which a terrible onslaught was made upon our professional character. These circulars were evidently published and distributed through the agency of those who were willing to expend money for no higher purpose than that of doing us an injury. We do not know that they contained authentic extracts, but if the editor of the Scalpel will be so good as to send us all that he has seen fit to publish against us, we shall have to beg our reader's pardon for introducing a personal matter in the columns of our next number for the purpose of answering our caustic contemporary.

Dixon seemed incapable of recognizing that he had been maneuvered by a vicious medical clique two thousand miles away into joining their campaign against Cooper. When he saw Cooper's editorial on "The New-York Circulars" in the Medical Press, he again reacted aggressively as was his style. He reprinted Cooper's editorial in the January-March 1860 issue of the Scalpel and preceded it with the following exposition of his own:[20]

The New-York Circulars

The first number of the San Francisco Medical Press, a new journal just established by Dr. E. S. Cooper, of San Francisco, has reached us. Our readers will remember our notice of the "trial of Dr. Cooper, for mal-practice, in the Fourth District Court of that State," and the severe remarks we felt it our duty to make on the operation for which Dr. Cooper was tried, in our forty-first number. The document was a very full phonographic report of 254 pages. The greater part of it was composed of the testimony given on both sides for and against Dr. Cooper. Our remarks were republished in San Francisco by some of the Doctor's enemies, in a very costly and elegant circular, and largely distributed up and down the Pacific coast. This elicited the very rude and insulting letter from Dr. Cooper, which we republished in the Scalpel, No. 43, and which, with our playful rejoinder, we immediately sent to Dr. C. We presume he has now received it? Meanwhile we assure Dr. Cooper he has now all we have "seen fit to publish against" him. Will the doctor allow us to ask whether we are to consider the letter of apology which he sent us, dated Jan. 2, and intended, as he assures us, "to make amends for the defiant tone" of his former letter, in which he exonerates us from publishing the circular, is meant as the apology for (his editorial on "The New-York Circulars") ?

(Here Dixon reprinted in full Cooper's editorial on "The New-York Circulars.")

This is fortunately the last word on the subject of Cooper's cesarean section to be published by the befuddled editor of the Scalpel. He remained confused throughout as to the motives and identity of his anonymous communicants from San Francisco. In the above final commentary Dixon refers to a letter from Cooper dated January 2nd. Cooper wrote no letter to him on that date. The January 2nd letter was just another forgery from Dixon's anonymous and inventive western correspondents.

Cooper did draft a response to Dixon's editorial of January-March 1860 for inclusion in the second (April 1860) issue of the Medical Press[21], but he never published it. He must have grown weary of the controversy with the obnoxious Dixon and decided to take the advice of Dr. Reese and abandon the field. Cooper did not follow Dr. Reese's other suggestion that he publish his own version of the Hodges case. He realized that it was far too involved and contentious for him to explain through the press with justice to himself.[22]

Wooster Attacks the New School

We are unable to determine David Wooster's role in the Scalpel affair. He made no mention made no mention of it in the pages of the Pacific Medical and Surgical Journal. He was under indictment for perjury during 1859 and by the end of the year his smoldering fury against Cooper could no longer be contained. It burst forth in a slashing editorial attack on the new School in the December 1859 issue of the Journal:[23]

University of the Pacific

…Pretenders in medicine, and quack nostrums will increase in number until, by some means, the number of uneducated, ungentlemanly M.D.'s is lessened in the regular profession.

No one capable of judging believes for a moment that one in three of the horde of graduates whom our fifty or sixty medical schools send forth annually are any more fit to be trusted with the management of the human frame that their great grandmothers or an aboriginal pretender.

These youths are sent out ostensibly, theoretically "to make alive," but really "to kill," until they have learned, by synthetical destruction, the method of analytical salvation. It is known they will kill, not through malice, of course, but ignorance; not through necessary ignorance, but through culpable ignorance; through an unreasonable, a wicked deficiency of the most essential, elementary, anatomical, chemical and physiological knowledge.

How can any knowledge of these great departments of science be acquired in a portion of three years by an unlettered person? And yet they could be almost mastered in that period by a good intellect, already schooled in the exact, comparative, and metaphysical departments of learning. But not one in three of medical graduates have any substantial preliminary education. It is a shame and a fraud that Latin diplomas should be given to men who are ignorant of English and Latin, by professors who do not know a noun substantive from a noun abstract in any modern language, much less in Latin or Greek. Yet this is done annually, not once but one hundred times.

These remarks were suggested by the urgent requests that have been made to us, that we should take some notice of the Medical College recently established in this city, under the auspices of the Methodist Episcopal Church.

A Medical College was not needed here. There is no fund for the endowment of the College, and there are no students to attend the lectures, and there are no capable physicians who have the leisure and the philanthropy to deliver lectures gratis.

Under such auspices the profession will readily appreciate into what hands the different departments of medical teaching must fall. It is painful to us to make any mention of this institution, because we love California and wish to be able to speak proudly of all her institutions. But, at the same time, we are not willing that the profession abroad should be deceived in this matter. The profession here understand it. We shall say nothing of the personal character or morality of the professors, for we believe a very bad man can be a very good scholar. Two of the corps of professors are gentlemen of liberal education and unexceptionable character, both professionally and morally, as far as we know, and students would profit by their teachings and example. Of two more we will say nothing. We have seen many worse men and more ignorant doctors.

The Professor of Surgery we will let speak for himself. By his own words ye may judge him. We do not say that he is not a graduate in medicine. We understand he graduated in St. Louis, Missouri, some ten years ago. He practiced some time in the village of Peoria, Illinois, and was an advertising physician there; that is, he had advertisements in all the country papers. This we are told by a medical gentleman who knew his professional standing in Peoria, and who says it was bad on account of his advertising. He then came to this city, after making a flying visit to London and Paris, which fact he is careful to make known in his puff of advertisements here.

(Note: At this point Wooster reprints several of Cooper's ads, the last of which is the following.)

"Dr. E. S. Cooper has taken an office at the Oakland House, in the city of Oakland,[across the bay, ten miles] where he can be found after the arrival of the evening boat at Oakland, and in the morning till 10 A. M. The state of his health has induced him

to transfer his lodgings to Oakland, where he will treat a limited number of cases. Those who wish his services should call before ten o'clock in the evening, as, on account of his health, he will not receive night calls, except in very urgent cases or important operations. All his surgical instruments and apparatus for the treatment of deformities are still kept at his office, at the Pacific Infirmary, on Mission street between Second and Third streets. All consultations and operations before 10 A. M., gratis; after that the usual fee of ten dollars will be charged. Physicians in good standing in the profession, cordially invited to visit the Infirmary on the operating days."

Such are the professional antecedents, not half told, of the head and front and founder of the Pacific Medical College. He instituted the college, he named the professors, and those he named were so elected. This is notorious in San Francisco: and it is also notorious that not one of the professors is distinguished, either as a scholar or a physician. But still these men have power to confer degrees, to send forth graduates, who, by the codes of ethics, can claim equality at the bedside, with those who would be excused, nay, not merely excused, but prohibited from professional association with the Professor of Surgery under whom they will graduate.

We hope our Atlantic brethren will not be deceived; the Pacific Medical College is now a legitimized sham - a legal humbug - a chartered advertising medium for the man, of whose advertisements we have spoken above. The College is in his Infirmary, and all the "appurtenances thereunto belonging." We never knew a quack reform. The temptation is too strong to be resisted after it has once been acted on. The principal must have been well nigh thirty years old when he began to be an advertising physician. He has contrived a way now to puff himself legitimately, and of course, he stops the more overt and expensive method of advertising in the papers.

If this College is recognized in the medical brotherhood, under its present organization, it is idle to make distinctions between honorable physicians and quacks.

The abilities of the different professors is of little consequence, for they have only straw pupils.

We have written this notice of the origin of the Medical College of California, that it may stand as a historical record of the utter looseness of professional ethics in California in the year 1859.

We see from this editorial that Cooper's chronic illness was beginning to interfere seriously with his surgical practice, - and that a medical journal can be a dangerous weapon in the hands of an unscrupulous editor such as Dixon or Wooster. As a further example of the unprincipled manner in which Wooster used his Journal to abuse Cooper, we can call attention to publication of the first Register of California Physicians in the May 1858 issue of the Journal.[24] Cooper was duly included among the registered physicians. When the Register was revised and reissued in December 1858 (after the break with Wooster), Cooper's name had been deleted, for which Wooster gave the following truculent explanation: "There are… names omitted (from the Register) in the December number, which was intentional on our part, and for reasons which the parties may know if they desire, by application."[25][26] In like manner, Cooper's articles published in the 1858 volume of the Journal were expunged from the journal's Index.

With his usual foresight, Cooper had planned ahead to counter such assaults as these on himself and his enterprise, and Wooster was soon to experience a rude awakening, editorially speaking.

San Francisco Medical Press

After founding the medical school, the sole objective of Cooper's Master Plan yet to be attained was publication of a medical journal. His exploration of such a venture with Dr. Alexander Spencer of San Jose in 1855 was unproductive. The promising California State Medical Journal, which Cooper strongly supported, survived only from July 1856 to April 1857 because of lack of support. Although Cooper and Rowell provided Wooster with funds to launch the Pacific Medical and Surgical Journal in 1858, Wooster later obtained other support (doubtless from Toland) and used the publication, then the only medical journal in California, to attack Cooper and his enterprise.

Under the circumstances, Cooper decided in 1859 that he could wait no longer to publish a journal of his own - devoted to the advancement of medicine, the elevation of the profession and the resuscitation of the State Medical Society for whose formation he was originally responsible. He certainly also had in mind using the journal to promote his medical school and to vigorously confront Wooster and the conspiratorial ring bent on destruction of both the school and the State Society. Cooper published the first issue of his journal, the San Francisco Medical Press, in January 1860 and prefaced this number with the following statement of purpose:[27]

Salutatory
San Francisco, 20 January 1860

My objects in establishing a Medical Journal in San Francisco are as follows:

First. To encourage unanimity of feeling and concurrence of action among Medical men of this City and State, in the organization of new, and in perpetuating the old associations for Medical improvement.

Second. To inquire into and remove, as far as possible, the sources of discord which have reigned to so great an extent in these organizations.

Third. To vindicate the rights of all honorable Medical men when unjustly assailed.

Fourth. To offer a medium for the publication of the numerous interesting and often anomalous cases, treated by practitioners on this coast.

Fifth. To encourage Medical men of the Pacific coast to extend their subscriptions to Medical Journals of the Atlantic States and Europe.

The Press will be published quarterly during the first year, and, perhaps, monthly or bimonthly after that time, should the number of valuable original communications and reports of important cases contributed, require it for their publication.

The design is, more to furnish original articles, than to reproduce those which have already been published in Medical Journals, and which may be obtained at much less cost than they can be republished for here.

To accomplish the above objects I shall devote my utmost energy, as long as I am the editor of a Medical Journal in this city; nor shall any impediment thrown in my way, lessen my determination to labor for these results, which I will do, uninfluenced by passion, fear or favor.

E. S. Cooper

David Wooster became the sole editor of the Pacific Medical and Surgical Journal, beginning in January 1860. The first number of the San Francisco Medical Press, also published in January 1860, was clearly the more robust of the two publications. The January 1860 issue of the Journal was particularly anemic, carrying only one original article (Toland "on an undescribed form of peritoneal hernia") plus some abstracts from other journals, whereas the Press carried eight brief articles by members of the local profession (including Professors Carman, Cole, Cooper and Rowell) as well as numerous pungent editorial comments. Among the latter were barbs aimed at Wooster whose slanderous editorial about Cooper's ethics and his school's insignificance, quoted above, called for a vigorous response. From the outset, there could be no doubt that Cooper intended to use the Press to settle accounts with Wooster and the San Francisco "old guard."

The following are the first salvos from Cooper in a war of words that soon echoed from coast to coast. He began his campaign by taunting Wooster on his indictment as a perjurer:[28]

A Medical Man Indicted for Perjury

Dr. David Wooster, one of the editors of the "Pacific Medical and Surgical Journal," of this city, has been indicted by a Grand Jury of San Francisco County for the crime of perjury. The bill was found defective, and the case was sent again to the Grand Jury, where it is said it will be brought up again. Whether he will be punished or not, according to law, remains to be seen We learn that his apologists have endeavored to vindicate him on the ground of stupidity; but we are sure that this is not a just defense. We have known Dr. Wooster very well in time gone by, and then we supposed him to be honorable. He is a man of much more than ordinary shrewdness, and well calculated to relieve himself from the meshes of the law - when criminals of less management would be quickly punished; and he is equally well calculated to relieve himself from the imputation of committing perjury through stupidity.

And he denounced Wooster's cohorts for their conspiracy against him:[29]

Medical Men of California

In medicine and surgery, as well as in almost everything else, California did not grow gradually, as has been the case with other new States of the Union, but at a single step stood side by side with the older sister States. A more gentlemanly, well educated class of medical men, than the mass of the profession in California, we are convinced cannot be found in any quarter. It is true, we have some of the worst men in the world in our ranks, but they are the exceptions. We have medical men here destitute of merit, but who by coming to this coast at an early day, obtained influential positions through political favors, and other fortuitous circumstances. They have done the profession of this State the greatest possible injury.

These medical men, more dissipated than studious, appear to think every other medical man who is not of their tastes and habits, but half civilized. They band together in the city for mutual protection and the pulling down of others' characters; have a secret organization, and whenever a stranger comes in, who shows a disposition to labor for the advancement of medical science, they select him as their victim, pursue him with the most determined malignity, with every species of falsehood and slander. They have thrown discord and confusion into every society formed for medical improvement in the city.

But their influence is rapidly declining, and as it does so, a more desperate band of would-be assassins of character than they are becoming, never before disgraced the dignified name of physician.

They appear to think that no exertion is required to sustain themselves, but that every effort in their power must be made to ruin the characters of others. If the industry they use in attempts to injure others were exhausted in laudable exertions to advance themselves in an honorable way, they might be gaining instead of losing a reputation.

Wooster, enraged at being openly branded a perjurer, sought to show his contempt for Cooper by the following crude entry in the next (February 1860) issue of the Journal:[30]

The Editorial article in Cooper's San Francisco Medical Press, headed "A Medical Man Indicted for Perjury," is, as it reads, wantonly and maliciously false. The editor of that Journal is a low bred, disgusting, ignorant knave.

To which Cooper promptly replied in the next (April 1860) issue of the Medical Press by reprinting the above reckless outburst by Wooster, and following it with extensive excerpts of Wooster's patently false testimony under cross-examination by Attorney Barstow at the Hodges trial. The net effect was to expose Wooster, in his own words, as a foul-mouthed, conniving hypocrite.

We interject here an explanation for dwelling at some length in this narrative on the conflict between Cooper and his detractors. It is impossible to find in the annals of American medicine a medical school which was successfully established in the face of such malicious and powerful opposition as he encountered. We have already told of the attacks on Cooper during the years preceding the founding of the school; assaults that were calculated to drive him from practice in San Francisco, but failed in their purpose. Far from ceasing, the plots against Cooper after the founding of the school became even more outrageous. Only by reporting these offenses in some detail are we able to show the impediments he faced, and overcame.

Also in the April 1860 issue, Cooper announced with justifiable pride that "the second session of the Medical Department of the Pacific will

commence on the first Monday of May next, and continue eighteen weeks." In spite of the indignities perpetrated by its enemies during the past year, the school was on a sound footing. Unconcerned with the probability of being charged with "puffing" the institution, Cooper made the following editorial comments on prospects for the future:[31]

> Good taste does not permit us to speak of the talents, industry or capacity for teaching, of the Faculty of this College, but we will say this, that there is no better place on the globe than San Francisco, for establishing a permanent school of the first class; and that if the members of the present Faculty should not make it one of the kind, the fault will be their own, because all the materials necessary for accomplishing this object, are either here now, or rapidly forming, and will only require to be skillfully appropriated to succeed, croakers may assert the contrary, notwithstanding
>
> San Francisco is the finest place in the world for cultivating practical anatomy. It is the only place in which dissections can be conducted the whole year - in July and January alike.
>
> San Francisco is probably the only city in which the climate is just right every day in the year for the performance of surgical (plastic excepted) operations…
>
> Of the immense number of young lads now at our literary college and schools on this coast, there will, in a few years, be many desirous of becoming medical men; and the diseases among us present so many peculiar features, that in order to practice successfully in this region, they must receive a medical education here.
>
> By the by: we learn that some of those who sneered most industriously at the idea of a Medical College in California, at first, are now talking of establishing a second one in this city. We hope they will. We always did like competition. It affords the finest stimulus to exertion in the world.
>
> Besides, no one can make a respectable teacher in a medical college, without being a hard worker, and the more active laborers we have in the field of Medical Science on this coast, the more the profession will be elevated. We feel as if we could become the very friends of those who would perform the labor, and make all the sacrifices necessary for sustaining another medical college in this city, in spite of the conflicting interest which might occur.

It appears that no sooner had the Medical Department of the University of the Pacific become a reality than the enemies of the school began planning to supplant it with an institution of their own. It was rumored that Dr. Toland, who stood aloof from the State Society and medical politicking while nursing his antipathy for Beverly Cole, had accumulated a fortune by his surgical practice and would finance the alternate school. However perverse the motivation for such a move, Cooper said he welcomed it, in principle. He foresaw that conflict of interest and competition would occur - as indeed they did.

Levi Cooper Lane Resigns from the Navy

In spite of the bold assertion that the outlook for his school was promising, Cooper could not but be uneasy at the prospect of a well-funded competitor under the auspices of his icy rival, Toland. Providentially, all gloomy thoughts of future conflict on still another front were extinguished by the following news which he published in the Medical Press for April 1860:[32]

> Dr. Lane, who visited our city some months since in the capacity of surgeon of the U. S. sloop-of-war Warren, has resigned his position for the purpose of spending some months in the hospitals of Europe, after which he designs coming to California for the purpose of finding a permanent home, as we are pleased to learn. Dr. Lane was marked first in the list of candidates who were examined for assistant surgeons in the Navy, in the year 1856. His intelligence, suavity of manners, and gentlemanly deportment, secured many friends among medical men in this city during his brief stay, who could but be pleased at the accession to their ranks, of one so well calculated to work for the elevation of the profession.

Second Annual Session of the Medical Department May to September 1860

During the second session the original Faculty of Professors Barstow, Carman, Cole, Cooper, Morison and Rowell remained unchanged. There was a slight modification of the fee schedule. Beginning with this session, the fee to each Professor was changed from thirty to twenty dollars.[33]

Fourteen students matriculated, only two more than the previous session, but class size was holding and that was reassuring. There was one graduate in September: Charles C. Furley.

Academically, the year was uneventful, yet the relentless harassment of Cooper continued.

Extracurricular Events

A Grim Parable from The Golden Era

We shall now plumb the depths of Wooster's treachery and obsession to degrade Cooper and all his works by any means. We have already seen that the shadowy conspirators seeking Cooper's downfall were prone to use anonymous communications to the press as a weapon. In keeping with this pattern, The Golden Era, San Francisco's leading weekly newspaper devoted to Literature, Agriculture, Mining, etc., was chosen for launching the next poisoned arrow against Cooper. It took the form of an unsigned piece of malicious fiction entitled "Confessions of a Physician" published in The Golden Era for Sunday, 13 May 1860, just as the second session of the school was beginning. There can be no doubt, in view of the details cited, that the story was written about Cooper by Wooster who grossly distorted the confidences shared with him by Cooper during the days before the Hodges trial when they were friends.[34]

> #### Confessions of a Physician
>
> In 18--, one dark stormy night, in the far-off State of Illinois, near the one-horse town of Peoria, where I first made myself known to fame as an operating surgeon (curses on that community of Suckers, who never could, or did, appreciate my genius); well, as I was saying, one dark stormy night, between the hours of ten and eleven, I was called from my cozy 7 x 9 dormitory by a loud rap at the door.
>
> "What do you want?" I answered, springing to my feet.
>
> Here I looked at those feet. Ye gods! what terminations for a gentleman and a scholar! Elevens, at least - broad and flat; evidently belonging to that variety of the genus homo which was originally designed to inhabit low soft lands. There was a sort of aquatic buoyancy to those feet that made it probable their owner could walk on the water. But I must not interrupt his confessions.
>
> "What do you want?" said I.
>
> "Come, quick; a poor woman, ten miles in the country. If you have not a fast horse take mine," said the messenger. But I was not to be hurried in this manner. I struck a light, pulled on my pants and asked him in. I inquired who was sick.
>
> "A poor woman; she can't pay you." I didn't care for that; indeed, it was just what I wanted. We can always illustrate science better on the poor than on the rich, you know. I was ambitious. (I could not but assent to so fair a proposition.)
>
> "Has she a husband?" I asked.
>
> "Yes," said the messenger; "but he lies there in the house drunk. I knowed she was in a bad way, and dropped in to see if she wanted somethin'; and, sure's yer born, I found her screechin' and wantin' a doctor; so I slipped home, and sent my old woman over, and mounted - and here I am. She'll have a rough time, or I'm derned. She's a little woman and has been starvin' for nearly all the year. Somehow you couldn't give em nothin'; they wouldn't a-tuck it."
>
> "By this time," continued the penitent, "I saw my way clear. I knew there was a chance for an operation. I roused up a young student I had, and we got out the buggy and a four-minute horse. I didn't forget a pocket-case and some brandy, some opium, bandages, sponges, lint and ligatures. I knew it was a dead sure thing. It's all d----d foolishness, between you and me, privately, this sentiment about cutting. No surgeon ever got a reputation without wading up to his knees in blood. So I said to myself, then. But, may God forgive me for the number I have killed with the scalpel, thinking all the while I was doing it for the good of society. Well, away we rattled, and were there in less than fifty minutes from the time we started. You know the prairie roads in Illinois are a dead level."
>
> "But I thought you said it was a stormy night. I should have thought your horse would have caved," I replied.
>
> "There you are wrong: this road was Mac-Adamized (sic) and the rain made it all the better and kept the horse cool."
>
> "Ah! I see!"
>
> "Well, to make a long story short, I went into the hovel - a miserable shed - and there, on a rickety bedstead, a straw bed and filthy covers, lay the case that was to make my reputation. Her husband lay in the chimney corner, snoring drunk. There were a few coals in the fireplace; the whole contents of the house, (only one room), were not intrinsically worth four bits. I examined the case and found that I had no time to lose, or Nature would get along with it without my aid. So I put on a bold face, and said, 'Madam, you are in no danger whatever, but a little operation is necessary.' Celsus brought the brandy, and, pouring out half a pint, I put into it three teaspoonsful of laudanum, and told her to pour it down. She did; and it staid, too. In five minutes she did not know whether she was in a hut or a palace. I seized a scalpel, and, with a bold stroke and steady hand, executed the first Caesarian operation ever performed west of the Allegheny Mountains.
>
> "I dressed the frightful wound, sent Celsus home for the comforts of life, and staid to watch the reaction. I watched, and met the terrific inflammation that followed with all the resources in my knowledge. Every day I saw her - either I or my student never left her bedside. The child, by my care, lived and did well. It yet lives, thank Heaven! The poor mother died the fifteenth day, and this has left a weight on my conscience that eternity itself could not efface. She was poor; true, none found fault with me, for none really knew what I had done; I don't believe it is known there to this day; for the funeral, and all that, were under my care and at my expense. But I knew it, and it took away my sleep (I was young, then). And, finally, I began to have these d----d nervous twitchings of the face -"
>
> Here a frightful spasm took him, horribly distorting a visage sensual and vulgar. One eye closed in tense contraction, the other protruded and was wide open; one wing of his nose was drawn into a bad-egg sort of smell, and the other dilated like the nostril of a charging war-horse; his right hand jerked and trembled and became cataleptic, and then paralyzed, and hung lifeless by his side. As he sat there, with his bald head, yet in the vigor of only thirty-seven years, his misshapen and crooked legs, his enormous feet and hands, and rickety, scathed, blasted and contorted look, he seemed a table of contents of the anger of Heaven - showing what Providence will ever do to those working iniquity upon his defenseless poor. I started, and rose up to leave. He clutched at me, and said:
>
> "In the name of God, do not leave me alone with myself. I am better, now; but here come the frightful visions - all that horrible night is re-enacted in my vengeance-stricken brain with the vividness of a stark reality. Again I see that beautiful young woman, with no fault but poverty (did I not tell you she was beautiful? She was, and was scarcely twenty years old); again I see her in her bloody garments, stained with the blood shed by my accursed scientific knife; again I hear the low moan of suffering but unconscious nature, as my smooth scalpel separates the delicate fibres of that delicate body; again I see her wide-staring eyes, as a convulsion of reflex agony passes over her frame. I see the corpse, still cold, a recumbent monument of eternal reproof. I saw her buried many years ago, but many times a year she lies an almost palpable form before my eyes.
>
> "This is all illusion, of course. I know it; but it is a terrible illusion; it will cut off more than one-third of my life; it is an eternal live coal upon my heart, and is slowly consuming the root and spring of my days. My brain is wasting under this slow process of torture. I foresee that, in a few years, I am dead. I shall die suddenly with some nervous stroke that will finish me at a blow. If you knew the sincerity of my repentance, you would forgive me. And yet, would I have repented had it produced no physical effect on me?"
>
> I mentally responded, "No!" but said nothing. He continued:
>
> "I beg of you to keep all this secret till I am dead, then you may

publish it, without my name, as a warning to ambitious young surgeons. My ambition is crushed by this hopeless physical affection. I have not time to succeed. I now have no desire but for money, with which to punish my enemies, and strive to make them feel a little of the tortures I have endured. The future state has no terrors for me. Death, at least, will rescue me from this life of self-abhorrence and unavailing regret."

The sweat stood in great drops on his face and bald head, and there was an expression of brute anguish in his coarse, repulsive features, which inspired a feeling of pity mingled with horror in my heart. I left him, and, since that day, I have taken the left when he has taken the right - and when he goes east I go west, so that never again his loathsome face may meet my gaze. He is one of those unfortunate men, whom it is impossible to know, and respect, or love. His sins are of that secret, radical, incalculable degradation of iniquity, that it is impossible for the human intellect - even his own - to forgive. Nature has set upon him the mark of infamy, so that, by fixing the eye upon him a moment, it always appears. He still revels in carnage and delights in blood, well knowing that no act can add to his present hopeless condition. None but the first great crime affects him. It swallows all the rest. As nothing can surpass its enormity, so nothing can add to his remorse.

I publish this, now, because I am freed from my tacit obligation of secrecy by his own act. He is dead to me, and this is his posthumous biography. Let him rest in peace. His sin was the result of his low moral organization and limited intellectual forecast. Let him be forgiven; but let others be warned by this frightful example of the vengeance of outraged Nature.

Only Wooster's envenomed pen could have produced this coarse parody of Edgar Allan Poe (1809-1849) whose Gothic tales of terror and abnormal psychology were much in vogue at the time. Not content with merciless caricature of Cooper's physical deformities and crude misrepresentation of his past, Wooster sought wide distribution of his composition by anonymously sending a copy of the Era to the Cincinnati Lancet and Observer which carried the following editorial in the August 1860 issue:[35]

Dr. E. S. Cooper, of San Francisco, and his Left-handed Friends.
Some anonymous correspondent forwards us from California two newspapers: one of date 1854 contains a somewhat fulsome editorial notice of Dr. Cooper, then just about seeking his new home in San Francisco (if the Doctor was accessory to this notice, he did a very foolish and unprofessional thing - if it was the kindness of some editorial acquaintance, he was the very unfortunate recipient of a mistaken kindness); the other is a fresh copy of the Golden Era, and contains a rather common-place sketch, purporting to be the confessions of a surgeon who has gained fame at the expense of the death of his patient, when the operation (Caesarean section) was obviously improper; and who still performs his bloody occupation with this night-mare load of remorse on his conscience.

Penciled on the margin of the latter newspaper is a denunciation of Dr. Cooper, which, though brief, seems to embrace most of the epithets that are to be culled from the "new pictorial edition" of Webster; as well as a fair proportion selected from that old but well known authority - Billingsgate; finally making the agreeable and consoling suggestion that "the knife of the assassin should and probably will be his doom!"

Now, we have enough to do to keep our own little troubles nicely trimmed up, without making a journey (journalistic journey) to San Francisco; at any rate, we can't afford to go beyond the personal affairs of more than this eastern half of the continent; but it does appear to us (not being familiar with California ways, and California medical politics,) - it does seem to us that the course pursued by our anonymous correspondent savors quite as much of the "infamous," and exhibits much the same "mental and moral," if not "physical deformity," as pertains to that cowardly assassin whose knife is to strike down Dr. Cooper, some dark night, on the streets of San Francisco.

In the October 1860 issue of the San Francisco Medical Press, Dr. Cooper took scornful notice of the Era sketch:[36]

> "Dr. E. S. Cooper, of San Francisco, and his Left-handed Friend."
>
> In the Cincinnati Lancet and Observer we have an article under the above caption, acknowledging the receipt of two anonymous communications, partly in printed form, which appear to be anything but complimentary to us. It would appear that the respectability of the papers in which the printed portions of the communications occurred, alone induced the editors of the Lancet and Observer to give them notice…
>
> We remember the article which appeared, some months since, in the Golden Era, purporting to be the Confessions of a Surgeon, who was represented as borne down by remorse, growing out of a fatal result of the unnecessary performance of the Caesarean section. Being the only surgeon on this coast, who had performed the Caesarean section, together with other circumstances embodied in the fancy sketch, induced us to suppose, at first, it was designed for us, notwithstanding both our cases of Caesarean operation were successful.
>
> We paid little attention to the matter at the time, not considering it of the least importance; but it would appear, the writer, or some one else, is not disposed to pass it over so lightly. In regard to our physical deformity, as stated so pompously in the Golden Era, we have only to say, that we are not responsible for my want of symmetry of form, but would state, that, if we are destitute of that external comeliness of which some of our enemies are inclined to boast, we still profess to be buoyed up by a heart conscious of it own rectitude; and that we have never made use of any of those pliant instruments at the head of a certain class of newspapers, to publish false and defamatory accusation against any other medical man. In reference to our threatened assassination, we must add, that whoever attempts it may find it a dangerous experiment.
>
> We have had professional treason and perjury brought to bear against our professional character, and, to a medical man of honorable soul, an assault upon his professional reputation is equal to an assault upon his life; and yet we have passed through unscathed and unharmed. We have confidence enough in the justice of our cause, to think that the assassin who may attempt to take our life will be no better, in the end, than the miserable medical "tool," who attempted to stab our reputation by perjury and who still walks the streets of San Francisco, followed by the hiss of contempt and the slow-moving finger of scorn, which points him out as the Judas of the medical profession. We do know, that, since the time of Galen, in Pergamus, Asia Minor, there has been no example of any medical man being the subject of professional treason, conspiracy, and perjury to a greater extent than ourselves, and this accounts for the harsh tone of some of the articles which have appeared in the Press. We sincerely believed that, in vindication of ourselves, we were subserving the cause of the profession; because, of all persons, medical men should be "true to their craft." There is no class of persons so much abused, unjustly, and yet none others are such perfect slaves to community.
>
> From the time the student of medicine begins his toilsome pupilage over the midnight lamp and the loathsome cadaver, which he probably has had to violate law in obtaining, and at the risk of his health or even life, - we say, from this time onward, to the period in which he totters, often prematurely, into the grave, (too frequently one of poverty), the medical man is a slave; first in preparing himself, by a most toilsome pupilage, often breathing in tainted air, and, afterwards, in sacrificing his hours of repose, to attend to the calls of rich or poor, day or night, in rain or sunshine. Then, "execration," say we, upon the foul wretch, who stains our profession's escutcheon by professional treason or perjury.

Grave Robbers on Lone Mountain

We shall now conclude our dreary recital of the underhanded attempts by Wooster and his clique to defame Cooper and disrupt the school. They thought as a last resort to play the grave-robbery card to inflame the public either to riot against the faculty and students, or at least to demand the outlawing of dissection.

Sensational articles such as the following, ghostwritten by Wooster, began to appear in the San Francisco papers in the fall of 1860.[37]

> We have been informed, on reliable authority, that the graves in the common lot, at Lone Mountain Cemetery, have been violated, and the dead bodies of those buried at the public expense, disinterred, for purposes of dissection! …We are not aware of any existing law to stop this robbery of the tombs and mangling of the dead, to satisfy the greedy maw of Science, but there should be one. And where is the difference between the dead poor and the wealthy dead? Are the bodies of the one more the property of the surgeons than those of the other class? No one can feel sure, while such things are going on, that the bones of the most honored dead, or those of dearly loved kindred, are allowed to rest in peace. Chinamen are said to be the agents employed - and, like vultures, these body-snatchers watch daily for their human prey. This is a matter that should be looked into by the Police, so that the desecrators of the graves may be held up to public execration. Malediction, say we, upon the disturbers of the buried dead!

Cooper, who had prior personal experience with the volatility of the grave-robbery issue and the possibility of mob violence, was swift and furious in his rebuke of the newspapers:[38]

> The editor of a newspaper, who is supposed to be a man of intelligence, should be the last to throw impediments in the way of progress in medicine, by endeavoring to prevent the cultivation of anatomy….(Those among them) who would deliberately pen articles calculated, as far as they could, to put an end to progress in this, the most useful of all sciences, do not deserve any other medical advisers than just such ignoramuses as they would make the whole medical profession, provided their advice were the law of the land. What could such editors do, in case of knife-wound, implicating an important artery, like the subclavian, if all the medical profession were such as they would make them by preventing dissections. "Maledictions upon such editors, say we." But have we any such editors as would deliberately do these things? It is to be hoped not. On inquiry, we find that these articles were, generally, written by other parties, and published without much consideration on the part of the editors or reporters; but we now call on them to scrutinize with more care articles on this subject.
>
> Since writing the above, we find these articles were mostly furnished by - by whom? A medical man? No. - A graduate in medicine, truly, but not a medical man. The medical profession of the whole world has had but one genuine professional Judas, and he chanced to turn up in San Francisco; so let us pass him round, and make the most of him. We will never have another. Such as his like has never been seen before.
>
> But while we have a medical Judas among us, let students beware how they impart secrets. The man who will be a professional traitor and perjurer, against one member of the profession, and, not satisfied with that, will prove traitor to the whole profession, is capable of any crime, however heinous.
>
> Need we name the miscreant? Everybody knows who the medical Judas is. We intend never to let his name disgrace our pages again.

Two months later, in the January 1861 issue of the Medical Press, Cooper could write that, when certain newspapers in San Francisco lent their influence to a contemptible effort to prevent dissections, he had declared that they would fail. "Now, we take pleasure in informing the friends of the University, that this effort to create a furor about dissections, and thereby diminish the class, by making students believe that they would be deprived of the privilege of dissections, did not succeed."[39]

The School's Clinical Facilities Questioned

At about the same time the grave-robbery articles were appearing in the newspapers, the Evening Bulletin ran an item stating that "The college doctors have no hospital under their control." The source of this disparaging reference to the school's program was not revealed, but it is justifiable to believe that Wooster was behind it. In any case Cooper, now always quick to respond in the Medical Press to any published criticism of the school, briskly denied the statement and pointed out that "The college doctors have a hospital under their control - the Pacific Clinical Infirmary - which corrupt politicians can never take from under their control, and , though an individual

enterprise, it affords a better surgical clinic than could be established among all the hospitals of the city, sustained by public expense." He went on to castigate the San Francisco Board of Supervisors for refusing the college doctors' petition to take the medical supervision of the City and County Hospital, free of charge, if they could have the privilege of giving clinical instruction to their students.[40]

Cooper criticized the arrangement made by the Board of Supervisors for the House Surgeon at the Hospital to deliver clinical lectures in all the branches of medicine and surgery. This was obviously beyond the capability of a single physician but, to make the best of an unsatisfactory situation, Cooper added:[41]

> Still we shall strongly advise the students of the Medical College to attend the clinical lectures of the House Surgeon of the City and County Hospital, because of the immense number of important cases which might be presented, rendering their visits to that institution not only very interesting but important, even though one clinical lecturer has to perform the duties of half a dozen. Things must have a start, and let this method of obtaining clinical instruction, however unusual, be eagerly embraced by the students. A few years more will place these matters on a different footing. In the meantime, whatever is lost through corrupt politicians, in not affording the requisite encouragement to cultivate medicine on this coast, which it is their duty and is in their power to do, will be made up by the greater energy, determination and patient industry of the Faculty of the Medical College, who are as a unit in harmonious action, and who are resolved to give themselves no time for repose until all obstacles are surmounted, and the institution placed upon a basis which guarantees permanent and complete prosperity.

Actually, Cooper realized full well that the school's clinical teaching resources were deficient. For that very reason, access to a major teaching hospital had been high on his agenda from the day when the school opened, as his failed bid to affiliate with the City and County Hospital indicates. We shall soon learn how satisfactory clinical facilities were finally acquired through the continuing efforts of the Faculty.

Within one year, from his vantage point as editor of the Medical Press, Cooper had successfully countered the attacks of Wooster and his devious confederates. Withering commentary in the Press made them wary of his acid pen and they muted their criticism of Cooper and the school. Meanwhile, they continued their spiteful dismantling of Cooper's other cherished creation, the California State Medical Society, a subject to which we shall later return.

We can but marvel that Cooper, with heavy surgical and professorial responsibilities, and suffering from the debilitating effects of a mysterious neurological disorder, could add to these burdens the demanding task of editing a medical journal. The San Francisco Medical Press, a tribute to Cooper's remarkable dedication and stamina, deserves a place on the honor roll of his contributions to Medicine in the West. The Press gave voice to the academic and professional principles that Cooper and his successors espoused and, at a crucial juncture, served as a shield against "the slings and arrows of outrageous fortune."

Early California Medical Journals

The Pacific Medical and Surgical Journal and the San Francisco Medical Press are major sources of information on the evolution of medical education in California. Since we refer to them frequently, they deserve additional comment.

The monthly Pacific Medical and Surgical Journal was founded in 1858 and had the longest life of any of the early medical journals in California. David Wooster was editor or co-editor until 1862 after which V. J. Fourgeaud was editor or co-editor through August 1864 . He was succeeded as editor by Dr. John F. Morse for the remainder of the year. The Journal was then discontinued until April 1865 when it was revived under the editorship of Henry Gibbons as described below. In the early 1860's the PSMJ vigorously advocated the establishment of Toland Medical College, and called for the extinction of the Medical Department of the University of the Pacific. The final issue of the first series of the PSMJ (December 1864) reported that a Charter had been granted to Toland Medical College and that prospects for the institution were most flattering.

The quarterly San Francisco Medical Press was edited by Cooper from 1860 until he was succeeded by Levi Cooper Lane in 1862. Lane was followed by Henry Gibbons who edited the MP from 1864 until its final issue in January 1865, with Beverly Cole as co-editor during the first half of 1864.

When the Medical Department of the University of the Pacific suspended operation in 1864 and Henry Gibbons, Levi Cooper Lane and John F. Morse joined the faculty of the Toland Medical College, Henry Gibbons became editor of the PMSJ. He brought with him the MP and combined the two publications to establish the bimonthly Pacific Medical and Surgical Journal and Medical Press. The first issue of the PMSJ and MP was for April 1865. It contained Dr. Toland's Valedictory Address delivered in Toland Hall on 8 March 1865 to the first graduating class of the Toland Medical College.

The PMSJ and MP ceased publication with the issue for February 1867. It was succeeded in June 1867 by revival of the monthly Pacific Medical and Surgical Journal under Henry Gibbons as editor and his son, Henry Gibbons, Jr., as associate editor. Gibbons, Lane and Morse left the Toland School in 1870 to reorganize the Medical Department of the University of the Pacific. At this time the PMSJ became identified with the Medical Department of the University of the Pacific and its successor institutions. The PMSJ continued to be published under the editorship of Henry Gibbons Senior and Junior through volume 26, 1883-84. Beginning with volume 27 in July 1884, the PMSJ became the official organ of the Medical Society of the State of California, with Dr. William S. Whitwell as editor. In 1917 it merged with the American Journal of Urology and Sexology and disappeared.

This brief summary reveals how Cooper's founding of the San Francisco Medical Press led ultimately to the accession of Henry Gibbons to the editorship of the rival Pacific Medical and Surgical Journal. As we have seen, the PMSJ was originally the mouthpiece of the anti-Cooper element and exponent of Toland Medical College. After 1870, by an ironic twist of fate, the PSMJ under the editorship of Henry Gibbons was associated with the Medical Department of the University of the Pacific and its successors. While under these auspices, it was recognized as the leading medical journal in California.[42][43][44]

When, after 1867, the PMSJ ceased being sufficiently attentive to needs of the Toland school, several members of the Toland faculty edited the monthly California Medical Gazette which survived for only two volumes (Volume 1, July 1868-August 1869; Volume 2, September 1869-August 1870). The Gazette was succeeded by the monthly San Francisco Western Lancet with similar orientation toward the Toland College. The first volume of the Western Lancet began with the issue for January 1872 and publication continued until 1884 when it was absorbed into the PMSJ.

Critique of Early Medical Journals

We should not leave the subject of early California medical journals without referring to Dr. J. D. B. Stillman's biting criticism of the Pacific Medical and Surgical Journal and the San Francisco Medical Press as representative of the impoverished state of medical literature in California. Writing from Sacramento, he cited the following two "original" articles as examples of the simplistic medical essays bordering on plagiarism to be found in these journals - journals that also lent their pages to the pursuit of factional feuds:

H. H. Toland, "Syphilis, and its treatment." Pacific Medical and Surgical Journal 1859 Feb; 2 (2): 53-60 and

B. R. Carman, M. D., Prof. Materia Medical, University of the Pacific, "Remarks on the existence and mode of obviating the injurious effects of Miasma, resulting from decomposition of vegetable matter." San Francisco Medical Press 1860 Jan; 1 (1): 5-8.

Staking out his position on the high ground, Stillman made the following general charges:[45]

> It appears to me to be the duty of some one to give expression to the thoughts of a large number of the medical profession in the State respecting much of our literature. I am aware that in speaking in behalf of the profession it becomes me to speak with careful circumspection, to make sure that no feeling of friendship on the one hand, or of jealousy or hostility on the other, should have any place in the heart or should indite a single work from the pen. On what I shall write I do not ask the profession or any member of it to endorse it or any part of it. I believe they will approve, though I alone am responsible.
>
> That there is a state of things in the moral constitution of medical society in San Francisco that requires severe surgical treatment, is suspected by outsiders, and which, for the honor of the profession, should be remedied by every means that a general consultation can devise. But the medical literature which issues from the press of that place goes forth as the expression of medical intelligence and courtesy of the State, and in behalf of those who are thus misrepresented I enter my protest. The dignity of medical science forbids the introduction to its journals of personal vituperation and the gratification of private animosities. Neither is a medical journal the proper place for elementary instruction in the principles of medical science; its readers are supposed to be men who have at least learned the alphabet of their profession, and it is an insult to the intelligence of medical men in the State to serve up to them such rudimentary essays, and those but poor compilations.

Having justifiably called attention to general deficiencies in the content of the Pacific Medical and Surgical Journal and the Medical Press, Dr. Stillman proceeded to ridicule Toland's article on Syphilis and Carman's on Miasma. He sternly reproached Toland for extensively quoting and paraphrasing well-known authorities on syphilis to the point of plagiarism without making any original observations of note. He added that if Toland's object was to impress upon the ignorant an exaggerated idea of his learning or skill, "let him not presume to do it through channels sacred to higher purposes, but let it be done in medical almanacs and given away at the counter of those who sell soap and dye-stuff."

Stillman was hardly less severe with Dr. Carman who naively inferred some originality in his observation that the miasma of malaria is primarily abroad at night. Stillman pointed out that this attribute of miasma was already well documented in the medical literature, and that Carman failed to acknowledge it. He was particularly contemptuous of Carman's professorial title:

> Sometimes indiscretions are committed when the writer meant well, and supposing that a new thought had occurred to him, has published it to the profession. These essayists have always been indulged and passed without comment, but when they emanate from one who takes to himself the honored title of professor or teacher of medicine, empty as sounding brass though the title be, he must expect his innocent essays at medical composition to be shown up on their true merits. He who aspires to a crown must not expect to sleep on a bed of roses. The man whom I now arraign at the bar of the profession is the author of a small paper on Malaria, in the San Francisco Medical Press. I do not charge him with intentional plagiarism; the paper bears upon its face the stamp of innocence, notwithstanding the grandiloquent title with which the author's name is announced, "Professor of Materia Medica of the University of the Pacific." Listen, venerable ocean, and all lands laved by thy waters, from "Oonalaska's shore" to "Chiloe's dreary isle," and from Sitka to Tasmania, and a thousand islands. Wake, ye millions of Japan, your University has arisen! A galaxy of genius has dawned upon you, ye listless crowds of Tahiti, and grim anthropophagi of the Fee-jees. Ho! Valparaiso, and thou City of Pizarro, where are thy wasted centuries? Attention! one-half-the-:world, by kingdoms! Olin no longer speaks to us from the mythic halls of Valhalla, the mythic halls resound with the achievements of the heroes of the lancet.

Toland was furious at Stillman's criticism and the next issue of the Pacific Medical and Surgical Journal carried a lengthy letter from Toland to the Editors branding Stillman's article as personal and malicious, disgraceful and contemptible, and on these grounds unfit for publication. Toland concluded by saying that if Stillman "occupied a more prominent position in the profession, and had exhibited any evidence of ability in the preparation of his protest, I would regard his criticism as the highest compliment he could confer upon me… With this, I take my leave of Dr. Stillman, and will not notice anything he

may write in future."

Editor Wooster disclaimed all part in the controversy and decided that any error in the affair was the printing of Stillman's article in the first place. He refused to publish anything more on the subject. "If our friends wish to quarrel or fight," he wrote, "we recommend gunpowder and lead, not types and printer's ink."[46][47][48]

Not to be denied the last word, Stillman published an eight-page pamphlet which he addressed to "the Medical Gentlemen of California (to whom) I owe an apology for having permitted myself to communicate an article to the Pacific Medical and Surgical Journal."[49]

In the pamphlet, Stillman reprinted the first portion of his PMSJ article dealing with criticism of Toland. He also responded at length to Toland's angry "Letter to the Editors." Far from being conciliatory, Stillman further dissected Toland's article on Syphilis, bolstering his original implied indictment of Toland for plagiarism. Regarding Toland's other publications:

> Self-conceit and an apparent contempt for the intelligence of all those whom he expected to read his papers, are the prevailing sentiments in all that has appeared from the pen of Dr. Toland…It is the same trait of character that induces him to assign as the motives that could influence me to expose him to the profession, as envy and jealousy, the old song of the charlatan in all ages. He is truly an object of pity whom vanity does not permit to distinguish envy from contempt. If "success" is a test of his merit, what advantage has he over his distinguished rival (Cooper) who is more successful and pays for his advertising like an honest man?

We should not give such lengthy consideration to this episode were it not for the prominence of Stillman in California medical history, and the merit of his criticism of medical literature in the State. Furthermore, we shall soon be again transfixed by his polemical style when, as one of the editors of the short-lived California Gazette in 1870, he warmly champions Toland's medical school and savagely attacks the Medical Department of the University of the Pacific.

Endnotes

1. News Report, "Formal Opening of the Medical Department of the University of the Pacific," Daily Alta California, Thursday, 5 May 1859
2. Addresses at the Opening of the Medical Department of the University of the Pacific, Musical Hall, San Francisco, May 5th, 1859 (San Francisco: Towne and Bacon Printers, 1869), p. 3
3. Addresses at the Opening of the Medical Department of the University of the Pacific, Musical Hall, San Francisco, May 5th, 1859 (San Francisco: Towne and Bacon Printers, 1869), p. 6
4. Addresses at the Opening of the Medical Department of the University of the Pacific, Musical Hall, San Francisco, May 5th, 1859 (San Francisco: Towne and Bacon Printers, 1869), p. 20
5. News Report, "Formal Opening of the Medical Department of the University of the Pacific," Daily Alta California, Thursday, 5 May 1859
6. Note: The number of medical students recorded as matriculated annually differs depending upon the source. We will use the number of students listed by their signatures in the official Register of the Medical Department of the University of the Pacific. This Register is retained in Lane Medical Archives, Stanford. Call number MSS H747H U58A2. Lane Library catalog record
7. Emmet Rixford , Dedication of Lane Medical Library, 3 November 1912: Addresses of Timothy Hopkins, Emmet Rixford and David Starr Jordan (Stanford, California: Stanford University Publications, 1912), p. 11. Lane Library catalog record
8. Constitution, Bylaws and Minutes of Faculty Meetings of Medical Department, University of the Pacific - Box 1.3, Medical Department of the University of the Pacific Collection of publications, Lane Medical Archives, Stanford. Minutes of 24 October 1862 state that Dr. Lane has located a lecture room to be available for a rent of $100 per year. "On motion, Professor Cole was authorized to make arrangements with the proprietor." Location of the room was not specified in the Minutes or the Annual Announcement. Lane Library catalog record
9. Based on material held at University of Pacific Library
10. Robert G. Whitfield , "Historical Development of the Stanford School of Medicine," (A Thesis submitted to the School of Education and the Committee on Graduate Study of Stanford University in Partial Fulfillment of the Requirements for the Degree of Master of Arts. April 1949), p. 35.We are indebted to Dr. Whitfield's research among the Minutes of the Board of Trustees of the University of the Pacific for this information related to the administration of the Medical Department. Lane Library catalog record
11. Correspondence 1857-1862 - Box 1, Folder 4, Item 24 and 24A, Elias Samuel Cooper Papers - MS 458, California Historical Society, North Baker Research Library. This item consists of a petition to the Board of Supervisors of the City and County of San Francisco regarding the City and County Hospital handwritten by E. S. Cooper
12. Rockwell D. Hunt , History of the College of the Pacific, 1851-1951 (Stockton, California: Published by the College of the Pacific, 1951), pp. 6 and 27
13. Elias Samuel Cooper , "Editorial: New Medical Schools - University of the Pacific - Medical Department," San Francisco Medical Press 2, no. 6 (Apr 1861): 100. Lane Library catalog record
14. Edward H. Dixon , "An awful case of malpractice," Scalpel 11, no. 41 (Apr-Jun 1859): 123-125
15. Correspondence 1857-1862 - Box 1, Folder 4, Elias Samuel Cooper Papers – MS 458, California Historical Society, North Baker Research Library
16. Edward H. Dixon , "A letter of encouragement," Scalpel 11, no. 42 (July-Sept 1859): 183-184
17. Correspondence 1857-1862 - Box 1, Folder 4, Elias Samuel Cooper Papers – MS 458, California Historical Society, North Baker Research Library
18. Edward H. Dixon , "A letter of reproof from California," Scalpel 11, no. 43 (Oct-Dec 1859): 252-253
19. Elias S. Cooper , "Editorial: The New York Circulars," San Francisco Medical Press 1, no. 1 (Jan 1860): 57. Lane Library catalog record
20. Edward H. Dixon , "Editorial: The San Francisco Medical Press," Scalpel 12, no. 44 (Jan-Mar 1860): 319-320
21. Correspondence 1857-1862 - Box 1, Folder 4, Elias Samuel Cooper Papers – MS 458, California Historical Society, North Baker Research Library
22. Note: The following four New York medical journals were searched for the period 1859-1862 and there is no article in them from Cooper regarding his caesarean section: American Medical Gazette, American Medical Monthly, American Medical Times and Scalpel
23. David Wooster , "Editorial: University of the Pacific," Pacific Medical and Surgical Journal 2, no. 12 (Dec 1859). Lane Library catalog record
24. David Wooster , "Medical Register of the State of California," Pacific Medical and Surgical Journal 1, no. 5 (May 1858): 206-211. Lane Library catalog record
25. David Wooster , "Medical Register of the State of California (Revised)," Pacific Medical and Surgical Journal 1, no. 12 (Dec 1858): 497-505. Lane Library catalog record
26. David Wooster , "Editors' Table: Corrections (Medical Register of the State of California," Pacific Medical and Surgical Journal 2, no. 2 (Feb 1859): 75. Lane Library catalog record
27. Elias S. Cooper , "Salutatory," San Francisco Medical Press 1, no. 1 (Jan 1860): 1-2. Lane Library catalog record
28. Elias S. Cooper , "Editorial: A Medical Man Indicted for Perjury," San Francisco Medical Press 1, no. 1 (1860 Jan): 58. Lane Library catalog record
29. Elias S. Cooper , "Editorial: Medical Men of California," San Francisco Medical Press 1, no. 1 (Jan 1860): 51-52. Lane Library catalog record
30. David Wooster , "Editorial," Pacific Medical and Surgical Journal 3, no. 2 (Feb 1860): 78. Lane Library catalog record
31. Elias S. Cooper , "Editorial: University of the Pacific: Medical Department," San Francisco Medical Press 1, no. 2 (April 1860): 119-120. Lane Library catalog record
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Chapter 17. Third and Fourth Annual Sessions Medical Department, University of the Pacific and Demise of Medical Societies

Third Annual Session of the Medical Department
November 1860 to March 1861

The first two sessions of the school were held from May to September because the summer months in San Francisco are cool and quite satisfactory for anatomical dissection. Other medical colleges in the country, not being so favored, generally scheduled their classes during the winter. In order to be in conformity with eastern institutions, the Faculty decided to conduct the third and future sessions from the first Monday in November to mid-March. The Preliminary Course of gratis lectures, usually delivered during the month preceding the session, was omitted in 1860 because of the previous session having been so recently concluded.[1][2][3]

Seventeen students were matriculated for the third session, an increase of three over the class size of the previous session.[4]

In October 1860, anticipating the beginning of the third session of the school, Cooper recalled the opposition it had now begun to overcome:[5]

> Though the Faculty of the Medical Department of the University of the Pacific has met with a degree of unjust opposition, almost unparalleled in the history of new medical schools, probably none other ever complained or faltered less. Not two years have elapsed since the opening ceremonies were held, publicly inaugurating the school. Many spoke of it as a "magnificent humbug," gotten up by the "self-created professors," simply for the purpose of producing an excitement, for selfish ends only; but it is very different now. There is hardly an enemy of the school who would dare to risk his reputation as a man of sense, by stating that he does not believe it to be a permanent institution.

Cooper Congratulates the Faculty

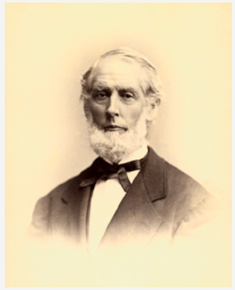
In January 1861, midway in the session, Cooper evaluated the performance of the Faculty that had now gained maturity and a firm sense of purpose:[6]

> The present (third) session of this Medical College commenced under far more flattering auspices than ever before. The Faculty are now receiving the most unequivocal evidence that a sphere of great usefulness is open to them, if they adhere to their original designs of laboring unceasingly for the success of the great object of their ambition, viz: the building up an Institution that will stand forever as a monument of the industry and devotion of medical men, to the advancement of medical science, during the earlier days of California.
>
> The Faculty of this School have made no false step. They have not been compromised by imprudent haste to make an early impression in its favor, but have worked quietly and faithfully to teach, in the most thorough manner, all the students resorting to the School for instruction; and the fact is already patent, on this coast, that students, expecting to graduate, must be prepared to pass successfully a most rigid examination, and, for this same reputation, the College has, even thus early, lost students. But it is the design to make the standards of qualifications for a degree as high, if not higher, than that of any other Medical College in the United States…
>
> This Faculty have done nothing for display. They have been led on by none of the troublesome infatuations that encumber the early efforts to establish many medical schools, the Faculties of which, at a premature period, make immense and unnecessary sacrifices for the purpose of erecting gorgeous buildings, to accommodate a dozen or twenty students.

Commencement

The third session went smoothly and Commencement Exercises were held on the evening of 14 March 1861 before a large audience in Tucker's Hall. Five students completed their medical studies during the third session. They were joined by the student who had graduated the previous year so that M. D. degrees were formally conferred on all six students during the ceremony.[7]

Professor Carman Resigns, Professor Gibbons Appointed



Henry Gibbons, Sr. (1808-1884)

In the interval between the third and fourth sessions, significant changes occurred in the faculty. Dr. B. R. Carman, Professor of Materia Medica, resigned his chair because of illness and moved from San Francisco to Mexico where he made his permanent home. The Board of Trustees of the University of the Pacific promptly appointed Dr. Henry Gibbons to replace Dr. Carman as Professor of Materia Medica. Cooper characterized Dr. Gibbons as a pleasing and ready speaker, a terse and vigorous writer, and one of the most faithful laborers in the cause of medical science on the Pacific coast. Professor Gibbons was already acquainted with the laborious duties of a medical lecturer, having for some time occupied a chair in the Philadelphia College of Medicine.[8][9]

Professor Levi Cooper Lane Appointed

As we have already reported, Dr. Levi Cooper Lane paid a visit to San Francisco in 1860 while serving as a naval surgeon aboard the U. S. Warren. At that time he decided to resign his commission and undertake studies in Europe preparatory to an appointment in the Medical Department. While in Europe during 1860-61 he took special courses at the University of Göttingen in Germany, including vivisection with Rudolph Wagner and Physiological and Toxicological Chemistry with Professors Boedeker and Woehler. At Paris, besides attending some of the principal hospitals, he attended a course of vivisections under Flourens, and a course of chemical lectures under Fremy and Chevreul. Upon his return to San Francisco in the spring of 1861, Dr. Lane was appointed Professor of Physiology in the Medical Department, taking over that assignment from Dr. Cole who continued to serve as Professor of Obstetrics and Diseases of Women and Children, and Dean.[10]

In addition to his duties as a lecturer on Physiology and assistant to Cooper in his practice at the Pacific Clinical Infirmary, Lane began immediately to write book reviews for the San Francisco Medical Press, this being a first step in his increasing responsibility for editing the journal.[11]

Fourth Annual Session of the Medical Department
November 1861 to March 1862
Faculty during the Fourth Session

Reflecting the resignation of Dr. Carman and the appointment of Drs. Gibbons and Lane, the Faculty for the fourth session was expanded from the original six Professors to the following seven:

J. Morison, M. D.
Professor of Pathology and Principles and Practice of Medicine

Isaac Rowell, M. D.
Professor of Chemistry

R. Beverly Cole, M. D., Dean
Professor of Obstetrics and Diseases of Women

E. S. Cooper, M. D.
Professor of Anatomy and Surgery

Henry Gibbons, M. D.
Professor of Materia Medica

Levi C. Lane, M. D.
Professor of Physiology

Hon. George Barstow
Professor of Medical Jurisprudence

Early in this narrative we referred to the vital roles of Henry Gibbons and Levi Lane, and the special ties that guided and sustained their efforts, during the formative and later years of the new institution. We shall in due course learn how these two men, having joined the Faculty on the eve of an unforeseen crisis that threatened the life of the school, were ultimately responsible for its survival - thereby affirming the ambiguous theorem that: "Man is not the creature of circumstances. Circumstances are the creatures of men."[12]

Matriculates and Graduates

Twenty-eight students registered for the fourth session, up from seventeen matriculates in the third session. The Fourth Commencement of the Medical Department was held on 13 March 1862, and the degree of M. D. was conferred on five graduates. The marked difference between class size and number of graduates in this and previous sessions was in consequence of the high standards and rigorous examinations to which all students were subjected, "regardless of influence, money or favor." Outlook for the school seemed promising indeed at the close of the fourth session.[13]

The Commencement Address, full of pithy advice and wry humor, was delivered to the graduates by Professor Gibbons. Some excerpts will convey the tone of his remarks:[14]

> Let me commend you to thorough rather than extensive reading. It is as easy to read too much as to eat too much. The digestive powers of the mind are limited, as well as those of the stomach. Thorough is infinitely better than extensive reading. The multiplication of books is the curse of the age. If the aspirant for the immortality of authorship can do no better, he works up an old book in a new style, throwing in handfuls of Greek words for seasoning. . . .
>
> I would not dissuade you from authorship, if you have anything worth writing. But when you use the pen, express yourselves distinctly, and in the simple vernacular, as far as possible. An old alchemist prefaced his book with the caution that it was to be understood in an incomprehensible way. Be careful not to mystify yourselves or your readers…
>
> There is a subject to which I desire to call your special attention - autopsic examinations. These have been culpably neglected in California, rather from indifference on the part of physicians, than for want of opportunity. Knowledge useful to the living is invariably derived from inspection of the dead. Intelligent people seldom object. So much importance have physicians attached to this subject, that they have frequently left instructions to have their bodies inspected after death for the purpose of removing the popular prejudice against dissection…
>
> There are fashions in medicine which it is often needful to resist - fashions within the pale of the profession, and fashions in the popular crowd without… Formerly it was the fashion with physicians to drug their patients liberally. This was necessary, forasmuch as the skill of the doctor was measured by the number and magnitude of his potions. There was another advantage from this treatment. When I was a boy, the rising generation stood in reverential awe of turbulent tartar, with gallon drenches of warm water - of Glauber's Salts, spiced with senna - of rich, old-fashioned Castor Oil. The consequence was, we did not dare to get sick more than once a year.…
>
> There is one fashion in Medicine handed down from the past generation, which persists unchangeably, and seems likely to be perpetual: I allude to the prescription of alcoholic beverages. These are recommended to an immense extent, and in defiance of all moral considerations… Alcoholic medicines have this superlative merit, that the patient is sure to give them a thorough trial. Perhaps they are taken by physicians, to refute the slander that doctors have never been known to swallow their own physic.

First Hospital Facilities Acquired for Teaching

In the spring of 1862 Dr. James. P. Whitney, having made peace with Cooper, invited the medical students to attend his rounds and conferences at St. Mary's Hospital, recently opened by the Sisters of Mercy on a beautiful site at First and Bryant Streets overlooking the Bay. Four stories high, the building was divided into twelve large, commodious general wards, and a like number of smaller wards, all furnished and equipped in a manner comparable to the best hospitals in the East.

The Hospital was under the professional charge of Dr. Lee, as Resident, and Drs. Bowie, Toland and Whitney, as Visiting Physicians and Surgeons. Dr. Whitney's morning rounds were from 9 to 10 on Tuesday, Thursday and Saturday, and his evening conferences were on the same days from 8 to 9. In the mornings, the students were afforded the opportunity to observe and record cases, and listen to practical remarks upon them by Dr. Whitney and his colleagues. In the evenings Dr. Whitney expounded his views on Practical Medicine and Surgery. His lectures included wholesome counsel on the advantages and disadvantages, pleasures and perplexities attendant on the study and practice of medicine. His first Summer Course of Clinical Instruction was announced to begin on the 2nd Tuesday in June 1862, and to continue for three months This was the first hospital-based course of clinical instruction for medical students in the far West.[15][16]

Dr. Whitney was a voluble speaker with an exceptional command of the medical literature. He obviously enjoyed regaling the students and, as an instructor, was quite popular. The importance of his contribution to the teaching program was recognized in early 1863 by his appointment as Professor of Physiology. According to the Annual Announcement for 1863-64, the title was later changed to Professor of Institutes of Medicine.[17]

It was thus through Dr. Whitney's influence that the Medical Department acquired its first formal access to a general hospital. He was doubtless motivated to make this arrangement by the fact that his son, James D. Whitney, was a first-year medical student in the University of the Pacific in 1861-62. James continued as a second-year student in 1862-63 and was awarded the M. D. degree in March 1863. Incidentally, James was a classmate of the son of Professor Henry Gibbons, Henry Gibbon, Jr., who also graduated in 1863.

Demise of Medical Societies

Now that we have seen Cooper's fledgling medical school safely through its fourth session in the spring of 1862, it is time to consider the fate of the medical societies in which he was deeply involved. He had made remarkable progress, against persistent and unscrupulous opposition, toward the goals he conceived in 1855. He had:

- established a Clinic and Infirmary
- inaugurated a teaching program in Anatomy and Surgery
- acquired a large surgical practice
- organized medical societies (local and state)
- published a medical journal
- founded a medical school.

These were gratifying achievements, except that now the local and state medical societies he sponsored early in his California sojourn were both in a precarious state. When proposing the formation of a State Medical Society in letters to Thomas Logan in 1855, Cooper stated his conviction that:

> Nothing in my humble opinion would go so far towards the elevation of Medicine and Surgery and suppressing Quackery as a well organized State Association connected with local Societies all having unanimity of feeling and concurrence of action and composed of working liberal men who consider no efforts of their own as any sacrifice provided the good of the profession is enhanced thereby.

This admirable credo was expressed in a season of hope before the advertising of his Infirmary and the aggressive promotion of his teaching program and surgical practice had offended entrenched physicians in San Francisco. As we have seen, they formed an implacable clique against him and sought to frustrate all his projects, especially the State Medical Society.

The subsequent discord among the doctors in the community threatened the survival of the San Francisco County Medico-Chirurgical Association and the California State Medical Society. Cooper had been a central figure in the development of both these organizations and their current malaise, to which he had contributed by his own missteps, was of such concern to him that he addressed the subject in an editorial in the first issue of the San Francisco Medical Press in January 1860:[18]

> Medical Associations. Their true Designs. Too often Medical Societies are converted into medico-political engines, used for accomplishment of individual and selfish designs; and then they lose their dignified character and become, like too many other organizations, not only useless, but pernicious. Medical Societies should be entirely free from selfish objects and influences. They should be confined to the discussion of medical subjects, and to collecting the fruits of the labors of the various members, that all may enjoy the benefits of their discoveries and united experience. Individual quarrels should never be brought into Societies for Medical Improvement. All those matters should be settled outside. Thus far, Medical Societies in California, while they have not failed in accomplishing many of the objects for which they should be formed, have had their usefulness much impaired by the intrigues of a few designing medical men, who have gained admission for no other purpose than to use them for selfish ends. Fortunately, however, these parties are becoming well known and hence their unworthy objects must meet with defeat, and the cause of Medical Science escape the injury and reproach that their success would have brought upon it.

Cooper was painfully accurate in the observation, based on his own experience, that interpersonal conflict was the bane of California medical societies. With characteristic resolve, he set out at once to do all he could through the pages of the Medical Press to restore harmony and revitalize the flagging programs of the Medico-Chirurgical Association and the State Medical Society.

San Francisco Medico-Chirurgical Association

The January 1860 issue of the Press included the following editorial regarding the Association:[19]

> This Society was organized in August, 1855. Though its proceedings have been marred by considerable discord, it has still done much in the cause of the profession. During the first year of its organization, it had forty-six regular meetings, and twenty-one original papers were read. Many of the discussions held during that time would have been creditable to any Medical Association. But at present, its meetings, though harmonious and profitable when they do occur, are irregular. We hope the members will not lose the character they have so justly earned, of being the most liberal and industrious of any constituting a Medical organization in this city.

The effect on the Medico-Chirurgical Association of Cooper's encouraging words, accompanied by his personal participation in the Association meetings, was prompt - and a tribute to his considerable influence. In the April 1860 issue of the Press he was able to report:[20]

> This Association, which is and has always been the only working medical society in this city, has now regular meetings at the office of Dr. B. R. Carman, corner of Dupont and Washington streets, every Monday, at 8 o'clock, P. M.
>
> At each meeting, original papers are read, discussions of medical subjects are had, and reports of important medical and surgical cases are made. Every medical man in this city, who wishes to see the profession advance, should become a member.

Officers for the ensuing year were elected and included Professors Carman (Vice-President), Cooper (Corresponding Secretary), Cole (Recording Secretary), and Rowell and Morison (Board of Censors). The redoubtable Dr. Henry Gibbons was also on the Board of Censors. We can discern the guiding hand of Cooper In this resurrection of the Association since half the newly-elected officers were Professors in his new school, and Cooper himself was restored to his original office of Corresponding Secretary.

Cooper now used the Press to promote the Association. He published the Proceedings of its meetings in the numbers for July and October 1860 and January 1861, reporting that a wide range of topics was discussed with a lively airing of opinions. Nevertheless, in spite of this promising revival induced by Cooper, we find no further mention of the Association in the Press or elsewhere after January 1861. We can only assume that conditions in San Francisco were not yet conducive to the long survival of a local medical society devoted to medical improvement; and that the Association, in spite of the driving force of Cooper, quietly expired.

California State Medical Society

Our last summary of a meeting of the California State Medical Society concerned the Fourth Session held in Sacramento in February 1859. On that occasion Beverly Cole narrowly escaped censure and expulsion for his defamatory comments on California women in his Report on Obstetrics and Diseases of Women. The meeting was so contentious that, on the recommendation of Dr. Gibbons, the members agreed not to publish the minutes. Therefore, our only account of the meeting is that reported in the Sacramento Daily Union. We should also recall that the dissension stirred up by the attack on Cooper during the Third Session, and on Cole during the Fourth, resulted in wholesale resignation from the Society by disgruntled members.

As a result of these unfortunate events, the future of the State Medical Society was quite uncertain during the period leading up to the Fifth Session scheduled to convene in Sacramento on 8 February 1860. No one understood the gravity of the situation better than Cooper, or felt it more personally. As the prime mover in the founding of the Society and its most devoted advocate, he was determined to prevent its demise by rallying the faithful members. in December 1859 he addressed to them the following letter:[21]

> San Francisco, 20 December 1859
>
> Dear Sir,
>
> On the 8th of February 1860 will be held a Medical Convention at Sacramento for the purpose of forming a new State Medical Society, or of restoring the old to the advancement of the objects for which it was organized, and your former enthusiasm induces me to think the profession of the State should count much on your future efforts in furthering this great work.
>
> I know that the discord and confusion which have reigned in the heart of the association from its formation have been enough to discourage you in your attempts to ameliorate the condition of the profession. It has been enough even to disgust one, but when we consider that this has all been the work of a few individuals, why should we let it lessen our efforts in subserving the cause of our noble profession.
>
> I as an individual have submitted to insults too great almost to be borne both in connection with and out of the State Medical Society, and which with few exceptions I have suffered to pass unnoticed for the sake of harmony, and I do not regret having done so.
>
> (I have great satisfaction in) meeting medical men in Convention, whose enthusiasm increases my own, and whose love of the profession is easy to perceive though checked by the treatment of unprincipled men in our ranks. The pleasure of seeing all the high-toned, and honorable medical men in California brought together in harmonious cooperation for the elevation of our beloved profession would compensate me for years of insult offered by unworthy medical men, who are not really worth minding at last.
>
> All true friends of medical improvement in our State should be present on the 8th of February. Cannot I count on you? Remember the eyes of the whole medical world are upon us. Let us exceed the most sanguine anticipations of the medical profession abroad in our efforts to advance medical science on the coast.
>
> Yours respectfully,
> E. S. Cooper, M. D.

Fortunately, the publication of the first issue of the Press in January 1860 gave him a further opportunity to announce that the Society would meet in February and that "it should not be forgotten or unattended by any one who has the good of the profession at heart."

This announcement was accompanied in the same issue of the Press by the following editorial in which he traces "for the record" the Society's vexed course:[22]

> State Medical Society. Nothing more was wanting to convince us that great spirit and energy existed in the Medical profession of California, than the promptitude with which the members responded to the call for a Convention to form a State Association. Nearly one hundred were present, which is more than double the number that constituted the Convention which formed the American Medical Association. A more intelligent assemblage of medical men we never saw. This was in February, 1856, a few months after our arrival on this coast; and it is unnecessary to say that we felt proud of the Medical profession of the State we had selected as the place of our permanent home.
>
> But the spirit of discord entered that Convention. Medical men, who opposed the formation of a State Medical Society, were there, and were present because they intended either to break up the Convention, or to convert it into an engine to be devoted to the accomplishment of their own wishes. Their designs were not discovered and their influence prevailed. They were elected to the offices, appointed chairmen of all the committees, and, in fact, had the entire management of the Society in their own hands. Medical men who had thought of nothing but the reading of papers and the discussion of medical subjects, were soon found to be greatly their inferiors in medico-political management; and the consequence was that the working men of the profession became disgusted, and many of them did not attend the subsequent meetings. There is, however, an abundance of good material now in the Society, if it can be brought together and harmonized, to make one of the most efficient State Medical Societies in the Union.

Bitterness and recrimination are tempered with nostalgia and lingering hope in these brief reflections of Cooper on the intrigues that had now brought the Society to the brink of ruin.

Fifth Annual Session of the Medical Society of the State of California Sacramento, 8-9 February 1860

The meeting was opened by President R. B. Ellis in the chair.

When the roll was called only fourteen members answered to their names. Only three of the members were from San Francisco, namely Professors Cooper and Rowell, and Dr. B. A. Sheldon who was Recording Secretary of the Society. There were eight members from Sacramento and three from towns in that vicinity.[23]

Letters of resignation were received from two more influential members, Drs. S. M. Mouser and John F. Morse of Sacramento, both of whom served on the Committee on Medical Education. Dr. Morse, and Dr. Thomas M. Logan who had resigned in 1859, were chiefly responsible for aligning the Sacramento Medical Society with Cooper's original proposal to establish the State Society. Five new members were admitted to the State Society during the session, more than offsetting the numerical loss of two by resignation.

The Finance Committee reported that previous imprudent expenditures had resulted in the accumulation of an unfunded debt of about five hundred dollars. It was necessary to raise this amount at once by voluntary contributions from the much reduced membership of the Society. Cooper was greatly heartened by the manner in which the members, present and absent, responded to the fiscal emergency. They promptly retired the debt by personal donations. This led the ever-hopeful Cooper to declare that[24]

> Now no medical man of intelligence in California can doubt but that the (Society) will occupy in future a sphere of great usefulness and distinction. We may expect its sessions to be occupied henceforth by the reading of reports containing the improvements and discoveries made in medicine and surgery throughout the State, during each year, by which every member may be a recipient of the benefits conferred by the industry and invention of all others.

Selection of officers was the next order of business and the following were duly elected:

President: Isaac Rowell, M. D.

Vice Presidents: R. Beverly Cole, M. D., and three others

Corresponding Secretary: E. S. Cooper, M. D.

Censors: Henry Gibbons, M. D. and six others

With respect to the Standing Committees normally appointed during the session by the incoming President, it was decided to grant President Rowell a period of three months in which to make his selections. (We have been unable to find a list of the members of these Standing Committees although we do know that Cooper was appointed to the Standing Committee on Surgery.)

All the malcontents and disillusioned members of the Society having now resigned, the above slate of officers was congenial to Cooper and to his conception of the Society's proper functions. Small wonder that he should at this point breathe a sigh of relief and look forward to the "unanimity of feeling and concurrence of action" which had so far been absent from the Society's annual proceedings.

The latter part of each session was customarily allocated to the scientific program and Reports of Standing Committees. On this occasion there were no papers to be presented and only Cooper was prepared with a Committee Report. He, in his usual thorough manner, delivered an elaborate three-part Report from the Committee on Surgery. He began with an exposition on the importance of early, wide and open drainage of septic joints, insisting that admission of air into joints is not harmful as commonly supposed. He then discussed successful reimplantation of a traumatically amputated thumb, and the capacity of bone to reconstitute itself after being subperiosteally resected. All this was most favorably received and the discussion was animated. Cooper was elated for there was more good feeling and rapport among the small group than the beleaguered Society had yet seen.

As a kind of benediction at the close of this gratifying session, Cooper offered the following Resolution:

> Resolved: That the members present pledge themselves to fidelity in carrying out the objects for which the Society was formed, viz: promoting unanimity of feeling and concurrence of action among medical men of the State, in their efforts to advance our noble profession.

The Resolution was adopted and the Society adjourned, sine die. The session had lasted only two days instead of the usual three.

In the months following the Fifth Session Cooper made a valiant effort to restore the confidence and interest of the medical profession in the State Society. He wrote two lengthy editorials in the Medical Press and a letter to the membership exhorting all hands to attend the Sixth Session which was scheduled to begin on 13 February 1861. The meeting was again to be held on the neutral ground of Sacramento.

In his two editorials, published in the October 1860 and the January 1861 issues of the Press, Cooper again reviewed the history of the Society, rebuked those enemies of medical improvement who sought its control for selfish purposes, and praised the Society's great potential - "so that a brilliant career may justly be anticipated for it in the future; and let not those who wish to see the profession of the State advance, fail to be in attendance at the next meeting."[25][26]

The following is the letter sent by Cooper to all California physicians urging their attendance at the 1861 Session of the State Society:[27]

> San Francisco, 10 December 1860
>
> Dear Sir,
> As Corresponding Secretary of the State Medical Society it becomes my duty to memorialize the members of the approaching Anniversary which will be on 13 February 1861; and not knowing who or where all the members are I send this circular to all the medical men of the State whose names and Post Office addresses are recorded in the State Register, thinking thereby to be sure of notifying all. It is desirable to have members who can attend the meeting to do so because all will thereby be benefited by the mutual labor of all. In our profession the members perform so much (intense) labor and submit to so many self sacrifices that it becomes our duty to ourselves and to our common cause to stand by each other in every honorable way and nothing strengthens our bond of union so much as meeting each other frequently in associations for medical improvement.
>
> I would most earnestly recommend the formation of local medical societies in every county in the State where none exist at this time. From those, delegates should be sent to the meetings of the State Society so that every part of the State may be represented.
>
> Finally I would beg to urge those who have been appointed upon the Standing Committees to be prepared to make full reports by the time of the approaching meeting so that not only unanimity of feeling and concurrence of action may prevail but also that the accumulation of valuable facts embraced in the reports may this year give a decided advance to Medicine and Surgery on this coast.
>
> E.S. Cooper, M. D.
> Corresponding Secretary
> State Medical Society

Sixth Annual Session of the Medical Society of the State of California Sacramento, 13-14 February 1861

The minutes of the Sixth Annual Session were never published as far as we know. The following information regarding the session was obtained from a handwritten copy of the minutes found in the E. S. Cooper Collection at the California Historical Society Library in San Francisco.[28]

The meeting was called to order by President Isaac Rowell at 11:30 A. M. on 13 February. The number of members in attendance is uncertain, but from the names mentioned in the minutes it appears that thirteen were present. Again there were only three members from San Francisco. These were Professors Cooper, Cole and Rowell. There were five members from Sacramento, and five from the vicinity of Sacramento and north. One resignation was received, and one new member was admitted to the Society.

After transaction of some routine business President Rowell delivered his Annual Address, of which we have no record. This was followed by selection of a full complement of Society officers and Standing Committees for 1861. Dr. S. F. Hamm of Diamond Springs in El Dorado County was elected President. He was originally from Pennsylvania and graduated from the University of Pennsylvania in 1848. Dr. Cooper was reelected Corresponding Secretary.[29][30]

Reports of Standing Committees now being in order, the only one prepared to speak was Dr. Cooper who presented the Report on Surgery. The substance of his remarks was not recorded in the minutes, but we know that his presentation was as usual a lengthy one, requiring continuation into the second day of the meeting. His remarks were followed by a paper on diphtheria by Dr. Hubbard of Marysville and a second paper on the same subject by Dr. Pierson of Sacramento.

The program was completed by the end of the second day and, having no further business to transact or scientific reports to consider, the Society adjourned on February fourteenth after what appears to have been a lackluster session.

The attendance figures of the 1860 and 1861 sessions showed that the physicians of San Francisco (except for Cooper and his associates) had abandoned the State Society, and that it now depended for its existence on less than a dozen Sacramento and other up-country doctors. Yet Cooper's editorial describing the 1861 session was reassuring:[31]

> The Sixth Annual Meeting of the Medical Society of the State of California was held at Sacramento in February 1861.
>
> The attendance was not very large, but the proceedings throughout were characterized by harmony among the members, great enthusiasm in the cause of the medical profession of California, and a determination to make the Society a great contributor to the progress of medical science on this coast…
>
> We regret that so few medical men of the State take an interest in the Society, and that the burden of keeping it up rests upon a few,

> but we feel fully compensated for our regrets, in the fact, that the few so manfully and enthusiastically perform this great duty. We are glad that there are medical men in California, who fully comprehend the obligations they owe, alike to themselves and their profession, in keeping up societies for medical improvement, and that nothing dampens their ardor. Their courage is invincible, and a few years more will suffice to show the results of their labors, not only by their own advancement but that of the science of medicine on this coast. They have wills as strong as destiny itself. Stimulated by a love for the profession, affection and sympathy for each other, and untiring energies, what utter folly to talk of anything but great success in the end?

These were Cooper's brave last words on the subject of the California State Medical Society. There is no further mention of the State Society in his writings or a clue anywhere as to why a Seventh Session was never convened. Great were his expectations when he brashly launched the drive for a State Society in 1855, only three months after his arrival in San Francisco. Six years later it quietly disappeared from the scene.

Could it be that events outside the medical sphere discouraged Cooper from continuing his vigorous editorial advocacy for the Society? There was no hint in the Medical Press or in the handwritten minutes of the Sixth Session that a great national catastrophe was impending during the early months of 1861. The declaration of the Confederate States of America took place on 8 February 1861, five days before the convening of the Session.

The Confederacy consisted of the southern States that were determined to secede from the Union if necessary to protect, expand and perpetuate the slavery of the Negro race. Other factors influenced the States' decision but slave labor was the linchpin of the movement. In his inaugural address on 4 March 1861 as the sixteenth president, Abraham Lincoln warned the secessionists that the momentous issue of civil war was in their hands, that there would be no conflict without their being the aggressors. They responded on 12 April 1861 by firing the first gun of the Civil War in an unprovoked attack on Fort Sumter in the harbor of Charleston, South Carolina. The disunionists had fired on the flag, the North was inflamed and the issue was joined.[32]

In his authoritative recounting of California's Medical Story, Dr. Henry Harris suggested that the stupendous tragedy of the Civil War was responsible for the "disorganization" of the State Society. He also pointed out that Professor Isaac Rowell was a highly vocal abolitionist and that his identification with the Society would probably have alienated physicians of "Southern breeding and sympathies."[33]

While the outbreak of the Civil War may have had some bearing on the dissolution of the State Society, it was probably not the major cause for the following reasons. California's constitution banned slavery and there was never serious doubt of its adherence to the Union. The State was so far from the scenes of bloodshed and destruction east of the Mississippi, that social order in California was little disrupted. Many doctors volunteered or were called to military duty, but the majority remained and could have supported medical societies had they been so inclined.

Why then did medical organizations in general, and the State Society in particular, fail to thrive on the coast both before and after beginning of the war? In January 1865 when Henry Gibbons became editor of the Medical Press, he pondered the question. As the cause for the demise of medical societies, he cited indifference of the doctors and attempts to subvert the societies into courts of enquiry and condemnation, and he pled for restoration of the societies as a means of combating these very conditions:[34]

> Something Wrong. There is not one medical society in California, nor as far as we know, anywhere in the three States of the Pacific (at this time). It makes our ears tingle to record the shameful fact. Not even in San Franciso, where there are two hundred regularly educated physicians, is there an association of medical men for the advancement of the interests of the profession and of science. In years past there have been societies in active and useful operation in several localities; but they have died, either from indifference on the part of the members, or the attempt to subvert them into courts of enquiry and condemnation, for the purpose of punishing certain individuals who may have given offense to others. Cliques and coteries are the invariable result of the absence of associations. The existence of such nuisances is the objection mostly presented, when the proposal is made to form a society. "You cannot maintain a society. There is not enough esprit de corps - too much petty jealousy - too many Ishmaelites." Thus do men talk, pleading the disease as an objection to the remedy.
>
> Societies would cure the evil, or at least tend to that result. Their absence foments exclusiveness, envy, snarling, and irregularities of all kinds. Social intercourse is the great need of our profession in California. Beneath its genial influence, petty jealousies and suspicions would vanish, and give place to mutual respect and confidence. Besides, the interests of medical science require organizations. It is positively impossible to cultivate the field of medicine profitably and thoroughly, without the aid of association. This is especially the case in the newly settled regions on the Pacific coast… Is it not time to move in this matter? Ought not medical societies to exist in all the chief centres of population on this coast? We beseech our brethren everywhere to take the subject in hand.

When Gibbons wrote this requiem for the pioneer medical societies of California, he surely had in mind the contributions and ordeals of Elias Cooper. It is fair to regard Cooper as at once the most effective (and controversial) exponent of medical organization on the Pacific coast during the 1850's. Although the societies he sponsored did not survive the Civil War era, they established traditions and laid the foundation for their resurrection in more durable form after the war.

While practicing in Peoria, Cooper was in full sympathy with the historic movement, initiated by the formation of the American Medical Association in 1847, to establish local and state medical societies nationwide. As a founding member of the Illinois Medical Society, he participated enthusiastically in its program. When he departed for California, he considered himself no less than an apostle of medical organization to the West, and in exactly ten weeks from his arrival in San Francisco we find him engaged in co-founding the San Francisco County Medico-Chirurgical Association. We have already told how the organization of the Association was swiftly accomplished including the election of Cooper as Corresponding Secretary. He chaired the By-Laws Committee and by securing the adoption of three series of resolutions of his own design he not only determined the modus operandi of the Association but he stamped it with his now familiar statement of principles:[35]

> Resolved:
>
> 1. That unanimity of feeling and concurrence of action among the members of the Society is indispensable to its perpetuity;
>
> 2. That the members of this Society shall know no contention, save that which prompts us to contend with each other for the highest merits in the cultivation of the literature of our profession, the most skill in its practice, the greatest candor towards each other, and the sincerest devotion to the true interests and dignity of our calling.

We have seen how Cooper lost no time in proposing to the Sacramento Medical Society that they collaborate with the Association in establishing a State Medical Society based on these same principles. Within seven months the State Society was a reality.

This recapitulation of the launching of the two most productive medical societies on the Pacific coast in the 1850's serves to recall Cooper's seminal role in their founding. Throughout their fleeting tenure he was the most diligent in presenting medical reports and scientific observations - activities which were in his view the primary objective of medical societies.

The reasons these pioneer societies ceased to exist are clear. In the case of the Medico-Chirurgical Association, Cooper's personal leadership and program contributions were critical to its survival. In the end, however, not even the dynamic Cooper could prevail over the indifference and cleavages within the medical community of San Francisco, and the Association simply died of inanition.

For the extinction of the State Society, the Pathological Society of San Francisco (founded "for the promotion of science") and its partisans deserve full credit. As Cooper observed, they were masters of political maneuver and thereby gained administrative control. Regrettably, Cooper and Cole presented them with issues which they successfully exploited to fatally undermine the confidence of the membership. In simplest terms, the State Society was the hapless victim of the rule and ruin tactics of a "pathological clique."[36]

Within three months of his arrival in San Francisco, Cooper had identified the Pathological Society as his Nemesis and he never ceased to denounce it. His premonition regarding the Society's future menace to his plans was all too prophetic, but his diatribes against the entrenched cabal proved futile. As to the Pathological Society's contribution to improvement of the medical profession and promotion of science on the Pacific coast, Cooper would have heartily concurred in the Society's epitaph as belatedly pronounced by Henry Gibbons in 1870:[37][38]

> The Pathological Society (was) so-called because it was always in a pathological condition. A few choice spirits, segregating themselves from the common herd, assumed to be the Profession. Like another distinguished body - the French Academy - their number was limited. Their meetings were secret, and what they did for science never transpired. The Pathological Society lived and died stealthily, leaving, as the only visible trace of its arduous labors, a pyramid - somewhat smaller than that of Cheops - composed of empty bottles and oyster-shells.

Adieu to Doctor Wooster

At some time during 1860 David Wooster's indictment for perjury was dismissed by the California Supreme Court. Cooper registered his disappointment with this outcome in an editorial in the Medical Press for January 1861 and added that:[39]

> It is a very difficult matter in California to effect a conviction for the crime of perjury, however clear the evidence of guilt may be…In this case, it would appear that there must have been some knotty legal questions involved, as the County Judge occupied nearly six months in deciding upon Wooster's (plea of innocence), and the Supreme Court about as long.

Also in January 1861, Cooper learned that David Wooster had submitted an application for a position as Visiting Surgeon at the U. S. Marine Hospital in San Francisco: His reaction to this information was harsh and uncompromising:[40]

> San Francisco, 21 January 1861
> The Honorable Eugene Sullivan
>
> Dear Sir,
> I learn that there are a great many candidates for the situation of Visiting Surgeon to the U. S. Marine Hospital (in San Francisco) and that you will be likely to have the appointing privilege. I consider it my duty to write you. The situation is one of the finest the U. S. can confer upon a Medical Man and ought to be filled by a worthy one. There are several candidates who are most worthy and some whom it would be a disgrace to any government to appoint…
>
> There is one candidate… that as you value your future reputation you will not have appointed because sooner or later his true character will be known to be no better (than that of) a State Prison convict and that person is Dr. David Wooster.
>
> He bears the reputation of a cattle thief in Yuba County (his former residence) and I do know him to be an unmitigated perjurer for which as you may remember he was indicted though not convicted.
>
> I take this privilege of writing you because I consider it my duty to watch over the interest of the profession of this coast and I know it cannot be unacceptable to you to be informed in regard to what are the merits of those upon whom you confer the patronage of government…
>
> (E. S. Cooper)

Cooper enclosed the following petition in the above letter to Mr. Sullivan:[41]

> Petition: We the undersigned citizens of San Francisco, California, having learned that Dr. David Wooster is a candidate for the situation of Visiting Surgeon or Resident Physician at the U. S.

> Marine Hospital of this city, would most especially remonstrate against said appointment having as we think a thorough knowledge of his moral character.

Wooster did not receive the appointment to the staff of the U. S. Marine Hospital. Whether Cooper's fulminations were responsible for that outcome, we do not know. In any case, public exchanges in the Cooper-Wooster feud finally ceased in the declining days of 1861. Cooper's attention was increasingly claimed by the medical school. The Civil War commanded the services of Wooster. He bid "Vale! Vale!" to the Pacific Medical and Surgical Journal in a valedictory editorial in the December 1861 issue. The last item in that issue of the Journal is an abstract of Wooster's Monthly Reports as Surgeon to the 5th Infantry Regiment of the California Volunteers, stationed at Camp Union, Sacramento. From there, Wooster was soon posted to the Arizona-New Mexico sector, too far for him to launch further barbs at Cooper. Thus concluded the most notorious episode of medical duplicity and professional treachery in California history.[42][43]

Endnotes

1. Elias S. Cooper , "Editor's Table: Change of time of the sessions of the University of the Pacific. Its Past and Prospective," San Francisco Medical Press 1, no. 4 (1860 Oct): 236 Lane Library catalog record
2. Elias S. Cooper , ed., "Quotation from American Gazette," San Francisco Medical Press 2, no. 5 (Jan 1961): 32 Lane Library catalog record
3. Elias S. Cooper , "Editor's Table: Commencement of the Medical Department of the University of the Pacific," San Francisco Medical Press 2, no. 6 (April 1861): 97 Lane Library catalog record
4. University of the Pacific Medical Department, Record of Students and Instructors, April 1859-Jan 1883 - Box 1.7, Medical Department of the University of the Pacific Collection of publications, Lane Medical Archives, Stanford Lane Library catalog record
5. Elias S. Cooper , "Editor's Table: Change of time of the sessions of the University of the Pacific - Its Past and Prospective," San Francisco Medical Press 1, no. 4 (Oct. 1860): 237 Lane Library catalog record
6. Elias S. Cooper , "Present session of the Medical Department of the University of the Pacific," San Francisco Medical Press 2, no. 5 (Jan. 1861): 50-51 Lane Library catalog record
7. Elias S. Cooper , "Editor's Table: New Medical Schools. University of the Pacific, Medical Department," San Francisco Medical Press 2, no. 6 (April 1861): 98-99 Lane Library catalog record
8. Elias S. Cooper , "Editor's Table: Personal," San Francisco Medical Press 2, no. 7 (July 1861): 160 Lane Library catalog record
9. Elias S. Cooper , "Editor's Table: Professor Henry Gibbons," San Francisco Medical Press 2, no. 7 (Jul 1861): 182 Lane Library catalog record
10. Elias S. Cooper , "Editor's Table: Professor of Physiology in the Medical Department of the University of the Pacific," San Francisco Medical Press 2, no. 7 (Jul 1861): 160-61 Lane Library catalog record
11. Elias S. Cooper , "Editor's Table: Under obligations," San Francisco Medical Press 2, no. 7 (Jul 1861): 161 Lane Library catalog record
12. Benjamin Disraeli , Vivian Grey, 2 vols. (Leipzig: Bernhard Tauchnitz, 1859), v. 1, ch. 7, p. 172
13. Elias S. Cooper , "Editor's Table: Fourth Commencement of the Medical Department of the University of the Pacific," San Francisco Medical Press 3, no. 10 (Apr 1862): 108-09 Lane Library catalog record
14. Elias S. Cooper , "Editor's Table: Address of Professor Gibbons," San Francisco Medical Press 3, no. 10 (Apr 1862): 98-103 Lane Library catalog record
15. Elias S. Cooper , "Editor's Table," San Francisco Medical Press 3, no. 10 (April 1862): 87-88 Lane Library catalog record
16. Elias S. Cooper , "Editor's Table: Dr. Whitney's Summer Course," San Francisco Medical Press 3, no. 10 (April 1862): 109 Lane Library catalog record
17. Levi C. Lane , "Editor's Table: Medical Department of the University of the Pacific," San Francisco Medical Press 5, no. 13 (Apr 1863): 54 Lane Library catalog record
18. Elias S. Cooper , "Editor's Table: Medical Associations: Their True Designs," San Francisco Medical Press 1, no. 1 (Jan 1860): 55 Lane Library catalog record
19. Elias S. Cooper , "Editor's Table: San Francisco County Medico-Chirurgical Association," San Francisco Medical Press 1, no. 1 (Jan 1860): 53-54 Lane Library catalog record
20. Elias S. Cooper , "Editor's Table: San Francisco County Medico-Chirurgical Association," San Francisco Medical Press 1, no. 2 (1860 Apr): 118-19 Lane Library catalog record
21. Copy of letter from Dr. E.S. Cooper to Dr. Obed Harvey of Placerville, Eldorado County, Rixford Papers, MSS 8 Box 1.7, Lane Medical Archives, Stanford. In this standard letter sent to Dr. Harvey and other members of the State Medical Society, Cooper erroneously stated that the Society meeting would be held on February 10th 1860 The correct date was February 8th and, to avoid confusion, this date was used in the text
22. Elias S. Cooper , "Editor's Table: State Medical Society," San Francisco Medical Press 1, no. 1 (Jan 1860): 54 Lane Library catalog record
23. Elias S. Cooper , "Abstract of Proceedings of the Fifth Annual Session of the Medical Society of the State of California..," San Francisco Medical Press 1, no. 2 (Apr 1860): 65-73 Lane Library catalog record
24. Elias S. Cooper , "Editor's Table: The State Medical Society," San Francisco Medical Press 1, no. 2 (Apr 1860): 109-110 Lane Library catalog record
25. Elias S. Cooper , "Editor's Table: California State Medical Society. Impediments to its former Prosperity..," San Francisco Medical Press 1, no. 4 (Oct 1860): 249-252 Lane Library catalog record
26. Elias S. Cooper , "Editor's Table: Meeting of the State Medical Society," San Francisco Medical Press 2, no. 5 (Jan 1861): 39-40 Lane Library catalog record
27. Correspondence 1857-1862 - Box 1, Folder 4, Elias Samuel Cooper Papers - MS 458, California Historical Society, North Baker Research Library
28. Correspondence 1867-1862 - Box 1, Folder 4, Item 37, Elias Samuel Cooper Papers - MS 458, California Historical Society, North Baker Research Library
29. E. S. Cooper , "Editor's Table: Officers and Standing Committees of the Medical Society of the State of California for 1861," San Francisco Medical Press 2, no. 6 (1861 Apr): 101-104 Lane Library catalog record
30. John B. Trask and David Wooster , eds. "Medical Register of the State of California," Pacific Medical and Surgical Journal 1, no. 12 (Nov 1858): 501 Lane Library catalog record
31. E. S. Cooper , "Editor's Table: State Medical Society," San Francisco Medical Press 2, no. 6 (Apr 1861): 95-96 Lane Library catalog record
32. Samuel E. Morison , The Oxford History of the American People (New York: Oxford University Press, 1965), 608-611
33. Henry Harris , California's Medical Story (San Francisco: J. W. Stacey, Inc., 1932), 152-154 Lane Library catalog record
34. Henry Gibbons , "Editor's Table: Something Wrong," San Francisco Medical Press 6, no. 20 (Jan 1865): 188-189 Lane Library catalog record
35. Minutes and Meetings, p. 5, San Francisco County Medico-Chirurgical Association - MS 3119, California Historical Society
36. Annual Sessions of California State Medical Society Convention:
    A. 1st Session, 12-14 March 1856, Sacramento: Proceedings, California State Medical Society, 1-3, 1856-58 (Sacramento: James Anthony & Co., 1858) Lane Library catalog record
    B. 2nd Session, 11-13 February 1857, Sacramento: Proceedings, California State Medical Society, 1-3, 1856-58 (Sacramento: James Anthony & Co., 1858) Lane Library catalog record
    C. 3rd Session, 10-12 February 1858, San Francisco: Proceedings, California State Medical Society, 1-3, 1856-58 (Sacramento: James Anthony & Co., 1858) Lane Library catalog record
    D. 4th Session, 9-11 February 1859, Sacramento: No Proceedings were published by the Society. Proceedings of the Fourth Annual Session were reported in Sacramento Daily Union as follows: 1st day - Vol. 16, Whole No. 2456, Thursday, Feb 10, 1859, 2nd day - Vol. 16, Whole No. 2457, Friday, Feb 11, 1859, 3rd day - Vol. 16, Whole No. 2458, Saturday, Feb 12, 1859 Lane Library catalog record
    E. Standing Committees for 1859-60, published in San Francisco Medical Press 1, no. 1 (Jan 1860): 64 Library catalog record
    F. 5th Session, 8-9 February 1860, Sacramento: Abstract of Proceedings published in San Francisco Medical Press 1, no. 2 (Apr 1860): 65-73 Lane Library catalog record
    G. 6th (and last) Session, 13-14 February 1861,Sacramento: Handwritten Minutes of this Session held at California Historical Society. Correspondence 1857-1862 - Box 1, Folder 4, Item 37, Elias Samuel Cooper Papers - MS 458, California Historical Society, North Baker Research Library Lane Library catalog record
    H. Officers and Standing Committees selected during 6th Session, published in San Francisco Medical Press 2, no. 6 (Apr 1861): 101-104 Lane Library catalog record
37. J. Marion Read and Mary E. Mathes , History of the San Francisco Medical Society, Vol. 1, 1850 to 1900 (San Francisco: Published by the San Francisco Medical Society, 1958), 11 Lane Library catalog record
38. Henry Gibbons , "Introductory Lecture to the Eighth Session of the Medical Department of the University of the Pacific: Delivered July 5, 1870," Pacific Medical and Surgical Journal 4, no. 39 (August 1870): See insert of 12 pages following page 144. Page 3 of Insert Lane Library catalog record
39. Elias S. Cooper , "Editor's Table: Demurrer Sustained," San Francisco Medical Press 2, no. 5 (Jan 1861): 49-50 Lane Library catalog record
40. Correspondence 1857-1862 - Box 1, Folder 4, Item 35, Elias Samuel Cooper Papers - MS 458, California Historical Society, North Baker Research Library
41. Correspondence 1857-1862 - Box 1, Folder 4, Item 36, Elias Samuel Cooper Papers - MS 458, California Historical Society, North Baker Research Library. The text of a petition opposing the candidacy of Dr. Wooster for the position of Visiting Surgeon at the U. S. Marine Hospital in San Francisco was filed in the E. S. Cooper papers adjacent to the Sullivan letter. There were no names undersigning the text of the petition in the archival file, but we assume that a copy of the petition with appended signatures was enclosed in the letter to Mr. Sullivan
42. David Wooster , "Editor's Table: To the Readers of the Pacific Medical and Surgical Journal," Pacific Medical and Surgical Journal 4 (Dec 1861): 368 Lane Library catalog record
43. David Wooster , "Editor's Table: Camp Union, Sacramento," Pacific Medical and Surgical Journal 4 (Dec 1861): 398 Lane Library catalog record

Chapter 18. Professor Elias S. Cooper, University Surgeon

An Evaluation

John Bell (1763-1820) was a famous Edinburgh anatomist and surgeon, and one of the founders of vascular surgery, a field in which Dr. Cooper had a special interest. Bell introduced his classical monograph on The Principles of Surgery in 1801 with the following reflections on the evaluation of surgeons:[1]

> In every profession, the daily and common duties are most useful; and in ours, the man who is capable of the great operations rises into public esteem, only because it is presumed, that he who is most capable in the higher departments of his profession will best perform all its ordinary duties…(Accordingly), operations have come at last to represent as it were the whole science; and a Surgeon, far from being valued according to his sense, abilities and general knowledge, is esteemed excellent only in proportion as he operates with skill.

We shall in due course show that Cooper was not only "capable of the great operations," but that he also drew upon his extensive surgical experience and laboratory experiments to make significant observations. It is these distinctive contributions that qualify him to be regarded as a "University Surgeon" in the modern sense, and set him apart from all other surgeons on the Pacific coast in his era.

Before proceeding with our evaluation, we should point out that Cooper's numerous publications in the medical literature are our major source of information on his achievements as a surgeon. Since a list of his papers had never been assembled, we searched the journals of his day and compiled a Bibliography of 139 original articles and commentaries. From these we will now draw some conclusions as to the significance of his surgical work, keeping in mind of course the state of the art at the time.

Many of Cooper's articles were accepted for publication in such well-known journals in the east as the American Journal of Medical Sciences (Philadelphia), Medical and Surgical Reporter (Philadelphia), American Medical Gazette (New York, American Medical Times (New York), Cincinnati Lancet and Observer, St. Louis Medical and Surgical Journal, Chicago Medical Journal and North-Western Medical and Surgical Journal (Chicago). Not only did this general acceptance of his papers indicate an interest at the national level in his case reports and ideas, but also assured them of wide dissemination. The recognition thus gained by Cooper was especially galling to the venomous Wooster who had unwittingly impelled him onto the national stage of medical literature by denying him access to the Pacific Medical and Surgical Journal. In the following editorial in the June 1861 issue of the Journal, Wooster sought to discredit Cooper with the editor of the American Medical Times, hoping that he and other eastern editors could be induced to refuse Cooper's manuscripts.[2]

> The American Medical Times must have an intense desire to gratify its readers with original matter from remote sources. We are led to give this hint at seeing a California communication in the number of May 25th 1861, and also one in that of June 1st. The status of the author is so low here, socially and professionally, that we cannot imagine how the editor of the Times will lend himself to bolster up such an advertising pretender. Medical journals cannot ignore this allusion, for we definitely proved it to the profession some two years since. (Pacific Medical and Surgical Journal 1859 Dec; 2 (12): 495-499)

The editor of the Times ignored the Wooster libel and continued to publish papers submitted by Cooper, as did other eastern editors.

We shall begin our assessment of Cooper's professional stature by calling attention to his technical proficiency and follow with comment on the exceptional range and complexity of the operations that brought him the "public esteem" to which John Bell referred. We shall then mention some of his noteworthy experiments in the animal laboratory before, finally, identifying certain surgical principles that he derived from personal experience, and for which he claimed priority.

Master Surgeon

There can be no doubt from the operations we have already described and the regional acclaim to which we have previously alluded, that Cooper was a fearless and skillful surgeon, with a self-assurance born of natural aptitude and intensive anatomical study. Incredibly, he was almost entirely self-taught. Levi Cooper Lane, a not impartial witness, assisted his uncle during many operations and was in awe of his surgical prowess:[3]

> As an operator, he manifested, in a pre-eminent degree, that cool daring, that deliberate self-possession, - which the most untoward circumstance, so far from disturbing, seemed only to increase, - that instant comprehension of the difficulties which happen to arise during an operation, and that intuitive readiness to surmount them, which are the essential elements of great and original surgical genius. Not only was he self-possessed himself, but his manner was such as to thoroughly inspire his patient with the most perfect confidence that he was wholly secure in his hands; and of his spectator, no one who saw with what perfect ease the chisel and drill moved in his hand during his exsections, and the use of the silver ligature for ununited fractures, or with what rapidity, at one bold sweep, he deeply divided the structures of those regions of the body which most surgeons approach with caution, but who, in the one case, were thoroughly impressed with the superiority of his mechanical talent, and in the other, that his daring celerity could only be founded upon that accuracy of anatomical knowledge, which rendered the tissues, as it were, transparent under his eye. I think that no one, who ever stood by his side at such a time, feared for a moment, that the operation would not end successfully.

Such a paean from an experienced observer, albeit a biased one, leads us to conclude that Cooper was indeed an accomplished surgeon. For him, surgery was a true vocation. He was undaunted by the stress and complexity of difficult operations and he had the rare gift of responding to technical challenges by improvised measures. According to Dr. Lane, Cooper once remarked that at no time had he been happier than when, during an operation, some grave unforeseen complication arose which threw his mind wholly on its own resources, and for surmounting the difficulty compelled him to rely upon the suggestions of the moment.[4] We recall, for example, his remarkable extraction of a slug of iron from behind the heart of B. T. Beal with a special instrument; the control of major hemorrhage by ligating both iliac artery and vein in Frank Travers; and suture of the uterus to control bleeding during Mary Hodges' cesarean section. In all these operations Cooper made innovations, and they were life-saving.

Great Operations

The extraordinary scope of Cooper's operative experience is readily apparent from a scanning of his bibliography. He was capable of performing the most advanced procedures then being undertaken in the fields of ophthalmic; head and neck; thoracic; abdominal; orthopedic; and vascular surgery. Since his bibliography refers specifically to many of these operations and we have already described certain of them, we shall limit our further consideration of this subject to pointing out that Cooper performed, on two occasions in each, the most difficult and controversial operations in the surgical armamentarium at mid-century. These procedures were caesarean section and ligation of the innominate artery. We have already reported amply on Cooper's two caesarean sections and their outcome.

Ligation of the Innominate Artery

We have not, however, previously mentioned that he twice ligated the innominate artery. This artery, the first and largest branch of the aortic arch, ascends to the thoracic inlet where it divides behind the upper sternum into the right common carotid and subclavian arteries. These vessels are the main blood supply to the right side of the head and the right upper extremity. Aneurysm (i. e., circumscribed dilatation) of the innominate, carotid and/or subclavian arteries may occur at the bifurcation of the innominate, usually as the result of trauma or arteriosclerosis. Unless successfully treated, death from spontaneous rupture of aneurysm in this location is a near certainty.

At present, such aneurysms may be removed and replaced by synthetic vessels without undue risk. However, when Cooper practiced, the treatment consisted of ligating the innominate artery, a procedure considered the most formidable operation of that day. Valentine Mott (1785-1865), Professor of Surgery at Columbia College of Physicians and Surgeons in New York, was the first surgeon, world-wide, to ligate this vessel for aneurysm with survival of the patient. He performed the procedure on a fifty-seven year old sailor at New York Hospital on 11 May 1818. The only "anesthesia" administered was a drink containing seventy drops of tincture of opium. The operation occupied about one hour. Although the patient died of secondary hemorrhage on the twenty-fifth postoperative day, the case established the practicability of the operation. For that reason it was acclaimed throughout medical circles in Europe and America. In consequence of this operation, Professor Mott attained an international reputation by the thirty-fourth year of his age. As predicated by John Bell's postulate, Professor Mott is best remembered to this day for the great operations he performed, particularly his ligation of the innominate.[5][6]

During the forty-year period from 1818 to 1858, eleven surgeons from around the world, including Professor Mott, succeeded in ligating the innominate artery. The outcome was the same in every case - the patient died.[7]

The following data were derived from p. 1487 and pp. 1502-1517: The first fourteen surgeons to ligate the innominate artery were: Mott (1818), Graefe (1822), Norman (1824), Arendt (1827), Bland (1832), Bujalesky (1833), Unknown Surgeon reported by Dupuytren (1834), Lizar (1837), Hutin (1841), Pirogoff (1852), Gore (1856), Cooper (1859), Cooper (1860) and Smyth (1864).

In March 1859, Cooper was consulted by a man with a combined aneurysm of the right common carotid and subclavian arteries. Ligation of the innominate artery was the only known treatment for his condition. Undeterred by the knowledge that all eleven of the previous operations had been followed by death of the patient, Cooper decided to operate. He had the advantage of general anesthesia which had not yet been discovered when nine of the previous cases were done. During the operation, Cooper removed the medial end of the clavicle and a portion of the upper end of the sternum to improve the exposure, this being the first time this valuable maneuver was employed during ligation of the innominate.

The procedure went well and the vessel was tied off with minimal blood loss. Postoperatively, the patient was comparatively comfortable for five days. After that time he became restless, short of breath, and unable to void. He gradually sank until the ninth day when he died. An autopsy was done and failed to reveal the cause for the patient's rapid decline after an initial period of satisfactory progress. The major causes of death after ligation of the innominate in past cases had been severe wound infection and exsanguinating hemorrhage. Neither of these conditions were present in Cooper's patient. Since the patient had developed anuria postoperatively, Cooper believed renal failure to have been the cause of death rather than anything directly related to the operation. It was a tantalizing thought that, except for this unforeseen and unrelated circumstance, success would have crowned his efforts and the acclaim for a truly "great operation" would have been his.

Cooper's disappointment in the outcome was reflected in the brevity of his report on the operation which he mailed to the editor of the American Journal of Medical Sciences on 20 March 1859. His perfunctory description of the case, only a page and a half in length and lacking many relevant details, was published in the October 1859 issue of the American Journal.[8]

Cooper thought that he had done his duty by simply reporting the failure of the ligation, and that the case was closed. He was therefore quite unprepared for the harsh rebuke he was soon to receive from his former colleague and friend, Professor Daniel Brainard of Rush. As editor-in-chief of the Chicago Medical Journal, Brainard utilized the pages of the December 1869 issue of the Journal to attack Cooper for his temerity in undertaking the ligation, and for reporting the case so incompletely. Professor Brainard was quite stern:[9]

> The October number of the American Journal contains a report of a

> (ligation of the innominate), if report it may be called, which omits nearly every important fact connected with the history of the case, the seat and extent of the disease, its effects, etc…
>
> We notice this operation, to say that it is one which cannot receive the approbation of any judicious surgeon. Ligature of the arteria innominata had been performed (eleven) times (previously). In all the result was fatal…
>
> Cases of this kind, published without comment, and thus partly endorsed by journalists, have given rise to the term "audace Americaine," used by Trouseau. If editors, in giving currency to this and similar reports, would express their opinions of the propriety of such operations, it is likely that fewer would be done, and the responsibility be thrown upon the individuals who, without any prospect of benefit to their patients, think fit to resort to them.

We know of Cooper's high regard for Professor Brainard who had been his mentor and paragon in times past, but the Professor's public attack on his competence, judgement and integrity was intolerable. Soon after he acquired his own editorial voice in the San Francisco Medical Press, Cooper responded to Brainard with a Commentary in the July 1860 issue of the Press:[10]

> Nothing we commend more than just criticism even when touching the faults of our own performances, and such critique would have to be very severe indeed if we did not take it in good part with the writer.
>
> Our report, as published, of the operation (mentioned in your editorial), was justly obnoxious to severe criticism, partly owing to our own carelessness and partly that of our Amanuensis; so much so that we were really chagrined on seeing it in print with so many imperfections… But a critique above all other productions is expected to be free from faults. (Your editorial), however, is not one of that kind. In addition to special pleading against the operation of ligating the arteria innominata under any circumstances, based solely upon assertion and individual authority, there are forced conclusions which show much more of a disposition to criticize, than industry in preparing for the same…
>
> For the editor of the (Chicago Medical Journal) to say that no judicious surgeon would perform that operation, without giving any reasons for the statement, when Mott (and ten other) eminent (surgeons) thought proper to operate, is arraying individual opinion against an amount of authority which we conceive to be very bad taste to say the least. Why should not a judicious surgeon operate? Is it because patients demanding it (as is conceived) could ever recover without? No; every one would die at no distant period
>
> We can readily imagine a case in which it would be very injudicious to operate. Take for instance a small aneurysm growing very slowly, especially in an old person. But such has not been the case with those upon whom the operation has been performed.
>
> Surgeons will differ in opinion in regard to the propriety of hazardous operations in hopeless cases. Occasionally the wishes of a patient might rightfully have much to do with deciding whether to operate or not…
>
> Again, the idea that a French surgeon would apply to American surgery the term "Audace Americaine," is or ought to be regarded as simply ridiculous by one who has ever witnessed much practical surgery in the Parisian hospitals. Everybody knows who knows anything of the matter, that no surgeons in the world operate upon more hopeless cases than those of the French Hospitals.

In his caustic response to Brainard's reproach, Cooper made it clear that he believed ligation of the innominate to be a justifiable operation under proper circumstances. Within a few months he had an opportunity to act on this conviction.

On 23 September 1860 a 31 year-old man, otherwise in excellent health, was admitted to the Pacific Clinical Infirmary with a large aneurysm of the right subclavian artery filling the entire supraclavicular triangle. On September 30th Cooper operated and for the second time ligated the innominate artery. As in his previous case he resected the medial end of the clavicle and a portion of the upper end of the sternum to gain the necessary exposure.

The operation was at once the subject of intense interest to the American profession. Cooper received a barrage of letters and made the following progress report to the editor of the American Medical Gazette (New York) on 30 October 1860:[11]

> Today is the 30th day (since I ligated the arteria innominata), and the patient has every prospect of recovering, so far as could be judged by any other evidence than that based upon the results of past experience of other surgeons…
>
> On the 20th day after the operation a most violent hemorrhage began, but was arrested at once by the promptitude of a medical student… I do not permit myself to hope that the case will terminate favorably; but still the patient is vigorous, cheerful, has a good appetite, sleeps well, laughs and talks to his friends, and declares that he will live, notwithstanding he has been informed that no other ever survived this operation.

Cooper's next, and last, progress note on this patient was published in the January 1861 issue of the San Francisco Medical Press:[12]

> To the inquiries of several medical friends, in regard to the recent ligating of the Arteria Innominata, we would state, without further answer, that the patient died on the forty-first day. A slight hemorrhage occurred on the (20th), but not again until the 39th day. The bleeding (on this last occasion) stopped without any interference. On the next day, it began with considerable violence being difficult to arrest. The day succeeding, it was found impossible to prevent bleeding although we had invented an apparatus which pressed with much force directly upon the bleeding surface, and controlled the hemorrhage far better than any compress and bandage.
>
> At three P. M. of that day, the patient was informed that all hope of recovery was lost, but that he had remaining a sufficient length of time to arrange his earthly matters. He expressed no wish to use the time in that way, and, as soon as he was alone, forcibly removed the apparatus, and bled to death at once.

From his vantage point as editor of the Pacific Medical and Surgical Journal, Wooster had kept a watchful eye on Cooper's every move, and saw in this case an opportunity to revile him:[13]

> California is not behind any portion of the world in the art of crime. She is equal to other portions of the world in arts and science and experiment, quoad the ability. She merely lacks the development.
>
> The arteria innominata has been tied in this city and the case is dead, and the autopsy has been made. Result: he died from the effects of the operation. Any surgeon who ties the innominata is either insane, a knave, or ignorant of hydrodynamics. This operation is necessarily fatal, as any physicist can demonstrate, without recourse to physiology. The ligation external to the tumor is rational, and should be sometimes successful.

Cooper's definitive report on his second operation finally appeared in the August 1861 issue of the Cincinnati Lancet and Observer. He gave details of the operation, postoperative course and autopsy. In this case, and presumably also in the first, the innominate artery was tied with "four strands of saddler's silk." In accordance with standard practice at the time, the ends of the silk at the knot were left long and brought out through the wound. Due to the inevitable wound infection, the tie around the artery gradually eroded entirely through the vessel and was then drawn out of the wound by traction on the long ends. In this second case the detachment of the ligature occurred on the eighteenth day. As might be expected, hemorrhages began shortly thereafter for the ligature had completely divided the artery and the force of the blood pressure expelled the clot that temporarily occluded its lumen.

The failure of early operations for ligation of the innominate was generally the result of ligatures cutting through the artery because of infection. For that reason, frequent success of the operation was not achieved until well into the aseptic era. Only then did it become possible, because of the sterile operating field and primary wound healing, to ligate the innominate with ligatures that remained permanently in place and did not slip off or cut through the vessel.

Cooper was devastated by the terrifying hemorrhages and fatal outcome of his second case. The patient's robust physical condition, the technical precision of the operation, and the prolonged postoperative survival had filled him with hope His report concludes with the following disconsolate thoughts:[14]

> This case, more than any other that has yet occurred in my practice, made the strongest impression on my mind. Never before have I felt so humiliated by the inefficiency of the surgical art in rescuing patients from death. What are we to do with such cases? Is there no new process for treating these aneurysms more available than any yet established, and can the skill of the whole surgical world avail nothing? Time will prove…
>
> I write for those who are inexperienced, because having had two cases terminating in the same way, I never expect to have more experience upon the subject, and would fain benefit those who are disposed to, but have not yet tried, this most hazardous of all operations upon the arteries.

The first surgeon, ever, to report long-term survival after ligation of the innominate artery was Andrew Woods Smyth at the Charity Hospital in New Orleans. On 15 May 1864, just four years after Cooper's second case, Dr. Smyth ligated the right common carotid and the innominate for an aneurysm of the right subclavian artery in a 32 year-old mulatto man. Thirteen days after operation the carotid ligature came away and on the fourteenth the first of several self-limiting hemorrhages occurred. On the sixteenth day the innominate ligature came away and at about this time hemorrhage recurred. Dr. Smythe happened to be in the hospital at the time of the bleeding and was about to go hunting. He promptly opened the wound and poured the contents of his bag of bird-shot into it and put on a compress. Miraculously this procedure, plus ligating the vertebral artery, controlled the hemorrhage. The patient survived for eleven years, and then died by hemorrhage from a recurrence of his subclavian aneurysm.[15][16]

Following Dr. Smyth's case, the next twelve ligations of the innominate ended in death.

It was not until 1889, after the beginning of the aseptic era, that a second patient had a long-term survival following ligature of the innominate. The operation was performed by J. Lewtas while in the British service in India. The patient was a twenty year-old man, an Indian national, who had a traumatic aneurism of the right subclavian artery secondary to a gunshot wound. The carotid and innominate arteries were ligated. No infection occurred, the wound healed by primary union, and the patient recovered. Mr. Lewtas remarked in his report that he probably wouldn't have undertaken the procedure if he had known how dangerous it was. Thereafter, only four successful ligations were reported until after the turn of the century when they became increasingly frequent.[17]

From Mott's operation in 1818 to the end of the century, only Cooper reported having twice ligated the arteria innominata.[18]

We have already mentioned Cooper's one lasting contribution to the procedure for ligating the innominate. He was the first to remove the sternal end of the clavicle and a portion of the summit of the sternum to gain adequate exposure for the removal of large and complicated aneurysms. He wished to be remembered for this significant innovation and made special mention of it in his summation of each operation. In 1922 Dr. Emile Holman was the 88th surgeon to ligate the innominate. The lesion was a very complicated post-traumatic aneurism of the subclavian artery. He was ultimately successful in extirpating the aneurism by gaining the necessary exposure through the approach pioneered by Cooper sixty-three earlier. When Dr. Holman performed this operation in 1922 he was a Resident Surgeon at Johns Hopkins Hospital. When he later became Professor and Executive Head of the Department of Surgery at Stanford Medical School in San Francisco from 1926 to 1955, he was, in effect, the linear successor of Professor Cooper.[19]

Cooper still lives in the annals of those who have performed truly "great operations." But we have seen that these cases brought him little acclaim and much criticism.

Ligation of the Carotids

The first experiment to be undertaken by Cooper after his arrival in San Francisco took place in the fall of 1855, soon after the organization of the Medico-Chirurgical Association. By this time he had advertised his "Course of Medical Instruction" which was to include "Experimental Surgery by Vivisections." He had also set up a laboratory for animal surgery in his new Infirmary at 14 Sansome Street and was prepared to inaugurate experimental surgery on the Pacific Coast with an experiment on the carotid arteries. He invited nine physicians, most of them members of the Medico-Chirurgical Association, to witness the event.

The question to be addressed by the inaugural experiment was a minor one, but nevertheless of keen interest to the physicians in attendance. The medical journals around the country had recently carried a report by Professor Alex Fleming, M. B., of Queen's College, Cork, Ireland, who claimed that pressure on the carotid arteries so as to arrest the circulation in them would cause anesthesia. Clearly, if such a simple procedure would serve in lieu of ether or chloroform, it would be a boon to humanity. Cooper doubted the claims of Professor Fleming but was loathe to try the experiment on a patient. He therefore proposed instead to ligate the carotids of a dog. While the witnesses watched intently, Cooper deftly tied both the animal's carotids. Instead of anesthesia, the procedure "produced only the slightest immediate stupor that was but little increased at the end of one hour."

Cooper concluded that, "I disproved (the claim of Professor Fleming) by the above experiment to the entire satisfaction of all present so far as I know." It is hoped that the demonstration at least dissuaded the observers from trying Professor Fleming's method in view of the possibility that, aside from not producing anesthesia, compression of both carotids might cause stroke or sudden death in the human subject. Cooper's modest first experiment, which he never published, reveals the elementary state of circulatory physiology in his day.[20]

Ligation of the Abdominal Aorta

In December 1855, soon after his experimental ligation of the carotids, Cooper conducted a series of experiments involving ligation of the abdominal aorta. We have already referred to these experiments in Chapter 10 where we mentioned that, according to Pancoast's Treatise on Operative Surgery[21] the abdominal aorta had been ligated on only three occasions. In 1817 Sir Astley Paston Cooper, Bart. (1768-1841) of Guy's Hospital, London, celebrated vascular surgeon, was the first to ligate this vessel. He performed the feat on a 38 year-old man who had a post-traumatic aneurysm of the left iliac artery. The patient's death after forty hours was, according to Sir Astley, "owing to the want of circulation in the aneurysmal limb" which was "cold and lacking in sensibility." An autopsy of the abdomen revealed no peritonitis and the aorta was completely occluded by the ligature. The autopsy did not include the chest.[22] In1829 Mr. James of Exeter Hospital was the second to ligate the aorta. The patient, who had an aneurism of the external iliac artery, lived only three hours. No autopsy report or other details are available to determine the cause of death.[23] In 1834 the third and last to ligate the abdominal aorta prior to mid-century was Mr. John Murray at the Cape of Good Hope. His patient was a Portuguese seaman with a large aneurism of the right iliac artery. Following the operation he developed numbness and paralysis of both legs and died at the end of twenty-three hours with severe pain in the lower extremities and the pubic area. There was no autopsy report.[24]

In addition to citing the above three cases of aortic ligation, Pancoast made the following related observations:[25]

> Since the attention of surgeons has been called to this subject, more than forty cases have been reported of contraction or accidental obliteration of the aorta from the pressure of tumours or other causes, all of which tend to prove that possibility, as before observed, of a return of the circulation to the lower extremities after the obliteration of the lumbar portion of this vessel. Upon these facts, in cases admitting of no other chances of relief, has been founded the hope of success in cutting down upon and tying this important trunk, rather than upon the results of experiments on dogs, whose tenacity of life surpasses that of man. In the three cases in which (the abdominal aorta) has been tied in the living subject, the issue did not justify the boldness of the proceeding, and it is very questionable whether any case could occur that would fully sanction the step.

Cooper was well acquainted with Pancoast's Treatise. The accounts of failed aortic ligations, and of survival after gradual occlusion of the vessel, so intrigued him that he decided to seek answers to the following questions:

Why did the operated patients die so soon after operation?
Is the cause of death preventable?

Surgical authorities had assumed that death after ligation of the abdominal aorta would be caused by gangrene of the lower extremities for want of sufficient circulation, or by peritonitis or hemorrhage. Although deficient circulation to the legs was documented in two of the operated cases, Cooper reasoned that death occurred too rapidly for that to have been the sole cause of fatality. Furthermore, neither peritonitis nor hemorrhage was reported in any of the three patients. Thus, he argued, there was another factor that contributed to the mortality of the procedure.

Rather than to eschew "experiments on dogs" as others had done, Cooper proceeded with the following:[26]

> Experiment 1. In order to eliminate the risk of peritonitis, one of the three hypothetical causes of death after ligation of the abdominal aorta, Cooper adopted the retroperitoneal approach through the left flank used by Mr. John Murray in his ligation of the aorta in 1834. This provided excellent exposure of the abdominal aorta without entering the peritoneal cavity. Meticulous surgical technique virtually eliminated the danger of hemorrhage, the second presumed cause of death. With these routine precautions, Cooper ligated the distal abdominal aorta.
>
> The animal died at the end of sixty hours, showing symptoms of stupor after the first few hours. There was no peritonitis, no hemorrhage, and no gangrene of the lower extremities to account for the death. A similar operation was performed on a number of animals with identical results.
>
> Post mortem examination "in every instance showed the right heart to be greatly distended with coagulated blood, and in many cases to its utmost capacity, so much so, in fact, that the distension equaled, if it did not even exceed, that produced by the most complete injection of the heart, effected by instruments, in making anatomical preparations. As this coagulated condition of the blood and engorgement of the heart was found to exist in every case, I was led to consider whether it were not the chief cause of fatality, seeing that the coagulum was formed prior to death, and whether cutting off nearly one-half the entire vascular system, thus confining the blood to so limited a capillary circulation, was the crucial factor…"

By his first experiment Cooper established engorgement of the proximal arterial vascular bed as the cause of death after acute ligation of the abdominal aorta in dogs. This finding suggested that reduction of the engorgement was the key to long-term survival after the procedure.

Experiment 2.. "In the second experiment I purposely admitted of a free discharge of blood before ligating the (abdominal aorta) upon the supposition that the loss of a quantity of blood corresponding to the amount of the circulating system cut off might remove the source of immediate death - engorgement. This animal lived sixteen hours and a post mortem examination revealed a similar condition of this as in the first, except the large vessels were not so much engorged, the aorta being almost entirely empty. But the heart on both sides was perfectly engorged with blood to its utmost capacity, the blood being coagulated completely. Abdominal viscera were healthy and nothing untoward resulted from the local violence of the operation."

> Experiment 3.. "In order to produce an exact equilibrium in the circulating fluid cut off by the operation and that remaining undisturbed by it, I ligated the vein (inferior vena cava) in connection with the aorta knowing that, whatever might be the ill consequences of ligating a vein, that all other animals upon which I had tried this experiment died long before this would have interfered with the result. This animal lived about 16 hours and from post mortem examination it was found that, while the same amount of engorgement had not occurred in the heart as in the other cases, still the coagulation was almost as complete though not quite. The symptoms of stupor were the same as in the other cases for the last eight hours preceding death.
>
> Experiment 4. Having failed to prevent fatal excess of engorgement by prior bleeding or simultaneous ligation of aorta and vena cava, Cooper decided to diminish the circulation through the aorta gradually as occurs in nature when the aorta is slowly obliterated by tumor or other cause. For this purpose he exposed the aorta and "applied a strap of leather lined by soft cotton cloth around the artery and so compressed it as to arrest the circulation through it principally but not so completely as to render the pulsation of the iliacs imperceptible." This tourniquet was brought out through the wound so that it could be tightened from the outside, and the wound was closed around it. On the seventh day of its application - the animal in the meantime doing quite well - the tourniquet was tightened so as to interrupt aortic circulation completely. "After the circulation was thus entirely arrested in the aorta, there were no symptoms of stupor, though this had been an early and constant attendant upon all the cases in which I had operated previously. This dog lived four days after the circulation was cut off from the lower extremities through the natural channel, but died at last of hemorrhage produced, as I supposed, by violent displacement of the tourniquet with his teeth."
>
> "The (tourniquet) was much larger than was absolutely necessary as I could have an instrument constructed not over half the size that would answer the purpose better in every respect… I shall have one constructed and be ready to try it on the human subject."

Conclusion. Gradual occlusion of the aorta in a dog stimulated collateral circulation to the lower limbs, protecting them from gangrene and the upper circulation from engorgement.

Cooper reported these experiments in a paper delivered at the First session of the California State Medical Society in 1856. He concluded the report by saying:[27]

> I do not consider that this experiment has proven the practicability of the process described, though it will have to be confessed that a most important step has been made towards it, seeing that every symptom of the animal was favorable until hemorrhage supervened, and that in the human subject, nothing would be easier than securing the vessel from violence offered by the patient, and that nothing in human calculation could be considered more certain than that the animal would have lived but for the hemorrhage…
>
> But the strongest evidence in favor of the practicability of the operation for ligating the abdominal aorta, according to the above detailed plan, remains to be given, and that is this, viz., the circulation was restored, to a limited extent, in the animal alluded to, by the reproduction of a small vessel passing off from the terminus of the right (renal) artery and joining the aorta below the place of ligating it, as is proven by a preparation I made of the part, and fully injected, which I now show you.

Cooper's experiments demonstrated two important points. First, that early death after ligation of the distal aorta, at least in dogs, may be caused by acute congestion of the heart and proximal arterial circulation. Second that life-sustaining expansion of the proximal and collateral circulation occurs rapidly in response to gradual occlusion of the aorta, which therefore becomes a feasible method of achieving is safe complete ligation.

Following these experiments, had a patient with an aneurism of the proximal iliac artery come under his care, Cooper would doubtless have ligated the abdominal aorta after its gradual occlusion to stimulate proximal and collateral circulatory adjustment, as was done in his experiment. Unfortunately, It is also near certain that infection at the site of ligation would have resulted in sepsis and fatal secondary hemorrhage as in the innominate cases. However, in the coming era of aseptic surgery, Cooper's approach of stimulating collateral circulation by partial ligation prior to later total occlusion might have been successful - and would have been heralded as an historic surgical contribution. As an example of the applicability of Cooper's method, the highly-regarded vascular surgeon Harris B. Shumacker partially

occluded the innominate artery by banding it at an initial operation to reduce flow, safely completing the occlusion at a later operation after adequate collateral had been established in the upper extremity.[28]

Cooper could not have known that, some years before, Sir Astley Cooper had ligated the abdominal aorta in two dogs. His purpose was to identify the collateral pathways that would develop after total occlusion of the vessel. Sir Astley reported his experiments in a paper read before the Medical and Chirurgical Society of London on 18 June 1811. In contrast to Elias Cooper's animals, both of Sir Astley's dogs survived the ligation, showing only a small degree of weakness in the hind legs. Post mortem injection of the vascular system of these animals demonstrated a rich network of anastomosing arteries circumventing the occluded site in the aorta. It is unclear why Elias Cooper's animals all died rapidly of cardiac and proximal arterial congestion after acute ligation of the abdominal aorta while those of Sir Astley lived. This outcome may have been due to the greater hardiness of the British dogs, but it is also possible that Sir Astley's ligature was tied more proximally on the aorta thus allowing for more branches in the distal portion through which blood could return to the lower limbs. There is insufficient information in his report to allow us to settle the issue.[29]

Simultaneous Ligation of the Iliac Artery and Vein

Finally, we will refer again to the case of Frank Travers on whom Cooper set out in December 1855 to ligate the iliac artery for aneurism of the femoral artery. During the dissection of the iliac artery, the iliac vein was torn. In order to control the severe bleeding that followed, Cooper was forced to ligate the iliac vein as well as the artery, a procedure thought to have dire consequences. When Mr. Travers unexpectedly made a rapid and complete recovery, Cooper wondered why. We discussed the case in Chapter 8 and described the crucial animal experiments which led him to conclude that, instead of having an adverse effect, simultaneous ligation of the artery and its satellite or accompanying vein slowed the venous runoff from the extremity, resulting in a more balanced and physiologically effective circulation.[30]

The experimental findings were unequivocal and compelling. In five dogs the iliac artery alone was ligated. In every instance the limb became cold and the sensibility was greatly diminished for several days. In five dogs the iliac artery and vein were ligated at the same time. In every instance the heat and sensibility of the limb remained nearly natural from the first.

Cooper concluded that "…the advantages resulting from the ligation of the satellite veins in connection with the arteries which they accompany (are) clearly shown…"

Cooper's observation that simultaneous ligation of the major artery and vein to an extremity had a beneficial effect was a significant discovery. Since the period of John Hunter (1728-1793), eminent surgeons had always stressed that the greatest care should be taken, when tying a main artery, to avoid all injury to the vein. In fact operative techniques for ligating the artery were so devised as to minimize the risk of interrupting the venous circulation.

Unfortunately, Cooper's important finding was essentially unknown to the profession at large because of its publication in the obscure California State Medical Journal which was discontinued after four issues. Some half-century later, cumulative field experience in the Boer War (1899-1902) and World War 1 (1914-1918) showed that simultaneous ligation of artery and vein, made necessary by wounds of both, was followed by a lesser incidence of gangrene of the extremity than when the artery alone was tied.[31] This prompted the following recommendation by the Inter-allied Conference of Surgeons held in Paris in May, 1917:[32]

> Contrary to what has until now been believed, simultaneous ligature of both artery and vein when both vessels have been wounded does not give rise to increased risks of gangrene; in fact it diminishes them. Facts tend to prove, even when the wound is limited to the artery, that simultaneous occlusion of the unwounded vein is to be recommended.

After another decade, in March 1927, Emile Holman reported an elegant series of simple yet definitive animal experiments from which he also concluded that tying the vein as well as the artery results in a more balanced circulation. "It would appear, however," he added, "that ligation of the main vein should be done, not at the level of the ligation of the artery, but proximal to the venous tributaries that accompany the arterial branches furnishing the main collateral circulation."[33]

How are we to assess these unique research efforts of Elias Cooper whose laboratory investigations were undertaken with limited resources in a hostile milieu far from the mainstreams of medical science? Regrettably, his observations have hardly seen the light of day because of the parochial and transient nature of the California State Medical Journal in which he published. Nevertheless, his contributions were original and memorable, stamping him as the preeminent (and only) circulatory physiologist of the western region for some years to come.

Cooper's vascular operations and circulatory studies have previously received only passing mention in biographical sketches. Therefore, we have thought it essential to provide a sufficient account of his work to permit others to consider the significance of his efforts, and accord them such recognition as they deserve in the records of medical progress.

Clinical Investigations

In reading Cooper's papers, one is struck by the intuitive common sense and independence of mind with which he approached surgical problems. He constantly sought not merely to report cases but also to improve surgical results by identifying and promoting new surgical principles.

Anchylosis of Joints

For example, orthopedic conditions, that is, surgical diseases of the bones and joints, constituted a major portion of Cooper's practice throughout his career. As we have previously mentioned, one of his earliest papers, published in 1852[34], was on anchylosis (fixation) of the knee joint secondary to trauma or infection. He described the successful treatment of this severe disability by having the patient walk in an ingenious splint of his own invention. The method described by Cooper led to gradual extension and restoration of mobility in the joint with minimal discomfort. This was an immense advance over the procedure sometimes employed of forcibly wrenching the frozen joint apart under anesthesia in the false hope that its function would be thereby improved. Cooper's program presaged the later general adoption of the principles of progressive joint mobilization combined with weight-bearing in the rehabilitation of these cases. As a result of technological advances inconceivable in the mid 1800's, such conditions can now be treated by joint replacement.

Cooper published two additional papers on his method of managing joint anchylosis in the lower extremities. He claimed originality for the concept and the apparatus, and priority of publication on the subject. His claim was questioned but no evidence was ever brought forward to refute it. Since all three papers appeared in the Transactions of medical societies, they had limited circulation and Cooper therefore received scant recognition for a significant innovation.[35][36]

Joint Infection and Air in Joints

Cooper's empirical style is further illustrated by his approach to joint infection. From the beginning of time until the discoveries of Pasteur and Lister, wound infection was a major deterrent to surgical progress. The advent of anesthesia, by broadening the scope of surgical interventions, actually served to increase the adverse potential of postoperative septic complications. Cooper's practice included many patients with infections of bones and joints, anatomical sites where sepsis tends to be exceptionally persistent and disabling. In his perceptive and methodical fashion he began in 1859 a series of observations and publications on the cause and management of septic joints. He considered his work on this subject to be his most important contribution in the field of clinical surgery, and for that reason we will describe his findings and recommendations in some detail.

Joints and their adjacent tendons are sheathed by synovial membranes which secrete the synovial fluid that lubricates the moving parts. The synovial membranes are highly vulnerable to infection and the closed cavities they encompass are a fertile site for the incubation and delayed invasion of even a tiny inoculum of bacteria. In Cooper's day, the fact that infection is caused by microorganisms was still unknown. It was, however, common knowledge that small penetrating wounds into a joint such as the knee were frequently followed by severe inflammation. It was also observed that signs of inflammation were often delayed for a week or more after the injury, by which time the original wound may have completely healed.

It was widely, but not universally, believed (1) that these puzzling events were caused by the entry of air into the joint at the time of injury; (2) that air itself was harmful; and (3) that its admission into joints should therefore be prevented. This dictum was either supported, or not specifically contested, by major surgical authorities on both sides of the Atlantic, including such respected figures as Samuel D. Gross and Joseph Pancoast in America, Richard Barwell in England, James Miller in Edinburgh, and Dupuytren and J. Guerin in France.[37][38][39][40]

As examples of the advice from these eminent surgeons on the importance of excluding air from joints, we quote the following excerpts:

From the well-known Treatise on Operative Surgery, 1852, by Professor Pancoast of Jefferson Medical School:

> Hydrarthrosis of the Knee Joint. All therapeutic measures having failed, after a thorough trial to cause a removal of the dropsical accumulation, we may discharge it either by incision with a bistoury, or puncture with a trocar. The great object in the operation is to avoid the entry of air, which might provoke irritation in the cavity of the joint, and give rise either to suppurative inflammation of the serous membrane, or even ulceration of the articular surfaces.

From the widely-used Principles of Surgery, 1856 edition, by Professor James Miller of Edinburgh University:

> Removal of Loose Cartilage from Knee Joint. The operation, as we would advise it, is thus seen to consist of distinct parts. 1. The prophylactic preparation; occupying not less than several days. 2. The oblique valvular puncture; carefully avoiding the entrance of atmospheric air, even into the superficial areolar tissue, etc.

On the other hand, such distinguished surgeons as James Symes in England and Alf. A. L. M. Velpeau in France were opposed to the doctrine of the harmfulness of air.[41][42]

Under the circumstances, It is fair to say that in Cooper's time the effect of air on joints was an important unsettled issue from the surgical viewpoint. Furthermore, no credible surgical authority was taking a firm stand in the literature of the day against the presumption that air was injurious to joints - that is, there was no persistent dissenting voice until Cooper launched his campaign on behalf of the harmlessness of air.

The theory that air caused inflammation in joints had serious practical consequences. For fear of the noxious effects of the atmosphere, there was a disastrous tendency to defer the prompt and free opening of wounded joints at the earliest sign of inflammation lest the entry of air would aggravate the condition. Based on the same apprehension, the operation for removal of floating cartilage in the knee was considered very dangerous because of the frequent occurrence of postoperative joint sepsis, presumably caused by the entry of air during the operation. To prevent entry of air into the knee joint during such operations, Gross, Pancoast, Miller and many other leading surgeons recommended maneuvering the cartilage into a subcutaneous location whenever possible and then removing it through a subcutaneous tunnel or by cutting down on it directly. Dr. Toland appeared to believe in the adverse effects of air and in 1858 reported two cases of attempted airless removal of floating cartilage according to the above technique. Nevertheless, both cases later required incision and open drainage of suppurating wounds.[43]

In contrast, Cooper was thoroughly convinced that air was innocuous to joints. He observed in his practice that:[44]

> Large wounds, or those opening freely the knee joint, are inclined to heal kindly by granulations, and if properly treated, to result in a complete cure, while a small punctured wound which heals on the external surface by first intention often, if not generally, results in the highest possible grade of inflammation, frequently passing rapidly into suppuration and destruction of the joint, if not even of the life of the patient.

Cooper argued that the inflammation which develops following a puncture wound is not caused by the minute amount of air admitted at the time of the injury, as generally supposed, but by the accumulation in the joint of "purulent matter" that could not escape through the small wound. The grand mistake, he said, was not in permitting air to be admitted into the joint, but in not keeping the external wound sufficiently open to allow the free discharge of serum and purulent matter. Groping vainly for the mysterious source of the "purulent matter" that produced inflammation in wounded joints, Cooper sought in the following soliloquy to exonerate the atmosphere:[45]

> I would challenge the most industrious or ingenious to show by statistics, or any fixed physiological laws, why the mere admission of air into the knee, or any other joint, would cause inflammation… Many cases of dangerous symptoms, or of death, are (reported), where air was admitted into joints, even in cases of exceedingly slight wounds; but does that go to prove that air did the mischief? Who has any direct evidence to bring up in support of this hypothesis, further than that it is based upon the long standing opinion of able men? What poisonous agent can there be in the air that produces such destructive results as are attributed to it, when admitted into wounds? And if there were an indefinable something acting thus, why should it not show the effect at once?

Consistent with his thesis that air is harmless to joints, Cooper's procedure for the removal of floating cartilage from the knee joint was to make an adequate incision into the joint for good exposure, extract the cartilage under direct vision, and either to pack the wound open for gradual healing by granulation or, alternatively, to close it primarily with sutures. Whenever he closed the wound, he was prepared to provide free drainage by opening it widely again at once on the slightest evidence of inflammation. This unorthodox approach, characteristic of Cooper's independent thinking, was a radical departure from the convoluted procedures designed to exclude air from the joint that were recommended by Gross, Pancoast and Miller.[46][47]

In the four-year period from 1859 to 1862 Cooper engaged in a veritable crusade (1) against the concept that air is harmful to joints; (2) in favor of the prompt and wide opening of joints at the earliest sign of sepsis; and (3) in support of his regime of wound healing by granulation. During this period he published nine papers on these subjects, seven in eastern journals and two in the San Francisco Medical Press. In addition, he wrote ten Commentaries in the Press along the same lines.

Concurrent with Cooper's observations on inflammation in joints, historic developments were occurring in Europe. In 1860 Pasteur demonstrated bacteria in the air and showed that specific microorganisms were responsible for specific biological processes, including infection. He thus laid the foundation for the germ theory of disease and paved the way for Lister to demonstrate the control of surgical infection by antisepsis in 1867. These and later findings have shown that Cooper's deduction regarding the harmlessness of air per se was correct. Although the atmosphere does contain some bacteria, air is not responsible for the invasive sepsis that often follows closed wounds of joints. Instead, the infection is caused by entry into the joint of bacteria from the patient's skin and from whatever else makes contact with the joint cavity including, in the preantiseptic era, the unsterile hands and instruments of the surgeon.

Cooper's empirical conclusions regarding prevention and management of joint sepsis were equally as astute as his views on air. He did not hesitate to challenge traditional wisdom by vigorously promoting what he designated as his New Surgical Principles:[48][49]

> 1st. That atmosphere, admitted into the joints or other tissues, is not a source of irritation or injury, except where it acts mechanically; as, when admitted into a vein, by producing asphyxia; into the thoracic cavity, by its pressure producing collapsing of the lungs, or when, by the long-continued exposure of a large amount of surface of any of the internal organs, whose normal temperature is much above that of the atmosphere, it reduces it so as to produce a morbid action.
>
> 2nd. That the division of entire ligaments about the joints is no impediment to their ultimate strength and mobility; but, on the other hand, this operation will often greatly facilitate the cure, by enabling the surgeon to open the affected part fully, for the purpose of applying medicinal substances to the articular surfaces, when these are ulcerated or otherwise diseased.
>
> 3rd. That the only true mode of treating ulcerations of bone, however slight, within the joint, is to lay it open freely, and apply remedial agents directly to the part affected.
>
> 4th. That opening the joints early, in case of matter burrowing in them, is far more imperiously demanded than the opening of other parts thus affected, and the operation produces no further pain or inconvenience to the patient, in any respect, than when performed on parts remote from joints.
>
> 5th. That after opening a large joint, the knee for instance, by an incision several inches long, the wound should be kept open by the introduction of lint (a soft, fleecy substance consisting of either cotton or linen), or other similar material, until the parts within the articulation become healthy, and, in all cases, it should be made to heal by granulation.
>
> 6th. That extensive wounds, opening freely the large joints, such as the knee, (even when lacerated, as by a saw, which must necessarily heal by granulation), do not as often give rise to violent symptoms as very small wounds, such as are made by the corner of a hatchet, an adze, or a pen-knife, which heal on the outside by first intention.
>
> 7th. That there are no known limits beyond which a tendon will not or cannot be reproduced after division, provided the parts are made to heal by granulation, and that the present acknowledged rule of two inches being the maximum distance in which the divided ends of a ligament or tendon can safely be separated, has not the least foundation in fact.

Cooper proudly presented his New Surgical Principles as part of his Report of the Committee on Surgery at the Sixth Annual Session of the California State Medical Society in February 1861. As we have already learned, there were only thirteen members present at this, the last meeting of the original Society, and no Transactions of the Session were ever published.[50]

Cooper's fifth Surgical Principle refers briefly to wound healing, a subject of paramount importance in surgery. His contribution in this area therefore deserves further comment. With respect to wound healing, broadly speaking, both accidental and surgically incised wounds heal either by first intention (the edges of the wound are brought together and healing occurs rapidly without suppuration) or by second intention (the wound is left open, suppuration occurs and healing is by granulation). In the pre-antiseptic era, because of the failure to prevent bacterial contamination, accidental wounds that were closed by suture or other means commonly suppurated, broke open and healed by granulation. Wounds of major operations were also usually followed by varying degrees of suppuration and the death rate from sepsis was high. Cooper took special note of the fact that when accidental and operative wounds were left open, suppuration was minimized and invasive infection was rare. The resultant healing was by second intention and was slower, but the morbidity and mortality were less.

This observation was by no means original with Cooper, but he used it as the basis for a specific routine for the handling of certain wounds. The routine itself was also not strictly original, but it did prescribe a particularly effective combination of methods in common use. He repeatedly recommended it in many publications, and specified the circumstances under which it should be used. The following is a paraphrased outline of his regime as it appeared in several publications:[51][52]

> In all surgical incisions made for drainage of inflammation in a joint or a bone, or for the treatment of a compound or ununited fracture, the wound should be laid open freely and packed with a piece of lint which is kept soaked with an evaporating lotion composed of one part of alcohol and ten parts of water (a mildly antiseptic solution). Thus the wound is made to heal entirely by granulation. The packing is held in place by a roller bandage wrapped around the limb from fingers to near the axilla or from toes to upper thigh. The roller is applied as tightly as the patient can conveniently bear in order to splint the limb and prevent the burrowing of purulent matter among the surrounding parts. After three to five days the evaporating solution is discontinued and warm poultices are applied. The roller and packing may be dispensed with at any time after the poultices are begun, but should remain or be replaced as long as necessary to support the limb and prevent the wound healing otherwise than by granulating from the bottom.

Cooper's New Principles and his regime for the healing of wounds by secondary intention, were sound guidelines for the pre-antiseptic era. They had the merit of being thoroughly validated in the course of his extensive practical experience with bone and joint infections, of which he gave many examples in his articles and commentaries.

Cooper was justifiably confident that no previous author had been so concise and explicit with respect to the issues he addressed.

He sought through the medical literature to reach a national audience with his proposals. In order to determine the kind of reception they received among the profession, he wrote a commentary in the January 1861 issue of the San Francisco Medical Press entitled, "We challenge criticism," in which he invited others to criticize and refute his principles if they could. Having for over six months received no response to the challenge, he was pleased to think that his New Surgical Principles were being recognized as an important and original contribution to the problems of septic joints and wound healing.

However, late in 1861, the editor of the Philadelphia Medical Reporter published the following editorial in which he questioned the originality of Cooper's observations and recommendations:[53]

> To Dr. Cooper, of San Francisco, is due the credit of establishing the great advantage of free openings into suppurating joints, and of illustrating, by extensive practice the innocuousness of atmospheric air, when admitted into synovial and serous cavities. Dr. Cooper is in error in supposing, as is evident from a recent editorial in his journal, that the treatment of disorganized joints by incision is not, to any extent, adopted by surgeons. It has been, for some years, practiced by many surgeons in this country, as by Pancoast, Agnew, Morton, and others of this city; extensively by Bauer, of Brooklyn, and Walter of Pittsburgh. We believe that the latter named gentleman would dispute with Dr. Cooper the priority of the practice. We have repeatedly, during the last two or three years, relieved suffering and saved joints and limbs in the Philadelphia Hospital, by free incisions into suppurating articulations. The practice has also been, to some extent, adopted abroad, and we have seen the subject favorably noticed in European journals, with proper credit to Dr. Cooper.
>
> While giving Dr. Cooper credit for really establishing the advantage of this treatment, in an extensive number of cases, and of being the author of its introduction as an established rule of practice, any real originality in the treatment cannot be claimed by him. It has been the practice of some surgeons, for a long period, to occasionally open suppurating joints for the escape of pus and the debris from the diseased articulating surface. If we could take the time to look up the literature of the subject, this assertion might be abundantly proved. The only case in evidence to which we can, at present, refer Dr. Cooper, occurred a long time ago, in the practice of Mr. Guy, of London, and is recorded in an article by him in Braithwaite's Retrospect, part xxiv., page 171.[54]

Cooper responded promptly to the editor of the Philadelphia Medical Reporter by publishing the following extended reply in the January 1862 issue of the San Francisco Medical Press:[55]

> We do not claim to be the first who opened joints in a state of suppuration. There are several cases reported in standard works upon Surgery, but we know of no standard work in which the

practice is recommended as a rule. The cases mentioned were generally regarded by the writers as exceptional ones. Whereas, we believe that in all cases where purulent matter is found, in any considerable extent, in a joint, it should be discharged by a free incision, if such an operation would be proper in the patient who has burrowing matter in any other part of the body; and that the operation is more imperatively demanded in the former than the latter case; and, further, that the more complicated the joint (such as the knee) the more the operation is demanded early.

Probably medical journalists have been led into the opinion that we urged an exclusive claim to this practice, in consequence of our articles upon the subject being generally accompanied with remarks in regard to the innocuousness of atmosphere admitted into the joint. Upon this subject we do claim priority. So far as we know, there is not another writer, either as a standard author or contributor to a medical journal, who claims to have any convincing proofs that atmosphere admitted into joints or other tissues is not generally a source of danger; on the other hand, they all urge, when dwelling upon the subject, that it is a most unfortunate, if not even a dangerous occurrence.

Although Pancoast occasionally practices opening the joints, when purulent matter is found in them, this he must do with misgivings as to the propriety of admitting air, if we are to judge from what appears to have been his opinions at the time of publishing his Operative Surgery. The most stringent directions are given, in his article on Club Foot, not to permit atmosphere to enter the wounds, in operations for dividing the tendons.

We were not aware, prior to reading (the above editorial from the Philadelphia Medical Reporter) that the plan of opening the joints was so extensively practiced in the United States, and do not know still whether the publication of our articles (several years since) were not commenced previously to the time this practice was so inaugurated. At least we have not seen the reports of any of these cases until since that period.

So far as the interests of the profession are concerned, the subject of priority is a small matter, in comparison with the importance of the practice in question, and we consider it the duty of all practitioners to report the results of their cases, because the profession have not universally, nor even generally, adopted it as yet. We hold that a practitioner owes no greater obligation to the medical world than that of reporting his more important cases. And, upon this subject, we would solicit communications and the reports of cases, from practitioners of this Coast, where the practice of opening suppurating joints early is rapidly gaining ground.

We shall now conclude our discussion of the harmlessness of air and the importance of early open drainage of suppuration in joints. The advance of medicine since the mid 1800's has made these and innumerable other medical questions of that day no longer relevant. Nevertheless, they were highly significant at the time and we should evaluate in context the contributions of a tenacious pioneer like Cooper who, under adverse conditions, probed the frontier of knowledge in search of answers to contemporary issues.

The editor of the Philadelphia Medical Reporter did not question the validity of Cooper's New Surgical Principles and acknowledged his role in bringing them to the attention of the profession on both sides of the Atlantic. We have seen that medical myths and antique precepts such as Cooper attacked were difficult to eradicate and there is no doubt that Cooper's crusade was a significant blow to popular fictions regarding the treatment of septic joints - a remarkable accomplishment for a beleaguered surgeon at the nation's far western fringe.

It was especially gratifying to Cooper that his friend and editor of the Chicago Medical Journal, Professor Daniel Brainard of Rush, published a full list of New Surgical Principles and had a few encouraging words about Cooper's campaign of enlightenment in the following editorial:[56][57][58]

> Free Openings into Suppurating Joints. There is very decided progress in opinions with reference to the propriety of freely opening synovial cavities, where evidences of suppuration are present. The danger of admission of air has been clearly over estimated. The advocates of speedy opening have, recently, adduced powerful support of their position by published cases… We opine that pure air is not so dangerous, either to the internal or external parts of the body, as some . . seem to imagine. The advantages of freedom of discharge largely counterbalance all theoretical fancies about the disastrous effects of air.

Professor Brainard's comments are interesting in that they confirm Cooper's thesis that there was a widespread misconception as to the proper treatment of suppurating joints and to the effects of air. In fact, Brainard seems a little ambivalent on the subject himself. His editorial is not exactly the ringing endorsement of Cooper's position that one would expect from the truly converted.

The only major surgeon to come forward to question Cooper's priority in these matters was Dr. Lewis A. Sayre (1820-1900), Professor of Orthopedic Surgery at Bellevue Hospital Medical College in New York who has since been recognized as the founder of modern orthopedics in America.[59] He informed Cooper in a letter of 1 March 1862 that he had taught the harmlessness of air in joints "for the last eighteen years" and referred to an enclosed "pamphlet" as proof. The pamphlet never arrived and Cooper invited Dr. Sayre to send him any "published articles" on the subject that he may have authored. Cooper reminded him that "Of course the claim of priority will rest, as usual, upon the fact as to who published first." We have no evidence that Dr. Sayre ever responded.[60]

Based on the information we have in hand, it seems reasonable to credit Cooper with priority in dispelling widely-held false notions as to the effects of air on joints, and in defining the proper management of suppurating joints. He exposed current misunderstanding with respect to these subjects. He brought his New Surgical Principles to the attention of the medical profession in the United States and western Europe by publishing his views repeatedly in respected medical journals, marshalling abundant evidence gleaned from personal observations in his own practice. As in the case of Dr. Holmes' impassioned plea for the profession to avoid behavior known to be associated with the spread of puerperal fever, Cooper's message was also based on concepts and practices already in the "public domain." His contribution, like that of Dr. Holmes, was to mount a vigorous and persuasive advocacy which rescued valid methods from relative obscurity and brought them into more general application. For this single-minded and single-handed achievement, he deserves honorable mention in the annals of surgery as a clinical investigator.

Nulla Dies Sine Linea

In concluding this review of the highlights of Cooper's professional career, we return now to a consideration of the precepts that gave such unwavering direction and driving force to his endeavors. We earlier paid our respects to the wholesome and supportive effect of his Quaker family background, and to the further shaping of his character in the crucible of pioneer life in the Old Northwest. To these influences we can attribute his moral fiber and stoical outlook; acquisitive mind and independence of opinion; and fierce intolerance of arrogance and deceit. We have seen ample evidence of these elemental traits in the preceding pages, but we have previously had little from Cooper himself about the convictions he held, and could recommend to others.

Cooper's papers include the manuscripts of a prodigious number of surgical lectures. These were generally on clinical subjects but, fortunately for our record, two of them were of a general nature, devoted primarily to counseling the medical students. One was an Introductory and the other a Valedictory Lecture. These addresses were for Cooper a welcome opportunity not only to give fatherly advice to the students, but also to express his own professional philosophy.[61][62]

> Introductory Lecture. Surgery is that branch of the healing art which is frequently represented as practiced by the hand, and many are disposed to apply the name of Surgeon to the mere operator, though nothing could be further from the true and practical acceptation of the term; for though no one can be really an able surgeon and not a skillful operator, still one may be a beautiful operator and not be a skillful surgeon; and a wide-spread, but temporary reputation is frequently acquired by one quality alone. Thus brilliant and bold operators frequently obtain renown very rapidly for daring operations, more particularly when they attempt those which have been denounced by others as impracticable. But sooner or later the genuine Surgeon, as well as the mere operator, will stand upon his true merits. Medical men take up this matter and pronounce a true verdict, not always true at first, but eventually so. Prejudice, jealousy, and many other causes may prevent the Surgeon from obtaining justice during life, but posterity will be sure to award him his due, and to the man of great soul this is a happy thought…
>
> I wish now to occupy your time during a brief period for the purpose of considering matters more directly connected with the medical course we are about to enter upon; a course which, if properly conducted on the part of both teacher and pupils, must redound to the great good of all; but a course which cannot be properly conducted on the part of any without great industry and punctuality in attending to our respective duties. And in practicing industry, I do not only wish you to study and think industriously, but I wish you to act. Always let your knowledge be based upon experience as far as possible, and your experience based upon your own actions or observations…
>
> There is no doubt but that Aristotle was one of the greatest philosophers and logicians the world ever produced. It is extremely probable, in my estimation, that he was really the greatest man in these respects that ever lived… Why was his philosophy more correct and his logic more powerful than any other? Because his philosophy was based upon actual experiments and his logic upon experience. What was old in philosophy he submitted to the test of experiment before either condemning or approving, and what was not known he tried to know by the same method; consequently his system of philosophy was composed solely of knowledge - not theory - and as facts and principles do not change with the changes of men's minds in regard to them, Aristotle's views are found to be more and more correct as ages advance and men are capable of comprehending them.
>
> Nothing is really valuable in medicine which is not based upon experience, and nothing is so important to a medical student as a collection of those facts and principles which enable him early to obtain knowledge by experience.

In a profession still permeated by the dogmas of arcane medical "systems," and reliant on traditional remedies and methods, Cooper's advocacy of critical observation and experiment was in the vanguard of the modern era. On a personal level, he revealed his hope that he will be remembered as more than a "mere operator;" and that posterity will rebuke the prejudices and jealousies under which he labored by awarding him the laurels of a True Surgeon.

> Valedictory Lecture: Labor and its Results. The most frequent cause of difference in the reputation of medical men is the difference in their habits and course of life. Men whose reputation places them far above their fellows are often by nature scarcely equal to those by whom they are surrounded in early life. But day by day and year by year they widen the distance between themselves and their associates until the one enrolls his name in the galaxy of great men, perhaps authors, and fills a continent, possibly the civilized world, with his fame. The others are only known within the precincts of their respective residences as moderate practitioners while a retrospective glance at life may in all probability show the very interesting fact that these men were side by side in the same class, acquitted themselves equally well in the same quiz - the man of reputation answered his questions no worse and yet no better than the one who is now obscure, while a true prophetic glance at life could have equally astonished both.
>
> Was there indeed so great a difference in these men by nature so hidden that not only common observation but even the ordeal of quiz failed to detect it?
>
> You anticipate my answer - there was not. What was then the source of so great a dissimilarity in the destiny of these men? This becomes a question not only interesting but important to be solved because its solution gives courage to the patient, energetic and constant laborer in our profession, and proves to him that his reward is sure; while to the one of contrary habits it but too plainly shows

> him that, without a change of his course, he is sooner or later to be outstripped and probably by one whom he would assume to regard as his inferior.
>
> The whole secret of the difference is this - the one had a fixed object in view and never lost sight of it but labored day by day and year by year for its accomplishment, while continued pursuit (of excellence) gave vigor of intellect as well as confidence of success. By becoming every day more assured of his competency to compete with others, he received constantly accumulating evidence of final success, and daily encouragement to persevere.
>
> He who like the Painter Apelles permits no day to pass without its mark - Nulla Dies Sine Linea - no time to elapse without a vigorous and well-defined effort to further the accomplishment of a great work in life, (shall attain) all the honors due his industry and perseverance…

Cooper was a tireless worker with the initiative and capacity, unprecedented in the Far West of his day, to acquire new clinical knowledge through observation and experiment. Thus he himself exemplified the conduct and principles he sketched in these lectures We may therefore accept them as a fair summation of his personal creed. In simpler terms, we can say that he subscribed to the contrived Latin adage - Labor vincit omnia.[63]

A Private Life

Conflict and acrimonious exchanges were such a prominent feature of Cooper's professional relationships in both Peoria and San Francisco that recounting his misadventures as we have done tends to portray him as contentious and disdainful of the accepted standards of medical ethics - which indeed he was. However, there was a more appealing side to his nature. When a powerful cabal of San Francisco physicians mounted an unscrupulous attack on his integrity and surgical competence, his spirited defense and demonstration of exceptional ability earned him increasing respect and support from the local profession. The tide of opinion began to turn in his favor at the Third Annual Session of the California State Society in 1858 when he angrily accosted one of his adversaries, Dr. Henry Gray, in the presence of Dr. Washington Ayer and others. It is to the reminiscences of the fair-minded Dr. Ayer, who became the first Dean of Toland Medical School, that we now turn for a balanced appraisal of Cooper's true character:[64]

> He was remarkably easy and plain, yet earnest in his conversation - using terse, Saxon language to express his ideas, and if at times, in the accommodation of necessities, he seemed a little over-earnest, the occasion made his course pardonable…
>
> While he could not be considered convivial, he enjoyed a wholesome repartee, and found no pleasure in seclusion; was always social without being familiar. He held no malice toward any one, and with a mind conscious of rectitude feared no harm from others…
>
> He was a true friend, and by his life showed that he held friendship too sacred to be even exposed to suspicion, and no idle rumor of any change in affairs could change him or alter his devotion to his friends. He was a man of thought, ever on the qui vive, and ready to adopt new plans to new emergencies, and to this quality of mind may largely be attributed his success. If our colleges could give birth to more spirits like his, the world would be wiser, and the profession more highly honored…

While I do not intend to say anything in such extravagant words as might possibly be construed into an apotheosis, I must admit that language seems quite inadequate to express fitly the sentiments of lofty nobility of (his) character, energy, moral excellence, and sturdy manhood…

Residence

Cooper's papers include little reference to his personal affairs. Even about his places of residence in San Francisco we have scant knowledge. We recall that upon his arrival in the city in May 1855 he took accommodations at the Rassette House on Sansome Street. When and where he moved from there, we do not know. The next relevant information is found in an ad he published in 1859 to which we have already referred. The ad announced that "the state of his health has induced him to transfer his lodgings to Oakland (ten miles across the Bay) where he will treat a limited number of cases." How long he commuted to Oakland is unknown.

The last mention of a residence among his personal papers is found in his financial records where an entry indicates that he lived at The Hotel International in 1860-62. This elegant five-story, fireproof hotel, located on Jackson Street between Montgomery and Kearny, was the elite place to stay from 1854.[65]

Irrespective of outside arrangements, Cooper doubtless also maintained living quarters in the Pacific Clinical Infirmary. In fact, an obituary published in the San Francisco Daily Alta California on 14 October 1862 stated simply that he died "at his residence on Mission Street." This could have been none other than the Infirmary.

Since Cooper was unmarried and did not maintain a household, paucity of information regarding his residence and private life is perhaps not unexpected. Nevertheless we have diligently, but unsuccessfully, sought for information about his personal affairs in order better to understand how he coped with what must have been a lonely private life, plagued by enemies and the shadow of encroaching illness. Alone and beset, that is, until the arrival of Levi Cooper Lane in the spring of 1861 to take up the position of Professor of Physiology in the Medical Department. One can scarcely overestimate the relief and reassurance that Lane's devoted presence must have afforded the ailing Cooper.[66][67]

Financial Affairs and a "Shape of Ice"

Cooper was disciplined and industrious. However, in comparison with his main competitor, Dr. Toland, Cooper's practice was considerably less rewarding. His expenses included the operation of the Pacific Clinical Infirmary, publication of the San Francisco Medical Press, and the cost of his lodging and other personal needs. These expenditures were met by income from the Infirmary and, chiefly, by receipts from his surgical practice.

Cooper's annual gross income from practice was:

1859
$ 7300

1860
$ 8200

1861
$ 8900

1862
$ 2000

As we shall later see, at the time of his death, the total value of Cooper's estate was only $8,500.

On the other hand, Dr. Toland's practice income was phenomenal. By 1860 it had reached $ 40,000 a year, further augmented by the profits from his thirteen thousand acre ranch in the rich bottom lands of the Sacramento River. Toland was 54 in 1860 and in October of that year he married for the third time. His fame and fortune were secure, yet he was nevertheless dissatisfied with the state of affairs in the medical community. As he saw it, the standards and good name of the local profession, of which he was a pillar, had been compromised. The presumptuous and incorrigible Cooper had established a medical school in spite of the opposition of the old guard who had nothing but contempt for the adventure. To make the enterprise even more offensive to Toland, Beverly Cole was Dean of the Faculty.

Toland had never before shown the slightest inclination to teach. But now he was determined to extinguish this unworthy and unnecessary medical school (Wooster: "A Medical College was not yet needed here.") by supplanting it with one of his own. Would it be too harsh to attribute his new-found interest in medical education to mixed motives of vanity and vengeance?[68]

It was early in 1860 that Cooper first heard rumors of Toland's plan to found a second medical school in San Francisco, and wrote that he welcomed the competition. Yet even as he issued this generous challenge, Cooper could feel the chill from the looming "Shape of Ice" just off the bow of the frail vessel he had launched with hope and pride but two years before.[69]

> Well: while was fashioning
> This creature of cleaving wing,
> The Immanent Will that stirs and urges
> everything,
>
> Prepared a sinister mate
> For her - so gaily great -
> A Shape of Ice, for the time far and desolate.
>
> And as the smart ship grew
> In stature, grace and hue
> In shadowy silent distance grew the Iceberg
> too…

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Chapter 19. The Last Days of Elias Samuel Cooper

Dr. Cooper Is Stricken

Within a few months after his arrival in San Francisco, Elias Cooper developed an obscure neurological condition. In addition to wandering neuralgic pains in his extremities and indigestion, he suffered both motor and sensory paralysis of the left side of his face. During the years that followed scarcely a day passed without pain in his limbs which sometimes became excruciating. That he could have labored and especially written so much while so afflicted was certainly remarkable - yet he often said that work was his chief solace.[1]

Professor Morison, whose office was in the Pacific Clinical Infirmary, saw Dr. Cooper frequently and recalled that the work schedule of the Professor of Anatomy and Surgery was so arduous during the Spring of 1862 that he slept not more than two hours in the twenty-four. It was to these exertions that Professor Morison attributed the severe exacerbation of Cooper's chronic illness which occurred in May. After the onset of this attack, Levi Cooper Lane was at his uncle's side much of the time and, as his faithful memorialist, described every detail of the lingering course that followed:[2][3]

> In the latter part of May 1862 Dr. Cooper's neuralgic symptoms assumed an unusual violence; - they also had their usual accompaniment - indigestion. He then went to bed, with the hope that a few days rest would afford him relief; so far, however, from any improvement, he rapidly grew worse, and on the tenth day afterwards, he was attacked with amaurosis, - complete blindness coming on in a few hours; on the same day, clonic spasms, and, finally, convulsions of most violent character supervened. The convulsions were arrested by epispastic counter-irritation, conjoined with local depletion. The loss of vision, however, continued for a few days. (At the time of the convulsions he suddenly and unaccountably regained normal sensation and motor function in the paralyzed left side of his face.)[4]
>
> It is the case with most men, that, when, on the supervention of some great misfortune, they stand most in need of courage, they show the least of it. With the subject of our notice, it was very different. At no time in his life did he show so much resolution as in the cheerful submission with which he bowed to these calamities. On finding that he was blind, he said that, for one of his active habits, it was a hard fate. Yet, in an hour afterward, he remarked that, acting on the principle which he had adopted as a rule of his life of cheerfully yielding to what could not be surmounted, he was now content. This was said when he and his medical friends believed that he was hopelessly blind. It would be hard to find a similar instance of so immediate and cheerful obedience to the will of Providence.
>
> In the course of a week he recovered his eyesight, though his vision was subsequently feeble. At the suggestion of his friends, he now sought the valley of San Jose, of which the warm and unchanging atmosphere, it was thought, would hasten his convalescence; and at the same time, along with avoiding the noise and confusion of the city, he would be wholly freed from the annoyances of professional business. For a few days the change appeared to have a most happy influence; then came again his neuralgic pains, which greatly enfeebled him. On returning to this city his friends all saw that he was far from being well. The sallow complexion and bloodless lip told of some lurking difficulty that was sapping the foundations of life.
>
> When at home this time he ligated the femoral artery. Though so feeble that he could not walk a hundred steps without being wholly exhausted, yet his hand was perfectly steady, the incision made with as much precision as regarded the arterial relations, and the ligature applied in almost as short a space of time as if he had been in perfect health. In speaking of the operation afterwards, he observed that he thought the effort it caused him to make, as well as the momentary excitement which it gave his mind, had really a beneficial effect upon him.
>
> A few days after this, as he did not seem to improve but rather to grow worse, he left the city a second time, and sought the highlands in the vicinity of Santa Clara. A month's residence there appeared to have improved him so much that he returned again to San Francisco. As was the case after his return from San Jose, his neuralgic symptoms came back with so much violence in the lower extremities soon after returning home, that he was confirmed in the notion he had long entertained - that his disease was kept up and aggravated by the cold, bleak winds which constantly prevail at San Francisco during the summer months. In that belief, he decided to seek the country once more with the intention, in case the change proved beneficial, not to return home again until his health was fully restored. The journey selected this time was to the mountainous regions of the Northern part of the State, as the climate there would be warm and free from those changes which occur in San Francisco.
>
> (In this trip the route taken was through Sacramento and its lush valley, then north by a precipitous ascent along the rocky gorge of the North Fork of the Yuba River to Downieville in the heart of the Sierra gold country.)[5]
>
> During this journey, in which he was absent from the city near six weeks, I accompanied him, and during this period, was scarcely from his side an hour at a time. Then I too plainly saw what, with so much anxiety, I had long apprehended - that despite all the most thoroughly studied means of treatment to which resort had or could be made, as well as despite all the energies of his otherwise invincible will, still, all was in vain.
>
> At times, however, he had hours of comparative ease and signs of apparent improvement. These, again, were soon succeeded by accession of violent pain, and obscure morbid complications. Hence, amidst these conflicting alterations, our minds were caused to vibrate perpetually between hope and fear, the latter continually gaining the ascendancy until, at length, it became so evident that the dark hour which destiny has fixed as the ultimate fate of all men was so near at hand, that a further indulgence in hope would be irrational. Then, with all the heroic coolness which men can display when in full possession of health and all their powers, but which often forsakes them in the hour of pain and disease, he turned his face from the world with as much composure as if he never had a name or a hope there, and gave himself up, with undisturbed tranquility, to a contemplation of the approaching shadows of death.
>
> He then consulted with me in reference to returning home desiring, if I thought it possible, to reach there in order that he might die amidst his friends. It was decided to attempt it, he remarking at the time that "he feared he would be so long dying that he would exhaust the patience of his friends."
>
> Four days after our arrival in San Francisco he breathed his last. He died easily, without struggle or groan. A few moments after death, his countenance lapsed into that smile of happy serenity which was so natural to it in health, but which, during the past three months, had been disturbed by anxiety and, at times, terrible suffering. During our sojourn in the North, he had an attack, resembling an apoplectiform seizure, in which he suddenly became blind, deaf, speechless, and apparently insensible. In this state he remained near four days when, on returning to consciousness, he said that, much of the time, he had suffered pain too terrible for description. After this, followed a dysenteric attack, which was no sooner controlled, than there supervened a pneumonia, of passive type, accompanied by profuse spitting of rust-colored sputa, orthopnea and dyspnea, of most painful character. The pneumonic attack placed the seal on his destiny. From it he never rallied; the little remains of life which it left him were soon expended in a painful, labored respiration consequent on an extensive pleural effusion, also seemingly of passive origin. After his return home, every breath which he took required a painful effort. Hence it was apparent to all that exhausted nature, under such a burden, must quickly sink which, as we have said, soon took place.
>
> As his disease had assumed so multiform a character, sometimes appearing to be seated in one organ, sometimes in another - one day the brain appearing to be organically diseased, the next, merely functionally, - it was his special and urgent request that in case of his death, a careful post-mortem examination should be made, - he himself actually designating the parts where he desired the disease to be sought for. Fearing that my feelings, as his relative, might influence me to neglect this request, he repeated it to certain of his friends, obtaining a promise from them that it should be done.
>
> In obedience to that request, a careful autopsy was made. Commencing at the brain, the vital organs were examined in order downwards. The brain was considerably congested, yet no organic lesion was found in it. The heart was enlarged, with dilatation and softening; lungs congested; extensive pleural effusion; stomach perfectly healthy; liver slightly enlarged, with some fatty degeneration; spleen much softened; pancreas with a scirrhus-like hardness at one point, otherwise healthy; a morbid fibroid structure, an inch and a quarter in diameter, hollow and containing a bile colored matter, was found in proximity with the semi-lunar ganglion; periphery of the kidneys nodulated and unhealthy in appearance - otherwise they presented nothing abnormal. It should be remarked that the medulla oblongata and upper portion of the spinal marrow were smaller than usual, presenting the aspect of having been somewhat atrophied.
>
> Now, to deduce from the autopsy an explanation of the symptoms which were present in his mysterious and eventful disease would be difficult and perhaps impossible. Still, from the examination this much seems certain - that the prime seat of his disease was in the organic nerve-centres, whence the irritation was transmitted to the cerebro-spinal nervous system, whence it was eccentrically manifested, now in one organ, now in another, thus giving rise to these protean morbid manifestations to which allusion has been made…(In 1926 Professor Emmet Rixford wrote that Cooper died "most probably of nephritis." He did not state the grounds for his opinion which was presumably based on the abnormality found in the kidneys at autopsy.)[6]
>
> A word more, in reference to Dr. Cooper's character. His great and leading characteristic was singleness of idea and continuity of purpose. The profession of Medicine he loved, cultivated and was devoted to with his entire and undivided mind. From the period in which he espoused it and fully began his career, every energy of his genius was given to it with an enthusiasm which nothing save the chilling hand of death could cool. It was this too intense devotion to that profession which has sacrificed him on its altar at a period of his life when it could truly be said of him that no man ever died with more unfinished work. Still, the brevity of his life is rendered more deserving of praise from the fact that in it he has won an unfading chaplet of honor, which will give his name an enduring place among the illustrious dead of our profession.

Funeral Services

The Daily Alta California and other San Francisco newspapers reported that Dr. Cooper died on Monday morning at twenty minutes before nine o'clock on October 13th 1862 at his residence on Mission Street. It was the forty-first year of his life. Funeral services were held at 10 o'clock A. M. in Calvary Church on Wednesday October 15th. Reverend Dr. Wadsworth and Reverend Mr. Wells officiated, with the President of the University of the Pacific also participating in the exercises. The Officers of the University, the students and the medical classes, and the Faculty of the Medical Department, all were present. The church was well filled by Dr. Cooper's medical colleagues and the ladies and families who honored him as their physician. The deceased was under the formal escort of the Masonic Lodge, of which he was a respected member, and the pall bearers were prominent medical men of the community. In accordance with his dying wish he was interred in Lone Mountain Cemetery where the Occidental Lodge of Free Masons conducted the last sad rites of the sepulture.[7]

Cooper's premature death awakened throughout the community profound feelings of sorrow accompanied by a deep sense of loss.

These sentiments were reflected in the numerous laudatory obituaries that appeared in the daily press following his death. Included among the eulogies was a lengthy poem by T. G. Spear, Esq., of San Francisco. The following stanza denotes its theme:[8]

> Where art thou, son of science! born with zeal
> To cope with ills in life's corporeal sphere?
> Where is thy soul benignant, prone to heal
> Or soothe the pangs of prostrate mortals here?

> No answer greets us from the stars or waves,
> Nor echo back the mountains in reply,
> Nor the green garden-valleys, nor their graves
> -
> But, lo! it comes from voiced humanity!

Monument on Lone Mountain

It was almost three years after Dr. Cooper's death when the following notice appeared in the Daily Alta California for 21 July 1865:[9]

> Over the tomb of Dr. E. S. Cooper, who a few years since, occupied a distinguished place in the medical fraternity of the coast, there has lately been erected (by Dr. Levi C. Lane) at Lone Mountain Cemetery, a very imposing as well as appropriate monument. The material is California granite, of a very beautiful quality and is the workmanship of a Mr. Farwell of this city. The monument consists of a shaft, in the form of an obelisk, which is nearly nineteen feet high, resting upon a base of such dimensions that the whole together is twenty-five feet in height, and presents all those elements of simplicity and enduring beauty which are the most befitting memorial to the dead.

As befits a timeless reminder of the honored dead, no date is anywhere inscribed on the monument's surface. The stone bears only the simple inscription: "Sacred to the Memory of Elias S. Cooper, Surgeon"

Lone Mountain Cemetery was on a brush-grown, treeless promontory known as Laurel Hill located beyond the western limits of the city and just north of Geary Street. The Cooper obelisk on its oval granite platform stood a solitary beacon high above the surrounding gravesites, commanding a grand vista of hills, city, ocean, and the rugged cliffs of the Golden Gate through which Cooper had passed ten years before. Eventually, the relentless advance of the city forced the removal of the cemetery. In 1946 the remains of Dr. E. S. Cooper were transferred to Vault 1395 in the Laurel Hill Mound of Cypress Lawn Memorial Park in Colma, California. The obelisk and countless other unclaimed gravestones of sacred memory on Lone Mountain were carted off for landfill or other mundane use.

To be precise, not all of Cooper's remains are interred at Cypress Lawn. In former times certain organs of the deceased were for sentimental reasons occasionally buried at another site or preserved unburied. For example, a famous poet, twice married, expressed a dying wish that his heart be buried in the grave of his first wife. As a token of high regard for his uncle, Dr. Lane arranged for Dr. Cooper's brain and heart each to be preserved in a separate glass jar. The jars were then mounted side by side in a sturdy framework that allowed for clear display of the organs. The preservative used is unknown but was presumably effective as indicated by the excellent condition of the specimens and the clarity of the surrounding fluid when last seen.

Dr. Emmet Rixford reported in his Address at the Dedication of the Lane Medical Library in 1912 that the only money Dr. Lane received from his family was the sum of $ 80 from his mother's estate. Rixford further reported that, when Lane had completed the construction of Cooper Medical College in 1882, he used these $ 80 for a pedestal to support the heart and brain of Dr. Cooper which were originally kept in an inner sanctum of the College museum.[10] The pedestal and preserved organs were last seen in about 1979 in the attic of the former Lane Library in San Francisco, where they are no longer to be found.[11] It is hoped that the missing organs may yet be discovered in order to determine whether their examination by modern techniques will provide clues to the etiology of Elias Cooper's mysterious fatal illness.

Last Will and Testament

Cooper's personal papers contain no information regarding his will and the amount of his estate. Years later, after the Cooper Medical College had been established in elegant new buildings funded entirely by Levi Cooper Lane, a rumor was circulated that he had inherited the money for the buildings from his Uncle Elias. The persistence of this false report was of such annoyance to Dr. Lane that he provided the San Francisco Examiner for 5 January 1895 with a copy of the following deposition by a Mr. Joseph W. Reay who made the statement under oath in 1893 (thirty-one years after the death of Dr. Cooper).[12]

> State of California, City and County of San Francisco. Joseph W. Reay, being duly sworn, deposes and says he is a resident of the city and county of San Francisco and has been for more than forty-three years past (i. e. since 1850), that he was intimately acquainted with Dr. Elias S. Cooper during his lifetime and lived with him in the same house during all the time he was a resident of California and the city and county of San Francisco, and for many years he was his business agent, and after his death, which was in October, 1862, he was an executor of his will, and duly qualified and acted as such executor without compensation or commission from the estate. In his will Dr. Cooper bequeathed his entire estate to his relatives and he left no means, either by bequest in his will or by verbal request, for the erection of a medical college in this city or elsewhere.
>
> Deponent further says that the total value of the estate left by Dr. Elias S. Cooper, deceased, was $ 8,500, as more fully appears by the record of the Probate Court of this city and county.
>
> Deponent further says that Dr. Levi C. Lane advanced and contributed out of his private funds the sum of $ 1162.72 to pay some of the claims against Dr. Cooper's estate.
>
> Deponent further says upon his information and belief that the building in this city known as the Cooper Medical College was erected by Dr. Levi Cooper Lane from his own private means and was so named to honor his relative, Dr. E. S. Cooper.
>
> Further, affiant sayeth not.
>
> Signed J. W. Reay
>
> Subscribed and sworn to before me this 18th day of December, 1893.

We have sought to obtain additional information from the courts regarding Dr. Cooper's estate and Mr. Reay. Unfortunately, the records of the San Francisco Probate Court for the period of Cooper's death in 1862 and of Reay's deposition in 1893 were destroyed in the San Francisco earthquake and fire in 1906. Nothing relating to Cooper's estate is found in his personal papers where, regarding Mr. Reay, we find only numerous invoices (one of which includes a stove) dated 1856 to 1860 from the firm of Johnston and Reay, Plumbers, Tin, Copper and Sheet Iron Workers on Battery Street, San Francisco.

The San Francisco Directory for 1867 lists a J. W. Reay as a dealer in Stoves, and from 1868 to 1900 in Real Estate. By the close of the century, Mr. Reay had been joined in the real estate business by Joseph W. Reay, Jr., Charles G. Reay and Wallace R. Reay as "clerks." - presumably relatives. We believe the Joseph W. Reay whose deposition is quoted above is the same as the Reay in the San Francisco Directory.[13] However, none of our limited information on the subject allows us to verify Mr. Reay's statement in his deposition that he lived with Dr. Cooper "in the same house during all the time he was a resident of California and the city and county of San Francisco." In brief, the differences between what we know of Dr. Cooper's living arrangements and Mr. Reay's deposition are irreconcilable. We can otherwise accept his testimony and conclude that neither the school nor Dr. Lane benefited from the Cooper estate.

Prospective

We recognize Cooper's founding of the first medical college on the Pacific Coast in 1858 as an historic achievement for one sufficient reason - the Medical Department of the University of the Pacific was the forbear of a succession of schools from which Stanford University School of Medicine is the lineal descendant. With the departure from the scene of Elias Cooper, the prime mover, we shall turn our attention to the epic progression of these schools spanning almost a century and a half from 1858 to the present day.

We have seen the fierce and unscrupulous opposition over which Cooper prevailed in establishing the predecessor institution. Soon after his death an even graver threat confronted its faculty - the long anticipated opening of the Toland Medical School. Deprived of Cooper's strong leadership in this hour of crisis, the Medical Department of the University of the Pacific suspended operations in 1864 only two years after his death. But the faculty later rallied and the school was revived in 1870. Thereafter, it maintained a steady course and Elias Cooper could at last rest in peace on Lone Mountain:[14]

He builded better than he knew -

The conscious stone to beauty grew.

Endnotes

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8. Levi Cooper Lane , "Elias S. Cooper," in Representative and Leading Men of the Pacific, ed. Oscar T. Shuck (San Francisco: Bacon and Company, Printers and Publishers, 1870), pp. 246-247. Poem entitled "In Memory of Dr. E. S. Cooper" published originally in San Francisco Daily Alta California on 27 October 1862 Lane Library catalog record
9. File of California Historical Society Library. Folder: Photocopies. News releases re Death of Elias Samuel Cooper from San Francisco Daily Alta California for 21 July 1865. E. S. Cooper Collection, Lane Medical Archives, Stanford
10. Emmet Rixford , address at Dedication of Lane Medical Library, Leland Stanford Junior University Publications. Trustees' Series No. 22 (Published by Stanford University, 1912), p. 12 Lane Library catalog record
11. Personal communication from Dr. William B. Neff former member of the Division of Anesthesiology of Stanford University School of Medicine in San Francisco
12. San Francisco Examiner, "Cooper College. Due to the Generosity of Dr. Lane. A Chapter in the History of the Medical School and Hospital," January 5, 1895, Levi Cooper Lane Collection, Lane Medical Archives, Stanford
13. San Francisco Directory (San Francisco: S. F. Henry G. Langley, Publisher, 1867) and (San Francisco: H. S. Crocker Company, 1900). Green Library, Stanford University
14. Ralph Waldo Emerson , poem, "The Problem," second stanza, in The Harvard Classics, edited by Charles W. Eliot (New York: P. F. Collier and Son Co., 1910), vol. 42, p. 1299

Chapter 20. Suspension of Medical Department University of the Pacific and Founding of Toland Medical College 1864

Fifth Annual Session of the Medical Department November 1862 to March 1863

The premature death of Elias Cooper, the Medical Department's founder and leader, occurred on the eve of the Fifth Annual Session of the Department. It was during this Session that Dr. Lane emerged as a major source of stability and continuity in school affairs, as will be apparent from the following account.

Several faculty changes occurred just before the opening of the Session. At its meeting on 12 September 1862, the Board of Trustees of the University of the Pacific accepted the resignation of Dr. James Merinos as Professor of Pathology and of the Principles and Practice of Medicine. At the same meeting Dr. A. J. Bowie, Cooper friend and loyal supporter, was appointed to fill the professorship vacated by Dr. Merinos whose outside activities left him insufficient time to continue in the post. Also at the same meeting Dr. Merinos resigned his membership on the Board of Trustees. Elias Cooper was unanimously chosen to succeed him on the Board but, after Cooper's death, Beverly Cole was elected to the seat.[1]

Dr. Cooper died during the month of October in 1862 while the annual one-month gratuitous course of Preliminary Lectures was in progress. Dr. Lane promptly stepped in as Editor of the "San Francisco Medical Press" where he placed the following notice in the October number:[2]

> Owing to the death of Dr. Cooper the management of the Pacific Clinical Infirmary, as well as his medical and surgical practice, now devolves upon his late associate in business …, Dr. L. C. Lane. We would remark, that class of patients who have hitherto sought this city for medical and surgical treatment will receive, at this institution, all the attention which their cases may severally demand.

Lane also commented on the impact of Cooper's departure on the fortunes of the medical school:[3]

> A Preliminary Course of Lectures is now being delivered at this institution; the Course Proper will commence on the first Monday in November. From the number of students who attend the Introductory Lectures we may predict a full attendance during the ensuing term. In the death of Dr. Cooper, late Professor in the School, it has sustained a deep and heavy loss; that one could at once be found who could fully supply his loss, is more than we can expect, - still, by a division of labors hitherto accomplished by him among the remaining members of the Faculty, every arrangement has been made so that the affairs of the School shall proceed without interruption, and the full course of lectures delivered as heretofore.

The Fifth Session of Lectures concluded on 7 March 1863 and Commencement Exercises were held on 12 March. Twenty-three students were enrolled in the fifth class and eight students were awarded the M. D. degree. We have previously mentioned that Henry Gibbons, Jr., was one of the Fifth Session graduates and that he later served with distinction as Dean of the School.

Professor A. J. Bowie, who was appointed to the Faculty only two months before the opening of the Fifth Session, was chosen to deliver both the Introductory Lecture at the beginning of the Session and the Valedictory Address at its close. Dr. Bowie, an outstanding surgeon himself, was a great admirer of Elias Cooper and could be counted on to appropriately eulogize the Founder of the School. This mission he accomplished with his usual felicity in both the Lecture and the Address as is evident in the concluding words of the Valedictory:[4]

> There is one subject further, gentlemen, upon which I desire to say a few words to you before parting, as I feel that it is one which deeply interested you, as it affected painfully the Faculty of our College. I allude, as you have doubtless inferred already, to the great loss our institution sustained in the untimely death of our friend and colleague, Professor E. S. Cooper…It is not…that I allude to Professor Cooper to deplore his loss as a lecturer, but as an operative surgeon, for which he would seem to have been peculiarly fitted by nature. I can truly say that for genius in planning operations as well as for skill in executing them, he had few equals, and no superior that it was ever my fortune to meet. As it was my privilege at the opening lecture of the late course, to announce his death , it has seemed to me not inappropriate, at the close of our labors, to have called up his memory for a moment, that we might pay this humble tribute to his name.

At the close of the Fifth Session, the Faculty were satisfied with the condition of the School, as expressed by Lane in a long editorial in the April issue of the Medical Press. He pointed out that only two students graduated at the end of the First Session in 1859, whereas eight received the M. D. degree at the end of the Fifth. The size of the classes also increased. According to the Register of the Medical Department, twelve students matriculated for the First Session, whereas twenty-three signed the Register for the Fifth.[5][6]

Lane was particularly pleased to report that further clinical experience had been made available to the students during the Fifth Session and would continue thereafter. In addition to the teaching program at St. Mary's Hospital discussed earlier, Dr. J. Hastiness of the Marine Hospital staff now kindly offered to show and clinically illustrate to the students, once a week, whatever was of interest in that hospital. The San Francisco City and County Hospital, about access to which Cooper had unsuccessfully petitioned the County Supervisors early in 1860, was opened by a member of the Hospital staff, Dr. F. A. Dolman. He invited the students to see his cases and provided them a course of lectures on Clinical Surgery. Another local physician who volunteered his services during this Session was Dr. F. H. Howard who gave the students a series of lectures on Ophthalmic Surgery embodying the result of his studies and researches during a protracted visit to Europe. At the end of the Session, the medical class unanimously adopted a resolution expressing their gratitude to these three newly-found clinical instructors and Lane published the students' letter of appreciation in the Medical Press.[7] Thus it was that the local physicians' intuitive urge and moral obligation to teach, as epitomized in the Hippocratic Oath, opened the doors of San Francisco hospitals for clinical instruction to the students of Cooper's school.[8]

Dr. Lane concluded his review of accomplishments of the School during the Fifth Session on a confident note:[9]

> From the retrospect which has thus been cursorily drawn of the past progress and present status of the Medical Department of the University of the Pacific, the Faculty have just grounds to be proud of what they have already achieved, and, in contemplation of the future of the institution, they have every reason for cherishing even more exalted hopes than were entertained by its original founders at the commencement of their labors.

Sixth Annual Session of the Medical Department November 1863 to March 1864

Several additional faculty changes occurred prior to opening of the Sixth Session.

At the meeting of the Board of Trustees of the University of the Pacific on 12 March 1863, the vacancy created by the death of Dr. Cooper, Professor of Anatomy and Surgery, led to the following adjustments. Dr. Lane resigned as Professor of Physiology and was replaced in that position by Dr. J. P. Whitney. Dr. Lane was then appointed Professor of Anatomy.[10]

The October 1863 issue of the Medical Press reported that Professor A. J. Bowie resigned from the chair of Theory and Practice of Medicine and Dr. John F. Morse of Sacramento was appointed to replace him. Dr. Bowie was then appointed as Professor of Surgery. At about the same time the title of Dr. Whitney was changed from Professor of Physiology to Professor of Institutes of Medicine.[11]

As a result of the numerous changes during 1862-63, the Faculty of the Medical Department at the opening of the Sixth Session in November 1863 was composed of the following eight professors, two more than at the First Session of the School in 1859:[12]

Medical Faculty

Isaac Rowell, M. D.
Professor of Chemistry

R. Beverly Cole, M. D., Dean
Professor of Obstetrics and Diseases of Women and Children

L. C. Lane, M. D.
Professor of Anatomy

Henry Gibbons, M. D.
Professor of Materia Medica and Botany

A. J. Bowie, M. D.
Professor of Principles and Practice of Surgery

J. P. Whitney, M. D.
Professor of Institutes of Medicine

John F. Morse, M. D.
Professor of Theory and Practice of Medicine

Hon. George Barstow
Professor of Medical Jurisprudence

James Murphy, M. D.
Demonstrator of Anatomy

The Sixth Session was uneventful and the School appeared to have made a successful transition to the post-Cooper era with ranks closed and Faculty strengthened. We should comment here that the appointment of the highly-regarded Dr. John F. Morse of Sacramento brought into the Faculty a well-known and respected figure in California medical affairs.

Considering Dr. Morse's wide reputation for eloquence and charitable works, it is not surprising that he was elected by the Faculty to give the Introductory Lecture, delivered at the opening of the Sixth Session in November 1863. In his lengthy address to the students on that occasion he advised them not to be discouraged by the rampant imperfections in society and in the medical profession, but to have confidence that:[13]

> (The title of "Doctor") will sit like a diadem of imperishable fame upon the brows of every man who makes himself a zealous and efficient worker in the benevolent and unrequited Science.
>
> The great heart that becomes entranced with the beautiful and balmy smiles of Medicine, - the mind that mingles in rapture with principles of a Science that was born in philanthropy, that comes to us freighted with accumulated wisdom, which bears the imprints of immemorial good-neighborhood and incorruptible philosophy, - the generous soul that derives its lessons of duty, more from the divinity of the calling, than from the sordid compensations that follow the application of its powers of relief, cannot fail to be contented and happy here, and, in my opinion, will acquire treasure and rank in heaven, which shall not be lost amid the shadows of death nor the gloom of the grave.

There was no hypocrisy in Dr. Morse's exhortations and inspirational rhetoric for, as everyone knew, he had already earned a reputation in the West as a practicing idealist - but not as a prophet. Upon accepting his professorial appointment he must have recalled with some embarrassment the negative report made in 1857 to the State Medical Society by his Committee on Medical Education:[14]

(Until California provides adequate support for its public hospitals), it will be a useless thing to attempt the establishment of clinical schools of medicine… Hence the reason your Committee deemed it unnecessary to trouble you with a very lengthy report (on the subject).

As usual, the Regular Course of lectures began on the first Monday in November. Twenty-three students were registered , the same number as in the previous year. During the Session no news of it appeared in the Medical Press, but Dr. Lane did publish the following important "Notice to Medical Students" in the issue for January 1864:[15]

> I propose in April next, to take some two or three medical students, who will be furnished with lodging, textbooks and tuition, at the rate of two hundred dollars per year; - in the pursuit of their studies, the students will have the aid of skeletons and dried anatomical

> preparations; - likewise, during part of the year, they will have the benefit of clinical instruction in practical Medicine and Surgery.

L. C. Lane, M. D., Professor of Anatomy

Under these favorable arrangements, Dr. Lane would serve as the preceptor for two or three students thus greatly assisting them to fulfill the graduation requirement of having studied medicine for three years (the terms of attending Lectures included) under a respectable practitioner.

In the same issue of the journal, Dr. Lane announced that:[16]

> After this number, the editorial supervision of the Medical Press will be transferred to Drs. R. B. Cole and H. Gibbons; - under the charge of these capable and competent gentlemen we not only wish, but predict for the journal a fortunate career; our duties as Surgeon of the Board of Enrollment for the Southern District of California, added to the duties of a constantly increasing practice, occupy so much of our time as to prevent us from devoting that labor to the Press which a medical periodical requires.

The Sixth Annual Commencement of the Medical Department of the University of the Pacific was held in Platt's Hall, San Francisco, on 18 March 1864. The degree of Doctor of Medicine was conferred on seven graduates by Reverend Banister, President of the University.

Dr. Lane's Valedictory Address had a scholarly theme. He impressed upon the graduates the importance of lifelong study of the science of Medicine, a field in a constant state of advancement. As examples of progress and harbingers of future discoveries he cited vaccination for small pox and etherization as triumphs of modern medicine and of incalculable benefit to mankind. Then, in conclusion: he said:[17]

> Gentlemen, from what has been said, you see that the profession you have chosen is one which contains within itself all those principles which are calculated to awaken and develop those nobler qualities which dignify the human heart; - and not only this, but to those of you who are emulous of scientific honors, there is opened an arena, where, by proper industry and keen research, unfading laurels may yet be won, laurels which far transcend those which are awarded to the conqueror whom death has spared on the battlefield.

And what of the battlefield? In the East, the Civil War was entering its final, cataclysmic year. On 9 March 1864, as the Sixth Session of the Medical Department came to a close, President Lincoln appointed General Grant as Commander in Chief of the Union Army. Grant at once set out to engage General Lee and the Confederate Army of Northern Virginia in the most desperately fought and crucial campaign of the war.

After his graduation in 1863, Henry Gibbons, Jr., enlisted in the Medical Corps of the Union Army as an Acting Assistant Surgeon. In May 1864 he was posted to the Douglas Hospital in Washington, D. C., just north of the fighting front. Dr. Gibbons' letter from "The Inside of a Military Hospital," was published in the July 1864 issue of the Medical Press. He described the overwhelming flood of dreadful casualties from Grant's campaign in Virginia that descended on his hospital, bearing witness to the record of the Civil War as by far the nation's bloodiest conflict to that time. In proportion to the population, the casualties in the Civil war were greater even than those of the British and French in World War I.[18][19]

We now conclude our reference to the graduation exercises of the Class of 1864 by providing the following summary of the matriculants and graduates of the Medical Department of the University of the Pacific during its first six sessions:[20][21]

Matriculants and Graduates 1859 to 1864
Medical Department, University of the Pacific

Session	Matriculants	Graduates	Year
1st May-Sep 1859	12	2	1859
2nd May-Sep 1860	14	1	1860
3rd Nov-Mar 1860-1861	17	5	1861
4th Nov-Mar 1861-1862	28	5	1862
5th Nov-Mar 1862-1863	23	8	1863
6th Nov-Mar 1863-1864	23	7	1864

28 Total Graduates, 1859-1864

Dean Cole Goes to Europe

On 3 July 1864 Dean Cole departed on the side-wheeler Golden City for the Atlantic states and Europe, ostensibly to recover his health. He made a grand tour of Europe that included visits to medical schools and hospitals in Dublin, Edinburgh, London, Paris, Berlin and Heidelberg. The articulate and gregarious Cole was everywhere cordially received so that his journey was no less than a triumphal progress He spent two glorious weeks with the world-renowned obstetrician, Sir James Simpson in Edinburgh. He became a member of the British Gynecological Society, the Obstetrical Society of London, the Royal College of Surgeons and, upon his return to America in the spring of 1865, he was elected to an honorary fellowship in the Boston Gynecological Society.

At home again in San Francisco, Dr. Cole did not involve himself in medical school affairs during the next five years. Instead, he attended to his obstetrical practice (the largest in the city) and performed such memorable public services as establishing San Francisco's beautiful Golden Gate Park and securing adoption of health measures that controlled the smallpox epidemic of 1868. For the latter contribution, he was appointed Surgeon-General of California by an admiring Governor. These were among Beverly Cole's impressive interim accomplishments when, in 1870, he resumed his association with his colleagues from the Medical Department of the University of the Pacific.[22]

As the summer of 1864 wore on, preparations continued for opening the Seventh Session of the Medical Department on the first Monday in November. Dr. Henry Gibbons, Sr., now sole editor of the San Francisco Medical Press due to the departure of Dr. Cole , wrote of new facilities and a favorable outlook for the school:[23]

> The Faculty of the Medical Department of the University of the Pacific, have purchased a valuable property on Stockton street near Broadway, where they are fitting up Lecture Rooms and other accommodations for their school. This Institution has reason to be proud of its career and of its Alumni. In its origin and early life it encountered opposition and hostility from nearly every quarter. It has received no public favor and no extrinsic aid from any source. Its sole reliance has been the industry and perseverance of its founders and their successors. But these have borne it through triumphantly, and established it on a firm basis. Its graduates can be designated, almost without exception, as honorable and successful members of their profession. A large proportion of them hold positions in the public service, and are making a record creditable to themselves and to their Alma Mater. The course of instruction in this school is eminently practical. The students are drilled at the bed-side in three extensive hospitals, where they have the benefit of the teaching and experience of a large number of the foremost physicians and surgeons in California.

The above notice of the relocation of the Lecture Rooms of the Medical Department was directly followed in the same July 1864 issue of the Medical Press by this ominous item:[24]

> A new Medical School, in connection with a private hospital, is, we learn, about to be established in this city, under the charge of Dr. Toland. Five years ago, when the present school was founded, it was pronounced useless and uncalled-for. A very different sentiment now prevails, and we congratulate the profession and the community on the revolution by virtue of which two medical institutions have become a necessity, where one was superfluous.

Founding of Toland Medical College

In the summer of 1864, a spacious new building on Stockton Street near Chestnut and a few blocks from the Bay was under construction. It was conveniently located opposite the San Francisco City and County Hospital which was then on Francisco Street at North Beach. It was common knowledge that Dr. Toland was constructing the building for a medical school and was recruiting a faculty with a view to opening Toland Medical College in November.[25]

The September 1864 issue of the Pacific Medical and Surgical Journal (now under the editorship of Dr. John F. Morse, late of the Cooper faculty but recently defected to the Toland side) carried the first detailed account of the projected new school:[26]

> Before this number of the Journal reaches our readers they will have received a lithographic view of an edifice which is being erected by Dr. Toland, and which, as soon as completed, he intends donating to the City of San Francisco, and the profession of medicine, for perpetual use in Medical Education.[27]
>
> When the value of the property, the adaptation and beauty of the structure are considered, no ingenuous man, in or out of the profession, will withhold an acknowledgment that the act is almost unparalleled in real generosity and professional zeal…
>
> Throughout his professional life, Dr. Toland has steadily cherished the determination to accumulate money enough to enable him to build and establish a school of medicine which should be of perpetual benefit to his profession. It is the thought with which he came to California, and the stimulus that has inspired him to an industry and toil seldom manifested in the fields of execution. Fortunately for the profession, fortunately for the cause of medical education upon the Pacific Coast, and fortunately for San Francisco, he has succeeded in the realization of a noble and glorious project.
>
> The building is nearly completed, a Board of Trustees selected, and a Faculty of Medical Teachers organized, and a regular Course of Medical Instructions advertised for the coming winter.
>
> We have said that it was fortunate for San Francisco that the Doctor had succeeded in attaining this object. When we consider how intimately and seriously the interests of society are blended with the cause of Medical Education, and when we consider the influence of any school of science in attracting patronage, and in consolidating and extending the fame and distinction of any Metropolitan City, we would scarcely doubt the benefit which the city of San Francisco would derive from the organization and maintenance of a good medical school…
>
> In no place in the world at the present time is the establishment of a good Medical School more urgently demanded than in San Francisco. .. . Will the people encourage an effort to thoroughly supply the Pacific Coast with the facilities of medical education?…

It is interesting to learn from the above article that Dr. Toland came to California with the thought of founding a medical school (a well-kept secret), and that no place in the world was more urgently in need of one. No mention was made of the Cooper school in this or any of the several further breathless editorials by Dr. Morse in the Pacific Medical and Surgical Journal related to the founding of the Toland College.

Dr. Toland had a masterful plan for the organization of the College. He made arrangements for a Charter to be obtained from the State which would grant the College all the privileges and powers of any University. Immediately upon his understanding that these arrangements had been concluded, he executed a deed of conveyance of the entire property to a Board of Trustees for the establishment of an independent school of medicine.[28]

For the Board of Trustees of the College, Toland chose 26 prominent citizens of California including such present and past officers of State government as Governor F. F. Low, Lt. Governor T. N. Machin, Ex-Governor P. H. Burnett and Ex-Governor John G Downey. There were two physicians on the Board: Drs. C. Badarous and James P. Whitney. Toland's selection of well-known figures in State and Municipal affairs for the Board of Trustees was very astute and signaled his intent to seek State and Municipal support for the College in the future.[29]

Here we should point out that Dr. Toland and others concerned were mistaken in their belief that a Charter had been granted to the College by the State. John B. Felton, President of the Board of Trustees of the College in 1864, was responsible for obtaining the Charter but neglected to do so. It was not discovered until 1875 that no Charter had been obtained and that the M. D. degrees granted by the College were therefore invalid. A resolution proposed by Henry Gibbons, Sr.,

and adopted by the State Medical Society at its Annual Meeting in 1875, had the effect of retroactively legitimizing all the M. D. degrees previously granted by Toland Medical College.[30][31]

Toland Faculty Roster

The original roster of the Toland Faculty during the organizational phase of the College was as follows:[32]

Preliminary Toland Medical College Faculty 1864

H. H. Toland, M. D., President
Professor of Principles and Practice of Surgery

James Blake, M. D. ,
Professor of Obstetrics and Diseases of Women and Children

J. Newton Brown, M. D. ,
Professor of Anatomy

T. J. Edwards, M. D.,
Professor of Institutes of Medicine

W. O. Ayer, M. D. ,
Professor of the Theory and Practice of Medicine

J. F. Morse, M. D.,
Professor of Clinical Medicine and Diagnosis

Thos. Bennett, M. D. ,
Professor of General Pathology

J. A. Lockwood, M. D.,
Professor of Materia Medica

Robert Oxland, M. D.,
Professor of Chemistry

William A. Douglass, M. D.
Demonstrator of Anatomy

Suspension of the Medical Department University of the Pacific

As fall approached in 1864, the construction of Toland's imposing new medical school building was nearing completion. He had acquired a prestigious Board of Trustees, appointed a complete Faculty, and announced that Toland Medical College would open with its First Annual Session on November 5th. The Faculty of the Medical Department of the University of the Pacific now faced a cruel dilemma - "to be or not to be.". Toland's facilities were so superior to those of the Medical Department that on this ground alone competition with his College for students seemed futile. Dr. Gibbons later recalled the Cooper Faculty's decision:[33]

> At the juncture when the industry and toil of the Faculty (of the Medical Department of the University of the Pacific) had culminated in success, a rival appeared. A gentleman who had gained distinction and amassed a fortune in the practice of medicine and surgery, erected an edifice for a Medical College, and called around him a corps of Professors. The original Faculty of the Medical Department must either succumb, or engage in a competitive struggle. Cooper was dead. Two schools could not be sustained with credit to either.
>
> Rather than embark in a contest which might involve personal animosities, and injure the character of the profession and lower the standard of medical education and the value of a diploma, the Faculty of the University decided to suspend operations.

Some Reflections

What if Cooper had been alive and well? Instead of closing his school, would he have led his colleagues in a head-to-head contest with the challenger? On hearing a rumor in 1860 that Toland was planning to establish a medical school, Cooper declared that he welcomed the competition. But, in Cooper's absence, there was no one capable of masterminding a confrontation with Toland. Dr. Lane had not yet the maturity, and Dr. Gibbons had not yet the motivation, for a bruising battle. As for Cooper, we can be sure that he would have attempted to preserve the Medical Department. It was his life's work, the goal of a driving ambition. It would have been out of character for him to retire from the field without a fight.

Under the circumstances, however, the decision to close the Medical Department proved to be a wise strategy. Drs. Lane, Gibbons and Morse of the Cooper faculty joined the Toland College and served for six Annual Sessions (1864-1870). These years in the College seasoned the Cooperites and renewed their faith in the promise of their original venture. They were then no longer intimidated by the financial resources, spacious premises and local and state connections of the Toland School. They had gained the confidence to revive, and thereafter successfully defend, the pioneer educational institution which had earned the respect and loyalty of the West's first cadres of medical students.

Drs. Lane and Gibbons of the Cooper Faculty Join Toland College

When the Faculty of the Medical Department of the University of the Pacific announced that the Department was closing in deference to the impending opening of Toland Medical College, the medical students transferred en masse to the new school. At the same time they petitioned Dr. Toland to invite Drs. Lane and Gibbons to join his Faculty prior to the opening of its First Annual Session. The invitation was promptly extended, and as promptly accepted, on condition that the graduates of the University of the Pacific should have an ad eundem degree, if they desired, free of cost, from the Toland College. It is a credit to the Cooper school, that its alumni so appreciated their diplomas, that only one of the number ever applied for an ad eundem degree from Toland College.[34][35]

Dr. Lane was appointed Professor of Physiology (replacing Dr. Edwards of the original roster) and Dr. Gibbons was appointed Professor of Materia Medica and Therapeutics (replacing Dr. Lockwood). Dr. Cole was still abroad when the College opened and was not available for a faculty appointment. In any case, because of his vendetta with Toland over the King case, he would doubtless not have been considered for a professorship at that time.[36]

Dr. John F. Morse was the first member of the Medical Department of the University of the Pacific to "jump ship." He had already accepted a professorship in the Toland School when Drs. Lane and Gibbons came on board. Dr. Morse was appointed Professor of Clinical Medicine and Diagnosis, probably in August 1864. He took over as Editor of the Pacific Medical and Surgical Journal at about the same time, replacing Dr. Victor J. Fourgeaud who was discouraged by lack of support from the profession and resigned in August 1864. Dr. Morse's editorials in the issues of the Journal from August through December 1864 ardently championed the Toland College, at which point the Journal ceased publication. When it appeared again in April 1865, it had merged with the San Francisco Medical Press to become the Pacific Medical and Surgical Journal and Medical Press under the editorship of Henry Gibbons.[37][38]

Revised Faculty Roster

As the result of the professorial appointments of Drs. Gibbons and Lane, the Toland College Faculty at the beginning of the First Annual Session was as follows:

Final Toland College Faculty 1864

H. H. Toland, M. D., President
Professor of Principles and Practice of Surgery

James Blake, M. D.,
Professor of Obstetrics and Diseases of Women and Children

J. Newton Brown, M. D.,
Professor of Anatomy

Levi C. Lane, M. D.,
Professor of Physiology

W. O. Ayer, M. D., Dean
Professor of the Theory and Practice of Medicine

J. F. Morse, M. D.,
Professor of Clinical Medicine and Diagnosis

Thos. Bennett, M. D.,
Professor of General Pathology

Henry Gibbons, Sr., M. D.,
Professor of Materia Medica and Therapeutics

Robert Oxland, M. D.,
Professor of Chemistry

William A. Douglass, M. D.
Demonstrator of Anatomy

First Annual Session of Toland Medical College 5 November 1864 to 8 March 1865

The first meeting of the Toland Faculty was held on 5 November 1864, the opening day of the First Annual Session. The Faculty met in the office of Professor Morse pursuant to a call from President Toland. Those present were Professors Toland, Morse, Oxland, Brown, Blake, Ayres, Lane, and Bennett.

The first order of business was the election of the Dean of the College. Professor Ayres (a staunch friend of Elias Cooper) was chosen and it was agreed that the Dean would also serve as Secretary and Treasurer of the Faculty. (In accordance with Faculty By-laws, later drafted by a Rules Committee chaired by Professor Gibbons: "The Dean shall be elected by ballot at the Annual Meeting in October, and shall hold his office until the election of a successor.")

The second order of business: "On the motion of Professor Morse, it was resolved that the Faculty as a body, assume in future, the expenses of issuing the Pacific Medical and Surgical Journal; it was also proposed that at as early a period as possible, the Journal and the S. F. Medical Press be united in one."[39]

The requirements for graduation from Toland College were the same as in the Cooper school, and in American medical schools generally. That is, the candidate must be twenty-one years of age; must have attended two identical annual lecture courses of four months each; must have studied medicine for three years (the terms of attending lectures included) under the direction of a respectable medical practitioner; must write a Medical Thesis; and must pass examinations.

The College opened on 5 November 1864 and Dr. Toland delivered the Introductory Lecture. The subject was "The History of Surgery." His concluding remarks made it clear that government sanction of the College was crucial and that he would seek local and state support for his school:[40]

> It was from (Dr. Valentine Mott) that I acquired the fondness for surgery which has enabled me to obtain the means with which this building was erected. It will afford the young men of California an opportunity to prosecute the study of medicine in their native State, and become familiar with the diseases which they will in future be required to treat, provided they be permitted to enjoy the advantages that the extensive Hospital of this city affords. Nothing can be learned simply by walking through its wards. (The Hospital) must be placed under the control of men who are capable, and who feel a deep interest in the welfare of the patients as well as the success of this Institution. That alone will stimulate them to prepare clinical lectures creditable to themselves, and instructive to the students.
>
> More is necessary than the erection of a building, the appointment of Trustees and Professors, to insure success. By referring to the compend which I have presented of the History of Surgery it will become apparent to all, that devotion and intellect availed nothing, so long as they were opposed by the populace and the authorities of the Government.
>
> If this College, which has been established at immense expense, ever becomes worthy of the great State of California, it will be accomplished by the untiring industry and perseverance of the Professors, aided by the fostering care and protection of the authorities of this city as well as the rulers of the State (emphasis added). They have now presented to them the privilege of sharing the disgrace of seeing this Institution languish for want of their protection, or the credit of enabling it to spring into usefulness, and become an ornament to the city and an honor to the State.

This statement of Toland's determination to place the College under the auspices of the State reveals the foresight and pragmatism that guided his founding of the Institution. He intuitively recognized that

the prestige and material support associated with State sponsorship would be the key to its survival and future development - and to his early relief from continuing financial responsibility to underwrite it.

Campaign for the City and County Hospital

Toland's first bid for public support was a petition to the Supervisors of the City and County of San Francisco for access to the patients of the City and County Hospital in return for free care by the Faculty. As we previously noted, Cooper requested access to the Hospital on similar terms in 1860 and was rebuffed by the Supervisors. When the Supervisors delayed action on Toland's request due to the opposition of some members of the Board including two prominent physicians, he mounted an aggressive editorial campaign in the Pacific Medical and Surgical Journal. Through the small subsidy granted by the Faculty at its first meeting, the Journal had been secured as the College mouthpiece and, for a time, served that purpose well.[41][42]

The following excerpts are from a series of Journal editorials by Editor Morse during the period from August through December 1864. The editorials were designed to keep pressure on the Supervisors of San Francisco to turn over patient care in the City and County Hospital to the Toland Faculty.

First editorial:[43]

> …In every city of the United States where there is a Medical College, the people and the authorities are forward to place at the disposal of the Medical Faculty such hospitals and dispensaries as can be of service in the clinical instruction of students.
>
> In New York, Philadelphia, Boston and Baltimore, the charity hospitals are not only put under the professional control of Medical Faculties, but the authorities emulate in seeing how far they can make these institutions judicious and beneficent means of making men competent for the practice of medicine. The Faculty of this contemplated School have tendered gratuitous services in the City and County Hospital of San Francisco, for those privileges of clinical teaching which are enjoyed in every Eastern school. Will the authorities grant this small favor…?

No response from the Supervisors. Second editorial:[44]

> Is there any reason why Medical Students should be driven to Eastern Schools of Medicine, while we have such a Metropolis as San Francisco, with its exhaustless supply of clinical elements, and such a wonderfully excellent climate for the prosecution of medical studies?…
>
> Now will San Francisco refuse to aid an effort which is now being made to found a school of medicine worthy of the State?…
>
> Will the Supervisors of San Francisco grant the facility which is tendered from every hospital in the principal Eastern cities, to similar educational efforts?…By the slightest effort upon their part, we can have the hospital over which they have control, devoted to the highest purposes of medical education. And thus would they evince a kindness which would be warmly appreciated, and at the same time practice an economy to the city which would secure them the approbation of their constituents…We make at any rate, one more appeal to them and the authorities generally, to appropriate the clinical facilities of the City and County Hospital to the College…

Will the Supervisors grant this small encouragement to an effort to build up a medical school which shall be of great benefit to the city and the medical profession?

Still no response from the Supervisors. The tone of the third editorial is more insistent:[45]

> A MONTH has now elapsed since a Medical College was opened in this city under circumstances which gave at once a guaranty of permanence and credit.
>
> At the commencement the Medical Faculty of the institution made a proposition to the Board of Supervisors to take the medical and surgical management of the City and County Hospital, and to furnish an unexceptionable resident physician and apothecary, without one cent of cost to the City, for the mere privilege of allowing medical students to see the practice of medicine and surgery, as they are permitted to do in every hospital of Eastern cities, where such schools are located.
>
> The petition was received by the Supervisors, and referred to a committee, where it is as effectually dead as if burned to ashes…

When by year's end there was no reply from the Supervisors, an exasperated Toland issued a veiled threat of opposition to their reelection - a threat that was far from meaningless when emanating from a citizen of his means and influence.[46]

> We desire it to be distinctly understood that the Faculty of the "Toland Medical College." made a proposition to the Supervisors of San Francisco, to take the City and County Hospital, furnish visiting Physicians and Surgeons, a resident Physician and an Apothecary, free of all cost to the tax-payers.
>
> It was referred to a committee, and has not elicited interest enough to gain the favor of a report.…
>
> We supposed there must have been some radical objection (to our offer) for as a saving to the City and County it would have been very considerable. A glance at the prices which the Supervisors are paying for the very services which the Faculty would have tendered for nothing, will show that the City and County would have saved nearly five thousand dollars annually.
>
> We do not think the Supervisors have exhibited their usual sagacity in rejecting an offer which, without any conceivable risk, would have saved so much money - nor do we believe that their record in this particular will be any special benefit to them when making up their claims for continuance in office.

In spite of Toland's persistence, the Supervisors frustrated his efforts to take over medical care in the City and County Hospital. However, beginning in 1865, clinical teaching was provided for Toland students by Drs. Holman and Soule of the Hospital Staff, just as the Staff had done for the Cooper students in 1863. It was not until 1871 that the Board of Health authorized the Professors of Toland College to take charge of the wards assigned to them by the Board.[47][48]

We have already referred to Dr. Toland's Introductory Lecture in which he demonstrated his preoccupation with gaining access to the City and County Hospital in order to provide clinical experience for the students. Except for continued disappointment on this account, progress during the first Session was gratifying. The construction of the new building and organization of the College were completed. The first course of lectures was concluded with the graduation of eight students and a Valedictory Address by Dr. Toland. In his remarks to the students he emphasized the ethical principles governing medical practice and relations with other physicians, and indicated by the following comment that control of the County Hospital was still very much on his mind:[49]

> All we have to regret is that the authorities of this city have not placed you under great and lasting obligations to them for their cooperation with us, in endeavoring to build up an institution that must succeed, and ere long will become an honor to the state; and for affording you the facilities for instruction to which as citizens you are justly entitled…You, the young men of California, by the exclusion of the Faculty, have been denied access to the public hospital of this city, by men occupying a position from which every petty private prejudice should be excluded for your benefit. .

In the Valedictory Dr. Toland also alluded to the "public" nature of the College building and appealed for community and student support of the College Library:

> In the erection of this edifice, I have neither asked for nor received assistance; and unlike most public buildings, it is not involved in debt. I have also furnished a chemical laboratory sufficient for its present wants. The building is now completed, but not a single book adorns its walls. You have consequently been deprived of all the advantages to be derived from that source. Yet I hope, through the united efforts of its friends, that ere long they may be covered with standard medical works. And, gentlemen, will not each and all of you, when success crowns your efforts, contribute in proportion to your ability, and prepare a niche in this institution which will bear your names and transmit them to posterity.

According to the following editorial by Dr. Gibbons in the Pacific Medical and Surgical Journal and Medical Press for April 1865, the former Cooper professors appeared at the end of the first Session of the College to be resigned to the extinction of the Medical Department of the University of the Pacific:[50]

> On the institution of the "Toland Medical College," last winter, a number of the Professors of the Medical Department of the University of the Pacific, accepted chairs in that College, and the course of instruction in the older school was suspended. It is not probable that the school will be continued or revived. There is neither necessity nor material for two Medical Colleges in California, and the attempt to maintain more than one might lead to such rivalry and contention as would be injurious to the profession and to the interests of medical science.

National Events

In the Spring of 1865, as the first Session of Toland Medical College drew to a successful conclusion, the Civil war entered its final stage. As we have suggested previously, it is unlikely that tension between Southern and Northern adherents in the medical profession was responsible for the demise of medical organizations in San Francisco and the State of California. In fact, Toland Medical College, founded by a Southerner from the flash-point State of South Carolina, was launched during the height of the War. It was for a time the only significant civilian medical organization in the State. It seems fair to credit a keen observer such as Henry Gibbons, Sr., with a correct diagnosis of the fatal affliction that led to the decline and disappearance of the early medical societies. In the following editorial on the subject, he does not mention North-South hostility as a factor:[51]

> Doctors are proverbially ungovernable. They appreciate order and discipline, but in others rather than in themselves. The germs of insubordination appear to be infused in the blood of the student by the dry bones and the cadaver of his novitiate. Given one-half the doctors in any community, to dictate and rule, and another half to submit, there will be perpetual harmony in camp. But the proportion of non-resistants is never so large as fifty per cent. In California, it is not much more than five. In the beginning, twenty years ago, it was still less. Society was then in its infancy - a villainous infancy, one might say. There was no medical profession properly speaking. .
>
> Medical societies were formed at (San Francisco) and Sacramento and several other places, and a State Society was organized in 1856. The latter flourished for a number of years, but finally received its death-blow in an attempt to expel a member (Elias Cooper) for some alleged misconduct. This is the rock, let me say, on which three out of four medical organizations have foundered. There are men in our profession everywhere who insist on making the Society a theatre for canvassing private or personal quarrels. It is in the power of a few individuals to destroy the harmony and usefulness of large bodies by such conduct…
>
> Profiting by the lessons of the past, Societies springing up more recently have taken care to shut out personal controversies, and have concentrated their labors on the culture of medicine…Present circumstances are highly favorable to a revival of medicine on the Pacific Coast.

The Civil War and its aftermath caused little disruption in San Francisco because soon after the first inauguration of the Republican President Lincoln in 1861 the California State Legislature, reflecting strong public sentiment, adopted resolutions firmly aligning the State with the Union cause and opposed to the Secessionists. Also in 1861 Leland Stanford, a committed Unionist, was elected as the first Republican governor of the State. The reelection of Lincoln on the Republican ticket in November 1864, and the defeat of the Democrats who supported the rebellion, led to an enthusiastic celebration in San Francisco.[52]

In April 1865, just after the close of the First Annual Session of Toland

College, General Lee was forced to retreat from the defense of Richmond, capitol of the Confederacy, and the city fell to the Union Army. Lee's surrender to Grant at the tiny village of Appomattox Court House in Virginia on 9 April 1865 marked the symbolic end of the war. President Lincoln's plans for reconciliation between the North and South were magnanimous and augured well for early restoration of a more perfect union. There must be no more bloodshed, no persecution, he said. And then, in a senseless act of violence, Lincoln was assassinated on April 14th. A brief outbreak of mob violence against Democratic newspapers in San Francisco, sparked by word of Lincoln's assassination, was the only major disturbance of the peace on the West Coast during the Civil War.

In the wake of the unspeakable tragedy of Lincoln's death, the Radicals in Congress gained control of the national government by appealing to the popular thirst for revenge. There followed the dozen years of reprisal by the North and resistance by the South known as the Reconstruction.[53]

Second Annual Session of Toland Medical College 24 July to 3 December 1865

The Faculty and the Board of Trustees decided to change the order of instruction from winter to summer with the Second Session to begin on 24 July 1865, and the third and subsequent Sessions to begin on the first of June. The principal reason for the change was the exceptional suitability of the cool summer season in San Francisco for medical studies.[54]

At the beginning of the Second Session, Dr. Toland again gave the Introductory Lecture. On this occasion he eulogized Valentine Mott who had died recently in New York (on 26 April 1865). He greatly admired Mott's technical virtuosity, referring to his ligation of the innominate artery as a famous operation, entitling him "to occupy the highest position as a surgeon." He deplored the unjust criticism Professor Mott endured from his enemies who accused him of egotism because he preserved and exhibited the ligature from the innominate artery to his class. Toland reminded the students that "it was not as a lecturer that (Mott) acquired his great and extensive reputation, but by his originality and dexterity as an operator" - an observation applicable to both Cooper and Toland himself.[55]

At the annual Commencement ending the Second Session of Toland Medical College, the M. D. degree was conferred on four graduates. The Valedictory Address by Professor Morse, enlivened by sarcasm and his usual eloquent delivery, was highly appreciated by the large audience of ladies and gentlemen. It was announced that the third Session of the College would commence on the first Monday of June in 1866 and terminate on the last day of September, thus presumably establishing the schedule to be followed in future years.[56][57]

Several faculty changes occurred after the end of the Second Session. Professor Brown resigned the chair of Anatomy by reason of ill-health and objections to changing his residence from San Jose to San Francisco. The chair of Anatomy was assumed by Dr. Lane whose chair of Physiology was taken by Dr. Ayres. The name of the Physiology chair was changed to Institutes of Medicine with the result that Dr. Ayres became Professor of Institutes of Medicine while his chair of Theory and Practice of Medicine was absorbed by Dr. Morse whose title became Professor of the Theory and Practice of Medicine, and Clinical Medicine and Diagnosis.[58]

Professor Oxland, having removed from California, relinquished the chair of Chemistry which was filled by the appointment of Thomas Price, M. D., Professor of Chemistry in the University (City) College of San Francisco, a gentleman of high standing in the community as a practical and theoretical chemist, and an efficient teacher of science. He proved to be compatible with the Cooper contingent on the Toland Faculty.[59][60]

Due to these changes, the Faculty stood as follows at the beginning of the Third Session:

Toland College Faculty 1866

H. H. Toland, M. D., President
Professor of Principles and Practice of Surgery

James Blake, M. D.,
Professor of Obstetrics and Diseases of Women and Children

Levi C. Lane, M. D.,
Professor of Anatomy

W. O. Ayer, M. D., Dean
Professor of Institutes of Medicine

J. F. Morse, M. D.,
Professor of the Theory and Practice of Medicine, and Clinical Medicine and Diagnosis

Thos. Bennett, M. D.,
Professor of General Pathology

Henry Gibbons, Sr., M. D.,
Professor of Materia Medica

Thomas Price, M. D.,
Professor of Chemistry

Third Annual Session of Toland Medical College 4 June to 2 October 1866

The Opening Address was delivered on the 4th of June by Professor Lane. His remarks revealed a nostalgia for the Cooper school not previously expressed openly and with such feeling:[61]

> Some seven years ago, there was founded in this city a Medical College, known as the "Medical Department of the University of the Pacific." This School, which, for a season, had a severe struggle for existence, to which it would have succumbed had it not been for the indomitable energy of its founder, finally outlived the opposition which had been waged against it, and attained to what seemed a permanent foothold among the literary establishments of this Coast. Under its auspices a number of young men were invested with the toga virilis of medical manhood, whose subsequent careers bear ample evidence of the correctness of their teaching, and whose professional success would be flattering testimonial to any Alma Mater. But, unfortunately, as the first sunbeams began to fall upon this infant edifice, the finger of death snatched from it the master spirit to whom it owed its foundation. The ashes of its founder, the late Dr. Cooper, now repose beneath a simple obelisk in the adjacent city of the dead; - the structure which he had reared, no longer sustained by his inspiring energy, like an arch bereft of its keystone, did not long survive him.

Dr. Lane also had the following complimentary words for Dr. Toland, suggesting thereby that the Cooper group was at the time satisfied with conditions at Toland College:

> At that period, now near two years ago, a gentleman of this city, whom fortune has singularly favored in his profession, and who had long ago conceived the plan of founding a Medical School on this Coast, now deemed the occasion a fortunate one for executing his long-cherished project. The experience of the previous school had already demonstrated the fact that such an institution was one of the wants of the Pacific States; and in establishing it, he determined that, in thoroughness and completeness of teaching, it should leave nothing undone to fit young men for the practice of Medicine; in fact, that it should rival the best of similar institutions in the Atlantic States.
>
> As pecuniary embarrassments have frequently blighted the prospects of several of our Eastern Medical Schools, to forego all misfortune from this cause, and set an example which few could and still fewer would imitate, he erected a building at his own expense, which could not have been little, from the manorial character of the edifice we today occupy. This done, he chose a Faculty and a Board of Trustees, and to the latter he confided the care of the Institution, which, in justice to him as founder and donor, has been named Toland Medical College. And further, as evidence of his disinterestedness, he has remitted all the fees pertaining to his Chair, that of Surgery; and besides, that the school should lose everything of a private character, he has bequeathed it wholly to the State of California, a magnificent gift to her and the Science of Medicine; and, if I predict aright, it is destined to be, in the future, the cherished resort of the young men of our State, who may desire to qualify themselves for the practice of our noble profession.

At the Annual Commencement of the third Session on 2 October 1866, the degree of Doctor of Medicine was conferred on ten graduates. The Valedictory Address by Professor Bennett, deemed "exceedingly appropriate and eloquent," was delivered to an attentive audience, most of whom were ladies, which completely filled the hall.

Dean Ayres Resigns, Professor Bennett Elected Dean

Professor Ayres resigned the deanship and his professorial appointment with regret because his absence from the city during the forthcoming Session would make it impossible for him to perform the duties of these positions. The following minutes of the Toland Faculty Meeting of 17 April 1867 deal with the question of his replacement:[62][63]

> The President announced that he had verbally received from Dr. Ayres his resignation of the Chair of Physiology and his office of Dean of the Faculty. The announcement was received and accepted.
>
> Dr. Bennett nominated Dr. J. Campbell Shorb to fill the Chair of Physiology. Dr. Blake seconded the nomination. Dr. Gibbons nominated Dr. James P. Whitney . Dr. Morse seconded the nomination. On vote being taken, Dr. Shorb was elected.
>
> On motion of the President, the Faculty then proceeded to elect a Dean. On the first vote Drs. Lane and Bennett had a tie vote. On the second vote, Dr. Bennett was elected.

The election of Dr. Shorb to succeed Dr. Ayres as Professor of Physiology, and of Professor Bennett to replace him as Dean was considered by the respected historian of California Medicine, Henry Harris,[64] to be evidence of a developing rift between partisans of the late Cooper, namely Lane, Gibbons, Morse and Price, and the other members of the Toland Faculty. While It is difficult to find in the collected minutes of the Toland Faculty significant evidence of dissension, such records being usually sanitized, we shall soon see that Dean Bennett did not hesitate to publicly demean his colleague, Dr. Gibbons. Such unkindness was more than suggestive of tension among the professors.

Fourth Annual Session of Toland Medical College 3 June to 10 October 1867

The session opened with an Introductory Lecture by Professor Gibbons who could always be counted on for entertaining as well as cogent remarks. He concluded the Lecture by urging the importance of overcoming popular opposition to dissection of the human body for scientific purposes:[65]

> The same irrational prejudice which would prohibit all dissections of the dead body, also interferes with examinations after death for the purpose of ascertaining the seat and nature of disease. Physicians should strive to educate the popular mind on this point by making examinations whenever practicable…Let me urge the propriety of making post mortem examinations in all cases where consent can be obtained. To young physicians is this especially important. It familiarizes them with the use of the scalpel, and perfects their knowledge of Anatomy, to some extent. It imparts knowledge, positive or negative, in regard to disease. It familiarizes the popular mind to a great necessity of science.

The graduation exercises of the Fourth Session were held in the American Theatre on the evening of 10 October 1867. Seven graduates were awarded M. D. degrees. Professor Blake, who had been appointed to deliver the Valedictory Address, lost his voice from an attack of bronchitis. He therefore requested that the Valedictory be read for him by Professor Bennett who was also now the Dean, having been elected just prior to the Session to succeed Dr. Ayres.

At a meeting of the Toland Medical Faculty on 5 November 1867 Professor Bennett was reelected as Dean of the College, his first term having expired in October.

Fifth Annual Session of Toland Medical College 6 July to 5 November 1868

Beginning with this Session, the opening date of the Lecture Course

was again changed. This and future Sessions were scheduled to begin on the first Monday of July instead of June as formerly. It was reasoned that it would still be possible with the July start date to complete the four months' course before the beginning of the winter rains. The Fifth Session opened with an Introductory Lecture by Professor Price.[66][67]

At the Commencement exercises on November 5th 1868, Professor Morse delivered the Valedictory Address to a large and interested audience, a considerable proportion of which was composed of Ladies. After the Address Dean Bennett conferred degrees on six graduates.[68]

During the Fifth Session there was an extracurricular development that deserves comment. Internecine strife within San Francisco's medical community seemed to abate with the demise of the medical societies which provided the venue for the factional disputes with which we are already familiar. Also conducive to a more collegial atmosphere was the merging in 1865 of the Pacific Medical and Surgical Journal and the San Francisco Medical Press under the editorship of the refined and scrupulous Henry Gibbons Sr. He was joined by his able son, Henry Gibbons, Jr., as Associate Editor in 1867. Under the management of these diligent and respected medical journalists, the Pacific Medical and Surgical Journal acquired the national respect it could not enjoy while being used for unseemly personal attacks such as those of Wooster on Elias Cooper and of Stillman on Toland.

We mentioned previously that the Faculty of Toland Medical College voted a subsidy to the Journal in 1864 to assure ample favorable attention to College affairs. That subsidy was discontinued in 1867. Although Editor Gibbons did not exercise his editorial pen vigorously in promoting the College, such matters as schedules of Annual Sessions, lists of graduates, Faculty changes, Introductory Lectures and Valedictory Addresses were adequately reported. Proceedings of the renascent medical societies such as the San Francisco Medical Society which Dr. Gibbons was anxious to encourage were well covered and physicians in the region were stimulated to submit original articles. Under the editorship of the Gibbonses, the Journal thus assumed a non-partisan, intellectual tone with journalistic invective and the airing of professional rivalries strictly proscribed.[69]

In the Summer of 1868, when the Journal was prospering and gaining distinction as the sole voice of the profession on the West Coast, a new monthly publication appeared in San Francisco, the California Medical Gazette. The Editor of the Gazette was none other than Professor (and Dean) Thomas Bennett. First Assistant Editor was Professor J. Campbell Shorb. Both were, of course, colleagues of Professor Gibbons on the Faculty of Toland Medical College. It has been inferred from voting behavior in Faculty meetings, and Lane's loss in his bid for the deanship, that there was polarization within the College Faculty. If so, the gravity of the schism was not fully apparent until Dean Bennett introduced the first issue of the Gazette with a "Salutatory" containing disparaging remarks about the Journal. This critique reflected unfavorably on Editor Gibbons who took stern exception to it. The following excerpts from the Salutatory include the objectionable comments:[70]

> For some years past, the profession has not been without an organ, in which they could disseminate their opinions, and mutually convey and receive instruction. A medical journal has in fact been published in San Francisco for ten years (i. e. the Pacific Medical and Surgical Journal). From various causes, which it is unnecessary to mention, this journal has never met with cordial support or cooperation from the profession; its career has never met with success. Nevertheless, under varying vicissitudes and many editorial changes, it has lived on - today, certainly, brighter and better than at any former portion of its existence. Still it does not, and never has, worthily represented the profession on the Pacific Coast.
>
> With this feeling, and in the earnest hope and desire to produce a journal that shall be worthy of the medical profession here, and represent it properly abroad, we have been induced to issue the California Medical Gazette.

To this pompous indictment of his Journal, Professor Gibbons responded at once with an editorial in the August 1868 issue:[71]

> …Certain it is that the several editors of the Journal, and its contributors and patrons, have done nearly all that has ever been done in California for medical association, medical education and medical literature. And it illy becomes those who have been sleeping at their post whilst the work was going on, and who now step in to reap a harvest which they did not plant, to fling discredit on the old and faithful laborers in the field…
>
> To be forced into these personal matters is extremely distasteful to us. It is the first time we have ever received any other treatment from a contemporary than kindness and courtesy. We have never had a word to say against another journal, or against members of the profession. Nor have we been in the habit of lauding ourselves and assuming to be the exclusive representatives of the profession. But we now take the liberty to assert that our Journal does represent the profession of the Pacific Coast and is in harmony with it, excepting a few individuals in San Francisco who are actuated by motives of personal character by no means creditable to them…

Editors Bennett and Gibbons then both issued rebuttals, each claiming the high ground. These exchanges of unpleasantries set the stage for more serious contention over larger issues to be addressed in the second and final volume of the short-lived Gazette. Senior Editor of Volume 2 (September 1869 through August 1870) was the acid-penned J. D. B Stillman, who now assumed the role of defender of the Toland Medical College whose founder he had previously accused of plagiary.[72][73]

Sixth Annual Session of Toland Medical College 1 July to 3 November 1869

Professor Shorb delivered the Introductory Lecture on the subject of the "Benevolence of Medicine" which was printed in full in Volume I of the California Medical Gazette. In referring to the triumphs of medicine, Dr. Shorb cited quinine, opium and chloroform as among medicine's most significant benefactions to mankind. His representation of chloroform as the agent responsible for the advent of anesthesia was particularly unfortunate. He did not so much as mention ether and was apparently unaware that the Pacific Medical and Surgical Journal (and other medical journals world-wide) had for years reported the lethal properties of chloroform and the relative safety of ether. As recently as January 1868, in an editorial in the PMSJ, Dr. Henry Gibbons, Jr., had warned that the high incidence of death from chloroform represented a fearful mortality and "shows also the magnitude of the responsibility which those who persist in giving chloroform take upon themselves, when a far safer anesthetic, equally reliable, is at hand."[74][75][76]

Not content to drop the subject, Dr. Stillman got out of his depth and wrote an editorial entitled "Chloroform Versus Ether" in the May 1870 issue of Volume 2 of the Gazette. He implied that the danger of chloroform was probably no greater than that from ether, and stated that it is fear of the operation which produces the physiological conditions conducive to death from anesthetics. "When the patient has no fear for the operation, I have none in administering chloroform." Paradoxically, Stillman followed his editorial with a report from the British Medical Journal of a 22 year-old woman under operation for ovarian tumor. Sir James Y. Simpson, who originally introduced the agent, was administering chloroform himself while a colleague performed the surgery. Sir James placed over both nose and mouth a single layer of towel and on it dropped chloroform - a method likely to prevent adequate ventilation. In the midst of the operation, as he watched from the head of the table, the patient suddenly collapsed and could not be resuscitated. A not untypical sequence of events in the many fatalities then attributable to chloroform. To his credit, Sir James fully and frankly reported the tragedy, with not the slightest evasion, as "a case of death from chloroform."[77]

Even as the May issue of the Gazette went to press, the world-acclaimed Sir James was mortally ill. He died on 6 May 1870. His last medical writing was a letter to Dr. Jacob Bigelow of Boston with whom he was engaged in controversy over chloroform vs. ether. Like many of his contemporaries, Sir James not only found it difficult to accept the prohibitive lethality of chloroform, but also could not adjust to other developments in the rapidly changing times. For example, To the very end Sir James persisted in his rejection of the Listerian doctrine of antisepsis.[78][79][80]

Illness of Professor Morse

During the latter part of the Sixth Session, Professor Morse was obliged to leave the city and go abroad because of ill health, thus depriving Lane, Gibbons and Price of a valued colleague. In January of 1870 Dr. Morse was reported in the PMSJ to be in Naples, much improved of his rheumatism.[81][82]

University of California Opens

On 23 September 1869 the University of California admitted its first class consisting of about forty students under the instruction of a Faculty of ten members. The University had its remote origin in a small secondary school known as the College School, established in Oakland in 1853 by the visionary Reverend Henry Durant. It is said that the Reverend came to California "with college on the brain," and that he left his Congregational parish in Byfield, Massachusetts, for the West "with the purpose of founding a university fully formed in his mind." The College School was succeeded by the post-secondary College of California in 1860. Through negotiations, which included ceding its properties consisting of real estate in Oakland and vacant land in Berkeley, the College of California was taken over by the State and became the University of California. The Charter of the University was signed by Governor Haight on 23 March 1868. The University classes met in the Oakland facilities of the College of California from 1869 until the graduation of the class of 1873 when commencement exercises were held in the new university buildings then nearing completion at the present site in Berkeley.

The first Professor to be appointed to the University was John Le Conte, M. D., graduate of the College of Physicians and Surgeons in New York. He was a man of broad scientific interests who no longer practiced medicine. His appointment at the University of California was as Professor of Physics. At the time of this appointment he was serving as Professor and Chairman of the Department of Physics in South Carolina College at Columbia. Upon arriving in California in March 1869, Professor Le Conte was given the responsibility to organize the University for its opening in September and on 14 June 1869 he was named Acting President. We shall later see how he came to join the medical faculty of Hugh Toland as Professor of Physiology in 1870. Dr. Toland was also a former resident of Columbia, South Carolina.

On 16 August 1870 Reverend Durant, founder of the predecessor College School, was elected first President of the University. Upon his retirement the able Daniel C. Gilman, of Yale background, was formally installed in Oakland as the University of California's second President on 7 November 1872.[83]

Professor Lane's Valedictory

The Commencement exercises concluding the Sixth Session of the Toland School took place on the third of November 1869. Dean Bennett awarded nine medical degrees. Professor Lane delivered the Valedictory Address, a wide-ranging view of medicine in antiquity and literature, interspersed with classical allusions and concluding with an inspirational charge to the graduates:[84]

> Equipped, then, Gentlemen, with these principles of science and virtue, you will go forth to the world upon no uncertain mission; a high and noble sphere will be yours, since to you suffering humanity will ever turn its eyes for aid and relief. Now, as your Alma Mater bids you adieu, she would fain say, as she clings to you in parting, never prove unworthy of the great profession into which, this day, as equal members, she has introduced you; and, though Fame as yet sounds no note in your behalf, still, if you will turn your ears and listen closely, you will catch the sounds of her trumpet echoing from the early-coming years.

Even as he spoke, Professor Lane was privately contemplating his own departure from the Toland College. He had not found there the collegial spirit and institutional goals that still held the members of the former Cooper Faculty in patient expectation, awaiting the call to revive the old school.

Endnotes

1. Minutes of the Board of Trustees, University of the Pacific, during the period 16 September 1858 to 15 December 1863 - Box 1 Folder 1.4 (final 16 cards), Robert G. Whitfield Collection - MSS 30, Lane Medical Archives, Stanford
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Chapter 21. Revival of Medical Department University of the Pacific 1870

Founding of Medical Department University of California 1873

On the evening of May 23rd 1870, barely six weeks before the scheduled opening of the Seventh Annual Session of Toland Medical College, an historic meeting was convened in the office of Dr. Gibbons at 26 Montgomery Street, San Francisco. Those present were Drs. Henry Gibbons, Levi Lane, Thomas Price, Beverly Cole and Henry Gibbons, Jr. The minutes of the meeting read:[1]

> Drs. Gibbons, Lane and Price announced their intention to resign within a few days from the Faculty of Toland Medical College, if it were decided to revive the old Medical School.
>
> After some conversation as to the best course to pursue, Dr. Gibbons moved that it be considered expedient to revive the Medical Department of the University of the Pacific. Seconded by Dr. Cole and carried unanimously.

Following this meeting, Drs. Gibbons, Lane and Price submitted their resignations from the Toland College.

Dr. John F. Morse, who was still recuperating in Europe, elected to join Drs. Gibbons, Lane and Price and sent his letter of resignation to Dr. Toland from there.[2][3]

We do not know what precipitated the decision of Drs. Gibbons, Lane, Price and Morse to resign. Dr. Gibbons was diplomatically vague: "Several years have elapsed, and the hopes entertained by the (Medical Department) Faculty when they withdrew from the field have not been realized." There are also "additional causes," he said, which it would be unprofitable to mention.

We can only speculate as to the "additional causes" which led to the abrupt exodus of the Cooper followers. It is reasonable to assume that Drs. Lane and Gibbons were deeply offended by the disdain with which Cooper's pioneer school and its lingering shadow within the Pacific Medical and Surgical Journal were viewed by Toland, Bennett and others like-minded. Gibbons and Lane resented being considered outsiders, invited to join the Toland Faculty only at the behest of the Cooper students whose loyalty, incidentally, they still retained. As the years passed, it became increasingly clear that the Toland School was simply an extension of the bitter factional rivalry that Cooper endured. They suspected that Toland and his inner circle had two goals in mind: to be rid of the last vestiges of the Cooper institution (including the former Cooper professors), and to acquire the imprimatur of the State of California for the Toland College. When Lane and Gibbons were finally convinced of these aims, they acted decisively to revive the Cooper school to whose ideals of sound learning and independence they were still committed.[4]

Special News Bulletin

We interrupt the narrative here to interpose, without comment, two items of "Personal News" that appeared in PMSJ for May 1870:[5]

> The (first) State Board of Health, as appointed by Governor Haight, consists of Drs. T. M. Logan and J. F. Montgomery, of Sacramento; H. Gibbons, Sr., and L. C. Lane of San Francisco; etc. The Board met at Sacramento on 22 April 1870 and elected Dr. Gibbons, President, and Dr. Logan, Secretary.
>
> Dr. L. C. Lane, of San Francisco, was married on the 16th of March 1870, to Mrs. P. C. Cook, of the same city. (At the time of their marriage, Dr. Lane was 41 and. Mrs. Cook was 33 years of age.)[6]

Reorganization of the Medical Department, University of the Pacific

As a memorable example of patience and loyalty, all seven physician-members of the Faculty of the Medical Department, as it stood at the conclusion of the Sixth Session of the Department in 1864, promptly responded to the call to reunite. Once the decision was made to reopen the school, reorganization proceeded at a hectic pace, with Dr. Gibbons assuming the major role in planning. The Faculty met five times during the last ten days in May 1870, and five times in June to elect officers; recruit five new members; design the curriculum; acquire facilities; publish announcements; and reinstate the Medical Department with the Board of Trustees of the University of the Pacific. All meetings were held in the office of Dr. Gibbons.

Faculty

It was rapidly determined that the reorganized Faculty would consist of the following twelve professors:[7]

Faculty Medical Department, University of the Pacific 1870

A. J. Bowie, MD, Emeritus Professor of Surgery, and President of the Faculty

J. F. Morse, MD, Emeritus Professor of the Principles and Practice of Medicine

J. P. Whitney, MD, Emeritus Professor of Physiology

Henry Gibbons, M. D., Professor of the Principles and Practice of Medicine, and Clinical Medicine

L. C. Lane, M. D., Professor of Surgery and Surgical Anatomy, and Clinical Surgery

Edwin Bentley, M. D., Professor of Descriptive and Microscopic Anatomy and Pathology

R. Beverly Cole, M. D., Professor of Obstetrics and Diseases of Women

Isaac Rowell, M. D., Professor of Diseases of Genito-Urinary Organs, and Orthopedic Surgery

C. N. Ellinwood, M. D., Professor of Physiology

W. F. Smith, M. D., Professor of Ophthalmology and Otology

Thomas Price, M. D., Professor Chemistry and Toxicology

Henry Gibbons, Jr., M. D., Dean, Professor of Materia Medica and Therapeutics

The Faculty now included five more physicians than when the school was inactivated in 1864. The new members were Drs. Bentley, Smith, Price, Ellinwood and Henry Gibbons, Jr. We know little of Drs. Bentley and Smith except that the former received an M. D. from the University of the City of New York in 1847, and the latter from Miami Medical College, Cincinnati, in 1868. We have already met Dr. Price as Professor of Chemistry in Toland College. He is listed as an "M. D." in both Toland College and Medical Department announcements but we can find no record of his medical degree or of his having engaged in medical practice. Dr. Ellinwood probably arrived in San Francisco after 1859 for he is not listed in the California State Register for that year[8], but he is recorded in the San Francisco News Letter for 10 July 1875 as a graduate of Rush Medical College, Chicago, in 1858.[9] Dr. Ellinwood will come later to our special attention when he succeeds to the Presidency of Cooper Medical College upon the death of Dr. Lane in 1902.

Henry Gibbons, Jr. (1840-1911)

Of all the new recruits to the Faculty, the thirty year-old Henry Gibbons, Jr., (1840-1911), graduate of the Medical Department of the University of the Pacific in 1863, contributed most to the school in the long term. He was elected Dean at the Faculty meeting held on 1 June 1870, and served in that capacity with a kindly proficiency until his death forty-one years later.[10]

Curriculum

The primary reason for expansion of the Faculty was to improve coverage of recent advances in the science and practice of medicine, with special reference to Microscopic Anatomy and Pathology (Professor Bentley); Ophthalmology and Otology (Professor Smith); and Genito-Urinary Diseases (Professor Rowell).

In keeping with the national movement to raise the standards of medical education, the Faculty lengthened the term of instruction from four to five months (July through November) with a vacation of two weeks late in the term. This increase in the duration of the term was, of course, a very modest advance and fell far short of the changes being advocated by the American Medical Association to which we have previously referred.[11]

Requirements for graduation

These continued to be the same as in preceding years except that the candidate now also "must have attended at least one course of practical anatomy in the dissecting room."[12]

Fees

The fees for the 1870 Session were set to conform with those of the Toland Medical College and were slightly lower than in 1864:[13]

Fees for the Full Course:	$ 130 (formerly $140)
Matriculation Fee (paid but once):	$ 5
Graduation Fee:	$ 40 (formerly $ 50)
Demonstrator's Ticket (dissection fee):	$ 10

Facilities

Arrangements were made for the lectures to be given in the Chapel of the University (City) College. The Chapel was located on Stockton Street, south of Geary, adjoining the extensive laboratory of Professor Price which was employed to illustrate the chemical lectures. Ample means for dissection were provided and the wards of St. Mary's Hospital were, as before suspension of the school, made available for clinical instruction.[14]

Annual Session for 1870 Medical Department, University of the Pacific
5 July to 7 December[15]

The stage was now set for a protracted contest for supremacy in medical education in the West between the Medical Department of the University of the Pacific and Toland Medical College. As we shall see, the rivalry between the two schools (and their successors) continued - in varied form and degree - until one of them moved to the Stanford campus some ninety years later.

The competition for students between the Medical Department and the Toland College began at once. Editor Stillman of the California Medical Gazette weighed in urgently with advice on the subject:[16]

Toland College. Owing to a misunderstanding in the Faculty, the merits of which we know nothing, Professors Morse, Gibbons, Lane and Price have resigned their chairs. We understand that these gentlemen are to reorganize the medical department of the University of the Pacific. There is no necessity for two medical schools on this coast, and we hope the students will have the good sense to carefully investigate the merits of the quarrel in the Faculty, and support by their united presence the gentlemen whom they consider in the right. If the students make the great mistake to divide, they will but prolong a struggle productive of no good, and which must sooner or later end in the suspension of one school. We earnestly urge the students to support unanimously, one or other of the schools.

The students took Dr. Stillman's advice. However, in view of his partiality to the Toland School, their decision was a considerable surprise and disappointment to him. All of the students but one left the Toland College and matriculated in the Medical Department of the University of the Pacific where the Class of 1870 consisted of twenty-five students.[17][18][19]

Dr. Gibbons, Sr., gave the Introductory Lecture for the Medical Department on 5 July 1870 and took this opportunity to challenge Toland on another front. He knew that Toland was negotiating to have his College adopted by the recently established University of California as its Medical Department. Toland foresaw that such a move would improve not only the academic stature of his College but also the prospect of future political and financial support from the State. Gibbons, claiming that the government should not favor one medical school in the State over another, proposed that the University of California should serve only an impartial quality-assurance function such as that performed in England by London University where medical examinations were conducted and degrees conferred by a Board under the supervision of the University, whereas medical teaching was carried out in the various medical schools of the country. We shall return shortly to the recommendation along these lines submitted by the Faculty of the Medical Department to the Regents of the University of California.[20]

Medical Department versus Toland Medical College

A life and death struggle for survival between the Medical Department and the Toland School began during the Session for 1870 and continued through 1873. In order to follow the complicated maneuvers of the two schools during this critical period, about which there is considerable confusion in the literature, we shall at this point provide a chronological account of the major events in the contest.

Toland Medical College Reorganizes and Appeals to the University of California

The resignation of Professors Gibbons, Lane, Price and Morse, and the desertion of all but one of the students to the Medical Department, was for Toland a serious reverse. According to a later account of the events, "Dr. Toland besought Drs. Lane and Gibbons to let bygones be bygones and to come back into the Toland school, but it was characteristic of both these strong men not to retrace a step once taken - and besides they had the students."[21]

The letters of resignation from Drs. Gibbons, Lane and Price were reported to the Toland Faculty at the meeting for June 1870 as follows:[22]

Letters were read from Drs. Lane, Price and Gibbons tendering their resignations and assigning no reason therefor.

On motion the resignations were accepted.

During this meeting, Dr. Toland seized the opportunity to appoint to his decimated Faculty two professors from the University of California who could aid substantially in establishing ties with the University. Professor John Le Conte, chair of Physics and Acting President of the University was appointed as Professor of Physiology, replacing Dr. Ayer. Ezra S. Carr, also a professor in the University, was appointed Professor of Chemistry, replacing Dr. Price.

Also during this meeting:[23]

> (Dean Bennett) was instructed to petition the Regents of the University of California to receive the Faculty and School of Toland Medical College by affiliation as the Medical Department of the State University and to offer a conveyance by Deed from the Faculty, of their land, college and its appurtenances to the Regents on behalf of the University.

Concurrently, the Board of Trustees of Toland Medical College, through its President, John B. Felton, and its Secretary, Ira P. Rankin, informed the Regents of its readiness to convey the College property, represented by valuable improved real estate including the new College building in the City of San Francisco.[24]

Counter Proposal from Medical Department, University of the Pacific

At a meeting of the Medical Department Faculty on 9 July 1870, the contemplated union of the Toland School and the University of California was discussed and a committee was appointed to confer on a plan of action. At the Faculty meeting on 18 July, Dr. Gibbons read the following statement which was signed by all members of the Faculty and submitted to the Regents of the University. Dr. Stillman published the entire statement in the August 1870 issue of the Gazette, and added his pungent comments:[25]

> To the President and Board of Regents of the University of California - The Faculty of the Medical Department of the University of the Pacific beg leave to submit to your consideration the following statements and suggestions in regard to medical degrees and medical education in the State of California:
>
> The facility with which degrees are obtained in many American medical Colleges has lowered the standard of education in medicine and much impaired the value of a diploma as a criterion of professional qualification. For a number of years the earnest educators of our country have labored to correct the evil so that a diploma shall be what it proposes. But in the old States, where the schools have been long established, it is almost impossible to effect any radical change in this respect; nor is it at all probable that much improvement will take place so long as each school has the power of conferring degrees on its pupils. We believe an opportunity is now offered, through the University of California, to make a thorough reform on this coast by providing that all medical degrees shall issue from one common source, under the authority of the University.
>
> We, therefore, propose that the University shall take such a position as will enable it to control this entire question. It may not be practicable to carry out the movement at once. But such steps may be taken as shall lead to the establishment of an Examining Board, independent of all medical schools, through which all candidates for graduation, from whatever school, shall receive the diploma of the Medical Department of the University of California.
>
> This is the system in operation in the University of London, which is not connected with any educational institution but which stands as an independent and impartial body, examining candidates from the several medical schools of London and elsewhere, and

granting diplomas which are universally acknowledged to be an evidence of thorough professional attainments. So satisfactory has been the working of this system that an organized effort is now on foot to place all the medical schools of Great Britain under one common head in this respect, and thus to establish a uniform basis of medical education for the whole kingdom. If this could be done for America, it would be a rich blessing, both to the profession and the community. It is in the power of the University of California to take the initiative in the movement, and not only to confer a signal benefit at home, but to set an example which cannot fail to extend its happy influence to other States of the Union.

There may arise some difficulties in carrying out the proposed plan. But the same may be said of all progressive and reformatory movements. If the Board of Regents should see no way for present action; they can, at least, refrain from any step which will tie their hands and restrain their freedom in the future.

We take the liberty of suggesting to the Board of Regents, that the adoption by them of the Toland College as the exclusive Medical Department of the University, would not only deter them from hereafter taking an independent position on this question, but would be an act of manifest unfairness and injustice toward the Medical Department of the University of the Pacific. This is the oldest medical school in California, organized in 1858, under a charter from the first University ever established on the Pacific coast. It struggled through adversity and opposition and, by the unpaid labor of years, proved itself worthy of the success which finally crowned its efforts.

At this juncture the Toland College stepped in to reap the harvest planted by its predecessor. The Faculty of the old school felt that their services in the cause of medical education, and their claims on the profession and on the public, ought not to be thus ignored by their confreres. But rather than exhibit to the world the picture of two schools contending for patronage not sufficient to compensate one, and dividing and distracting the profession in California and still further debasing - it might be - the standard of education, they determined to avoid contention by suspending operations. Most of them, on invitation, attached themselves to the Toland school, and gave it an honest and hearty support.

After several years of trial, for reasons to them satisfactory and cogent, they have withdrawn and re-organized the Medical Department of the University of the Pacific. This reorganization has been effected by the old and well tried teachers, and with all the equipment necessary for a complete course of medical instruction, and such as are not possessed by any other school on this coast. Their present class comprises a large majority of the students. They feel that they enjoy the confidence of the profession and of the community. They do not, however for these or any other reasons, claim endorsement or support from the University of California. But they may certainly protest against the University, as an independent and impartial body, representing the entire State, and supposed to act with a single eye to the promotion of every educational enterprise, giving its name and patronage exclusively to a rival institution and making itself a party adverse to the pioneers in an important department of education.

Respectfully, etc. (signatories not listed)

The following editorial remarks by Dr. Stillman are no less than an extended diatribe against the Cooper school. While granting that the suggestion for a Medical Board under the aegis of the University of California was well worthy of consideration by the Regents, he denied that the gentlemen who proposed it were sincere, and claimed that their sole purpose was to prevent an affiliation between the University of California and the Toland College.

> We have no patience with the series of falsehoods with which the last half of the protest (from the Medical Department of the University of the Pacific) is made up. It requires an immense amount of cheek to stand up in this community and say that "they enjoy the confidence of the profession and of the community" in their capacity as a medical school. There is and always was a deeply-rooted contempt for what was known as the "Medical Department of the University of the Pacific," alias the "Mission Street School," alias "The Cooper Shop," and for the requirements of the recipients of its diploma. The community still suffers from the infliction of them as medical men upon it. Some of them are recognized as worthy and intelligent members of the profession, but their qualification is due to their own energy of character, and opportunities outside of, and in spite of their college disadvantages…
>
> We are not willing to allow history to be so falsified as is done in this memorial, and as evidence of the truth of what we assert respecting this Medical School, we refer to the Pacific Medical and Surgical Journal, Vol. II, page 497, et seq., for what was eleven years ago the true expression of the public sentiment of the profession respecting it. We make room for the following sentence only: "We hope our Atlantic brethren will not be deceived; the Pacific Medical College is now a legitimatized sham - a legal humbug, a chartered advertising medium for the man of whose advertisements we have spoken above. The College is in his infirmary, and all the appurtenances thereunto belonging."
>
> As it was in the beginning it continued to be till the death of its founder, when it lingered a miserable existence for a short time, until Dr. Toland erected the fine building which bears his name, established the school and obtained a charter…
>
> The University of the Pacific redivivus is composed of the surviving elements of the old one with some respectable additions who are uninformed of the status of the old school, and have been drawn into a movement that can result in no good to them or serve any good public purpose. It originates in jealousy and revenge, in a rule-or-ruin disposition, in which no one outside of their own clique has any sympathy. The objections that have been urged by many of our most respected physicians against the Toland College cannot be urged by the bolters from it…
>
> The University of the Pacific has only an existence on paper; like many of our celebrated mines, it was merely a preemptors claim, staked out, but never improved, and it has not the vitality to throw off any parasitical club that may seek to work under its charter, much less to influence its character or control its conduct - it is therefore wholly irresponsible…

There is further criticism along the same lines, but the above selections from his lengthy editorial are sufficient to demonstrate that Stillman, in addition to his inflated perception of himself as spokesman for the local profession, was mesmerized by Toland's fine building and by the assumed advantages to the public of the Toland School's union with the newborn University of California. In his attack on the Medical Department of the University of the Pacific, Stillman was so arrogant and defamatory that Gibbons, Sr., felt obliged to reply at once to the gratuitous libels so reminiscent of the anti-Cooper cabal. The following are excerpts from Gibbons' editorial entitled "Slander Repelled" published in the September 1870 issue of the Pacific Medical and Surgical Journal:[26]

> It is with great reluctance that we deviate from our settled policy on the present occasion, for the purpose of noticing an unprovoked and malevolent attack made by the editor of the California Medical Gazette, on the private and professional character of a large number of gentlemen, including the Faculty and graduates of the Medical Department of the University of the Pacific.
>
> The occasion for the attack was a communication made to the Regents of the State University, by the Faculty, urging them to organize the medical department of that University distinct from any medical school, and to appoint an impartial board of examiners for conferring degrees, so as to take away from all medical schools the power of granting diplomas. The assailant denounces this document as containing "a series of falsehoods," and its signers as having "an immense amount of cheek," "audacity," "jealousy and revenge," "a rule-or-ruin disposition," and so forth. He speaks of the "scorn which they could not have failed to read in the faces of all right-minded men at home, and whom they have had to confront in their daily rounds." He says there is, and always was, a deeply-rooted contempt for the school and its graduates. And as "evidence of the truth" of this assertion, he quotes from the Pacific Medical and Surgical Journal, eleven years ago, when the school was but just founded, an article abusive of its founder, written, as he well knew, by an individual who was engaged in an acrimonious public quarrel with Professor Cooper.
>
> How much confidence the editor placed in the Journal as authority, may be inferred from the fact that, near the same time, he published a pamphlet attacking its then proprietor, the first sentence of which was an apology to all "gentlemen" for having allowed himself to write an article for it. And now he quotes it to bolster his slanders! The worst feature of the case is, that Cooper, the special subject of vilification, has been in his grave many years. By common consent, his foibles have been forgotten, and his sterling merits alone remembered. There are few men with so much venom in their hearts as to violate the sanctity of the tomb in such a case for the sake of gratifying a vindictive spirit.
>
> It is not our design to answer in extenso the defamatory charges of the editor. In publishing the communication to the Board of Regents, common honesty required the names of the signers to be appended (which Stillman failed to do). But this would have more than neutralized his impeachment of them, and the names were therefore omitted. Perhaps we lack charity in judging him so harshly, without making allowance for an infirmity of temper, which may render it impossible for him to dwell in harmony with the profession. His attack on the San Francisco Medical Society will not be forgotten by the members. The American Medical Association has received its share of his abuse. Now the large and influential denomination having in charge the University of the Pacific, are informed that they are playing a false part, and that the institution has no existence except on paper! After this, the Medical Faculty and the graduates will accept his abuse as a philosophical necessity…
>
> There is scope enough for the energies of a journalist in the wide field of medical science, without indulging a peevish and censorious disposition and snarling at every thing and every body that crosses one's path. And these public quarrels are always disreputable to the profession. Editors should wash their dirty linen in private. If the editor of the Gazette could correct his bad habits in this respect, and observe towards his professional brethren the amenities of a gentleman, he would be a better and a happier man, and the profession in California would enjoy greater harmony, and escape much undeserved odium…
>
> We must apologize to our readers for introducing these personal matters. Our studied course has been to exclude the personal and controversial from our columns. The subject can not be more distasteful to anyone else than it is to us. Had we alone been interested, we should have observed silence. But dislike it as we may, it is sometimes a necessity of professional life to defile the hands by contact with that which is offensive and filthy.

With this editorial, Dr. Gibbons had the last word in the controversy. We hear no more from Dr. Stillman on the subject because the California Medical Gazette ceased publication with the issue for August 1870 in which his censure of the Medical Department appeared.

Regents of University of California Respond to Toland Medical College

In response to the petition and conveyance from Toland Medical College, the Regents of the University on 2 August 1870 adopted a series of Resolutions defining the terms on which the College would be accepted as the Medical Department of the University. Editor Stillman printed these historic Resolutions in full in the August 1870 issue of the California Medical Gazette:[27][28]

> Resolved, That the Regents of the University will accept from the Toland Medical College, a conveyance of the real estate and personal property tendered by the Faculty of said College, subject only to such conditions as may be imposed by the Act organizing the University.
>
> Resolved, That said College shall hereafter be known and designated as "The Medical Department of the University of California."
>
> Resolved, That the several Professors in said Medical Department shall be elected by, and shall hold their office during the pleasure of the Regents of the University; but the Regents will confirm any professor nominated by the Faculty of Medicine, unless cause, good and sufficient, in their estimation, appear for rejection.
>
> Resolved, That the Faculty of Medicine shall have the right to determine the qualifications for the admission of students, to

> charge such fees as they see proper, to make such regulations not inconsistent with the organic Act for the preservation of order and for the management of the internal affairs of the Medical Department as they may deem best, to determine the course of study, and to examine candidates for a medical diploma.
>
> The Regents will confer degrees upon such students of medicine as may be recommended therefor by the Faculty of the Medical Department, and upon none other.
>
> Resolved, That the Faculty of the Medical Department shall have no power to contract any debt or obligation binding upon the Regents of the University.
>
> All of which is respectfully submitted
>
> Horatio Stebbins,
>
> W. C. Ralston

A disastrous lapse in communications now occurred between the Regents and the Toland school. Neither the Regents nor other parties such as Stillman and the Medical Department of the University of the Pacific were aware that Dr. Toland adamantly opposed the resolution requiring the name of his College to be changed to "Medical Department of the University California," and that he had persuaded the Trustees of the College to refuse transfer of the property to the University on that account.

In his commentary on the above Resolutions, Dr. Stillman predicted that placing the Toland College under the University would give to San Francisco a medical school that would meet the future needs of the Pacific Coast - that the school would benefit the community at large and be of interest to the entire medical profession. The implication was that the Medical Department of the University of the Pacific would be superfluous.

Medical Department of University of California Activated Prematurely

In the mistaken belief that Toland Medical School and its properties had been legally transferred to the University in accordance with the Resolutions they adopted on 2 August 1870, the Regents of the University ordained the Toland Medical College as the "Medical Department of the University of California," and assumed jurisdiction over it.

Acting on the principle that teachers should not be judges of the qualifications of their own pupils, and that the students should be examined by an independent and impartial tribunal as proposed by the Faculty of the Medical Department of the University of the Pacific, the Regents refused to confer the power of final evaluation of the students on the Toland Professors, as the latter requested them to do. Instead, the Regents appointed a Board of fifteen Medical Examiners, six of whom were selected from the Toland Faculty, and not one from among the Professors of the Medical Department of the University of the Pacific. The injustice of the proceeding was so manifest that most of the appointees outside of the Toland Faculty declined serving. As a result, the Toland Faculty virtually controlled and conducted the final examinations held by the Board of Medical Examiners at the close of the Session for 1870. Only the Toland students participated in the examinations. Upon completion of them, the Degrees were publicly conferred by the University of California. These were the circumstances under which the Medical Department of the University of California was prematurely inaugurated during the Session for 1870.

We have been unable to find a report on the number of medical graduates awarded the M. D. degree by the Board of Medical Examiners at the end of the Session for 1870. It is assumed to be few, if any.

Graduation Ceremony, Annual Session for 1870 Medical Department, University of Pacific

Meanwhile, the Faculty of the Medical Department of the University of the Pacific examined their own students and held a separate Commencement on December 7th. The Valedictory Address was delivered by Professor William F. Smith. Eight M. D. degrees were awarded, five of them being the M. D. ad eundem, granted to physicians who had previously received an M. D. from another school. Chester Rowell, son of Professor Isaac Rowell, was one of the three medical students who were granted the regular M. D. degree. It was a great loss to the Department when Professor Rowell, a member of the original Faculty in 1859, died only two months later on 4 January 1871.[29]

It was not until this juncture that it was discovered that the College property, the transfer of which was an essential condition of the acceptance of the Toland Medical College as the Medical Department of the University of California, was still in the hands of the Trustees of the College. As mentioned, Toland had persuaded them not to deed the property to the University except on the condition that the College should continue to bear his name. To this the Regents of the University objected, and proceeded to annul the transfer of the Toland Medical College to the University. Whereupon Toland took steps to reorganize his College. The Medical Department of the University of California, essentially bereft of faculty, suspended operation, thus avoiding the absurd prospect of three medical schools in San Francisco.[30]

Beverly Cole Appointed Dean of Toland Medical College

When considering how best to revamp his Faculty, and renew the pursuit of affiliation with the University of California, Dr. Toland was reminded of his old adversary, Beverly Cole. Since returning from Europe in 1865, Cole had become the leading obstetrician in the city and had made widely acclaimed contributions in the public arena. Furthermore, he was thoroughly experienced in medical school affairs and a pillar of the rival Faculty. His forthright and engaging manner, and high profile in the community, made him a leader of just the background and style to energize the Toland Faculty and repair relations with the University. Now grudging mutual respect and common interest overcame past differences. When Toland, with appropriate deference, offered the deanship of the College to Cole, he was attracted by the potential scope of the appointment and promptly accepted.

The resignations of Professors Cole and William F. Smith, both of whom decided to join the Toland School, were reported at the Faculty meeting of the Medical Department of the University of the Pacific on 9 February 1871 and unanimously accepted, but not without comment. At the next meeting of the Faculty on 10 March 1871, Dr. Gibbons, Sr., outraged by the defections, introduced the following resolutions. They were adopted unanimously:[31]

Resolved, that the withdrawal of Drs. Cole and Smith from this Faculty after participating in the preparation and distribution of the Announcements for the next Session, and after actual commencement of the extra course of instruction, and for the avowed purpose of giving their support to a rival School, is an act of faithlessness to their colleagues, treason to the School and insult to the Students, and that in view of the solemn obligation which they had voluntarily assumed, to cooperate with their associates in building up a permanent medical college, we consider them guilty of unqualified treachery, and devoid of honor and truth.

Resolved, that the foregoing resolution be placed on the record of the Faculty and a copy of these proceedings be forwarded to the Trustees of the University of the Pacific, with the request that the resignations be accepted, and the suggestion that the name of Dr. R. Beverly Cole be erased from the Board of Trustees.

Dean Beverly Cole's name appears for the first time in the Minutes of the Toland Faculty on 16 March 1871. At this meeting it was decided that a monthly medical journal should be issued under the auspices of the Toland Faculty to counter the influence of the Pacific Medical and Surgical Journal. Volume 1 of the Western Lancet, edited by Professor Trenor and Dr. Heman Babock, opened with the issue for January 1872. Volume 2 for 1873 was edited by Professor Cole. Volume 3 for 1874 was edited by our old acquaintance and Cooper adversary, Arthur B. Stout, now Professor of Principles and Practice of Surgery in the Medical Department of the University of California. As previously mentioned, the Lancet was absorbed into the PMSJ in 1884.

Graduation Ceremonies, Annual Sessions for 1871

At the conclusion of the competitive Session for 1871 the Medical Department of the University of the Pacific held its Commencement Exercise on the evening of November 7th in the Mercantile Library Hall. Dr. Lane gave the Valedictory Address and the M. D. degree was conferred on five graduates.

Toland Medical College held its Graduation Ceremony on November 9th in the College building. Three students were awarded the M. D. degree and one student received the degree ad eundem. The Hippocratic Oath was administered by Dean Cole, now fully in charge of the Toland Faculty.[32]

Negotiations for Medical Department, University of California

By the beginning of the Session for 1872 the Toland Faculty had, under the energetic leadership of Dean Cole, been reorganized and brought up to the full strength of twelve professors, most of them new appointees. In another crucial development, Daniel C. Gilman was inaugurated as President of the University of California on 7 November 1872, shortly after the close of the Session.[33][34]

Thus the fall of 1872 was an opportune time to reopen negotiations with the University regarding an affiliation. The embarrassing failed attempt to effect a union between the Toland School and the University in 1870, when Toland blocked the transfer of the School's property, was past history, and Dean Cole and President Gilman were new parties to the issues. The persuasive efforts of Dean Cole and the cooperative spirit of President Gilman soon resulted in agreement on terms acceptable to both Toland and the University.

Toland no longer insisted that the Medical Department of the University be named "Toland Medical College," and agreed to the transfer to the University of the property, now valued at $75,000, with the understanding that:[35][36]

> In perpetual recognition of the munificence of Dr. H. H. Toland, one of the chairs in the Medical Department, to be designated by him, shall be known as the Toland Professorship; and further, that a suitable inscription be placed upon the Medical Hall which he has given, designating it as the Toland Medical Hall.

UC Historian Frances T. Gardner recalls the fading of these memorials:[37]

> Alas for immortality. Toland's Chair was never named for him. There are no such Chairs in the Medical School. The grey building came down in '98, to be replaced by three large yellow ones on the 27 Parnassian acres given by Adolph Sutro, and with its disappearance also disappeared the name of Toland Hall. The memorials to Toland which, at long last, are left are the title of one lecture hall and a plaque on the wall of the yellow, ivy-covered Medical School Building. Identical honors have gone to Cole, the catalyst.

In order to avoid a misunderstanding such as occurred in 1870, Dean Cole provided President Gilman with a letter from the Trustees of Toland Medical College dated 3 March 1873 certifying their readiness "to make a due and legal conveyance of all the property of the College to the Regents…upon receiving from you an intimation of your acceptance of the trust." In addition, Cole gave the President written assurance of Toland's approval. In consideration of these warranties, President Gilman on 4 March 1873 informed the University Regents of the Trustees' offer, recommending that it be accepted, and that a Medical Department of the University be established.[38] It should be added that this transaction, involving the acquisition of valuable property and a self-supporting medical college, conformed fully with the ambition of the UC Regents and the President to develop graduate schools in the new University as expeditiously as possible.[39]

Appointment of a Board of Medical Examiners

The Regents proceeded at once to organize the Medical Department in accordance with the Resolutions of 2 August 1870, with the following additional provision for a Board of Medical Examiners:[40]

> Resolved, That the Regents of the University will establish a Board, to be known as the Board of Medical Examiners of the University of California, and will annually appoint the members of said Board,

> whose duty it shall be to examine all students applying for a medical diploma, as well from the Medical Department of the University as from other medical colleges.
>
> The Regents of the University will confer degrees upon such students of medicine as may be recommended therefor by the faculty of their respective colleges, and whom the Board of Medical Examiners shall report entitled thereto, and upon no others.

The above Resolution was adopted in response to the proposal submitted to the Regents in July 1870 by the Medical Department of the University of the Pacific which, as we shall shortly relate, changed its name to Medical College of the Pacific[Medical Department of University (City) College] in 1872. The Regents obviously liked the proposal for a Board of Medical Examiners which would give them and the President of the University broad control over medical education in the State.

Contrary to their expectations, the creation of the Board had awkward results, as we shall see.

Medical Department, University of California, Established

On 1 April 1873 the Regents formally accepted the gift of the Toland property, voted that a Medical Department of the University (including a Board of Medical Examiners) be created, and publicly announced the election of the following Professors to serve as the Faculty of the Department:

Proposed UCMD Faculty: 1873

From Toland Medical College

H. H. Toland
Professor of Clinical Surgery

R. B. Cole
Professor of Obstetrics and Clinical Diseases of Women

C. T. Deane
Professor of Women and Children

C. M. Bates
Professor of Clinical Medicine

Wm. T. Bradbury
Professor of Therapeutics

A. A. O'Neil
Professor of Anatomy

Geo. Hewston
Professor of Theory and Practice of Medicine

M. W. Fish
Professor of Physiology

C. Brigham
Professor of Orthopedic Surgery

From Medical College of the Pacific

H. Gibbons, Sr.
Professor of Medical Jurisprudence and Mental Diseases

Levi C. Lane

Principles and Practice of Surgery

Thomas Price
Professor of Chemistry and Toxicology

E. Bentley
Professor of Pathology

A. Barkan
Professor of Ophthalmology and Otology

H. Gibbons, Jr.
Professor of Materia Medica

Refusal by Faculty of Medical College of the Pacific to Join the Medical Department of the University

To their surprise and irritation, Drs. Gibbons, Sr., and Jr., and Drs. Lane, Price, Bentley and Barkan found themselves appointed without their knowledge, and publicly listed without their approval, as Professors in the new Medical Department of the University of California. They promptly dispatched the following disclaimer to President Gilman and the Regents:[41]

> D. C. Gilman, President University of California
>
> A. J. Moulder, Secretary Board of Regents - Gentlemen:
>
> We have received from you a notification of our appointment by the Regents to Professorships in the Medical Department of the University of California, the appointment having already been made public through the newspapers. Our acceptance would involve the sacrifice of our own school - the Medical College of the Pacific - built up to success by years of assiduous labor. For this and other reasons, we respectfully decline the proffered honor. Indeed, we had already declined, in the most positive manner, a proposition to the same effect, coming, as we were assured, indirectly from the Board of Regents, of which fact a Committee of the Board was apprised.
>
> Under these circumstances, you will pardon us for expressing our surprise at the appointment and the public announcement of it, without further consultation with us, seeing that such a course must inevitably give the impression that we had surrendered our own school, and not only injure us in that way, but place us, in the event of declining to accept, in an unfair position before the public, as factious and hostile to union with other members of the profession in furthering the cause of medical education in California.
>
> Henry Gibson, M. D.
>
> L. C. Lane, M. D.
>
> E. Bentley, M. D.
>
> Adolph Barkan, M. D.
>
> Thomas Price, M. D.
>
> Henry Gibbons, Jr., M. D.

Dr. Gibbons made the following editorial comment on the failed attempt to co-opt the Medical College of the Pacific:[42]

> The design of this movement to consolidate the medical schools is a good one. But in the appointment of the professors of the Medical College of the Pacific, and the public announcement of that appointment, the Regents have unwittingly lent themselves to a trick unworthy of a dignified institution of learning such as the University of California…
>
> To "squelch" the Medical College of the Pacific was an avowed purpose of the movement, which was carried through the Board of Regents by dexterous management, the members in general, including the worthy President, not knowing the full purpose of the transaction. Had the Regents exercised greater caution and deliberation, it is probable they might, in the course of time, have accomplished the desirable result of concentrating in one medical school the best educational talent on the coast.
>
> As the case now stands, there continue to be (two medical schools in San Francisco); one bearing the name of the State University, and without the power of conferring degrees, the other - the Medical College of the Pacific - not only having the power, but possessing, in common with its competitor, the privilege of recommending its candidates for graduation to the Board of Examiners of the State University. In other words, the students of the Medical College of the Pacific may choose between the two Universities [University of California and University (City) College] when they apply for a diploma, or, if they should pass the examination in the State University, they may procure also a diploma ad eundem from their own school.

This was the last artful ploy designed by Toland partisans to absorb or otherwise extinguish the Cooper school. In the years to come, the presence of two medical schools in San Francisco never ceased to trouble external pundits such as Abraham Flexner who surveyed them in 1909. He had harsh words for both, as we shall see.[43]

Opening Exercises, Session for 1873 Medical Department, University of California

On 3 June 1873 Exercises took place in Pacific Hall to celebrate the inauguration of the Medical Department of the University of California, and the first course of lectures to be delivered in Toland Medical Hall under the auspices of the University.[44]

The Regents of the University were present. On the platform were Governor Booth, President of the Board of Regents; Judge Field of the U. S. Supreme Court; Mayor Alvord; and an assemblage of prominent citizens including Dr. Toland, Dean Cole and representatives of the Faculty and medical community.

The hall was crowded. Governor Booth presided and introduced President Gilman who delivered an appropriate address on the relations of the University to the community in all departments of progress. With respect to the Medical Department of the University, he said:[45]

> For several years (Dr. Toland) and his associates have given medical instruction, and have graduated successive classes of young men. Most unexpectedly, a few weeks since, the Regents of the University were notified that the Trustees (of Toland Medical College) would transfer (the College and its property) … absolutely without condition to their ownership. It was a generous recognition on their part of the growing importance of the University, and a testimony of their desire to unite in building it up. Actuated by the same motive, the Regents of the University cordially invited the Professors who had there been instructing, and those who were also engaged in another medical school, to unite in founding the Medical Faculty of the University of California; and they hoped that the time was now ripe for the healing of past differences, and for the union of all who desire the highest progress of medical science in one body. It seems that they were a little before their time. The hour has not yet come when such a union can be brought about, and a portion of those thus asked to join in the Faculty have seen it to be their duty and their privilege to remain in other connections.

The inaugural was an occasion for deeply felt relief and satisfaction by Dr. Toland. He was 67 and the berthing of his storm-tossed school in the safe haven of the State University was the hoped-for result of his ceaseless labor and singular generosity. It marked the operational conversion of Toland Medical College to the Medical Department of the University of California, an event postponed for three years by his insistence that the Department bear his name. It is to his lasting credit that he never lost sight of the crucial advantage of the merger and, on the urging of Dean Cole, withdrew that condition.

Would the Toland School have had the inner strength to survive without the mantle of State University sponsorship to lend prestige, continuity and later financial support? Of this we have our doubts. But there is no doubt that Beverly Cole, who was a vigorous 44 when the Department was established, provided it with crucial leadership until the turn of the century. When the aging Toland died in 1880, "King Cole" fell heir to full responsibility for the direction of the Department.[46][47]

After 1873, the Medical Department of the University of California and the Medical College of the Pacific warily accepted each other's existence. Although competition and personal rivalries persisted, the two schools entered an era of relative stability and comparable growth.

Endnotes

1. Faculty Minutes for 23 May 1870, Minutes of Meetings of Faculty of Medical Department of Pacific, 23 May 1870 to 24 May 1874, Box 1.18 vol. 1, Medical College of the Pacific Medical Department, University College, San Francisco, Lane Medical Archives, Stanford Lane Library catalog record
2. Henry Harris , California's Medical Story (San Francisco: J. W. Stacey, Inc., 1932), p. 376 Lane Library catalog record
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5. Henry Gibbons , "Items of News, etc.," Pacific Medical and Surgical Journal 12, no. 36 (May 1870): 575-576 Lane Library catalog record

6. Cooper Genealogy: p. 8, John L. Wilson Papers - MSS 39, Lane Medical Archives, Stanford Lane Library catalog record
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8. Henry G. Langley , ed., "Physicians in San Francisco," State Register and Year Book of Facts for the Year 1859 (San Francisco: Henry G. Langley and Samuel A. Morison, 1859), p. 376
9. Editor Anonymous, "Our Medical Number. Complete List of Qualified Physicians; also, of all Known Quacks, etc." Postscript to the San Francisco News Letter 25, no. 24 (Jul 10, 1875): 4-6
10. Faculty Minutes for 1 June 1870, Minutes of Meetings of Faculty of Medical Department of Pacific, 23 May 1870 to 24 May 1874, Box 1.18 vol. 1, Medical College of the Pacific Medical Department, University College, San Francisco, Lane Medical Archives, Stanford Lane Library catalog record
11. Announcement of Medical Department, University of the Pacific, for Session to begin 5 July 1870. Appended to "Introductory Lecture" by Henry Gibbons delivered on 5 July 1870, in Cooper Medical College Addresses 1861-1896 14 pp Lane Library catalog record
12. Annual Announcement of the Medical Department of the University of the Pacific, Session of 1871 Lane Library catalog record
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14. Announcement of Medical Department, University of the Pacific, for Session to begin 5 July 1870. Appended to "Introductory Lecture" by Henry Gibbons delivered on 5 July 1870, in Cooper Medical College Addresses 1861-1896 14 pp. See also p. 10 of the Lecture. Lane Library catalog record
15. Note. The published Annual Announcement for 1870 was in error designated as the "Eighth Annual Session," when in fact it was the Seventh Annual Session. The numbers of subsequent Annual Sessions were also erroneously increased by one digit
16. J. D. B. Stillman , "Editorial: Toland College," California Medical Gazette 2 (Jun 1870): 220 Lane Library catalog record
17. Emmet Rixford , "A brief account of the history of the Lane Medical Library and of Cooper Medical College," in Addresses at Dedication of Lane Medical Library, Leland Stanford Jr. University (Published by Stanford University, Trustees Series No. 22, 1912), pp. 11-12 Lane Library catalog record
18. Frances T. Gardner , "The Little Acorn: Hugh Huger Toland, 1806-1880)," Bulletin of the History of Medicine 25, no. 1 (Jan-Feb 1950): 68 Lane Library catalog record
19. Annual Announcement of Medical Department of University of the Pacific, Session of 1871, p. 5 Lane Library catalog record
20. Henry Gibbons, Sr. , "Introductory Lecture to the (Seventh) Session of the Medical Department of the University of the Pacific. Delivered July 5th, 1870," in Cooper Medical College Addresses 1861-1896, pp. 12-13 Lane Library catalog record
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22. "Faculty Minutes, June 1870," Toland Medical College, Faculty Minutes, 5 Nov 1854 - 31 Oct 1871, Archives Collection, University of California Medical Center Library, San Francisco
23. "Faculty Minutes, June 1870," Toland Medical College, Faculty Minutes, 5 Nov 1854 - 31 Oct 1871, Archives Collection, University of California Medical Center Library, San Francisco
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25. J. D. B. Stillman , "Editorial: Toland Medical College and the University of California," California Medical Gazette 2 (Aug 1870): 257-259 Lane Library catalog record
26. Henry Gibbons, Sr. , "Editorial: Slander Repelled," Pacific Medical and Surgical Journal 13 (Sep 1870): 176-178 Lane Library catalog record
27. J. D. B. Stillman , "Editorial: Toland Medical College and the University of California," California Medical Gazette 2 (Aug 1870): 257 Lane Library catalog record
28. R. Beverly Cole , "Editorial: Acceptance of Toland College Property by the State University Board of Regents," Western Lancet 2 (Apr 1873): 229-230 Lane Library catalog record
29. William F. Smith , Valedictory Delivered at the (Seventh) Annual Commencement of the Medical Department of the University of the Pacific (San Francisco: Heister and Brown, Printer, 1870), p. 2
30. Henry Gibbons, Sr. , "Editorial: Three Medical Schools in San Francisco - The University of California," Pacific Medical and Surgical Journal 13 (Feb 1871): 403-406 Lane Library catalog record
31. Faculty Minutes for 9 February and 10 March 1871, Minutes of Meetings of Faculty of Medical Department of Pacific, 23 May 1870 to 24 May 1874, Box 1.18 vol. 1, Medical College of the Pacific Medical Department, University College, San Francisco, Lane Medical Archives, Stanford Lane Library catalog record
32. Henry Gibbons , "Editorial: California Graduates in Medicine," Pacific Medical and Surgical Journal 14 (Dec 1871): 306-307 Lane Library catalog record
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Chapter 22.Medical College of the Pacific Established in 1872 and National Efforts to Reform Medical Education

During the critical decade from 1864 to 1873, the Cooper school was suspended and revived; the Toland school was founded and its adoption by the University of California finally arranged. Having completed a summary of these events, we can now relate how the revived Cooper school became the Medical College of the Pacific in 1872, and retained that name until it was succeeded by the Cooper Medical College in 1882. It was during the tenure of the Medical College of the Pacific that reform of American medical education became increasingly an issue of national concern to the medical profession.

Affiliation with University (City) College

Renting of Facilities

At the meeting in Dr. Gibbons' office on 23 May 1870, convened for the purpose of reviving the Medical Department of the University of the Pacific, Dr. Cole remarked that to compete with the Toland School it was necessary to have comparable facilities. It would scarcely do, he said, to have the lecture room in one part of the city, the dissecting room in another and the clinic in a third. The three should be concentrated in the same vicinity.

It was pointed out that the Chapel and adjacent College building of University (City) College, a Presbyterian school founded in 1860, were ideally suited to the needs of the Medical Department. They were located in the center of San Francisco at the corner of Stockton and Geary Streets, opposite Union Square which is still a well-known landmark in the city. Furthermore, the science laboratory of the College, under the charge of Professor Price, was near the College building and could be used to demonstrate the principles discussed in the chemical lectures.[1]

Fortunately, Professor Price, Chairman of the Faculty's Committee on Rooms, was able to report to the Faculty on June 6th that the College Chapel had been engaged so that the Annual Lecture Course for the Session of 1870 could begin in the Chapel on July 5th as scheduled.

Prior to the next Session, that of 1871, rooms in the College Building were rented for the Lectures and for the purpose of establishing a Dispensary. In order to accommodate these activities, the Faculty paid for the necessary remodeling of the College building, the first of many renovations to be subsidized by the Faculty in the years ahead.[2][3][4]

Medical College of the Pacific Established in 1872

Renting and renovating the College building, combined with access to the adjoining science laboratory of Professor Price, provided the medical school with centralized and very serviceable quarters. In the course of making these arrangements, a cordial relationship developed between the Trustees of University (City) College and the Faculty of the Medical Department of the University of the Pacific, facilitated by the fact that Professor Price was a member of the Faculties of both. During the Session for 1871 the College facilities proved so convenient and the Trustees so cooperative that the Medical Faculty on 25 January 1872 designated Professors Price, Lane and Gibbons, Sr., as a committee to explore with the Trustees the possibility of transferring the Medical Department to University (City) College. The response from the Trustees being prompt and favorable, the Faculty voted unanimously on 2 March 1872 to complete forthwith all necessary procedures whereby they would withdraw from the University of the Pacific and be constituted thereafter as the "Medical College of the Pacific, being the Medical Department of University College."[5]

Total Graduates: Medical Department, University of the Pacific. During the existence of the Medical Department of the University of the Pacific from 1859 through 1871, the number of graduates was as follows:[6]

1859	2
1860	1
1861	5
1862	5
1863	8
1864	7
1870	8
1871	8
Total:	44

The Annual Announcement for the Session of 1872 carried the following explanation of the change in title and sponsorship of the school:[7]

> The Faculty of the Medical Department of the University of the Pacific take pleasure in announcing that they have formed a connection with University (City) College of San Francisco, and that their school will henceforth be known as The Medical College of the Pacific.
>
> The reasons for this change have been entirely satisfactory to all parties concerned. The connection of the School with the University of the Pacific, the oldest Collegiate Institution on this Coast, has always been a source of pride and gratification to the Faculty, and has also been esteemed a high honor; and the connection would not have been severed without the consent of the University, and without important advantages to be gained by the change. The most important of these is the securing of a permanent building and location, in the most convenient and eligible situation in San Francisco. The location is in the heart of the city, central to travel and to business, and almost directly opposite to Union Square. The grounds, which are the same as occupied by University College, are forever dedicated to educational purposes. Without this fortunate affiliation, the Faculty would have been under the necessity of erecting buildings somewhere on the outskirts, much less acceptable to students.
>
> University College, which has been in existence thirteen years, is one of the most flourishing educational institutions on the Pacific Coast. Besides the Buildings and Schools at the corner of Stockton and Geary Streets, it owns a valuable property at University Mound, five miles from the center of the city, on which it has erected extensive buildings, and established a Preparatory School which is in a prosperous condition.
>
> The Trustees… are among our best and most influential citizens (and include Henry H. Haight, Esq., Governor of California 1867-1871).[8] These gentlemen are not trustees in name only but they are active and zealous in the performance of their duties, and exhibit a deep personal interest in every department of the Institution under their charge. Their object is to build up a University in every sense of the word, with all the departments proper to such an establishment, and to place it in the van of the educational institutions of the Pacific Coast. Under these auspicious circumstances the permanence and success of the Medical College of the Pacific are insured.
>
> The school, which now takes the title of the Medical College of the Pacific, was organized in 1858, and is consequently by far the oldest Medical School on the Western Coast of America. Most of the Professors are experienced and successful teachers, whose devotion to the cause of medical education is attested by the arduous and unrequited labor which was required to build up a College from the scanty materials of a newly settled country. The Faculty refer with pride to the professional careers of its Graduates, who have uniformly reflected credit on the Institution, and on the profession.

Reform of Medical Education

The preeminent issue facing the Medical College of the Pacific in 1872, and American medical schools generally, was the reform of medical education. We shall therefore mention some of the factors contributing to the persistence of low standards, and then discuss efforts to improve them.

Medical Schools Resist Reform

The organizational structure of American medical colleges was the major impediment to raising standards. Curriculum, graduation requirements and dependence on student fees for financing had changed little since the founding of the nation's earliest schools in Philadelphia, New York and Boston a century earlier. Educational programs were stagnant, and were widely criticized within and without the profession.

Virtually all American medical schools in 1872 were "proprietary." That is, they were privately owned and operated by the Faculty. Schools acquired the capacity to award the M. D. degree either by charter from the state, or by affiliation with a college or university. In either case the Faculty was essentially autonomous. The Medical College of the Pacific was a typical example of a medical school affiliated with a college. Only the Board of Trustees of the parent institution (University[City] College), had the authority to appoint professors and award M. D. degrees. However, in affiliations such as this, recommendations by the Medical Faculty were normally approved without question. Compliant Trustees rarely exercised their latent jurisdiction over the standards of medical education. The College assumed no fiscal responsibility for, and had no financial leverage over, the medical school which was completely self-supporting, mainly by student fees.

Such marriage of convenience between an American College and a medical school was a widely adopted and mutually agreeable arrangement because the medical school acquired the mantle of an institution of higher learning and was spared the necessity to obtain a charter from the State to award the M. D. degree. The College enjoyed the prestige of alliance with a professional school. Under these circumstances, and also in the case of medical schools chartered by the State, the net result was that Medical Faculties were insulated from pressure to raise standards. Since they depended on student fees for survival, they were actually deterred from adopting reforms by the assumption that schools that raised standards would lose students to those that did not.

Contribution of Universities to Reform.

It is important to point out that there were some notable exceptions to the prevalent stagnation of American medical schools, but in 1872 the Medical College of the Pacific was not among them. There is no indication that the Trustees of University (City) College, when they adopted the Cooper school, showed any interest in the standards of medical education. They were doubtless unaware that in 1871 President Charles Eliot of Harvard, with the support of his Board of Trustees (Harvard Corporation), had shocked the Harvard Medical Faculty by instituting basic reforms over vehement faculty objection. The reforms required candidates for admission to show evidence of prior educational achievement; the annual session was increased from four to nine months; and a three-year curriculum of progressively advanced courses was instituted, each year being concluded with a written examination. President Eliot's initiatives at Harvard, to which we referred briefly in a previous chapter, had the effect of reinforcing nation-wide the influence of similar changes introduced at the less-prestigious Chicago Medical School by Dr. Nathan Davis in 1862, and of reforms more recently adopted by the Female Medical Colleges in Philadelphia and New York. In due course, the Universities of Pennsylvania, Syracuse, and Michigan followed suit, but progress among the great majority of medical colleges was impeded by the fear that raising standards would result in decreased enrollment and income.[9][10][11]

Professor Oliver Wendell Holmes of Harvard commented that "Our new President, Eliot, has turned the whole University over like a flapjack. There never was such a bouleversement as that in our medical faculty."[12] It was too much to expect that many other colleges and universities would soon move, like Eliot's Harvard, to demand sweeping reforms from the Faculties of their affiliated medical schools, or that State Legislatures would be interested to joust over standards with the self-sufficient and hypersensitive Faculties of their chartered medical colleges.

In 1876 the vital contribution of Universities to the comprehensive reform of American medical education was again foreshadowed. The occasion was the inaugural address of Daniel C. Gilman, first President of Johns Hopkins University. During Dr. Gilman's brief and stormy tenure (1872-1874) as first President of the University of California, he was exposed to the unpleasant bickering of two rival medical schools.

That experience acquainted him with their admission requirements and their teaching programs, leading him to include the following declaration in his inaugural address at Hopkins on 22 February 1876:[13]

> When we turn to the existing provisions for medical instruction in this land and compare them with those of European universities; when we see what inadequate endowments have been provided for our medical schools, and to what abuses the system of fees for tuition has led; when we see that in some of our very best colleges the degree of Doctor of Medicine can be obtained in half the time required to win the degree of Bachelor of Arts; when we see the disposition of the laymen at home and the profession abroad to treat diplomas as blank paper; and the prevalence of the quackery vaunting its diplomas; when we read the reports of the medical faculty in their own professional journals; and when we see the difficulties that have been encountered in late attempts to reorganize the existing medical schools, it is clear that something should be done…
>
> When the medical department (of Johns Hopkins University) is organized it should be independent of the income derived from student fees, so that there may not be the slightest temptation to bestow the diploma on an unworthy candidate; or rather let me say, so that the Johns Hopkins diploma will be worth its face in the currency in the world.

President Gilman was particularly concerned with the lax admission standards of American medical schools. He did not allow the matter of providing intensive preparation for the study of medicine to wait until the Hopkins School of Medicine opened in 1893. Instead, during 1876-77, the first year of teaching at Johns Hopkins University, he planned a preliminary course of three years' duration designed "to impart that knowledge and skill which will be subservient to future professional work, and, at the same time, to develop the intellectual powers, upon a liberal and comprehensive plan." The course was inaugurated in 1867-78. According to the announcement of the course, published in the Johns Hopkins University Circular in 1877, "Physics, Chemistry and Biology, with Latin, German, French and English, form the principal elements of this course, with opportunities for the study of Psychology, Logic, History, and other branches of knowledge, according to the requirements of the scholar."

The Hopkins "preliminary course" set the standard for American premedical education in the decades ahead and was the first step toward the eventual common practice of requiring a bachelor's degree for admission to medical school. We have referred elsewhere to the Johns Hopkins Medical School as also a fertile source of innovation in medical education at the doctoral and postdoctoral levels.[14][15]

Before further consideration of the standards of American medical education, we should comment on a major internal deterrent to reform, i. e. , the faculties of the medical schools. Many, probably most, medical professors were of the opinion that existing admission and program requirements were well suited to conditions in America, and were reluctant to see them made more demanding. .

Dr. Henry J. Bigelow, Professor of Surgery at Harvard, was an extreme but interesting example of faculty resistance to change. He was the most vehement critic of President Eliot's reforms at Harvard. He was also a presumptuous man with low regard for professional amenities, as indicated by the following incident.

Dr. Bigelow was a mere bystander in the operating room when his colleague, Dr. John Collins Warren, also a Professor of Surgery at Harvard, successfully carried out the first public demonstration of ether anesthesia at the Massachusetts General Hospital on the 16th of October in 1846 to which we have previously referred.

On 3 November 1846, recognizing the immense significance of this event and determined to identify himself with it, Dr. Bigelow read before the American Academy of Arts and Sciences the abstract of a paper entitled: "Insensibility During Surgical Operations Produced by Inhalation. The First Public Announcement of the Discovery of Surgical Anesthesia."

On 9 November 1846, Dr. Bigelow read the full text of the above paper before the Boston Society for Medical Improvement.

Finally, on 18 November 1846, he published the full text of the article in the Boston Medical and Surgical Journal.[16] This hasty flurry of presentations by Bigelow was designed to give the impression that he was prime mover and patron of the demonstration. In making the precipitous "first public announcement of the discovery of surgical anesthesia," Dr. Bigelow's sole acknowledgment of the role of the responsible surgeon was the statement: "The present operation was performed by Dr. Warren."

On 9 December 1846 in the Boston Medical and Surgical Journal, Dr. John C. Warren published a carefully considered and definitive report of this historic case in a paper entitled "Inhalation of Ethereal Vapor for the Prevention of Pain in Surgical Operations, " being an account of the partial ligation of a cavernous hemangioma in the left neck of a man, aged 20, named Gilbert Abbott under ether anesthesia on 16 October 1846.

Dr. Warren included in his report the description of several subsequent cases successfully anesthetized by Dr. Morton and operated by surgical colleagues at the Massachusetts General Hospital He concluded the article by generously "congratulating my professional brethren on the acquisition of a mode of mitigating human suffering which may become a valuable agent, in the hands of careful and well-instructed practitioners, even if it should not prove of such general application as the imagination of sanguine persons would lead them to anticipate.[17][18]

In 1869, near a quarter century later, President Eliot was to collide head-on with Professor Bigelow whose imperious and self-serving manner had not been softened by the intervening years. Their first difference was over admission standards. Eliot proposed that candidates for admission to Harvard Medical School be required to show evidence of academic achievement. Bigelow retorted that this criterion was arbitrary, and might exclude a genius who had not conformed to the approved academic pattern. Moreover, Bigelow claimed that academic performance was irrelevant, since physicians and surgeons are born and not made. Furthermore, great medical discoveries are not born in the academic environment of university laboratories. (Here he doubtless had in mind the discovery of ether anesthesia, the credit for which he unscrupulously maneuvered to share.)

When Bigelow learned that Eliot had submitted the recommendation for revised entrance requirements to the Harvard Corporation for approval, he was outraged. "Does the Corporation hold opinions on medical education? Who are the Corporation? Does Mr. Lowell know anything about medical education? or Reverend Putnam? or Judge Bigelow? Why Mr. Crowninshield carries a horse-chestnut in his pocket to keep off rheumatism! Is the new medical education to be best directed by a man who carries horse-chestnuts in his pocket to cure rheumatism?"[19]

Fortunately for Harvard, and for American medical education, President Eliot had strong allies on the faculty. He survived the contemptuous criticism of Bigelow; precedent-setting reforms were adopted; and Harvard Medical School came firmly under the control of the University.

The conservative viewpoint that American Medical Education required no major reformation was eloquently expressed by Henry Gibbons, Sr., in his address to the California State Medical Society in October 1872 at the expiration of his term as second President of the revived Society:[20]

> There has been much lachrymation of late over the low standard of medical education in America. There are too many schools, and the schools make too many doctors. The complaint may be true, but then one gets sick of the everlasting whine. It is perfectly natural that persons accustomed to the long and laborious education of the old world, should deem it quick work to make a doctor out of new material in less than the standard European time for the preliminary drill. But the circumstances of the two worlds are widely different, and they create necessities of their own. There, you behold forty millions of souls concentrated upon a spot that is covered with the end of your finger on the map. Here, the forty millions are scattered over a continent reaching from ocean to ocean, and from the Arctic circle to Cancer. There, in the climacteric of the nations, wealth, leisure and luxury abound. Here, in our obstreperous boyhood, there is no capital to be spared from physical development, no time to be spared from art and trade. There, the population is compact and fixed, and a doctor's patients are near his door. Here, except in a few ancient centres, they are widely scattered, and a resistless centrifugal force adds every year immensely to the range of practice and the demand for practitioners.
>
> It is folly to talk of supplying this illimitable field with physicians who have invested five years of their life and five thousand dollars in an education. Such men do not like to ride from five to fifty miles to visit a patient, and run the risk of starving unless they have learned, in addition to medical science, the art of raising cabbages. The practice of medicine in the rural districts of America demands an adaptation, a fertility of resource, a tact, not acquired in the schools. The high-bred graduate, with the Bodleian library and all the medical lore of Vienna and Berlin in his head, would stumble on the problem of Nicodemus, and find a new departure necessary to qualify him for his new field of labor.
>
> Notwithstanding the easy path to the doctorate furnished by the half-hundred rival schools of America, the path is still too difficult for many of the aspirants. In the absence of candidates possessed of wealth and pursuing knowledge for its own sake, the classes are composed mainly of students of moderate or slender means, in search of a living in a profession chosen by themselves and not by their parents. Ambition and perseverance are required to enable them to struggle through their difficulties. How many of our best practitioners, the most capable and the most honorable, have trod this thorny path! How many have been compelled to teach school or to perform some other service during their term of study, in order to obtain the means of education! How many have been forced by misfortune, or necessity in some form, to abandon the college before reaching the goal!
>
> In a new country like ours, there is some propriety in conferring degrees in certain cases where the required curriculum of studies has not been completed. If an individual who has practiced without a diploma and established an honorable reputation, and who may be unable to leave his home to complete the formulated course of study, should be able to pass a satisfactory examination in the several branches, what reasonable objection can be urged against admitting him to the doctorate? His fidelity has been proved, and his past life is a guaranty that the profession will suffer no discredit or disgrace from his membership. There can be no such assurance in the case of young men who pass through the complete curriculum, without having had an opportunity of resisting the temptation to play the charlatan. A diploma, be it ever so well earned, will not deter a man devoid of principle from abandoning the path of honor and wallowing in the filth of quackery. Of this we have frequent illustrations in British and European graduates, who are often the most villainous of advertising charlatans in this country.

Dr. Gibbons' nostalgic soliloquy was an elegy for the status quo, and a memorial to the self-reliant men of his generation who, like Elias Cooper (he surely had him in mind), "trod a thorny path" before ultimate acceptance into the profession. Nevertheless, in spite of his fondness for the traditional program, when Dr. Gibbons learned of President Eliot's installation of higher admission standards, a three-year graded curriculum, and other reforms at Harvard, he observed, "We may expect before many years to see this system, or a modification of it, adopted universally." We shall soon see that the Medical College of the Pacific had already begun taking prudent steps to strengthen its program.[21]

The American Medical Association Defines National Standards

Harvard, Hopkins and a few other progressive institutions introduced comprehensive medical reform in their own medical schools which then served as models. Unfortunately, adoption of these prototypes by other schools was initially slow and limited. It was clear that general acceptance of higher and more costly standards by a majority of the

independent and highly competitive American medical schools would require consensus among them on standards, and an effective means of gaining voluntary compliance.

It was generally agreed that government intervention was not a practical solution to the problem, and that medical associations would be the most effective agents in defining standards and inducing the medical schools to accept them.

We have already noted that the American Medical Association was founded in 1847 under the leadership of Dr. Nathan Davis, and that he influenced the Association to make reform of medical education one of its primary goals. At the National Medical Convention in 1846 that preceded the meeting in 1847 when the A. M. A. was organized, Dr. Davis proposed the following Resolution which was adopted:[22]

> That it is desirable that a uniform and elevated standard of requirements for the degree of M. D. should be adopted by all the Medical Schools of the United States.

To implement this resolution, the A. M. A. established a Standing Committee on Medical Education in 1847 with which Dr. Davis was associated. Unfortunately, progress on medical education was interrupted by the Civil War (1861-1864).

When, after the war, the A. M. A. returned to the subject at its annual meeting in Baltimore in 1866, Dr. Davis was appointed to chair a Committee Appointed to Call a Convention of Delegates from the Several Medical Colleges in the United States. The Convention was charged with the task "of thoroughly revising the present system of medical college instruction." Pursuant to this mandate, a Convention of Teachers of the Medical Colleges was convened in Cincinnati on 3 May 1867, just prior to the Annual Meeting of the A. M. A. in the same city on May 7 to 10. Twenty-four delegates from nineteen colleges were in attendance at the Convention. Among those present were several familiar luminaries: Dr. Nathan Davis from Chicago Medical College; Dr. Samuel Gross from Jefferson Medical College; Dr. Joseph McDowell from Missouri Medical College; and Dr. Thomas Logan representing Toland Medical College. The Medical Department of the University of the Pacific was in suspension at the time.

The Cincinnati Convention prepared an historic document known as "Report of the Committee of Medical Teachers" which was submitted by Dr. Davis to the A.M.A. at its Annual Meeting a few days later. The Association unanimously approved the Resolutions contained in the Report and urged their adoption "by all the medical colleges in our country." The object of the Resolutions was to establish national standards for medical education. The following is a summary of the proposed requirements:[23]

> Resolved 1st, That every student applying for matriculation in a medical college, shall be required to show, either by satisfactory certificate, or by direct examination by a Committee of the Faculty, that he possesses a thorough knowledge of the common English branches of education.
>
> 2d. That every medical student be required to study four full years, including three regular annual courses of medical college instruction, before being admitted to an examination for the degree of Doctor of Medicine.
>
> 3rd. That the minimum duration of a regular annual lecture term, or course of medical college instruction, shall be six calendar months.
>
> 4th. That every medical college shall embrace in its curriculum the following branches, to be taught by not less than nine Professors, namely: Descriptive Anatomy, including Dissections; Inorganic Chemistry, Materia Medica, Organic Chemistry and Toxicology; General Pathology, Therapeutics, Pathological Anatomy and Public Hygiene; Surgical Anatomy and Operations of Surgery; Medical Jurisprudence and Medical Ethics; Practice of Medicine, Practice of Surgery, Obstetrics, and Diseases of Women and Children; Clinical Medicine and Clinical Surgery. And that these several branches shall be divided into three groups or series, corresponding with the three courses of medical college instruction required, as follows:
>
> The first or Freshman Series shall embrace Anatomy, etc.
>
> The second or Junior Series shall embrace Chemistry, etc.
>
> The third, or Senior Series shall embrace Practical Medicine, etc.
>
> The instruction in the three series is to be given simultaneously and to continue throughout the whole of each annual college term; each student attending the lectures on such branches as belong to his period of progress in study, in the same manner as the Sophomore, Junior, and Senior Classes, each pursue their respective studies simultaneously throughout the college year, in all our literary colleges
>
> At the close of each series the student shall submit to a thorough examination, by the proper members of the Faculty, and receive a certificate indicating the degree of his progress.
>
> 5th. That every medical college should immediately adopt some effectual method of ascertaining the actual attendance of students, upon its lectures and other exercises, and at the close of each session, of the attendance of the student a certificate, specifying the time and the course of instruction actually attended, should be given, and such certificate only should be received by other colleges as evidence of such attendance.
>
> 6th. That a Committee of Five be appointed by the President (of the Convention), whose duty it shall be to present the several propositions adopted by the Convention, to the Trustees and Faculties of all the Medical Colleges in this country, and solicit their definite action thereon, with a view to the early and simultaneous practical adoption of the same throughout the whole country. And that the same Committee be authorized to call another Convention whenever deemed advisable.

In submitting the above recommendations to the A. M. A., Dr. Davis extolled the benefits that would accrue to American medical education if the above reforms were adopted. He pointed out that "the plan proposed requires no legislative aid, and no exterior influences, but simply the cooperative action of all the principal medical colleges in the country. It is simply their voluntary co-operative action that gives to the present system all its binding force, and their voluntary action in the adoption of the revised plan would make it equally the practical law of the profession throughout the whole country."[24]

What were the prospects for "cooperative action of all the principal medical colleges of the country?" For an early answer to the question we turn to the Minutes of the next meeting of the A. M. A. held in Washington in May 1868. Dr. A. B. Palmer of Michigan, Chairman of the Committee on Medical Education, submitted a discouraging report:[25]

> The Committee on Medical Education regret to report that the various questions respecting this subject, which for so long a period have demanded the attention of the American profession, have not yet received a practical solution… The plan of reform (approved at the A. M. A. meeting in 1867), though containing many excellent features, must be conceived as a rather hastily conceived ideal decidedly in advance of realization… Some of the changes the plan proposes, and generally regarded as desirable, are believed to be too great to be soon accomplished; and besides other defects, no provision is made in the plan for a repetition of the lectures to the same students…

Dr. Davis, who was not a member of the Palmer committee, requested the floor to counter the negative report. He stated that several schools had endorsed the reform plan adopted at the meeting in 1867 and that evident progress was being made. The following resolution was then proposed and adopted:[26]

> Resolved, That the American Medical Association refers the whole subject of medical education to the faculties of the regular medical colleges of the nation, pledging itself to adopt and enforce any system or plan that may be agreed upon by two-thirds of all recognized medical colleges.
>
> Resolved, That the resolution be referred to the Committee already acting in this matter (A. M. A. Committee on Medical Education), and they are requested to report within two years from this session.

When the next Annual Meeting of the A.M.A. convened in May 1869 at New Orleans, medical education was again a major issue. Dr. Baldwin, President of the Association, devoted his lengthy Presidential Address to the subject. He stated that he concurred fully with the sentiments on medical education expressed in the following excerpt from a letter he had recently received from "a gentleman who is one of the most distinguished surgeons of the age" (undoubtedly Samuel Gross):[27]

> The future holds no promise of amendment. We shall go on from bad to worse until the people can stand it no longer, and then we may hope to be able to effect some reform by our efforts as a great national association. The medical schools are getting worse every year, belowering the standard of education, and opening their doors more widely by the reduction of their fees. The time is near at hand when honorable men will cease to take any interest in medical teaching"

Dr. Baldwin then continued his Address by expressing his equally despairing view of the standards enacted at the Annual Meeting in 1967:[28]

> The plan of action you have adopted, that of endeavoring to induce forty or fifty medical colleges, with conflicting interests, to agree voluntarily upon a "uniform and elevated standard of requirements for the degree of M. D.," and adopt it in good faith, has become almost a Utopian idea, a forlorn hope. Though urged with all the force that truth could impart, and enforced with all the appealing earnestness that the gravity of the subject could inspire, yet (the) views and wishes (of the A. M. A.) have not impressed themselves on the schools to such an extent as to change their course of action. It seems to me that all hope of reform through this means must be abandoned.

President Baldwin concluded his Address by saying that he could see no mode by which reform of medical education could be accomplished, except through enforcement by "Federal Legislation" and the founding of "one or more National Medical Schools" that would serve as national standards.

At the same meeting, the Annual Report of the Committee on Medical Education also deplored the condition into which the profession had fallen and the lack of progress toward reform. Furthermore, the decision at the previous A. M. A. meeting "to refer the whole subject of medical education to the faculties of the regular medical colleges of the nation," was sharply criticized. The Committee stated:[29]

> In this connection, we cannot refrain from most respectfully but most earnestly enquiring what the medical colleges of the nation have done in the past to entitle them to the confidence of the profession in this matter for the future… For twenty years it has been in their hands or entirely at their command… Any five years of that time would have sufficed for every change to have been made, had the schools, as a body, so willed it… There cannot be found then, in the opinion of your Committee, anything in the past action of the schools which warranted this Association in again committing the subject to their keeping…

In spite of failure to date, the Committee on Medical Education had not lost faith in the ultimate success of continuing pressure on the medical schools by the A. M. A. They recommended the following prescription:

The agencies by which reforms will be effected and advances made, we believe, will be chiefly these:

> - a more general formation of active medical societies that act harmoniously with the A. M. A.
>
> - the influence of high-toned and independent medical journals
>
> - but above and beyond all other influences we would place the action of the A. M. A. If it will act in this matter firmly, consistently, steadily progressive, it will in due time effect every desirable change, and the profession will rapidly rise in the respect and confidence of the public.

These disparate views reflected the confusion and frustration within the A. M. A. in 1869 . Obviously it had failed to induce a significant change in the inferior programs of the majority of the fifty-odd "regular" medical schools then existing (as distinguished from homeopathic, eclectic and other formula schools). As the premier medical organization in the nation, the A. M. A. faced a crucial dilemma over the course it should follow in overcoming the intransigence of the

medical schools, the very institutions that were undermining public confidence in the profession.

The debate on reform of medical education during the 1869 meeting of the A. M. A. finally concluded with the Report of the Ad Hoc Committee on Various Propositions and Communications from Medical Societies, etc. chaired by the tenacious Dr. Davis. The following observations and recommendations by the Committee were approved:[30]

> Whereas, The results of all the efforts made during the last twenty-five years to elevate the standard of medical education, through concert of action among the numerous medical colleges of this country, have proved with equal clearness that such concert of action in an efficient manner is unattainable; therefore,
>
> Resolved, That whatever is done to establish and maintain a just and fair standard of medical education throughout our whole country must be done by the profession itself, through its own voluntary organizations, in the same manner that it now establishes and enforces its Code of Ethics…
>
> Resolved, That this Association earnestly requests each State medical society to appoint annually one or more boards of examiners, composed of five thoroughly qualified members, whose duty it shall be to meet at suitable times and places for the examination of all persons, whether graduates of colleges or not, who propose to enter upon the practice of medicine in their respective States, except as have been previously examined and licensed by a similar board in some other State…
>
> Resolved, That each State medical society be requested to require its examining board to exact of every applicant for examination… proof of having had a proper general education and of having completed a full course of medical studies in a regularly organized and recognized medical school.)

The objectives of the above resolutions as set forth by Dr. Davis were met in California when the State Legislature enacted a law in 1876 to regulate the practice of medicine. As a result of this statute, which we shall later discuss, State Boards of Medical Examiners under the aegis of State Medical Societies were established in California. Other states also passed medical licensing laws whose chief objective was to disbar unlicensed practitioners. We shall see how the Boards ultimately contributed to the reform of medical education.

Assessment of A. M. A. Efforts to Reform Medical Education

In spite of continuing efforts by the A. M. A. and dedicated physicians such as Nathan Davis to achieve an acceptable standard of medical education in every regular medical school in the country, reform was essentially stalled in 1869. Relatively few schools followed the lead of Harvard et al in revising their entrance and graduation requirements. In fact, the overall status of medical education grew worse during the final decades of the century. This was due to the proliferation of inferior schools that were unable or unwilling to incorporate into their programs the information stemming from the scientific revolution in medical and basic sciences then in progress. The number of medical schools increased from fifty in 1870 to 162 in 1906[31][32]

Year	Medical Colleges
1870	50
1880	100
1890	133
1900	160
1906	162

The increase of 112 new medical schools, mostly of inferior grade, over a period of thirty-six years was not related to the health needs of the people but to professional vanity and the amplitude of student fees. As a result there was still a crisis in American medical education at the turn of the century.

We should not leave the subject of the A. M. A. without recalling that from its very inception the Association was committed to the improvement of medical education. Furthermore, one cannot follow the transactions of the organization without being impressed by the time and earnest consideration devoted to the subject, and without recognizing the impediments to success imposed by the self-serving and reactionary outlook of physicians at the time.

Medical Colleges Organize to Reform

Officers of the A. M. A. had little confidence in the ability of the medical colleges to reform themselves. Nevertheless, it could be anticipated that they would at some point, in view of the stalemate in the A. M. A., make renewed efforts to do so. This is an opportune juncture to summarize these efforts which were not initiated until 1876.

With the laudable goal of reform in mind, Dr. J. B. Biddle of Jefferson Medical College and five other professors, all of whom were from the Middle West or South, sent an invitation to all medical schools to send representatives to a convention in Philadelphia on 2 June 1876. The purpose of the convention was "to consider all matters relating to reform in medical college work." Representatives of twenty-two medical schools attended the convention which proceeded to form a "Provisional Association of American Medical Colleges" and pass a few resolutions one of which "recommended that all medical colleges offer three courses of lectures (presumably of at least five months each)." Dr. Biddle was elected President of the Association.[33]

A second meeting of the new Association was convened at Chicago in June 1877 in response to the call of President Biddle. Twenty-six colleges were represented. A constitution, bylaws and Articles of Confederation were adopted including the name of "American Medical College Association" and the statement that "The objects of the Association shall be the advancement of medical education in the United States and the establishment of a common policy among medical colleges in the more important matters of college management." The medical curriculum proposed at this meeting was hardly revolutionary. It consisted of the traditional three-year apprenticeship during which the student must attend two regular courses of identical lectures. This was a long step backward from the national standards adopted by the A. M. A. in Cincinnati in 1867. Dr. Biddle was elected President of the American Medical College Association and Dr. Nathan Davis was chosen Vice-President.

Meetings of the Association were held in Buffalo in 1878 (15 colleges represented); in Atlanta in 1879; in New York in 1880 (25 colleges represented); in Richmond in 1881 (18 colleges represented); in Cincinnati in 1882 (11 colleges represented). Little was accomplished by the Association. After it decided in 1880 to recommend three courses of lectures instead of two, twelve medical colleges withdrew from the Association. They feared loss of revenues if they adopted the lengthened curriculum. Their withdrawal was a fatal blow to the Association. Among the defectors were such well-known institutions as the New York College of Physicians and Surgeons, Jefferson Medical College, Rush Medical College, and Dartmouth Medical College.

The Association died. It had tried to raise standards too rapidly. No annual meeting was held during the years 1883 through 1889. There could be no better demonstration of the tenacity with which the majority of American medical schools clung to the traditional two courses of identical lectures as the major feature of the curriculum, and to lecture fees paid by students to the professors as the main source of support.

In March 1890 the five medical colleges in Baltimore and the staff of the Johns Hopkins University invited representatives from each of the 133 then-existing medical schools in the United States to convene at Nashville in May 1890 "for the consideration of reforms urgently needed in the system of medical education hitherto in operation in this country." The invitation made clear that the agenda would include discussion of

1. Three years Course of Six-Months Sessions
2. Graded Curriculum
3. Written and Oral examinations
4. Preliminary examination in English
5. Laboratory Instruction in Chemistry, Histology and Pathology

By this time resistance to reform had decreased and some seventy medical colleges, a majority of the 133 existing schools, sent representatives to the Nashville meeting. The original American Medical College Association was reorganized under the new name of "Association of American Medical Colleges" - a title that it retains to the present day. Dr. Nathan Davis served as President of the A. A. M. C. from 1891 through 1894 while the organization shepherded American medical colleges toward acceptance of the national standards he had called for in 1846 and defined in 1867.

State Licensing Boards Spur Reform

In 1891 the National Confederation of State Licensing Boards voted to require a minimum of three years of medical training. This decision to deny licensure to laggard schools was critical. It initiated at last an appreciable nationwide movement toward reform. By 1893, 96 percent of schools required at least three years of study, and when the A. A. M. C. met in San Francisco in 1894, twenty-one of the seventy-one members voted to require a four-year course to be effective for the graduating class of 1899. Cooper Medical College had already implemented such a requirement. In the Annual Announcement for 1893, the Faculty announced "the adoption of a four years' curriculum to take effect January 1st, 1894, for all students matriculating after that date."[34]

But much further progress was still needed, particularly in the content and methods of medical education nationally. In his Report on Medical Education in the United States and Canada to the Carnegie Foundation in 1910, Abraham Flexner mercilessly exposed the gross deficiencies still existing in the programs of the generality of American medical schools, a subject to which have already briefly referred and will later return.[35]

Revival of Medical Societies in California

We turn now to the role of the San Francisco Medical Society and the California State Medical Society in the general movement to reform medical education and drive out "irregular" practitioners (i. e., those without a legitimate M. D. degree).

We have seen that frustration over failure to reform medical schools led the A. M. A. in 1869 to call upon State Societies to establish Boards of Medical Examiners. It was recommended that applicants for a license to practice medicine be required by the Boards to submit proof of having had a proper general education, and of having completed a full course of medical studies in a "recognized school." It was hoped that the Boards would force medical schools to reform by recognizing only schools with high standards. The Boards would at the same time serve the purpose of weeding out "irregular" practitioners.

This leads us to a consideration of the revival of the San Francisco Medical Society and the California State Medical Society, both of which were in suspension during the early 1860's; and the extent to which these Societies contributed to the eventual establishment of Boards of Medical Examiners in the State.

Third San Francisco Medical Society, 1868

We have already mentioned that the First and Second versions of the San Francisco Medical Society, like other California medical societies in the Gold Rush era, failed to survive the intense medical competition, personal rivalries and social upheaval of the period. Prior to its complete disappearance in the late 1850's, the Second San Francisco Medical Society had a period of mild florescence during the presidency of Henry Gibbons, Sr. He never ceased to express regret, through editorials in the Pacific Medical and Surgical Journal, over the demise of medical societies in California, and he was a persistent advocate of their revival as a requisite for professional amity and advancement in the State.[36]

It is not surprising then to find Dr. Gibbons playing a major role in restoration of both the San Francisco and the California State Medical Societies. Although Dr. Gibbons never claimed the distinction, it was undoubtedly he who, in early January 1868, "invited to his residence several members of the profession, to consider the propriety of organizing a Medical Society".[37] After two or three more preliminary sessions to frame the Constitution and Bylaws, the first meeting of the Third San Francisco Medical Society was held on 4 February 1868. It was at this meeting that the officers and standing committees of the Society were selected.

Familiar names among the revived Society's new officers and committee members were J. P. Whitney, President; Henry Gibbons,

Jr., Recording Secretary; Thomas M. Logan, Corresponding Secretary; Henry Gibbons, Sr., Admissions Committee; and John F. Morse, Ethics Committee.[38]

Henry Gibbons, Sr., greeted the new Society with an editorial in the Pacific Medical and Surgical Journal of which he was Senior Editor:[39]

We are highly gratified to be able to announce the birth of (the San Francisco Medical Society), the need of which has been seriously felt by the members of the profession in San Francisco for a number of years. It opens on a liberal basis, ignoring all personal considerations, and all cliques and coteries… We have not a doubt of the success of the present movement. We know that the profession in this city contains the elements of a large, useful and flourishing association.

The first scientific meeting of the reborn Society was convened on 24 March 1868 in San Francisco's imposing City Hall.[40] In honor of the occasion, the newly elected president, Dr. J. P. Whitney, delivered an inaugural address which was ironically, in view of subsequent developments, mainly concerned with drawing the distinction between "regular" and "irregular" doctors in San Francisco.[41]

By 1868 San Francisco had become a more hospitable environment for medical societies and medical schools than previously. When gold was discovered in 1848 the population of San Francisco was less than 1,000. By the end of 1849, the Gold Rush had swelled the former bayside outpost to a chaotic city of 30,000. A decade later, in 1859, the population had more than doubled to a total of 70,000. By mid 1868, it had doubled again, reaching 147, 950.[42][43]

General conditions gradually improved as the population matured. By 1868, the motley assemblage of tents and shanties, argonauts and adventurers of '49 had given way to a stable and flourishing society. Schools, churches, business enterprises and family life contributed to an atmosphere of civility, culture and progress. It was a season of economic prosperity. There were good rains and bumper crops. Downtown consisted of substantial buildings, many of stone or brick. Comfortable middle class homes adorned the surrounding hills. Optimism was in the air as day-by-day, the gap narrowed between the eastern and western ends of the transcontinental railroad that would in another year link coast to coast.[44]

Dr. Gibbons was elated with the prompt and favorable response of the profession in San Francisco to the call for reinstatement of a medical organization in the city. In an editorial in the Pacific Medical and Surgical Journal in May 1868, he confidently predicted a bright future for this third San Francisco Medical Society.[45]

The Medical Society of San Francisco is now fully established, and in good working order. Its meetings are held on the evenings of the second and fourth Tuesdays of every month… in the City Hall. Already the good results of such organizations are rendered palpable by the development of professional activity and energy in the form of discussions and written communications. We expect the association soon to gain such a position as a school of medicine, that no practitioner can afford to do with out it.

Dr. Gibbons was prophetic. The Third San Francisco Medical Society has endured to the present day.

A. M. A. Invited to meet in San Francisco

The year of 1870 was a busy one for Dr. Gibbons. Most importantly, he masterminded the revival of the Medical Department of the University of the Pacific, as we have seen. He also undertook other important tasks.

In April 1870 the State Legislature established a State Board of Health, the second in the nation and, in May, Dr. Gibbons was elected as the first President and Dr. Thomas Logan as the Secretary of the State Board.[46][47]

During 1870, Dr. Gibbons served both as President of the San Francisco Medical Society and Vice President of the American Medical Association. In that dual role he presided over arrangements for the A. M. A. to hold its Annual Meeting in San Francisco in 1871.

As a result of previous groundwork by Dr. Thomas Logan, the A. M. A. let it be known that an invitation to hold its 1871 meeting in San Francisco would be welcome. In response to this encouragement, the San Francisco Medical Society appointed Dr. Joseph C. Tucker, director of the local U. S. Marine Hospital and a member of the A. M. A., to serve as a delegate from the San Francisco Medical Society to the Annual Meeting of the Association held at Washington, D. C., in May 1870. Dr. Tucker was the only delegate from California at the Washington meeting where he extended a formal invitation to hold the next Annual Meeting in San Francisco. The invitation was accepted, and at the end of the Washington meeting the "Association adjourned to meet at San Francisco on the first Tuesday in May, 1871." It would be the first meeting of the A. M. A. in the Far West.[48][49]

San Francisco was a popular choice because of the recent availability of a convenient means of travel, and the prospect of viewing the legendary region west of the Mississippi from the comfort of the transcontinental railway now in service. In an all-out construction race, the Central Pacific Railroad laid track from the west and the Union Pacific from the east until they met near Ogden, Utah. On 10 May 1869. with an engine from the west drawn up cowcatcher to cowcatcher with an engine from the east, Leland Stanford of the Central Pacific took up a position on the north side of the track and Thomas Durant of the Union Pacific on the south. Then each drove a spike that joined the rails, and inaugurated travel by train from the Atlantic to the Pacific. The ceremonies that followed celebrated an historic engineering achievement and marked the beginning of a new era. The festivities included an address by Professor Morse and, in honor of the occasion, Bret Harte was inspired to contribute the following deathless poetry:[50]

> What was it the engines said,
> Pilots touching - head to head ?
> ---
> Said the engine from the west;
> "I am from Sierra's crest,
> and if altitude's the test,
> Well, I reckon, it's confessed,
> That I've done my level best."
> Said the engine from the east:
> "Those who work best talk the least."…

Certainly there could have been few inducements other than tourism for the A. M. A. to hold its Annual Meeting in San Francisco in 1871. The city by the Golden Gate had a national reputation for factional infighting among its doctors and between its medical schools. Organized medicine in the city was currently represented by only a recently-resurrected local medical society of uncertain viability, and it was well-known that the California State Medical Society had expired of acute and chronic dissension in 1861.

It was soon evident that the contentious spirit of earlier days had not been extinguished. When the testy Dr. Stillman, Editor of the California Gazette, heard that the A. M. A. had been invited to meet in San Francisco he hastened to issue the following bull in June 1870:[51]

We give the following report of the proceedings of the National Medical Association, held in May 1870, at the National Capitol, as given in the New York Medical Gazette:

> "To those who have read the published reports of the proceedings of the late session of the American Medical Association, no words of ours could more vividly picture the degrading position in which that body has placed our profession before the eyes of the community. We would fain, if it were possible, keep the shame a secret; but the busy tongues of the daily press have babbled it verbatim by the column, to the thousand-eared public, and it is well that those who know our disgrace should know, also, that there are some among us who blush for it."
>
> (Now Stillman adds his caustic personal views.:) Twenty-one years ago this Association was organized with the best wishes and highest hopes of the medical profession. What has it done in all that time? Year by year it has dwindled until the hopes of its founders have ended in shame and humiliation. No subject of higher consideration than the fee that should be charged for examination for life insurance companies, or the color of the skin requisite to membership in medical societies was definitely settled.
>
> The proceedings upon the whole would do credit to some Trades' Union Convention, and its objects seem to have been no higher. If the profession at large has been deteriorating as fast as this national association during the same time, may God have mercy on us!
>
> The Association did agree upon one other thing which fills us with apprehension. It resolved, upon the solicitation of some physician, who was at Washington on some lobby business connected with a hospital contract, who it seems had credentials sent to him by the so-called San Francisco Medical Society, to invite them to meet next year in this city.
>
> We shall be glad to see them; we will show them the Seal Rock, Woodward's Gardens, our magnificent and unique City and County Hospital, and do the best we can to make their stay as pleasant as possible. The President of the San Francisco Medical Society, will be delighted to take them to Yosemite Valley; his overflowing wine cellars will make their hearts glad; but we hope the "nigger question" will not be raised here for we are not all white. Some Caucasian physicians too, do attend African patients, and the question might be raised - but we will not borrow trouble, "sufficient for the day is the evil thereof."

Editor Stillman's tirade merely confirmed the existing impression in the east that the professional environment in San Francisco was uncommonly rancorous. His sanctimonious criticism of the Association's handling of a membership issue involving race was uncalled-for. The National Medical Society in the District of Columbia, organized by African-American physicians, accepted members who were not licensed to practice medicine. Solely on that account the Ethics Committee, chaired by the meticulous Dr. Nathan S. Davis, ruled that members of the National Medical Society were ineligible to serve as Delegates to the Annual Meeting at Washington in May 1870. The decision was warmly contested at the meeting but finally sustained by a large majority, "inasmuch as it has been distinctly stated and proved that the consideration of race and color has had nothing whatsoever to do with the decision." The episode does serve to point up again the divisiveness of the question of "irregular" physicians.[52]

In rebuttal to Dr. Stillman, Henry Gibbons only published a quite civil letter from Dr. Tucker who mildly rebuked the personal slanders and bad manners of the Editor of the Gazette.[53] Dr. Gibbons himself stayed out of the dispute for he was at this time engaged in fending off Stillman's vicious editorial attack on the Faculty of the Medical Department of the University of the Pacific for their letter to the Regents of the State University. In that communication the Faculty urged the Regents to organize the medical department of the University distinct from any medical school, and to appoint an impartial Board of Examiners for conferring degrees.

Revival of California State Medical Society

As President of the San Francisco Medical Society, Dr. Gibbon's attention was now drawn urgently to a vital issue. The existence of a State Medical Society was an essential prerequisite to the hosting of the A. M. A. in May 1871. This meant that only eight months remained in which to revive and reorganize the defunct State Society. To expedite the process, Drs. Gibbons and Logan, acting in their capacities as President and Secretary of the State Board of Health respectively, published the following notice in the issue of Pacific Medical and Surgical Journal for September 1870:[54]

State Medical Society

> State Medical Society
>
> In compliance with the request of a number of physicians in different parts of the State, and in view of the meeting of the National Society to be held in San Francisco in May 1871, the State Board of Health, as the only organization representing in any degree the profession in the State, hereby invite all regular practitioners in California to meet in San Francisco on
>
> Wednesday, October 19th
>
> for the purpose of reorganizing the State Medical Society. Local Societies and Medical organizations of all kinds are request to send

delegates.

H. Gibbons, President
T. M. Logan, Secretary.

Pursuant to the above call from the State Board of Health, the meeting to reorganize the State Medical Society of California convened in the hall of the Young Men's Christian Association in San Francisco on the 19th and 20th of October 1870. At the request of Dr. Gibbons, Dr. Logan delivered the address of welcome:[55]

> Gentlemen: In consequence of the part I have taken, as the executive of the only organization representing, in any degree, the profession of the State, in calling you together, it becomes my privilege, as well as my duty, to thank you sincerely for this your cordial response. Fourteen years ago, in association with the lamented Cooper, who was the leading spirit of the occasion, I officially signed the call, as Corresponding Secretary of the Medical Society of Sacramento, for a Convention in that city, to inaugurate the scheme which we are now assembled to resuscitate. The objects for which the State Medical Society was formed did then, as they do now enlist my warmest interest and command my active cooperation; and, judging from the intelligent - many of them old familiar - faces around me, I have reason to believe that I entertain these views and professions only in common with you all…

Upon conclusion of Dr. Logan's address, Dr. A. B. Stout, who played such a prominent role in the extinction of the former State Society, came forward with the motion "that this Convention organize itself into a State Medical Society." The motion was immediately approved and the original Society was thus reborn at the behest of its former despoiler, and without a whisper of dissent.

Drs. Logan of Sacramento, Gibbons of San Francisco and Shurtleff of Stockton were appointed as a committee to draft a constitution, an assignment they promptly discharged by recommending that the Constitution of the old Society be adopted. Their recommendation was approved unanimously.

Dr. Logan was then unanimously elected President. Dr. Stout was elected as Treasurer, and Drs. Nixon of Sacramento and Gibbons, Jr., of San Francisco as Secretaries.

Throughout the proceedings, emphasis was on the amicable and brisk conduct of business. When Dr. Hoffman of San Diego offered the following resolution, controversy over "the woman question" was avoided through a parliamentary maneuver by Dr. Stout:[56]

> Resolved, That all persons, of either sex, who possess the qualifications prescribed by the Constitution may become members of this society.

On a motion by Dr. Stout, the motion was laid on the table, indefinitely.

When a member from the interior, in the course of remarks, referred to the profession in San Francisco as bearing the reputation of being divided into hostile cliques, Dr. H. Gibbons, Sr., requested the privilege of correcting the error. He argued that the great body of physicians of the city were in perfect harmony. He added, no doubt with Dr. Stillman in mind, that as a matter of course, among so many there are bound to be a few growlers who take pleasure in giving a bad name to medical organizations.

Dr. Gibbons pronounced the meeting for reorganizing the State Society to be a complete success. He characterized the proceedings as entirely harmonious and marked by a high degree of professional spirit. About eighty doctors were enrolled as members. Many others who were not able to attend signified their wish to become members. Therefore, the meeting was adjourned until 1 May 1871, the day before convening of the San Francisco Meeting of the American Medical Association, at which time they had an opportunity to join the State Society.

A. M. A. Meeting in San Francisco, 2-5 May 1871

In the opinion of Dr. Gibbons, the atmosphere of the meeting was distinguished by the gracious hospitality extended by the San Francisco hosts to their visiting brethren from the east. As predicted by Dr. Stillman, there was a busy schedule of sight-seeing for the guests including visits to medical and cultural institutions, and views of the awesome scenery of San Francisco Bay during a lengthy excursion aboard the steamer Antelope.

When officers of the Association for the ensuing year (1872) were selected, Dr. Thomas. Logan was chosen First Vice President. This placed him in the line of succession so that at the Annual Meeting for 1872, he was elected President of the A. M. A. for 1873.

Topics on the agenda of the San Francisco meeting ranged from medical education to ethical matters, including quackery and abortion, but no significant issues were settled.

Unfortunately, the President of the A. M. A., Dr. Alfred Stillé (1813-1900), Professor of the Theory and Practice of Medicine at the University of Pennsylvania, chose an unfortunate theme for his Annual Address. According to Dr. Gibbons' sarcastic resumé of the President's remarks:[57][58]

> Dr. Stillé canvassed pretty fully the question of Women Doctors, and administered to the sex a merciless castigation for their attempts to rise to a level with man in intellectual pursuits. He proved conclusively that the female mind was vastly inferior to that of man, and that women are incapable of studying and practicing medicine with success, or of attaining to distinction in any pursuit which requires mental force. His strictures on this topic were highly relished by a portion of the audience, while others were perplexed to comprehend how such an inferior animal could be the mother of man.

We include the following excerpts from President Stillé's comments in order to reinforce the point that it was not unusual for arrogant men in the highest echelons of the profession to deride the endowments of women:[59]

> In every department of active life man excels woman, excels her even in things for which she is esteemed most fit. In the arts of design, in painting and sculpture, no woman, albeit the artist's career has always been open to her, has ever risen far above mediocrity; while men have excelled women in not a few employments which are regarded as essentially feminine. In the art of cookery, for example, no woman ever occupied the first rank; and in more than one capital, male hairdressers and dressmakers set the fashions in which court ladies and city dames contend for the palm of beauty.…
>
> Women may possibly become persuasive preachers, or even safe practitioners of domestic medicine; but learned and subtle divines, great lawyers, scientific physicians - never. To reach such eminence, a knowledge of principles is necessary, a power of eliminating the essential from the accidental, of distinguishing plausible falsehood from genuine truth, and that power has been denied them. It seems very probable that if woman could be made fully to comprehend the difficulties of a professional career, and the vastness and complexity of medical science and art, she would be less eager to become a physician.…
>
> If, then, woman is unfitted by nature to become a physician, we should, when we oppose her pretensions, be acquitted of any malicious or even unkindly spirit…

After Dr. Stillé's Address, a controversial amendment to the Association's Constitution, proposed by Dr. Hartshorne of Pennsylvania at the previous Annual Meeting, was called up for consideration:[60]

> Resolved, That nothing in this Constitution shall be so construed as to prevent delegates from colleges in which women are taught and graduated in medicine, and hospitals in which medical women graduates in medicine attend, from being received as members of this Association.

Dr. Nathan Davis, the chief parliamentarian of the meeting, pointed out that the net result of this amendment would be to admit delegates from female colleges, whether male or female, to the meetings of the Association. It would, in essence, legitimize the admission of qualified women to the A. M. A. on an equal basis with men - and Dr. Davis was firmly opposed to this eventuality.

In the heated debate which followed, Dr. Gibbons' response to the demurrer of Dr. Davis is memorable:[61]

> I am surprised at so good a logician as Dr. Davis resorting to the ad captandum bugbear of female suffrage. The question is not, Shall women study and practice medicine? We can not settle that question. They are doing it in spite of us, and the more we oppose them, the greater their determination and their success, and the stronger the public sympathy for them. The question is, When a woman has had a regular medical education, and has received a well-earned diploma, shall we treat her with the same courtesy as a man, or shall we trample her under foot merely because she is a woman? I don't understand why the idea of a female delegate in this body is so terrifying. We have ladies here now, as spectators, by special invitation, and the members appear satisfied. This is the first time I ever spoke publicly on this question. But standing here on the verge of the continent, outside of the vortex of excitement, and surveying dispassionately the course of events in America and in Europe, I am satisfied that, in our opposition to female doctors, we are only damming up the stream to increase its power. Public sentiment is more and more against us. Our best policy is to accept the situation. In view of the future, I wish to place myself on the record in favor of the amendment. Let women study and practice medicine if they will. It is a matter of taste. We can not help it…If a woman is smart enough to compete with me in practice, let her do it. I will show her fair play, just as I do a man.

After an animated discussion of about two hours, a motion to postpone indefinitely was carried: yeas, 85; nays, 25.

In concluding our reference to the first meeting of the A. M. A. on the Pacific Coast, we must reluctantly report that some of the medical profession in San Francisco misbehaved during the meeting, thus preserving the city's reputation for divisive "cliques and coteries." Dr. Gibbons' mail from delegates to the recent meeting contained references to "disorder and want of harmony as a feature of the sessions of the Association lately held in San Francisco."

Dr. Gibbons, as usual, rose to the defense of the local profession, insisting that although some of the doctors refused to participate in the reception of the visitors, the welcome was on the whole extremely cordial. He maintained that "the physicians of the city and State vied with each other in perfect harmony of feeling and action, for the purpose of honoring and entertaining their guests."

Dr. Gibbons conceded that a disreputable publication did appear during the meeting, denouncing the Association and falsely asserting that a large number of the most eminent medical men in town were hostile to it - statements which our faithful apologist dismissed as false, mendacious and malignant.

In spite of Dr. Gibbons' impression that perturbations in the San Francisco medical community during the A. M. A. meeting were minor and inconsequential - one might say within the normal range for the universe in question - they were sufficient to evoke from President Stillé the following rather stern letter to Dr. Gibbons:[62]

> I sincerely trust that the late meeting may have some influence in promoting union among the members of the Profession in your city, and at the same time in showing those of them who kept aloof that their conduct has done more to lower them in the opinion of their visitors than they can readily estimate. The people of San Francisco have lived so isolated a life until the railroad was opened, that some of them seem to have forgotten that they belong to the family of civilized man, and are expected to conform to the usages and courtesies of older communities.

Evolution of the California State Board of Medical Examiners

Our ultimate objective in tracing the revival of the San Francisco and State Medical Societies is to provide background for an assessment of their role in the establishment of a State Board of Medical Examiners in California, as urged by the American Medical Association.

It is surprising to learn that Dr. Gibbons actually had little interest in

this issue. In January 1870 he wrote an editorial in the PMSJ entitled "Legislation against Quackery:"[63]

> A bill has been introduced in the California Legislature by Mr. Naphtaly, similar to the law of Ohio, Minnesota and some other states, prohibiting persons from practising medicine without the diploma of a medical College, or a license from a State Board of Examiners… The subject is a fit one for legislation, provided legislation can be made effectual. It is well, however, that the movement is not made by physicians.

Also in January 1870, Dr. Stillman disavowed interest in Mr. Naphthaly's bill before the Legislature. Unaccountably, in view of his contempt for the organization, Stillman assigned to the American Medical Association the task of determining standards and, through subordinate associations in each State, conferring the medical diploma. He addressed the topic in his usual incisive manner:[64]

> A Bill is before the State Legislature which has for its object the regulation of the practice of medicine. Its details are unknown to us, nor do we care to know them…
>
> The American Medical Association has for more than twenty years been laboring to. ..raise the standard of medical education, but without success… When the Association addresses itself to the work of establishing its own standard of medical qualifications, and shall confer its own title upon its members, with subordinate associations in each State, then it will have taken the only available road out of the wilderness…
>
> Then the A. M. A. may ask for legislative protection only to punish all such as assume its title without its authority. This, it seems to us, is all the legislation that should ever be asked for by the medical profession.

Meeting of State Medical Society, April 1873

As indicated by the above editorials, an antiquackery law had already been under consideration in the California Legislature for several years when the Third Annual Meeting of the California State Medical Society convened in April 1873. It was at this meeting that Professor John F. Morse introduced the following Resolution, the only proposal regarding a Board of Medical Examiners to be considered by either the San Francisco and or the State Medical Society until the 1875 meeting of the State Medical Society:[65]

> Resolved, That the State Medical Society of California, desiring to see some system adopted by which a high and liberal standard of medical education and graduation may be secured, have heard with great pleasure that our State University contemplates the organization of an independent Board of Medical Examiners, and we do hereby express the hope that such a Board may be appointed, on a foundation so independent, that, upon their certificate of graduation, a diploma of the University will be granted and conferred , irrespective of the school or source of instruction in which the applicant has been educated.

This resolution was similar to the proposal to establish a Board of Medical Examiners made to the Board of Regents of the University of California by the Faculty of the Medical Department of the University of the Pacific in 1870. As we have already noted, when the proposal was adopted temporarily by the Regents in c. April 1873, it caused much confusion and ill-will.

Approval of Dr. Morse's Resolution by the State Medical Society would keep open the question of a State Board of Medical Examiners appointed by the Regents of the University of California with the sole power in the State to conduct final examinations and award the M. D. degree. If such a Board were established, both Dean Cole's Medical Department and the Medical College of the Pacific would thereby be divested of important prerogatives.

It is important to note that the State Board of Medical Examiners as proposed by Dr. Morse did not address the issue of licensure of all physicians in the State. That being the case, his Resolution failed to deal with the major problem agitating the public and physicians in California, i. e., "irregular" doctors and quackery.

After a lengthy discussion, the State Society declined to approve the Resolution, deeming it "premature." It was, therefore, on motion, laid upon the table for one year.

Meeting of San Francisco Medical Society, c. June 1873

A few months later at the meeting of the San Francisco Medical Society, Dr. Morse again campaigned for his version of a State Board of Medical Examiners. He made the argument that control of examinations and graduation by an independent Board of Examiners would raise the standard of medical education and enhance the value of the M. D. degree. He concluded by introducing the following Resolution which was similar to that tabled at the State Society meeting:[66]

> Resolved, That in the opinion of the San Francisco Medical Society, there should be a competent, independent State Board of Medical Examiners, whose duty it should be to carefully examine all persons who claim the proper qualifications, and who desire to obtain a diploma of regular medicine; and that to such applicants as pass this examination and receive the endorsement of the aforesaid Board of Examiners, there should issue a diploma from the highest possible State authorities, irrespective of any conditions except the thorough qualification of the applicant, as attested by the Board of Examiners.

After discussion, the San Francisco Medical Society adopted the Resolution and commended it to the consideration of the several medical associations throughout the State.

Meeting of State Medical Society, April 1874

Encouraged by the support of the San Francisco Society, Dr. Morse reintroduced his Resolution a year later on 16 April 1874 at the Fourth Annual Meeting of the State Society, again recommending the institution of a State Board of Examiners not connected with any medical school, which should have the exclusive authority to conduct final examinations and confer degrees.[67][68]

This was the third time within a year that Dr. Morse had proposed his Resolution to a medical society. Dr. Beverly Cole saw plainly that implementation of the proposal would significantly limit his authority as Dean of the Medical Department of the University of California, and would be a coup for the Medical College of the Pacific whose Faculty had originally proposed the measure to the Board of Regents of the University. Thoroughly incensed at the repeated introduction of this threatening Resolution, Cole attacked it with great severity, declaring it to be impracticable and preposterous. He also reflected harshly on Dr. Morse, personally.

Dr. Morse responded in his usual earnest and persuasive manner and it was evident from the frequent applause which he elicited that he had with him the sympathies of the audience.

But when Dr. Gibbons saw that Dr. Cole's intemperate language was becoming a needless embarrassment to the Society, he adopted a standard stratagem for controlling unruly debates. He offered a substitute Resolution calling for further study of the issue:

> Resolved, That it is desirable that there should be a uniform system of examinations for the Degree of Doctor of Medicine, apart from the institution of teaching, so that the Diploma shall be awarded to all competent candidates, and that the profession and society at large shall be secured against the possibility of the degree of Doctor of Medicine being conferred upon unworthy or incompetent individuals.
>
> Resolved, That a committee of five be appointed by the Chair, to prepare and present at the next meeting of the society some plan by which the said object can be accomplished.

Dr. Morse accepted the substitute, and it was adopted unanimously. The committee of five was appointed to included Drs. Morse, Gibbons and Logan. There the matter rested. The committee never reported.

Separation of teaching from qualifying examinations and credentialing was a lost cause. It was an abortive attempt to plant a British tradition in stony ground. Dr. Cole was correct. The proposal was impracticable and not in his interest - nor in that of the Medical College of the Pacific. Had the proposal been implemented, medical education in California would have been politicized, as was the administration of the University of California itself after the departure of President Gilman.[69]

Dr. Morse's Resolution would not have received so many hearings but for the wide personal influence of Dr. Morse. He doubtless would have continued to press for its adoption had he not become seriously ill during the fall of 1874. He died on 31 December. It was his last crusade.

Meeting of the State Medical Society, April 1875

Dr. Thomas Logan, Secretary of the State Board of Health, was also Chairman of the Society's Committee on State Medicine and Public Hygiene in California. In his Committee Report, Dr. Logan referred to the Society's past failure to adopt the Resolution of Dr. Morse, and pointedly refrained from proposing further consideration of it.

He further reported that he had been called upon by the California Legislature, as the Chief Sanitary Officer of the State, to prepare a bill for presentation to the next Legislature, looking specifically to the prevention of the practice of medicine and surgery by unqualified persons.

In response to these instructions, Dr. Logan drafted a statute for establishment of a State Board of Medical Examiners with the responsibility to determine the validity of the Medical Degree of every physician practicing medicine or surgery in California. In preparing the statute, he drew upon the text of measures being enacted by other States for the same purpose, including Nevada and New York.

Dr. Logan concluded his Committee Report by appending a copy of his proposed bill bearing the following title:[70]

An Act For the Better Protection of the Sanitary Interests of the People against Fraud and Imposture in the Practice of Medicine land Surgery.

After a free discussion of the Act and related issues, the Society appointed a three-member Committee on Legislation which drafted a bill that was laid before the Legislature. Members of the Committee lobbied for adoption of its provisions, some but not all of which were included in the final version of the legislation.[71][72]

Final Bill to Regulate Medical Practice in California, April 1876

A bill to regulate medical practice was finally approved by the Legislature on 3 April 1876. The following is a summary of its main provisions:[73][74]

The Act to Regulate the Practice of Medicine in the State of California

> The Act to Regulate the Practice of Medicine in the State of California
>
> The Act requires that each State Medical Society incorporated and in active existence on 10 March 1876, whose members are required to possess diplomas or licenses from some legally chartered medical institution in good standing, shall appoint annually, a Board of Examiners consisting of seven members; who shall hold their office for one year, and until their successors shall be chosen.
>
> The Act further provides that every medical graduate practicing medicine in the State shall present his diploma to the Board of Examiners for verification as to its genuineness. If the diploma is found genuine, the Board shall issue its certificate to that effect. A diploma and certificate are required for the lawful practice of medicine in the State.
>
> If not a medical graduate, the person practicing medicine in the State shall present himself before the Board, and submit himself to such examinations as the Board shall require; and if the examination be satisfactory to the examiners, the Board shall issue its certificate in accordance with the facts, and the lawful holder of such certificate shall be entitled to all the rights and privileges mentioned in the Act. But no examination into the qualifications of persons not holding diplomas or licenses shall be made after 31 December 1876. After this date no certificates shall be granted by the Board except

> to persons presenting diplomas or licenses from legally chartered medical institutions in good standing.
>
> (This provision for certification by examination was inserted to provide a strictly limited period during which "old-timers," who held no diploma but had proven competent in practice, might obtain a certificate if able to pass examination by the Board.)
>
> Any person practicing medicine or surgery in this State without complying with the provisions of this Act, shall be punished by a fine of not less thant fifty dollars ($ 50) nor more than five hundred dollars ($ 500), or by imprisonment in the County Jail for a period of not less than thirty days nor more than three hundred and sixty-five days, or by both such fine and imprisonment, for each and every offense.
>
> (This original Medical Practice Act, with minor revisions made in 1878, remained in effect and unchanged in form until 1901.)

Nothing in the Act prevented Homeopathic physicians and Eclectic physicians from organizing State Societies and appointing Boards of Examiners in like manner to the California State Medical Society for "regular physicians." This option was initially considered by regular physicians to be an objectionable feature of the Act, but when the Homeopathic and Eclectic Boards proved diligent in rooting out the blatant quacks in their own ranks, the regular physicians were mollified.

The above Act as finally adopted was the result of five years of study and debate in the Legislature, involving many individuals and organizations, including Dr. Logan and the State Medical Society who, as we have seen, were late in taking an active interest in the formulation of the bill. It is sad to report that Dr. Logan, the leading medical statesman of California in his era, was not to be rewarded by seeing the approved version of the legislation. He died on 13 February 1876. At the time of his death he held the chair of Hygiene in the Medical Department of the University of California.[75]

Meeting of the State Medical Society, April 1876

The Sixth Annual Meeting of the State Medical Society met on April 19th and 20th in San Francisco. We take special note of the following two significant actions of the Society.

First, the Society voted to admit women holding valid medical diplomas to the State Society on the same basis as men. Five women were duly elected to membership (three from San Francisco, one from Oakland and one from San Jose). A male member of the Society wrote a strong letter of objection to the Editor of the PMSJ. To which Dr. Gibbons replied:[76][77]

> As for the argument of our correspondent against admitting females to membership, we will leave it to have its full weight with the reader, simply remarking that if women "cannot" practice medicine, the sooner they are allowed to try it, the sooner the question will be settled, and the sooner they will retire from the field. They are determined on the trial and we cannot prevent it. Let them show their incapacity if they are incompetent, and then we shall be done with female doctors. If they cannot stride a mustang or mend bullet holes, so much the better for enterprising and skillful practitioners of the sterner sex.

Seven weeks later, on 6 June 1876 at the Annual Meeting of the A. M. A in Philadelphia, Dr. Sarah Hackett Stevenson, delegate from the Illinois State Medical Society, became the first woman member of the A. M. A.

Second, the California State Society elected the seven members of the first Board of Examiners of the Medical Society of the State of California. Dr. Gibbons was among them. The Board was officially organized on 1 June 1876. It was announced in the PMSJ that the first meeting for examinations would be held in San Francisco on June 29th; and that meetings for the same purpose would be held subsequently at Sacramento, Chico, and Los Angeles.[78]

Dr. Gibbons, who was 68 years of age, was forced to resign from the Board of Examiners on 19 September 1876 because of illness. It was an ominous sign that his health had begun to fail. From that period until the time of his death on 5 November 1884, he was frequently unwell.[79][80]

State Licensing Boards Spur Reform

We now recall the Resolutions proposed by Dr. Nathan Davis and endorsed by the A. M. A. in 1869 calling upon the State medical societies of the country to establish State Boards of Medical Examiners in the hope that they would promote the reform of medical education. Eventually, this approach had the desired effect.

On 4 January 1888 the California Board of Medical Examiners took a firm step in the hoped-for direction of mandating educational reform by adopting the following resolution:[81]

Whereas, the law to regulate the practice of medicine in the State of California, provides, that the Board of Examiners in the discharge of its official duties shall determine what colleges are in good standing, whose diplomas may be presented by applicants for certificates under the law;

And, Whereas, it is apparent that the protection of the public and the best interests of the profession require a higher standard of medical education than that which is now adopted by many Colleges,

Therefore, Resolved, that on and after April 1, 1891, the Board of Examiners of the Medical Society of the State of California will not grant certificates to practise medicine on diplomas issued after that date by Colleges which do not require that all candidates for graduation shall have studied medicine not less than three full years, and shall have attended not less than three full regular courses of lectures delivered during three separate yearts.

In 1891 the National Confederation of State Licensing Boards voted to require a minimum of three years of medical training. This decision to deny licensure to laggard schools was critical. It initiated at last an appreciable nationwide movement toward reform. By 1893, 96 percent of schools required at least three years of study, and when the A. A. M. C. met in San Francisco in 1894, twenty-one of the seventy-one members voted to require a four-year medical program to be effective for the graduating class of 1899.[82]

Cooper Medical College had already implemented such a program. In the Annual Announcement for 1893, the Faculty announced "the adoption of a four years' curriculum to take effect January 1st, 1894, for all students matriculating after that date."

But much further progress nationally was still needed, particularly with respect to premedical studies and the content and methods of medical education. In his Report on Medical Education in the United States and Canada to the Carnegie Foundation in 1910, Abraham Flexner mercilessly exposed the deficiencies still existing in the programs of the generality of American medical schools, a subject to which have already briefly referred and will later return.[83]

Endnotes

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Chapter 23. Educational Reform at Medical College of the Pacific 1872-1882

The foregoing summary of the disappointing national effort to reform medical education nationally will serve as background for the following account of the evolution of medical standards at the Medical College of the Pacific.

Under the policy adopted originally by Elias Cooper et al when the Medical Department of the University of the Pacific was founded in 1859, responsibility for taking the minutes at Faculty meetings was assigned to the Dean. In the early days, when Dean Cole kept the minutes, they were brief, often scarcely legible, and frequently on mere scraps of paper. As a result, information regarding Faculty deliberations and curricular matters during his era is scanty. In contrast, the minutes beginning in 1870, written in the fine hand of young Dean Henry Gibbons, Jr., are clear and concise. He meticulously recorded in laconic style an impressive succession of astute actions that portray the Cooper loyalists who revived the school in 1870 as experienced and committed professionals.

Graduation Requirements at Medical College of the Pacific in 1872

The Annual Session for 1872, extending over the five months' period from June 3rd to November 3rd, was the first Session of the newly established Medical College of the Pacific (MCP). The only major change in the requirements for graduation in the Cooper schools between 1859 and 1872 was an increase in the duration of the Annual Course of Medical Lectures from four months to five months, beginning with the Session for 1870. Otherwise the following requirements for graduation in 1872 were the same as when the school opened in 1859:[1][2]

> The candidate must be 21 years of age.
>
> Must have attended two identical Annual Courses of Medical Lectures, each of five months' duration, one of which must have been delivered in this institution.
>
> Must have studied Medicine for three years (the terms of the Lectures included) under the direction of a respectable practitioner, i. e., serve an Apprenticeship.
>
> Must write a Medical Thesis and pass examinations.

Annual Lecture Course at MCP in 1872

Although requirements for graduation had changed little since 1859, the range of subjects taught in the Annual Course of Lectures was increased significantly upon revival of the school in 1870. Thereafter, the Lectures included new subjects related to the developing medical sciences and clinical specialties. This important trend is illustrated by the following list of subjects taught in 1872:[3]

Old Subjects:

Principles and Practice of Medicine
Clinical Medicine and Diagnosis
Surgery and Surgical Anatomy
Clinical and Operative Surgery
Pathology (with practical illustrations)
Obstetrics and Diseases of Women and Children
Clinical Ophthalmology and Otology
Materia Medica and Therapeutics
Hygiene and Insanity
Physical Diagnosis (Auscultation, Percussion, etc.)

New (Additional) Subjects:

Histology and Diseases of the Nervous System
Descriptive and Microscopic Anatomy
Theoretical and Practical Physiology
Ophthalmology and Otology;
Inorganic and Organic Chemistry
Analytical Chemistry and Toxicology;

The Annual Lecture Course was now beginning to reflect the contributions of Pasteur, Lister, Koch and other European investigators, to whom we have previously referred. Similarly, new clinical specialties were being introduced into the curriculum and reinforced by clinical instruction in the school's affiliated hospitals and clinics. The modern era of medical education and practice was beginning to emerge.

Free Preliminary Lecture Course

Prior to suspension of the Medical Department of the University of the Pacific in 1864, a Preliminary Course of only one month duration was provided. At the Faculty meeting on 15 December 1870, shortly after successful completion of the first Session of the revived Medical Department, it was decided to augment the curriculum by lengthening the Preliminary Course of Lectures from one to four months. Attendance was optional and there was no examination or grade. As an inducement to attend the Course, there was no charge to the students who matriculated for the Regular (or Annual) Course.

For example, in 1872 the Preliminary Lecture Course was given over a four month period from February to May, and was followed by the five month Regular Course from June to November. Here is the description of the Preliminary Course from the Annual Announcement for 1872:[4][5]

> Aware of the impossibility of treating fully in the Regular Course all the branches with which it is well for the Student to become acquainted, the Faculty instituted, in January 1872, an Extra Course of Lectures, which is now in operation, and is free to all Matriculants for the Regular Course. Eight Lectures a week are now being delivered on Insanity and Medical Jurisprudence, the Special Surgery of the Head, Special Anatomy, Operative Surgery and Pathology, Diseases of Children, Diseases of the Skin, the Thermometer in Diagnosis, Methods of Physical Diagnosis (Auscultation, Percussion, etc.), and on Practical and Analytical Chemistry and Toxicology. Besides this, Clinical Instruction is given three times a week at the College; and Surgical and Medical Clinics twice a week at the City and County Hospital. The Dissecting Room is open the year round for the use of Students.

The Preliminary Lecture Course (renamed "Intermediate Course" in 1878), required considerable additional unrequited effort by the Faculty. For those students who voluntarily took the Course, it had the effect of extending the annual term of instruction to nine months. This substantial offering by the Faculty was evidence of their determination to improve the educational program, but they were not yet prepared to adopt a three-year graded curriculum.

Clinical Instruction in 1872

We learn from the minutes of 28 June 1870 that Dr. Gibbons, Sr., was directed to secure hospital privileges for teaching purposes at the San Francisco City and County Hospital. The minutes of 1 April 1871 record that equal clinical privileges with the Toland School had now been granted at the Hospital. The County Hospital was the most important clinical teaching facility in the city and so promptly to obtain equal access with the Toland School, which might have shut them out, was a major coup for the revived Cooper school.

As an additional resource for clinical teaching, the Faculty decided on 9 July 1870 to establish a Free Public Clinic (to be located at the University College Building) in accordance with the following generous plan:[6]

> ### Plan of Organization of the Public Dispensary and Clinique
>
> 1st. The Faculty to have the entire control and management as in other College matters; to designate from time to time, who may perform the service in order to make it most available for clinical instruction.
>
> 2nd. The Dispensary to be established and continued as a public charity, for the benefit of the poor, supplying medicines and advice gratuitously.
>
> 3rd. Any expenses incurred for the Dispensary and Clinique shall be incurred and paid as are the College expenses.
>
> 4th. The Dispensary shall be continued during the year in and out of the College Term and always open to the students of the College without charge.

The following excerpt from the Annual Announcement for the Session of 1872 outlines the overall provisions for Clinical Instruction made by the Faculty.[7]

Ample facilities for Clinical Instruction at the City and County Hospital having been obtained, Students will have the best opportunities for perfecting themselves in the practical branches. This Hospital contains over four hundred beds and from three hundred and fifty to four hundred patients, and furnishes examples of a large number of diseases. The greatest advantages for obtaining a knowledge of Venereal Diseases are afforded here, and Clinical Instruction will be regularly given on such affections and other Surgical Diseases including Diseases of the Eye and Ear, and of the Skin; on Diseases of Women, and on Diseases in general. Clinics are also occasionally given at some of the private hospitals.

Although the advantages thus offered are of much value, the Faculty desires to call special attention to the Public Dispensary established nearly two years ago, at the College building. New arrangements have just been completed, which will make the Clinic given here, a very efficient aid to Students in the study of disease, as material is abundant and of great variety and frequently furnishes operations. On three days of the week, patients are examined and prescribed for in the presence of the Students. Such a Clinic is of special value as enabling them to gain practical experience in the diagnosis and treatment of the Diseases of Children which cannot be obtained elsewhere.

In 1877 the U. S. Marine Hospital with 120 beds and 1000 patients annually, and St. Mary's Hospital were listed as also available for clinical teaching.[8]

It can be seen from the preceding review that the educational program of the MCP in 1872 was considerably improved over that in 1859, but the curriculum (like that in most other American medical colleges) was still quite deficient due to antiquated Requirements for Graduation.

Internship

In 1882 a formal program of postdoctoral training, available to a limited number of students, was announced.[9]

> Students, immediately upon graduating, are eligible for appointment as Interns for one year at the City and County Hospital. The position entitles its possessor to room and board free of expense, and affords an invaluable opportunity for obtaining practical knowledge and experience.

This modest offering represents the first of a considerable number of internships and residency positions later to be made available by the hospitals of San Francisco.

Curricular Reforms 1879 to 1883

Following the original meeting of the Provisional Association of American Medical Colleges in May 1876, to which we have referred, Dr. Biddle, President of the Association, recommended to all medical colleges that they increase their graduation standards by requiring completion of three identical Annual Lecture Courses instead of the usual two (each Course of five months duration).

President Biddle's recommendation was discussed by the MCP Faculty on 15 March 1877 and "the Dean was instructed to reply to the Association of American Medical Colleges that our College was ready to accept the plan proposed if it be accepted by the other school in this city and by the schools throughout the country; and that we favor an additional regulation, requiring that every student, before being admitted to lectures, be subjected to a rigorous examination." This was a perfectly safe position for the Faculty to take because most of the other medical schools in the country would certainly not follow the Association's recommendation.

As will be further discussed below, in 1879 the MCP finally adopted Dr. Biddle's proposal for three identical Annual Lecture Courses as the first step in a major overhaul of the curriculum.

Meanwhile an exasperated Dr. Gibbons, Sr., in 1877 again entered the lists in defense of contemporary American medical education as he knew and cherished it. His description of student life at the Medical College of the Pacific provides a rare glimpse of their academic schedule.[10]

> American physicians have written so much in complaint of the low standard of education in this country, and the low grade of our medical schools, that it is but reasonable for foreigners to take them at their word and presume on their ignorance and incompetence. I have heard of a man who was so impressed with a sense of his own unworthiness that he begged every person he met to give him a kick. His humility finds a parallel in some of our self condemning physicians, journalists and writers…
>
> The truth is that we have in the profession a self constituted aristocracy who assume a superiority not founded on superior merit, and who would willingly provide laws for the brotherhood. But the only aristocracy which the profession will ever acknowledge is that of merit. The late Dr. Condie, who walked the streets of Philadelphia in the practice of medicine for fifty years, used to say that to drive a horse was a sign of weakness in the legs, and to drive a pair was a sign of weakness in the head. I should not like to say amen to this, but I submit that men who live in cities and drive two horses have no more right to dictate to the profession than the average country doctor. I might change my opinion should I come to drive two horses…
>
> But let us look at home - for it is here that I wish to particularly direct your attention. In this new country, and with all the disadvantages of remote location and other circumstances, the range of study and practice in the school to which I am attached is so far superior to that of the great Pennsylvania schools thirty or forty years ago as to render the latter almost ridiculous. Then the microscope was unknown to the student. Now it is his daily companion. And so of the stethoscope, the speculum, the laryngoscope, the ophthalmoscope, the clinical thermometer, and other adjuvants to different branches of study.
>
> I am sorry that a disposition exists in certain quarters to decry and frown down our California medical schools… In the college to which I am attached, the life of the student is one of constant industry and activity. Three days in the week he goes the round of the County Hospital, with its 400 patients, inspecting them for himself under the guidance of the professors - now in the medical ward, then in the surgical, from that to the ward for women and children, and for diseases of the eye and ear, and so forth. At the college he has a similar opportunity of investigating disease in the dispensary patients, who crowd there on three day of every week in numbers greater than can be properly disposed of. He handles chemicals in the laboratory, investigates morbid anatomy, and works in the dissecting room. All this is done, not merely during the regular lecture term of five months, but the whole year round. Didactic teaching also goes on throughout the year. Advanced students have opportunities of attending cases of labor under the private supervision of the professors. The stethoscope, the forceps, the clinical thermometer, the sphygmograph, the laryngoscope and other instruments old and new, are not forgotten. Examinations are made daily during the lectures, and the final examination for the degree is thorough and searching. When I graduated in the University of Pennsylvania, my examination occupied a short three quarters of an hour. At present two or three hours are required for each professor in our school. Our examinations are partly in writing , giving us a permanent record of the results…
>
> And when I take a general survey of the condition and progress of medical science, and the character and qualifications of medical men in our own country, and especially in California, so far from feeling any sense of humility and shame, I proclaim myself proud of my profession, glad to be in it and of it, to be identified with it, to live in it and, when the time shall come, to die in it.

In spite of his apparent satisfaction with the state of the art in California, Professor Gibbons and his MCP colleagues at about this time began seriously to consider major curricular reform. The Faculty's final decision to adopt a more advanced standard of education was announced one year later on 17 April 1878 at the Annual meeting of the California State Medical Society in San Jose. The announcement was included in the Report of the Society's Committee on Medical Education, chaired by Dr. H. S. Orme of Los Angeles. In his Report, Dr. Orme lamented the parlous state of American medical education and asked a rhetorical question:[11]

> Has anything been done to remedy these evils? We think there has; the bright light of a new day dawns upon us from the East. The Medical School of Harvard University, in 1871, as you are aware, inaugurated a system of education in that institution, which has stood the test of experiment for over six years, and has fairly won for that venerable university the imperishable honor of being the pioneer in the greatest of modern medical reforms…
>
> I am happy to announce to you… (that) the Medical Department of the University of California and the Medical College of the Pacific have each conformed to this new system, and have formally established a three years' graded course of medical instruction in their respective schools. This is also gratifying to our sense of local pride, as every true Californian must feel a deep interest in the development and culture of all those who enter upon the study of our profession, and especially in the youth of this coast. These schools are attaining high rank, and we have reason to hope will soon be second to none in America.

Increase from Two to Three Identical Annual Lecture Courses

Dr. Orme was premature in announcing in 1878 that MCP had "formally established a three year's graded curriculum." Actually the MCP did not phase in the graded curriculum until the Session for 1881. Meanwhile only intermediate steps were taken. In 1879 Requirements for Graduation for the first time included attendance at three identical annual lecture courses (each of five months' duration), instead of two identical courses as formerly mandated. The rationale for this change, which had been recommended in 1876 by Dr. Biddle and the Association of American Medical Colleges, was outlined in the Annual Announcement of MCP for 1879, as follows:[12]

> This requirement for three (identical) courses of lectures instead of two is simply putting into execution a long contemplated plan, as it has been the constant desire of the Faculty to raise the standard of medical education, and to graduate capable, rather than many, students. No increase of expense will result, nor will the plan necessarily extend the period of study, but rather provide for a more systematic and profitable use of time, and better fit the student for the arduous and responsible duties of his profession.

Apprenticeship Abolished

Another significant change in graduation requirements in 1879 was to abolish the requirement that: "The candidate must have studied medicine for three years (the terms of attending Lectures included) under the direction of a respectable practitioner." This timely alteration in graduation requirements eliminated the apprenticeship from the medical school curriculum.

The Three Year Graded Curriculum (Three Course Plan of Medical Education)

The next important step in curricular reform was the adoption in 1881 of the graduation requirement that the student must have completed a graded sequence of three Annual Lecture Courses (also known as the "Three Course Plan of Medical Education"), instead of the three identical Annual Courses previously required. The details of the Three Course Plan were spelled out in the Announcement for 1881:[13]

> The Faculty has now fully completed and established the Three Course plan of education, which has been adopted by a number of the leading Colleges of the United States. While a direct pecuniary disadvantage, it is, nevertheless, a great satisfaction to have accomplished this result, as it has been the constant desire of the Faculty to raise the standard of Medical Education and to graduate capable, rather than many, students. No increase of expense will result, nor will the plan necessarily extend the period of study, but rather provide for a more systematic and profitable use of time, and better fit the student for the arduous and responsible duties of his profession.
>
> In carrying out this plan of a three-years' course, it has been determined to require a matriculating examination, or other evidence of the possession of at least a fair English education, with the expectation of making such examination more complete as the future may determine.
>
> During the First Year the student will be expected to direct his attention mainly to descriptive anatomy with dissections, physiology, chemistry, microscopy and histology, and surgery, upon which subjects an examination will be held at the close of the course. He will, however, be required to attend lectures upon the other subjects whenever a thorough attention to the above branches will permit.
>
> In the Second Year, to the studies above enumerated, will be added materia medica and therapeutics, theory and practice of medicine, obstetrics, gynecology, ophthalmology, otology, and pathology, with clinics on the various practical branches. At the close of this year, examinations will be given in descriptive anatomy, physiology and chemistry.
>
> In the Third Year the studies include surgical anatomy, surgery, materia medica and therapeutics, theory and practice of medicine, obstetrics, gynecology, ophthalmology, otology, microscopy and histology, and pathology, with clinics on the various branches. The graduating examination will be oral and written, upon all the subjects considered in the third course. This plan will receive such modification as experience may render advisable.
>
> As previously, graduation requirements still included the submission of a Medical Thesis.

Matriculation Requirement

The last academic reform to be introduced was the establishment of a formal requirement for matriculation (that is, for admission to the school.) It is interesting to note that no educational or other requirement for Matriculation in the Medical Department of University of the Pacific or its successor schools was specified in the Annual Announcements from 1859 through 1883, nor was the applicant requested to submit any information regarding prior education or training.[14]

The first specification of an admission requirement appears in the Annual Announcement of Cooper Medical College for 1884 as follows:[15]

> No student will be admitted to the curriculum who has not attained the age of eighteen years. All applicants for admission, except such as posses the qualifications hereinafter described, must pass a matriculating examination. Graduates of literary, scientific, medical, or pharmaceutical colleges or universities, in good standing, graduates of High schools, and applicants who have passed the examination for admission to any recognized literary or university, or who hold first grade certificates from any Public School Board, as properly qualified teachers shall, on producing proper evidence of the same, be admitted to matriculation without examination The examination will be practical rather than technical, its object being to determine the candidate's general knowledge and natural capacity, and whether his previous acquirements have been sufficient to enable him to pursue the study of medicine to advantage. The candidate will be examined in the following branches: English Composition, Physics, Arithmetic and Latin. etc.

The crux of the matter here is that, beginning in 1884 , a High School education was sufficient preparation for admission but, prior to that date, there were no formal admission requirements and standards were undoubtedly even lower.

Assessment of Reforms

With adoption of the Three Course Plan (Three Year Graded Curriculum) in 1881, the Medical College of the Pacific joined Harvard, Pennsylvania and other progressive schools in the vanguard of curricular reform in American medical education.

The length of time required to obtain the M. D. degree was not increased. It remained at three years, but the content of the curriculum

was immensely improved.

The combination of Intermediate Lecture and Regular Lecture Programs resulted in a school year of eight or nine months.

The apprenticeship, an outmoded experience that varied widely in quality depending upon the preceptor, was eliminated.

Minimum educational requirements for matriculation were finally established in 1884. These allowed admission on the basis of a High School diploma. Higher admission standards remained one of the major needs in medical education generally, but continued to be widely resisted nationally because higher standards meant fewer students eligible for admission and decreased income for the Professors.

Finances

Fees for the Three Course Plan

From 1859 through 1862 Lecture Fees were paid by students directly to individual Professors. From 1863 through 1878 a set charge of $ 130 was paid directly to the School for each Annual Lecture Course. When the three-year program was introduced in 1879, the Faculty decided to provide the lengthened program at no additional expense to the student. The cost of the two-year program was simply prorated over three years as follows:[16]

Fees for Three Regular Courses

First Course	
Matriculation	$5
Lectures	$130
Demonstrator's Ticket	$10
Second Course	
Lectures	$130
Third Course	
Graduation	$40

The net result of the new arrangement was to establish an overall tuition of $315 for three years of medical education.

Incidentally, the Medical Department of the University of California adopted essentially the same rate of tuition.[17]

School Finances and Faculty Compensation

The cost of operating the Medical College of the Pacific is indicated by the following excerpts from financial records of the College:[18]

Financial Report for 1870-1872

Year	Receipts	Expeditures	Balance
1870	$1781	$1270	$511
1871	$2249	$1591	$658
1872 (to July 16)	$1788	$926	$862
Balance on Hand on 16 July 1872			$2031
Allocation to Professors on 24 July 1872			$1150*
Remaining in Reserve			$881

*On 24 July 1872 It was decided to allocate $ 100 to each of the following seven Professors (Bowie, Morse, Gibbons, Sr., Gibbons. Jr., Lane, Cushing and Ellinwood; and to allocate $ 250 to Professor Bentley (Microscopic Anatomy and Pathology) and $ 200 to Professor Price (Chemistry and Toxicology). Total allocation: $ 1150.

The year of 1876 was more prosperous than the earlier ones, as is apparent from the following financial report:[19]

Financial Report for 1876

Year	Receipts	Expenditures	Balance
1876	$8456	$6509*	$1947

*On 30 October 1876, another dividend for the Professors was declared. The Dean was directed to disburse $ 200 for each of the past two years to each of the active Professors, making a total of $ 3400. This sum was included among the Expenditures.

The above data show that the Faculty of MCP received only nominal compensation. Further evidence of the fine spirit of the Faculty and their dedication to the school is seen in the following editorial comment in the PMSJ in the fall of 1882:[20]

> It deserves mention that the Faculty of the College have, for several years, performed the duties of their respective Chairs without a dollar of compensation, leaving the entire income of the school to the purchase of the required equipment and the establishment of a fund for future use. The fund is now sufficient to furnish every department lavishly with apparatus, instruments, etc., and to lay the foundation for a museum and a library. This course is proposed to be continued so long as there shall be occasion for it. It might be difficult to find another medical school whose Faculty has done so much work and entirely relinquished the profits of their labor for college purposes.

We now have some idea of the annual income and expenditures of the Medical College of the Pacific. We also know that the only source of College income was student tuition of $ 315, paid at the rate of about $ 150 per year per student from 1870 to 1878 (when the curriculum was of two years' duration) and at an annual rate of about $ 100 from 1879 to 1882 (when the curriculum was extended to three years). Utilizing these figures, we can make a rough estimate of the annual tuition income to the College by tabulating annual MCP matriculants from 1870 to 1882: Please note that the number of graduates was only seven in 1880, less than half the number in the previous two years. Dr. Gibbons pointed out that this was due to increasing the length of the course of instruction from two to three years in 1879.[21][22][23]

Matriculants, Annual College Income and Graduates Medical College of the Pacific

Year	MCP Matriculants	MCP Annual Income	MCP Grads	UCMD Grads*
1872	34	5100	10	3
1873	37	5550	13	8
1874	28	4200	8	10
1875	39	5850	13	15
1876	60	9000	22	19
1877	66	9900	13	15
1878	65	9750	26	9
1879	58	5800	15	12
1880	42	4200	7	12
1881	60	6000	9	14
1882	73	7300	**	
		Total Graduates	136	117

* Annual graduates from the Medical Department of the University of California are listed for comparison.[24]

** M. D. degree granted by Cooper Medical College.

Faculty Affairs at Medical College of the Pacific

The twelve Professors comprising the Faculty during the first Session of the revived Medical Department in 1870 are listed in the previous chapter. With this roster as a baseline, we will document significant Faculty appointments and other relevant matters from 1870 through 1882 by referring to Faculty minutes which are dated for convenient reference.[25][26][27]

16 March 1871

Dr. Clinton Cushing (M. D., Rush Medical College, 1865) was appointed Professor of Obstetrics and Diseases of Women and Children, replacing Dr. R. Beverly Cole. Dr. Cushing left the Faculty in 1873 and returned as Professor of Gynecology in 1881.

5 December 1872

Dr. William A. Douglass (M. D., National Medical College, District of Columbia, 1850), was appointed Demonstrator of Anatomy. Dr. Douglass's superior abilities as an anatomist, surgeon and teacher were recognized by his rapid advancement to full professorial status through promotion to Adjunct Professor of Anatomy on 29 May 1874, and finally, on 19 April 1875, to the newly-established post of Professor of Clinical Surgery. After 1889 the name of Dr. Douglass no longer appears on the Faculty Roster of Cooper Medical College, and the Official Register of Physicians and Surgeons in California for 1891 lists him among the deceased.

12 December 1872

Adolph Barkan giving a demonstration in ophthalmology

Dr. Adolph Barkan (1845-1935) was appointed Professor of Ophthalmology and Otology, replacing Dr. W. F. Smith. Dr. Barkan, a native of Hungary, received his M. D. degree from the University of Vienna in 1866. After his graduation at Vienna, he was for one year (1867) an assistant to the chair of Physiology at the University of Graz.

Adolph Barkan (1845-1935)

He then returned to the University of Vienna in 1868 where he was for a year "the youngest assistant" in the Ophthalmic Clinic of Professor von Jaeger in 1868. Following a year in Baltimore as resident physician to the Maryland Eye and Ear Infirmary he moved to San Francisco in 1869 where he entered medical practice. He was later described by Dr. Rixford as a brilliant and fascinating teacher, admired by faculty and an inspiration to students.[28]

24 April 1873

Dr. Jos. H. Wythe, graduate of Philadelphia College of Medicine in 1850, was appointed to a newly established chair as Professor of Microscopy and Biology. Dr. Wythe was a man of wide experience and many talents. During the Civil War he was an army surgeon and chaplain. In private life he was an educator, author, ordained Methodist minister, able surgeon and accomplished microscopist. He published the first complete American text on microscopy in 1852.

Dr. Wythe served as president of the Willamette University, a Methodist College in Salem, Oregon, and was a leader in founding at that institution Oregon's first medical school in 1867. When the ensuing faculty strife was not to his liking, he left the project to take up permanent residence in the Bay Area where, in addition to teaching and research in microscopy at the Medical College of the Pacific, he concurrently practiced medicine and surgery and occupied the pulpit

of the Powell Street Methodist Church, attending to all the duties of pastor. He also found time to give frequent lectures in the area, to make astronomical observations through a powerful telescope he installed in his back yard, and to write a number of reference books.[29]

13 November 1873

Dr. Henry Gibbons, Jr., resigned as Professor of Materia Medica and Therapeutics in order to replace Dr. Clinton Cushing as Professor of Obstetrics and Diseases of Women and Children (a position held by Dr. Gibbons until his death in 1911).

4 December 1873

Dr. J. R. Prevost was appointed Professor of Materia Medica and Therapeutics, replacing Dr. Henry Gibbons, Jr. In 1876, three years after his appointment to the Faculty, Dr. Prevost died unexpectedly. He was in the prime of life, being only 32 years of age at the time. He graduated from Toland Medical College in 1866 and shortly after married a daughter of Dr. John F. Morse. In 1867 he entered into practice in San Francisco in conjunction with Dr. Morse. Four months prior to the death of Dr. Prevost from pneumonia, he lost his wife by the same disease. Four little ones were left without their parents.[30]

25 May 1874

Dr. W. T. Wythe, medical graduate of Willamette University, Oregon, in 1868 and the University of Pennsylvania in 1873, was appointed Lecturer on Physical Diagnosis.

29 May 1874

This was the last Faculty meeting attended by Dr. Lane before he sailed for Europe in July 1874. There he spent six months in Great Britain, six months in France and 10 months in Germany devoted to intensive study of surgery and medical education at major centers. He returned to the United States in September 1876 in time to deliver the Valedictory Address at the Commencement Exercises of the Medical College of the Pacific on 2 November 1876. On that occasion he gave an extensive account of his experiences abroad, to which we shall later refer.

29 May 1874

Dr. Edwin Bentley, Professor of Descriptive and Microscopic Anatomy and Pathology since 1870, was given the additional duty of serving as Acting Professor of Surgery in the absence of Dr. Lane. At the meeting of 31 October 1874 it was announced that he would also act as locum tenens in charge of Dr. Lane's practice.

30 December 1874

Dr. John F. Morse died on this date. Prior to his death, failing health had forced him to return to San Francisco from Hawaii where a planned voyage to Australia was interrupted because of his worsening condition. One of the most respected of the pioneer physicians, thousands attended his funeral, said to have been the largest ever seen in California. It was through the earnest labors of Professor Morse that the College Dispensary became a permanency. Upon his death it was named the Morse Dispensary in his honor.

Among the surviving children was his brilliant son, John F. Morse, Jr., who graduated from the Medical College of the Pacific in 1878. After study abroad, he returned in 1883 and became associated in practice with Dr. William A. Douglass, Professor of Clinical Surgery whom he assisted as visiting surgeon to the City and County Hospital. In 1883 Dr. Morse joined the Cooper Medical College Faculty as Adjunct to the Chair of Anatomy, but in 1884 his title was changed to Adjunct to the Chair of Clinical Surgery. When Professor Douglass became emeritus in 1889, Dr. Morse was named to the chair as Professor of Clinical Surgery.[31][32][33]

19 April 1875

Dr. William T. Wenzell was appointed Professor of Chemistry and Toxicology to replace Professor Price due to the latter's extended absence from San Francisco.

Adjunct Professor of Anatomy William A. Douglass was elected to fill the newly-established post of Professor of Clinical Surgery.

Dr. W. T. Wythe was appointed to fill the position of Adjunct Professor of Anatomy vacated by Dr. Douglass. In 1878, Dr. Wythe was advanced to rank of Professor of Anatomy. He died of an obscure, lingering illness on 26 June 1880 in his thirty-third year.

3 June 1875

Dr. J. P. Whitney resigned his appointment as Emeritus Professor of the Institutes of Medicine. He had been originally appointed to the professorship in 1863. Now it was rumored that an anonymous "black mail" sheet, known as the San Francisco News Letter, was about to report that his claim to having received an M. D. degree from Jefferson Medical College in 1834 was false. The Faculty were upset by the accusation and deferred action on Dr. Whitney's resignation.[34]

12 June 1875

At the previous meeting Dr. Whitney had submitted his resignation. At this meeting, it was decided to accept it without comment. The Faculty also discussed a letter from Dr. Miller, ad eundem graduate in 1873, who protested that his diploma bore the signature of the discredited Dr. Whitney. Under instruction by the Faculty, the Dean got in touch with Dr. Miller immediately and somehow placated him for we find no further reference to the issue in subsequent minutes.

Dr. James P. Whitney (1815-1880) was born in Oswego Country, New York. After practicing about eighteen years in the East he joined the westward migration and probably arrived in San Francisco in 1853. When he began practice in San Francisco he let it be known among the profession that he had received an M. D. degree from Jefferson Medical College in Philadelphia in 1834. He soon acquired a busy general and obstetrical practice and aligned himself with the various evanescent medical societies that flourished and faded in the 1850's and 60's. He was active in the Pathological Society, the Second San Francisco Medical Society, the Medico-Chirurgical Association, and the State Medical Society. Dr. Whitney's long and constructive participation in medical organizations was rewarded in 1868 by his election as the first president of the Third San Francisco Medical Society.

In 1875 Dr. Whitney was sixty years of age, with forty years behind him as a respected practitioner, twenty-two of them in San Francisco where he had also been a professor in the Medical Department of the University of the Pacific and the Medical College of the Pacific; a Trustees of Toland Medical College; and a valued member of the Board of Health. Throughout these years of medical practice, teaching and public service, he had been haunted by a dark secret regarding the authenticity of his medical degree. He knew that it would destroy his hard-won reputation if disclosed.[35]

In spite of Dr. Whitney's impeccable professional record and high standing in the medical community, the News Letter published on 10 July 1875 included his name on a list of over 200 practitioners in San Francisco who were alleged to be without legitimate M. D. degrees. The News Letter demanded that these practitioners produce their medical diplomas or be disbarred from practice. In the same issue there were listed the names of some 230 "regular" physicians said to be holding bona fide degrees. The implication was that almost half the medical practitioners in San Francisco were "Quacks."

As a result of the News Letter's allegations, the State Medical Society set up a Screening Committee chaired by Dr. Logan to examine the credentials of its members.[36]

The Screening Committee noted that when the editors of the Pacific Medical and Surgical Journal compiled the first Medical Registry in the State of California in 1858, Dr. Whitney provided them with the information that he had received an M. D. degree from Jefferson Medical College in 1834. He also certified when signing the Constitution of the State Medical Society that he was a graduate of Jefferson in 1834.[37][38]

On investigation, the Screening Committee of the State Medical Society found that Dr. Whitney had never graduated from Jefferson or any other medical school. The Committee then decided to notify and grant a hearing to such members as Dr. Whitney with a view to giving them the Society's endorsement as practitioners of medicine if found qualified. Averse to having his qualifications to practice medicine subjected to a review of this nature, Dr. Whitney ignored the Committee's summons, withheld his dues, and considered himself no longer a member of the State Society.

In the following year, 1876, the Medical Practice Act was adopted by the State establishing a Board of Medical Examiners, and this body granted Dr. Whitney a license to practice. Nevertheless, the Board of Censors of the State Society demanded his formal expulsion from the Society because of the implied insult in his refusal to answer the summons of the Screening Committee in 1875. In spite of the strenuous efforts of Henry Gibbons to quash the matter, the Censors persisted in demanding Dr. Whitney's expulsion from the Society. The wretched issue was finally settled in 1877 by the Society's acceptance of Dr. Whitney's resignation, reluctantly penned by his own hand.[39]

According to the official History of the San Francisco Medical Society, Dr. Whitney's son, James D. Whitney, was outraged at the Society's humiliation of his father and took matters into his owns hands:[40]

> As a finishing touch to the pv James D. Whitney (graduate of the University of the Pacific in 1863), a loyal and irate son, applied a cowhide lash to the august person of the chairman of the Board of Censors, as he stooped to pick up his valise and board the train for Sacramento after his last meeting. This culminated in the Police Court, a fine, a resolution of indignation from the Sacramento Medical Society and the permanent absence of the name of Whitney from the State Society roster by mutual desire.

Little is known of the remaining thirteen years of the life of Dr. J. P. Whitney, a man of studious bent who in his later career stood aloof from medical cliques and factional strife. He was exceptionally well-read and a devoted teacher. Considering the content of medical education in 1834, it is reasonable to believe that his lack of a diploma of that vintage was amply compensated by his assiduous study and long practical experience.

In an obituary published in the Pacific Medical and Surgical Journal at the time of Dr. Whitney's death in 1880, Dr. Gibbons, Sr., referred to him as "a man of uncommon power of thought and general intellectual capacity and a great reader with a very retentive memory. An original thinker and, as a student versed in all the literature of his profession, he had no superior on the Pacific Coast. His judgment and skill as a practitioner induced his confreres to call him frequently in consultation."[41]

Nevertheless, Dr. Whitney could not pass the acid test, he could not prove the authenticity of the M. D. degree he claimed to hold, a not uncommon failing among pioneer physicians. Ironically, although his qualifications to practice were validated by the State Board of Medical Examiners, his long career was blighted by the harsh penalty exacted from him by the State Society, not for having no medical diploma, but for refusing to answer its summons. The quality of his mind and the standards of his medical practice were never in question. So ended another melancholy episode in the medical annals of early San Francisco.

Professor Gibbons, Sr., Arraigned

The San Francisco News Letter of 10 July 1875 also blasted Professor Gibbons, Sr., and the Medical College of the Pacific:[42]

> Henry Gibbons, Sr. We like not to speak of the aged except with respect. It is with extreme regret that we find it necessary to speak otherwise of Dr. Henry Gibbons, Senior. The truth has compelled us to charge him with engaging in the bad business of procuring diplomas for ignorant pretenders for coin. There was the notorious case of "Doctor" Allen. The man reluctantly admitted, whilst under oath, that he had bought his diploma from the Gibbons institution without attending the necessary course of lectures. His testimony was commented upon in the Alta and other papers; and yet Gibbons, who is so ready to "come back" upon all occasions, was as dumb as an oyster. An ignorant man named Jackson came down from the country and attended some half dozen lectures (at

> the Medical College of the Pacific) and was then put down for a diploma. Dr. Beverly Cole, happening to hear of the disgrace that was about to fall upon the profession, protested against it, but the diploma was sold to the man notwithstanding; and he is now a practicing doctor and a member of the State Medical Society. Before Gibbons had a diploma manufactory of his own, it was his custom to act as broker for their purchase from a Philadelphia institution of loose practices and of easy virtue. He obtained one for Dr. H. S. Baldwin of this city from that concern… .When the Legislature meets we propose to submit to a committee proofs of the sale of diplomas by the (Medical College of the Pacific).

There is more harsh criticism of Dr. Gibbons, Sr., and the Medical College in the News Letter but the above will serve as a sufficient example.

We have examined the claim that two of the graduates of the School (George H. Jackson of Woodland in 1871 and Jacob Allen of San Bernadino in 1872) had received M. D. degrees without full attendance on the lectures, and that they had "bought" their diplomas. We have obtained the following information on the subject from the Faculty Minutes and the Register of Students.

With respect to Mr. Jackson, the Register shows that he attended only three months of the five-month Annual Session of 1870. This appears to represent his total participation in the teaching program of the school. On 26 May 1871 the Faculty "decided to grant a degree to G. H. Jackson, he having passed a satisfactory examination." We assume that he had previously been engaged in apprenticeship or independent medical practice and that he was given credit for this experience in lieu of the statutory second Annual Session of lectures. As we recall, Elias Cooper obtained his medical degree from St. Louis University in 1851 after only one course of Annual Lectures, on similar grounds. However, as far as we can determine, Mr. Jackson completed considerably less than even one Annual Session and was nevertheless awarded a "regular" M. D. degree. (That is, the qualifier "ad eundem" was not appended to his M. D.) If this reading of the record is correct, we may fairly conclude that the standards applied in his case were lax, and criticism warranted. Of course, all the circumstances in the case are unknown. However, we have already learned that Dr. Gibbons, Sr., had a high regard for the educational value of medical practice, and thought it deserved more credit than it sometimes received.

In the case of Jacob Allen, we seem to have an example of the fullest expression of the Gibbons philosophy on the value of medical practice, i. e., the awarding of a regular M. D. degree to a candidate who attended no medical school at all. At least we can find no evidence in the Register or elsewhere that Jacob Allen matriculated in the Medical College of the Pacific or was present at the Annual Lecture Series. We find only two entries in the Faculty minutes pertaining to his candidacy for a medical degree. On 26 May 1871 it was decided that a degree should be granted to "Dr. J. Allen" upon payment of "fees for Matriculation, Course and Graduation, and if he passes an examination in the practical branches." Since the candidate was listed in the Faculty minutes as "Dr." J. Allen, it is assumed that he was already functioning in San Bernadino as a practicing physician, but without an M. D. - a familiar situation. The second and final entry in the minutes was on 3 October 1872: "Jacob Allen to have degree." At the Commencement Exercises on 4 November 1872 (which Jacob Allen did not attend), he was awarded a "regular" M. D. degree with nine other candidates. We can only suggest from the evidence available that Dr. Allen seems to have graduated without going to medical school. In less charitable terms, the Editor of the News Letter charged that "he had bought his diploma from the Gibbons institution without attending the necessary course of lectures." Again we are unable for lack of documentation to refute or confirm the anonymous editor's assertion. At the very least, the school's records now available regarding Dr. Allen are deficient.

We return now briefly to the issue of the sale of a Philadelphia diploma by Dr. Gibbons, Sr., to Dr. H. S. Baldwin. At the Fifth Annual Meeting of the California State Medical Society held in Sacramento on 21-22 April 1875, Dr. Thomas Logan was appointed chairman of a Committee to Inquire into the Rumor Regarding the Admission of Unqualified Members into the Society.[43] This Committee investigated the medical degree of Dr. H. S. Baldwin and found it to be valid. The Committee further reported that charges to the contrary (in the News Letter) were unfounded.[44] These findings exonerated Dr. Gibbons of the irresponsible accusation that he had conspired with Dr. Baldwin to obtain for him a bogus diploma from a Philadelphia source. This incident serves as a reminder that the mail-order sale of counterfeit medical diplomas was actually a thriving business in both America and Europe at the time, engendering much confusion and disrespect for the profession among the public.

The News Letter also included Beverly Cole, the Toland School, certain other of its faculty members, and the San Francisco Medical Society in its intemperate broadside. The anonymous editor's castigation of the medical schools, societies and profession for their failure to maintain standards and purge the profession of impostors evoked great indignation among the doctors. But there were abundant facts among the reckless charges, and the beneficial net result of the inflammatory News Letter was to spur needed reforms.

In retrospect, during the first five years following the revival of the Cooper school in 1870 there was a tendency to unduly liberalize the requirements for the M. D. degree as, for example, in the cases of Jackson and Allen. It was probably in direct response to the public airing of these cases, that the Faculty after 30 October 1976 adopted stricter procedures for evaluating the medical students.

The Faculty of the Medical College of the Pacific were badly shaken by the News Letter affair. As far as we know, Dr. Gibbons and the Medical College did not respond publicly or otherwise to the accusations, perhaps not wishing to dignify them with a rebuttal. Nor are we aware that the editor of the News Letter ever submitted proof to the Legislature of the sale of diplomas by the Medical College of the Pacific as he threatened to do. We found absolutely no evidence among the College records of such trafficking, except as inferred in the cases of Jackson and Allen. We do know that Professor A. J. Bowie, President of the Faculty, was deeply concerned about the charges of the sale of diplomas by the College and said that he would resign if the charges could not be denied.[45] In the sequel, Professor Bowie did not resign and future events showed that from this time forward the College pressed resolutely ahead on the path of curricular reform.

9 June 1876

Dr. L. L. Dorr, a graduate of Bellevue Hospital Medical College in 1866, was appointed as temporary Professor of Materia Medical and Therapeutics until the end of the Session of 1876, replacing Professor Prevost who died. On 9 May 1881 Dr. Dorr was formally elected as Professor of Materia Medica and Therapeutics.

7 July 1876

Dr. R. H. Plummer, graduate of Toland Medical College in 1866, was appointed Clinical Teacher of Diseases of Women. On 21 August 1876 he was unanimously invited to fill the Chair of Theory and Practice of Medicine for the balance of the Session of 1876 on account of the illness of Dr. Gibbons, Sr. On 3 December 1880 he was appointed Lecturer on Anatomy. Finally, sometime in late 1882 or early 1883, Dr. Plummer completed his peripatetic service on the faculty and was appointed Professor of Anatomy. He was a man of ability and untiring energy, well-known for his service as Secretary of the State Board of Medical Examiners from 1879 to 1888.[46]

4 October 1877

Dr. Joseph Oakland Hirschfelder was born in Oakland, California, in 1854. He was the first child of white parents to be born in that city, a circumstance that led to the choice of "Oakland" as his middle name. He matriculated in the Medical Department of the University of the Pacific in 1871 when he was eighteen years of age. He was not only too young to be granted the M. D. in the following year, but he also upset the equilibrium of the Faculty by refusing to take the same lectures over again as required by the curriculum at the time. Instead he departed for Germany where he remained from 1872 to 1877, studying with renowned medical figures and in 1876 receiving a medical diploma from the University of Leipzig. Upon his return to San Francisco in 1877, after five years residence and study abroad, he was unanimously elected as Professor of Materia Medica and Therapeutics. When the Department of Clinical Medicine was established on 13 January 1881, he was appointed Professor of Clinical Medicine.[47][48][49]

3 December 1880

Dr. W. D. Johnston, graduate of the Medical Department of the University of the Pacific in 1871, was appointed Professor of Chemistry upon resignation of the incumbent, Dr. Wenzell.

Women Admitted to Medical Schools in San Francisco

29 May 1876

On motion of Professor Wenzell (Chemistry), seconded by Professor Barkan (Ophthalmology), the Faculty voted to admit women to the Medical College of the Pacific on equal terms with males. There was no debate. The time for action had come. The first woman to be admitted to the College was Alice Higgins. She was forty years of age, born in Massachusetts, and a resident of Anaheim, California. She matriculated in 1876 and graduated the following year on 6 November 1877.

In 1878, Anabel McG. Stuart of Santa Barbara was the second woman to graduate.

Emilie M. Lawson and Kate N. Post of San Francisco, and Mary Whitney of Minnesota graduated in 1879. In subsequent years, well into the next decade, there were up to several women graduates annually.

Class of 1899 Miss May McKinney; Miss Eliz. Keys; Miss Grace Sharp; Miss Nellie Morse; Miss Mary Harris; Miss Mariana Bertola; Mrs. Beatrice Hinkle; Mrs. Elizabeth Grotefend

However, the palm for being the first medical school on the Pacific Coast to graduate a woman goes to the Medical Department of the University of California. Against his better judgment, Dean Cole allowed a 33 year-old former school teacher, Mrs. Lucy Maria Field Wanzer, to matriculate in the Medical Department in 1873. Actually he was legally obliged to accept her as a medical student because the University of California was, by law, a coeducational institution.

Dean Cole was an outspoken opponent of medical education for women and had many times referred to them as mentally and constitutionally unsuited for such arduous studies. In spite of his bias, Mrs. Wanzer's determination and brilliant performance led him temporarily to suspend his views in her case. She received her M. D. degree with the Class of 1876, and became the first woman graduate of the western schools.[50][51]

Founding of the Alumni Association of the Medical College of the Pacific in 1878

At a Faculty Meeting on 1 February 1877, Dr. Lane moved that the Faculty recommend to the alumni of the College that they establish an Alumni Association of the Medical College of the Pacific. The motion was approved. A year and a half then passed before the subject was again raised, although there were doubtless consultations with key alumni in the meantime to enlist their support.

In the Faculty Meeting on 3 October 1878 it was decided to invite the alumni to meet at the College on 11 November. The timing was opportune, being a week following the Annual Commencement of the Medical College held on 5 November. At that Commencement the M. D. degree was conferred on twenty-six alumni, including one woman - much the largest class hitherto graduated on the Pacific Coast by either medical school.

It would appear from the available documents that a group of alumni probably met on 5 November 1878, the day of the Commencement,

and drafted the Constitution and By-Laws of the Alumni Association of the Medical College of the Pacific . This draft was then approved at the first formal gathering of the alumni who met in the College Building on 11 November 1878 in response to the invitation of the Faculty.[52]

The following account of this meeting was carried in the Pacific Medical and Surgical Journal for November 1878:[53]

> Dr. Pond, of Napa, was chosen temporary chairman. The proposition to organize permanently was greeted with universal favor and called forth a number of animated speeches. An organization was effected, with the following officers for the ensuing year: President, Chester Rowell, M. D. of Virginia City, Class of 1870 (son of the late Professor Isaac Rowell); 1st Vice-President, Jos. Wagner, M. D., San Francisco, Class of 1872; 2d Vice-President, Jno. R. Kelley, M. D., Gilroy, Class of 1876; Corresponding Secretary, J. B. Williams, M. D., Oakland, Class of 1877; Recording Secretary, John F. Morse, M. D., San Francisco, Class of 1878 (son of the late Professor John F. Morse).

The Association then met annually at or about the time of the Commencement to elect officers and transact other business through 1881-1882 when the Medical Coll.

Levi Cooper Lane in Europe

Dr. and Mrs. Lane boarded the Cunard Steamer, Algeria, at Jersey City on 18 July 1874. Nine days later, weary and sick from rough seas, they disembarked at the Irish seaport of Queenstown. From there they traveled to Dublin where Dr. Lane was warmly received by Stokes, Corrigan, Colles and other physicians whose names are still associated with their signal contributions to medicine.

After a most congenial visit among "the quick, impulsive and ready-witted Celts," he crossed over to the land of the dour Scots in September, stopping first in Glasgow. It was there that Joseph Lister, greatest of the English Quaker physicians and foremost British surgeon, established the principles of antiseptic surgery. Lister had by the time of Lane's European tour returned to the University of Edinburgh where he received his earlier training under Scotland's renowned Professor James Syme. In Edinburgh Lister continued the historic investigations that gave surgeons "the power to perform the majority of operations without occurrence of the inflammation which formerly hung like the sword of Damocles over every grave surgical procedure."

It was in Edinburgh that Lane visited Lister whom he described as "a quiet, retiring man, and free to communicate with us, and even to give us the recent improvements which he has made in his antiseptic formulae." In Lane's view at the time "much remains to be done to perfect the method of Lister, yet, in its present state, its excellencies are so great, that it has been introduced into the majority of the great hospitals of Europe." While visiting on Lister's hospital wards at the University of Edinburgh, Lane was conscious of witnessing, in the presence of its genius, the advent of a new era in surgery.[60]

October of 1874 found Lane in London where he avidly attended the numerous public lectures made available there by notables in science and medicine. He was much impressed by the series of eighty-four lectures delivered by Thomas Henry Huxley (1825-1895). Doctor Huxley, a medical graduate of London University in 1845, was England's greatest student of natural history and the ablest interpreter and supporter of the evolutionary theories of Charles Darwin.

Lane climbed eleven flights of time-worn granite stairs to reach the natural history museum, laboratory and unpretentious lecture room of "the plain, simple and unostentatious Huxley who in every word, movement and act presented that modesty and want of display which always indicate and reveal the scholar. If we stop and hear one of his lectures, the qualities mentioned shine forth even more manifestly. Once having heard him, no one asks for further evidence of the universality of his knowledge in his department… I was happy to find, for once, a man who is not over estimated.[61]

While in London Lane also critically appraised medical education, hospitals and prominent surgeons. The following are his observations on the English system for granting diplomas. His clarification of that system is relevant to the debate on examination for the medical degree which so agitated the medical profession in California prior to the enactment of legislation on medical licensure in April 1876 to which we have already referred.[62]

> On inquiring in regard to medical institutions, we learn that instead of one or two great schools, London has eleven medical Colleges, the eleventh and youngest being the Female Medical College, established two years ago. Besides these metropolitan institutions, there are a few Provincial medical colleges, viz., one at Liverpool, one at Manchester, one at Leeds, and one at Birmingham. Yet none of these has the power of granting diplomas; this power being invested in two boards, resident in London, and known respectively as the "Royal College of Physicians" and the "Royal College of Surgeons." The former confers the title of M. D.; the Royal College of Surgeons confers merely the title of Member or Fellow.
>
> It is claimed that this isolation of the power that confers degrees from that which teaches, is a great improvement over the system which now obtains in America. This would be so, were the two really isolated; but unfortunately, such separation does not exist there; and, I may remark here, that it does not exist anywhere in Europe. In London, both of the corporate bodies which confer degrees, are composed mainly of men who are professors in the medical schools. Such is the case in France, and such is the case in Germany; so that in these respects, I regret to say we do not differ materially from the Old World; for it would be a great improvement if teaching and examining were in part, at least, committed to different persons.

Lane's lucid explanation of the English system showed that the Europeans had not succeeded, in actual practice, of separating the teaching from the degree-granting function in medical education as was their original objective. Dr. Gibbons, Sr., and other advocates of the English model had in recent years learned by trial and error the impracticality of such a separation.

Also while Dr. Lane was in London, the Court of Examiners of the Royal College of Surgeons of England "deliberately examined him and found him to be fit and capable to exercise the Art and Science of Surgery. "

Having so concluded, they admitted Dr. Lane a Member of the Royal College of Surgeons on 29 January 1875, thus entitling him to add the goodly "M. R. C. S., Eng." to his medical credentials.[63][64]

Early in March 1875, Dr. and Mrs. Lane gladly forsook the grand but gloomy city of London with its smoke, rain and sturdy medical traditions. They crossed the Channel and under the blue sky of la belle France traveled south, by-passing Paris, to take up brief residence in the ancient city of Avignon. From there Dr. Lane addressed a letter on 15 March to the Pacific Medical and Surgical Journal.[65] His remarks in the letter were devoted to Avignon's Roman, ecclesiastical and literary history, and to the celebrated past and disappointing present of the nearby and once-famous Montpelier Medical School.

The Lanes spent the summer of 1875 in Paris where, after the staid atmosphere of the London scene, Dr. Lane was captivated by the polished oratory of the French professors; the dynamic and cosmopolitan atmosphere of the School of Medicine. There were also the grand old Hotel Dieu, mother of French hospitals and medical schools; and the felt presence in art and history of a glorious medical lineage including such savants as Ambroise Paré (1510-1590), military surgeon of the Renaissance; Laennec (1781-1826) and Trousseau (1801-1867), pioneers in pulmonary diseases; Dupuytren (1777-1835) and Velpeau (1795-1867), clinical surgeons par excellence. Fluent in French, Lane wrote his lecture notes in la langue française

The stay in Paris was a brief six months for his command of the German language and respect for German institutions drew him inexorably to Berlin, the cultural center of Germany and seat of the University of Berlin. There he arrived with his wife in October 1875 to spend the following winter and spring.

It was typical of his tireless commitment to self-improvement that his European Wanderschaft should conclude with a formal doctoral program of study at the Medical School of the Wilhelms Universität of Berlin.

Lane's principle faculty advisor for the program was Professor Bernhard von Langenbeck (1810-1887), the greatest clinical surgeon and teacher of his day in Germany. The Professor taught and operated at the Klinicum Hospital where Lane attended his lectures and observed on his clinical service.[66]

Lane's other mentor at the University of Berlin was the noted Rudolph Virchow (1821-1902), Professor of Pathology and Director of the Pathological Institute at the Charité Hospital. On 1 November 1875 Lane registered for Professor Virchow's courses which included Demonstrative Pathological Anatomy, Microscopical Pathology and Lectures on General Pathology. In addition to these formal courses, Lane worked every second forenoon in Virchow's Laboratory so that he was in a position to speak knowingly of this remarkable man:[67][68]

> Of all the men now living I can cite no none who exhibits so many phases of mental character united in one person as he. For example, he possesses most wonderful powers of analysis, as shown in his unfolding the complexities of disease, until he has found the minute cellular aberrations which have caused it.
>
> Besides his work as a professor, he writes and supervises an immense mass of printed matter; he is a member of the Prussian House of Deputies, where he delivers, at least once a week, one of the most remarkable speeches of the day; he belongs to the Democratic or people's party, and is now fiercely fighting the fusion of Church and State, which many are aiming at. In reference to a recent act of the Government looking in that direction, he boldly asked to know by what right the Emperor took such a step. He has also a place in the Berlin Municipal Government, delivers, now and then, a lecture abroad, and also one almost weekly before one of the most popular associations or Vereins. He has been challenged by Bismarck, and declined to fight until Bismark would become his peer in morality.
>
> Such is Virchow - without an equal as disseminator of knowledge among the popular masses, and almost without a peer in the political arena of Prussia. In the still higher sphere of medical science, he has done yet more, since he has reduced to a simple system, by means of a half dozen generalizations, the hitherto inextricable maze of Tumors; and in the chaotic domain of the Pathology of internal Medicine, his genius has wrested from the unknown, more territory than any other man of the present or past.

In addition to didactic and clinical studies, Lane's doctoral program included preparation and defense of a dissertation entitled Fractures of the Femur and their Treatment, comprising a review of the literature and a detailed exposition of the mechanism, management and prognosis of the lesion. Upon successful completion of the requisite studies, dissertation and examinations, Dr. Lane was awarded the degree of Doctor of Medicine and Surgery, magna cum laude, by Berlin University on 7 March 1876.[69]

In a statement appended to his Dissertation, Lane graciously thanked Professors Virchow and Langenbeck "for the courtesies received from their hands, and especially for the ideas learned from their teaching."[70]

In spite of the heavy demands of the doctoral program at the University, Lane did not neglect his rigorous personal agenda of language study, as indicated by the note in his Diary for 26 December 1875:[71]

> Read Greek, Latin and French, the usual linguistic studies of Sunday. Also read the section of Logic upon the Fallacies.

Lane's Diary is an impressive example of his remarkable aptitude for language. It includes entries in French, German and Spanish, the last of which he learned during the two years he spent off the coast of Central America while in the U. S. Navy.[72]

In addition to the primary goal of study and observation at Europe's chief medical centers, Dr. and Mrs. Lane's foreign excursion was also a cultural pilgrimage. Mrs. Lane's delightful diary of their wide-ranging journey, published in a book entitled, Letters of Travel, is a perceptive and lively commentary on the arts, history and contemporary life at sites visited by the Lanes from Scandinavia and St. Petersburg in the north, through Switzerland and Italy to the pyramids of Gizah in the south.

Unfortunately, we have discovered no personal information about the talented Mrs. Lane. Aside from the bare announcement that she was married to Levi Cooper Lane on 16 March 1870, we have so far seen no reference to her except for the following entry in Dr. Lane's Diary on New Year's Eve, 1870: "The year has been one of success in business, in health, and above all in a fortunate marriage." We shall in due course learn more of Mrs. Lane's significant role in support of her husband's lofty objectives, but of her prior life we are to remain woefully uninformed.[73]

Dr. and Mrs. Lane spent the last days of their Grand Tour in London where he made the following final entry in his Diary:[74]

> 20 August 1876, London. Tomorrow we leave for Liverpool whence we sail for America on the 26th of this month. Today, Sunday, it has been raining until a few minutes ago, when the sun appeared and is now throwing an autumnal sheen on Queen's Square to which I regret to bid adieu.

We have no further word of Dr. Lane until he appears on the podium at Calvary Church on 2 November 1876 to deliver the Valedictory Address at the commencement Exercises. Thereafter, he was increasingly involved in the affairs of the College.

Dr. Lane's Finances

Before leaving the subject of Dr. Lane's European travels, we should ask how it was financially possible for him to absent himself from practice for a period of two years from mid 1874 to mid 1876. We recall that he entered surgical practice with Elias Cooper in the Spring of 1861 at the age of thirty-three. He had spent the previous year in study abroad and, as a result, probably used up his savings from prior service in the U. S. Navy.

Upon the death of Elias Cooper in October 1861, Dr. Lane inherited his practice which, as we have seen, grossed about $ 8000 per year. Ten years later, in 1871, Lane's meticulous financial records show that he consistently earned more than $ 18,000 annually in gross income. By this time he had acquired considerable real estate - a rancho in Napa Valley, and rental property on Fulsom, Steiner and Washington Streets in San Francisco. He continued to maintain the office and residence on Mission street as Cooper had done, a convenient and economical arrangement since the original Cooper school and Infirmary had been on those premises. Regarding his affairs in general, Lane made the following entry in his Diary on his birthday in 1871:[75]

> 9 May 1871. Have finished my 43rd year, one of the most successful of my life. Have a good wife, have made enough money, and have been well.

Thus, prior to his European sojourn, Lane prospered from a busy medical practice and bought real estate as an investment. Although financial records for the years following his return in 1876 are not as revealing as those he previously kept, his office log books provide ample evidence of a thriving practice during the remaining years of the decade. During that same period we know that he purchased stock, and that he continued to invest in real estate for by the early 80's he had acquired fourteen properties in San Francisco as well as acreage in the Fresno and Los Angeles areas. As further evidence of increasing affluence, Dr. Lane continued to maintain an office at 652 Mission Street, and in 1878 purchased a residence at 2302 Clay Street at the corner of Buchanan where he had office hours every evening at seven thirty.[76][77][78]

As the decade of the 1880's opened, Dr. Lane, now in his 52nd year, had been engaged in teaching and a lucrative medical practice for twenty years. He and Mrs. Lane had no children and his nightly vigils of study, writing and cultivation of the classics were uninterrupted. A prodigious number of articles, lectures, translations, and chapters of his own masterwork, Surgery of the Head and Neck, flowed from his pen. Meanwhile his financial affairs prospered and his fortune grew apace, as though tended by an unseen hand, and for a purpose that he would yet "be given to see."

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Part IV.
Cooper Medical College 1883-1912

Chapter 24. Founding of Cooper Medical College 1882

Founding of Cooper Medical College 1882

Having discussed curricular and other faculty affairs of the Medical College of the Pacific at some length, we must now return to the practical matter of facilities.

University College Building

Soon after the Faculty of the Medical Department of the University of the Pacific revived the Cooper School in 1870, they rented the College Building on Geary and Stockton Streets in downtown San Francisco from University (City) College - to which for convenience we will hereafter refer as "University College." As we have noted, the location of the College Building, and the liaison between the Medical School and University College, were convenient and congenial, and led in 1872 to establishment of the Medical College of the Pacific. It was not long, however, before problems related to facilities began to intrude.

The first of these was of such a petty nature that it hardly deserves mention except as it is evidence of the continuing hostility of Dean Cole of the Toland School. It appears that the San Francisco Medical Society thought it proper to change its place of meeting, and a committee charged with the business sought vainly for a long time to obtain a proper room. At length, on 21 March 1873, the committee applied to the Faculty of the Medical College of the Pacific for permission to use the lecture room in the College Building for the regular meetings of the Society. The Faculty granted permission for use of the room at a rent of ten dollars per month, provided that there should be no objection by Society members from the Toland School. The subject was before the Society for two or three meetings at which some of these gentlemen were present and they voiced no opposition, whereupon the arrangement for using the lecture room was approved.[1]

When Dean Cole assumed the editorship of the Western Lancet in 1873, he vigorously attacked the decision of the San Francisco Medical Society to rent a meeting room at the Medical College of the Pacific:[2]

> The San Francisco Medical Society has committed a grave blunder in removing its place of meeting to the lecture-room of one of the rival medical colleges in this city - the Medical College of the Pacific.… In allowing itself to be tagged on to the institution in question, the San Francisco Medical Society has shown a lamentable disposition to undo the work of years, and to descend to that "filthy pool" of factious squabbledom for which this city has so long been accorded the championship. We will not stop to inquire into the motives that prompted the proffer of this room. In itself the matter is insignificant enough - simply the straw at which a waning cause will catch. "The University of California knows no rival," was the remark of Professor Gilman in his recent public address. Its medical department will soon know none; the doom of any such is either to give up the ghost honorably, or to sink into a "Diploma -Shop "

In a subsequent issue of the Lancet, Dean Cole continued his attack on the Medical College of the Pacific:[3]

> With no desire to foster discord between the medical practitioners of this city, we could not refrain from disapproving of the very singular action of the (San Francisco Medical Society) in compromising the University into a recognition of its pigmy rival whose unreasonable ambition for a collegiate recognition has already been the source of great misfortune to the reputation of medical graduates on this coast; and, if the advantage of numbers enables the advocates of this injustice to perpetuate the wrong, then the only alternative that self-respect leaves to the protesting minority is to forego the gratification of joining in these hitherto very agreeable reunions, and patiently wait until a healthier sentiment instigates a change; or the demise of the so-called "College of the Pacific" relieves the Medical Society from the burden so injudiciously assumed.

To which Henry Gibbons, a firm believer that "a soft answer turneth away wrath," replied:[4]

> Not a word was said in opposition to (renting the lecture room at the Medical Department of the Pacific) at any of the meetings of the Society. After all this, the Lancet, both of whose editors are members of the Society, and one word from either of whom would have prevented the removal to the College building, publicly abuses the College for offering the room and the Society for accepting it. What the College has to gain by allowing the Society to occupy its hall at a nominal rent, does not appear. The Faculty have endeavored to deal honorably and courteously with their brethren of the other school, and to promote the social and professional relations which are called into play by their assembling on common ground in the Medical Society. The same feeling, we have no doubt, has actuated the University professors in the main, and we do not believe that they sympathize with the ungenerous and unwarranted assault. In fact, we do not attribute to the editors of the Lancet the bitter animus which their attack would imply. Not having occupied the editorial seat long enough to warm it, topics were scarce and something had to be written.

As the years pass, we shall regrettably find it necessary from time to time to record other eruptions of Mount Cole.

A much more substantial problem arose when curricular enhancement at Medical College of the Pacific led to the need for additional space. This need was ingeniously met in mid 1874 by putting a new roof on the College Building, at the same time raising its height and substantially enlarging the second floor. The Faculty requested the Board of Trustees of the College to finance the renovation but, as far as we can determine, the Faculty paid the bill and thereby acquired some equity in the College building - an investment which later proved of benefit to the Faculty.

At about the same time in 1874, University College began to experience financial difficulties. These progressed so that, in 1875, the rapidly increasing value of real estate in the business district of San Francisco, and the limited possibilities for future expansion at the site on Geary and Stockton Streets, prompted the Trustees to accept an offer of

$ 90,000 for their downtown property (which included the College Building and the Chapel). With the proceeds of this sale, the Trustees paid off an outstanding debt of $ 30,000. They then took $ 35,000 of the balance to purchase a lot with a frontage of 400 feet at 129 Haight Street, two miles west of the downtown location.

The purchasers of the downtown property did not want the College Building and the Chapel, and informed the Trustees that they could remain in possession of the buildings if they would move them to Haight Street or other location with no expense to the new owners.

On 27 May 1875, J. D. Thornton, Esq., Secretary of the Board of Trustees of University College, was invited to attend a meeting of the Medical Faculty to inform them of the financial status of University College. He confirmed to the Faculty that the downtown property had been sold and that possession would be transferred to the new owner in December 1875. Mr. Thornton then offered two options to the Faculty. They could move the College Building to the lot on Haight Street at their own expense. Or, if they did not wish to do so, the Trustees were ready to refund the amount the Faculty had previously paid for improvements on the building, and would not claim past rent in view of their prior agreement absolving the Faculty from paying rent for two years.

At a Faculty Meeting on 23 September 1875, the need to either move the College Building to Haight Street or find other facilities for the Medical School, was discussed. A committee composed of Professors Barkan, Bentley and Gibbons, Sr., was appointed to determine the best course of action for the School. In addition, Dr. Gibbons, Sr., was requested to ascertain from the new owners whether the College Building could remain in its present location for another year.

As the deadline approached for transferring the downtown property to the new owners, there was growing apprehension among the Faculty for the welfare of the School. Feeling the need for the leadership of Dr. Lane during this critical period, they instructed the Dean to write to him urging his return from Europe in time to be present at the beginning of the next Session in June. 1876. Dr. Lane could not accede to this request, but promised to return in time to attend the Commencement in November and deliver the Valedictory Address.

During late 1875 and early 1876, the Faculty continued their efforts to locate alternate facilities for the School. In 1872 the San Francisco City and County Hospital had been moved some distance from its original location across from Toland Medical School to a new site on Potrero Street. Since proximity to the County Hospital would be a definite asset, a committee was appointed to search for a lot near the Hospital to which the College Building could be moved. None suitable could be found.

When the Faculty met on 28 December 1875, Professor Gibbons, Sr., announced that he had arranged with the new owners of the downtown property to grant the Faculty a lease of the ground for the next two or three months provided the Faculty agreed to remove the College Building from the premises on two or three weeks' notice. At the same meeting the Faculty finally decided that they now had no option other than to move with the College Building to Haight Street. Accordingly, Professors Gibbons, Sr., Ellinwood and Douglass were appointed as a Special Committee to make final financial and other arrangements with the Board of Trustees for the move.

On 20 January 1876, Professor Gibbons, Sr., reported to the Faculty that negotiations of the Special Committee with the Trustees had resulted in the following generous agreement:

> The Board of Trustees of University College agreed to move the College Building, when desired to do so by the Faculty, from the downtown site to the grounds on Haight Street, and to put it in good condition, all free of expense to the Faculty.
>
> The Trustees also agreed to allow the Faculty to occupy the relocated College Building free of rent for two years with the understanding that the Trustees would retain ownership of the Building, and that all outstanding financial obligations of University College to the Faculty would be canceled.

The decision to move the College Building to Haight Street having been made, the Faculty began planning the Session for 1876. However, they remained in suspense as to the timing of the transfer to Haight Street. On 2 March 1876 they were abruptly informed that the Building must be removed from the downtown site within a few days.

As agreed, the Trustees of University College took full responsibility for the moving project which included the transport of both the College Building and the Chapel over a distance of two miles up hill to the lot on Haight Street. Although steam power may have been used, the probabilities are that the moving was done by horses and that the College Building, which was 128 feet long, had to be cut in two at the downtown site and the parts rejoined at the new location. Fortunately the move was accomplished expeditiously so that by 4 May 1876 the Faculty of the Medical College of the Pacific had resumed operations in the College Building now relocated at 129 Haight Street, where they were to remain for the next six years.[5]

The Annual Announcement for the Session of 1877 carried the following information:

> The College Building is conveniently and centrally situated on Haight Street, near Octavia Street, at which place the Dispensary Clinics are also held. Cars running within a short distance of the City and County Hospital pass within a block every few minutes. Thus the student will find in convenient proximity all the varied appliances for theoretical and practical instruction.

The Haight Street Years, 1876 to 1882

It was obvious to the Faculty of the Medical College well before the move to Haight Street in 1876 that their parent University had serious financial problems. This placed both the facilities and the degree-granting procedure of the Medical College in jeopardy. The Faculty therefore took various steps to strengthen their organization and arrange for alternative facilities.

Governance. This is an appropriate juncture to review the history of the organization of the Faculty. The original Constitution and Bylaws of the Medical Department of the University of the Pacific, adopted in 1858, were carried over as the governance of the Medical College of the Pacific when it was established in 1872. The first major move to revise these original statutes was taken by the Faculty on 9 January 1875 when a Rules Committee was charged with drafting a new set of Bylaws to replace or supplement those adopted in 1858. The following is a summary of the key elements of new Bylaws as recommended by the Rules Committee and adopted by the Faculty on 4 March 1875:[6]

> Bylaws of Medical College of the Pacific
>
> Adopted 4 March 1875
>
> 1. Constitution of Faculty: The Faculty of the Medical College of the Pacific shall consist of emeritus and active professors. The former shall be entitled to all the privileges of members, at the meetings, except that of voting.
>
> 2. Nomination of Professors. The nomination of professors in case of vacancies or when new professorships may be created shall take place at any regular meeting at which all the active professors are present, or are represented by proxy; and a unanimous vote of such professors shall be necessary for nomination.
>
> 3. Election of Officers. At the first regular meeting in each year the Faculty shall elect from the active members, a President, a Vice President and a Dean, who shall hold office during the year.
>
> 4. Meetings. The Faculty shall hold regular meetings on the first Thursday of each month, and special meetings at such times as may become necessary; due notice, by circular, of each meeting, being sent to each member by the Dean.
>
> 5. Time and Place of Meetings. The regular meetings shall be held at the College, and shall commence at 8 o'clock P. M.. Special meetings shall be held at the call of the Dean, at such hours and places as circumstances may render necessary.
>
> 6. Fines for Tardiness and Absence. As punctual attendance is essential to the welfare of the College, and is necessary to prevent loss of time to the professors, by waiting, a fine of fifty cents for tardiness and of one dollar for absence from the meetings will be exacted from the active professors, except in case of sickness or absence from the city..
>
> 7. Roll Call and Quorum The Roll shall be called by the Dean not more than fifteen minutes past 8 o'clock, and those not answering to their names shall be considered tardy. Five active professors shall constitute a quorum for the transaction of all business except balloting for candidates, when the full number must be present or be represented by proxy.
>
> 8. To Provide Substitutes for Lecturers and Prevent Detention of Class.. In all cases in which a professor finds it impossible to fill his lecture hour, he shall notify the Dean in sufficient time to enable him to provide a substitute, or if this be impossible, he shall notify the class, that the members thereof may not be detained. As further precaution to prevent unnecessary detention of the class, it will be understood that if any professor is not present within twenty (20) minutes of his appointed hour, he will not lecture.
>
> 9. Nominations of Applicants for the Degree. If any applicant for the degree shall make a total failure, in examination, with any one professor, or shall receive two negative votes, he shall not be recommended to the Trustees, but shall be permitted either to withdraw his application or to subject himself to a second examination.
>
> 10. Nominations for the Degree. No Applicant for the degree shall be recommended to the Board of Trustees, unless he has attended at least one course of Lectures in this College, and submitted himself to examination.
>
> 11. Requirements for ad eundem Degree. Every applicant for the ad eundem degree shall be required to matriculate; to pay a fee of
>
> $ 50; to furnish satisfactory evidence of moral and professional character; and to submit to an examination in the practical branches: Medicine, Surgery and Obstetrics.
>
> 12. Amendments to or Suspension of Bylaws.. These rules may be amended, or additions may be made thereto, by vote of six of the active professors, at any regular meeting, notice having been given of the proposed change at a previous regular meeting, or they may be suspended, by unanimous vote, at any regular or special meeting.

The End of the Ad Eundem Degree

Article 11 of the above Bylaws of 1875 contains the first reference to the ad eundem degree to appear among the articles of governance of the Medical Departments of the University of the Pacific and the Medical College of the Pacific. The first reference to the ad eundem degree to appear in the "Requirements for Graduation" in the Annual Announcements of these institutions occurred in the Announcement for 1877 and read as follows:

> Graduates from other Medical Colleges in good standing, desiring to attend lectures, are required to matriculate only. Those desiring the ad eundem degree are required, in addition, to present satisfactory testimonials of character and professional standing, to submit to examination in the practical branches, and to pay a fee of fifty dollars.

In fact, neither the Medical Department of the University of the Pacific nor the Medical College of the Pacific ever granted an ad eundem degree to any candidate that did not already hold an M. D. degree from another medical school. The record shows that the ad eundem degree was awarded to five candidates in 1870, and to one each in 1871, 1872, 1873 and 1875. All these candidates already held an M. D. degree from another school. No ad eundem degrees were approved after 1875.

In 1884 the Faculty of Cooper Medical College voted to amend the Bylaws of the College to state specifically that "the College will not hereafter recommend any applicant for the ad eundem degree." This amendment finally put a belated end to the outmoded option of the M. D. ad eundem in the Cooper Schools.[7]

Returning to the general subject of governance, we have pointed out that the original Constitution and Bylaws adopted by the Medical Department of the University of the Pacific in 1858 were largely superseded by the Bylaws adopted by the Medical College of the Pacific in 1875. With respect to Officers of the Faculty, Elias Cooper was

the first President and served during his lifetime. When the School was revived in 1870, Professor Bowie was elected as the second President and served until an election was held on 19 April 1875 in accordance with the newly enacted Bylaws of 1875. In that election, the following officers were chosen to serve for one year (or until replaced):

President: Professor J. H. Wythe
Vice-President: Professor C. N. Ellinwood
Dean: Professor H. Gibbons, Jr.

Keep in mind that Professor Lane was still in Europe when this election was held. Also note that Professor Ellinwood, who had by this time become Surgeon to the United States Marine Hospital in San Francisco, was assuming an increasingly important role in the governance of the School.

The following significant amendment to the Bylaws of 1875 was adopted by the Faculty on 4 January 1877:

> An Executive Committee of the Faculty, consisting of three Professors, shall be appointed to attend to the general affairs of the College and report action from time to time to the Faculty.
>
> The following were elected on 1 February 1877 to serve as the first Executive Committee of the Faculty:
>
> Professor L. C. Lane, Chairman
> Professor C. N. Ellinwood
> Professor H. Gibbons, Jr.
>
> By this significant delegation of responsibility, the Faculty recognized Dr. Lane, who had returned from Europe in September 1876, as leader of the School and provided a mechanism whereby he could influence its course. This he proceeded to do, as we shall see.

Search for Facilities

Not until December 1877 did the Medical Faculty show an interest in seeking alternative facilities to the College Building. A committee consisting of Professors Lane, Ellinwood and Gibbons, Sr., was appointed "to consider and report at some future day upon the advisability of preparing plans and devising means for a college building." We can assume that the matter was of low priority at the time for no report was ever submitted.

When a rumor circulated in April 1879 that City College's financial situation was worsening, and that the Trustees might be forced to sell the Haight Street property, the Medical Faculty invited N. G. Kittle, Esq., Treasurer of the College, to a meeting. He advised the Faculty that the property would probably have to be sold eventually, but assured them that there would be no interference with the 1879 course of Lectures.

In December 1880 a rising level of concern for the survival of City College and the future availability of the College Building led to the dispatch of Professors Lane, Wythe and Dean Gibbons, Jr., as a delegation to the Trustees to learn from them on what terms the College Building could be purchased or rented on a long term basis. Meanwhile, Professor Ellinwood made the alternate proposal that each Professor contribute $ 1000 to be devoted to the purchase of other property and the erection of a building. When Dr. Lane et al returned from their visit to the Trustees, Dr. Lane advised against purchasing the College Building or levying an assessment for the purchase of property elsewhere. As a result, no action was taken.

There the matter stood until September 1881 when a lengthy Faculty discussion reaffirmed the decision not to purchase the College Building and agreed instead to lease it from year to year as long as possible. That decision seemed to leave the Medical School in a precarious position with respect to facilities since the longevity of University College was decidedly uncertain.

As Chairman of the Executive Committee, Dr. Lane had been influential in postponing plans for finding or constructing a permanent medical school building. His reason for advising delay was strictly private. Since his return from the European tour in 1876 his surgical practice and real estate investments had flourished, while his family responsibilities and personal needs remained modest. As his fortune grew so did his resolve to devote his accumulating wealth to some worthy purpose.

Now he decided to act. His plan was bold and visionary. Unknown to the Faculty at large, he would build a medical center second to none in the West for a reorganized school to be known as Cooper Medical College, and dedicated to the memory of his Uncle Elias.

Cooper Medical College

Construction

By the spring of 1881 Dr. Lane had already engaged the firm of Wright and Sanders, San Francisco Architects, to prepare plans and specifications for a brick and stone building to be located on the corner of Sacramento and Webster Streets. At the end of the summer bids had been received from five contractors. J. S. Burpee of Oakland submitted the lowest bid and on 3 October 1881 signed a contract to complete the building in 10 months. The estimated cost of construction was $ 80,000 and the value of the land was $ 20,000, bringing the overall value of the property to $100, 000.[8]

Dr. Lane insisted that the purpose of the building not be revealed, probably to avoid public protest over the construction of a huge five-story medical school and clinic on the high ground of the Western Addition, the most fashionable and thriving residential quarter of the city. In December of 1881 a prying reporter for one of the San Francisco newspapers tried unsuccessfully to obtain information from the contractor and architects regarding the nature of the looming structure, but was unsuccessful and vented his frustration in an article headed simply "A Mysterious Building."[9]

The Faculty were also unaware of the nature of the building as it neared completion in the fall of 1882. As late as October 6th the Professors were still planning to hold the November Commencement Exercises of the Medical College of the Pacific in Calvary Church. It was not until about this time that Dr. Lane finally disclosed to the Faculty that the "mysterious building" on the corner of Sacramento and Webster was a new medical school that they would be invited to join.[10][11]

The Cooper Medical College Building, with eighty feet of frontage on each of Sacramento and Webster Streets, was a magnificent structure. It is interesting to note that Its sheer red-brick walls, lofty gabled roof-line and slender spires were quite similar to those of the Rush Medical College building constructed in 1875.[12]

The interior of Cooper Medical College was carefully planned to provide facilities for both medical education and an ambulatory clinic:[13]

In the basement were macerating, furnace and store-rooms. The first floor was devoted mainly to clinical purposes. Here were rooms for general and special clinics, the drug store, waiting rooms for men and women, etc.

The second floor contained a large lecture room, sixty-six by forty feet, and two stories high, and seating six hundred persons; also a class room, thirty by thirty feet, accommodating about two hundred students; and the professors' room. On the third floor were found the private laboratory and the chemical lecture room, with seats for two hundred students.

The fourth floor contained the reading room, library and magazine rooms, together with large rooms for the anatomical and pathological museums. On the fifth floor were found the microscopic room, the students' laboratory and the dissecting room. The latter was fifty by thirty feet in dimensions; lighted by two large skylights; and supplied with hot and cold water, and, in fact, with every modern convenience for the thorough study of practical anatomy. Few, if any, medical colleges in the nation could offer better facilities than now available to the faculty and students of the Cooper school.

Organization

Dr. Lane orchestrated a remarkably smooth transition of the Medical College of the Pacific to the Cooper Medical College. In achieving the expeditious and orderly conversion of one school to another, he had the invaluable assistance of Dr. Edward R. Taylor, a personal friend and trusted counselor.

Edward Robson Taylor, M. D. (1838-1923) was both a physician and attorney. Born in Springfield, Illinois, he grew up in Missouri, and came to California in 1862. Reserved and scholarly by nature, he was attracted to medicine and graduated from Toland Medical School in 1865. This was at an early period in the history of that school when Drs. Lane and Henry Gibbons, Sr., were among the professors.

Dr. Taylor began medical practice in Sacramento where he was exposed to affairs of state and soon developed an interest in the study of law. In order to pursue legal studies he took the position of private secretary to Governor Henry Huntley Haight during his tenure as chief magistrate of the State from 1867 to 1871, and at the same time read law under the Governor's tutelage. He was an apt pupil and was admitted to the California bar in 1872. In that same year he moved to San Francisco where he practiced law as a partner of ex-Governor Haight who was, incidentally, a member of the Board of Trustees of University (City) College, serving as President of its Board from 1877 to 1879.

While in residence in Sacramento, Dr. Taylor married Agnes Stanford, daughter of Josiah Stanford of that city, and niece of ex-governor Leland Stanford. During this period he maintained his commitment to medicine as is indicated by his entering the competition for the AMA prize essay in 1871. His scholarly paper on "The Chemical Constitution of the Bile" won top honors, and other of his scientific medical papers are also competent works.

After his move to San Francisco Dr. Taylor was active in the affairs of the San Francisco and State Medical Societies, contributing significantly to the debate over the reform of medical education and the State licensure of physicians. Because of his combined medical and legal qualifications he was in demand as a consultant on medicolegal, ethical and organizational issues. In view of his specialized knowledge, integrity and wise judgment, Dr. Lane could not have chosen a more able and respected advisor to aid him in the launching of a new medical school, and in the drafting of its charter. We shall have occasion later to refer to his other services to the institution.

Dr. Taylor was a quiet, studious man whose long career as doctor, lawyer, educator, orator, writer, poet and public servant also included such noteworthy assignments as Dean of the Hastings College of Law in San Francisco for twenty years, and a hectic term as Mayor of the city. It was the capacity of Levi Cooper Lane to align such men of character and ability with his school that assured its success.[14]

First Meeting of Cooper Medical College Association

On 14 October 1882, with the expert guidance of Dr. Taylor, Dr. Lane took the first formal step in the organization of Cooper Medical College. He invited four loyal colleagues to join with him in forming the Association of Cooper Medical College to draft Articles of Incorporation and register them with the State of California. The following are the Minutes of the first meeting of the Association:[15]

> By invitation of Dr. L. C. Lane the following named gentlemen met at his residence on the evening of 14 October 1882: viz.,
>
> Dr. W. A. Douglass, Professor of Clinical Surgery
> Dr. Henry Gibbons Jr., Professor of Obstetrics
> Dr. R. H. Plummer, Professor of Anatomy
> Dr. E. R. Taylor, Attorney at Law
>
> At the suggestion of Dr. Taylor, Dr. Lane called the meeting to order, and Dr. Henry Gibbons, Jr., acted as Secretary.
>
> Dr. Lane then announced that he had called the gentlemen above-named together to deliberate upon the formation of an Association preparatory to the incorporation of a new college to be called "Cooper Medical College." He had given much thought for some years to the subject of Medical Colleges; had contemplated for years the erection of a college building; and had finally caused to be constructed the building on the N. E. corner of Webster and Sacramento Streets, which he proposed to donate for purposes of medical education and to be used forever for such purposes solely.
>
> Dr. E. R. Taylor then moved the following resolution:
>
> Resolved that we, here present, viz., L. C. Lane, W. A. Douglass, Henry Gibbons, Jr., R. H. Plummer and E. R. Taylor do now organize

ourselves into an Association under the name of Cooper Medical College, for the purposes of scientific and medical improvement and medical instruction with the view to the graduation of students of the science of medicine; and for the further purpose of acquiring all real and personal property that may be necessary to effectuate the object of the Association.

The motion was seconded by Dr. R. H. Plummer and carried unanimously.

Dr. Taylor also presented the following motions which were unanimously carried:

1. That the officers of this Association shall be a president and a secretary.

2. That Dr. L. C. Lane shall be its president and Dr. Henry Gibbons, Jr., its secretary.

3. That for the present the membership shall be confined to those present.

4. That the Association shall convene at the call of the president.

5. That the place of meeting, for the present, shall be at the residence of Dr. L. C. Lane, on the N. W. corner of Buchanan and Clay Streets, San Francisco.

The Association then adjourned to the same hour and place one week from date.

Signed: Henry Gibbons, Jr., Secretary.

Second Meeting of Cooper Medical College Association

On 21 October 1882, the Association formed at the previous meeting for the purpose of incorporating Cooper Medical College was convened at the residence of Dr. Lane. All five members of the Association being present:

> On motion of Dr. E. R. Taylor, it was unanimously resolved to incorporate under the laws of the State of California with the corporate name of Cooper Medical College, for the following purposes: the cultivation and advancement of medicine and surgery, and of the sciences cognate thereto; the employment of and the cooperation with such competent persons as will give instruction in medicine and surgery and in the sciences cognate thereto; the graduation of students who have received such instruction and the issuance to such students, under the seal of the corporation, of diplomas evidencing such graduation; the acquiring and holding of all such real and personal property as may be necessary to effectuate the objects of the corporation.

An election was then held to choose five Directors of the proposed Corporation, whereupon the five members of the Association there present unanimously elected themselves as Directors, and as the Board of Directors. On motion of Dr. Taylor, the Directors authorized themselves on behalf of the Association to prepare Articles of Incorporation and cause them to be filed in the proper offices of the State of California.

The above preliminary legal maneuvers having been expeditiously executed under the proficient direction of Dr. Taylor, the carefully drawn Certificate and Articles of Incorporation of Cooper Medical College were submitted to the State and formally approved on 23 October 1882. With this action and on this memorable date the Cooper Medical College was duly incorporated.[16]

First Meeting, Board of Directors of Cooper Medical College

On 2 November 1882, at the home of Dr. Lane, the Board of Directors met for the first time and elected Dr. Lane as President of the Board and Dr. Gibbons, Jr., as Secretary. The Board of Directors then appointed the entire currently existing Faculty of the Medical College of the Pacific as the original Faculty of Cooper Medical College:[17]

Original Faculty of Cooper Medical College

Appointed 2 November 1882

Henry Gibbons, Sr., M. D.,
Professor of the Principles and Practice of Medicine

L. C. Lane, M. D.,
Professor of Surgery and President of the College

C. N. Ellinwood, M. D.,
Professor of Physiology

Adolph Barkan, M. D.,
Professor of Ophthalmology and Otology

Jos. H. Wythe, M. D.,
Professor of Microscopy and Histology

Henry Gibbons, Jr., M. D., Dean
Professor of Obstetrics and Diseases of Women and Children

Wm. A. Douglass, M. D.,
Professor of Clinical Surgery

Jos. O. Hirschfelder, M. D.,
Professor of Clinical Medicine

Clinton Cushing, M. D.,
Professor of Gynecology

W. D. Johnston, M. D.,
Professor of Chemistry and Toxicology

L. L. Dorr, M. D.,
Professor of Materia Medica and Therapeutics

R. H. Plummer, M. D.,
Professor of Anatomy

John F. Morse, M. D.,
Adjunct to the Chair of Anatomy

W. S. Whitwell, M. D.,
Adjunct to the Chair of Obstetrics

Chas. E. Farnum, M. D.,
Demonstrator of Anatomy

The original Cooper Faculty, reflecting the changes incurred in the Medical College of the Pacific during the previous decade, was composed of the above twelve Professors and three appointees of lesser rank. Twelve was the average complement of full Professors at Cooper Medical College for the next decade but the total teaching staff was progressively augmented by appointments at the adjunct and assistant levels.

Second Meeting, Board of Directors of Cooper Medical College

The final item of urgent business to be completed by the Board of Directors prior to the Commencement scheduled for the evening of 4 November 1882, was the exercise of its newly-acquired corporate authority to award the M. D. degree.

On the previous day, 3 November, the Faculty of the Medical College of the Pacific met for the annual ritual of voting on candidates to be granted the medical diploma. Twelve candidates were elected.

Dean Gibbons then formally announced to the Faculty that they had all been appointed to the Faculty of Cooper Medical College. Whereupon, in their new capacity as Faculty of Cooper Medical College, they voted to recommend to the Board of Directors, that the degree of Doctor of Medicine of Cooper Medical College be awarded to the twelve candidates whom they had just elected.

On 4 November, the Board of Directors met and approved the recommendation from the new Faculty of Cooper Medical College that the twelve students who had satisfactorily completed the requirements of the Medical College of the Pacific be granted the M. D. degree of Cooper Medical College.

On the evening of 4 November, during ceremonies at Cooper Medical College that combined Dedication of the new building with Commencement Exercises, the Diploma of Cooper Medical College was awarded to each of the twelve graduates.

The San Francisco Morning Call, Sunday Edition, 5 November 1882, reported the event in a lengthy article headed:

Dr. Lane's Gift

Dr. Lane's Gift

Dedication of the New Cooper Medical College Building

History of a Generous Donation and Substantial

Aid to the Science of Medicine

A Building Mystery Solved

Cooper Medical College

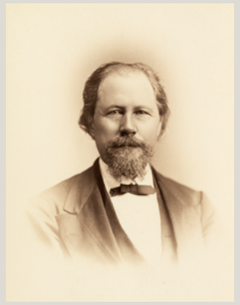
The unwonted lights that blazed from every window of the five stories of the new building on the corner of Webster and Sacramento Streets, last evening, were signals of the exercises within, which were in threefold ways interesting. The exercises were the dedication of the Cooper Medical College, the conferring of degrees upon graduates of the Pacific Medical School and the solving of the great mystery which has surrounded the new building from the time it was started. It is an unusual fact that the unreserved donation of a college building and ground to an association should be a matter that the donator endeavored to keep from being known. Yet this is what Dr. L. C. Lane, who has so distinguished himself by this generous deed, endeavored to do, and for a long time succeeded in doing. But, of course, the facts of the case were sure to be made public upon such an occasion as the dedication of the building to its scientific purposes and, the knowledge that some history of the generous act would be given, gave more than common interest to the exercises last night. In the address of Edward R. Taylor, published below, the interesting facts clearing the mystery and giving credit to the donator are pleasantly told.

The dedicatory exercises were held in a large hall on the second floor of the handsome building. The hall was crowded with ladies and gentlemen, the speaker's desk and table loaded with flowers and the platform filled with members of the faculty, looking happy in their new home, for the Faculty of the Pacific Medical College, of which the Cooper Medical College is a reincorporation, remains unchanged The exercises began with music which was followed by a prayer by the Reverend W. A. Scott, D. D. (President, Board of Trustees, University[City] College.)

After some more music Professor L. C. Lane, President of Cooper Medical College, conferred the degrees on twelve graduates. The ceremonies of the evening were then concluded with eloquent addresses by Professor Lane who had wise words of inspiration and advice for the graduates; and Dr. Taylor, who extolled the accomplishments and generosity of Professor Lane, and the pioneering spirit and vision of Elias Cooper.[18]

In historical perspective, the ultimate significance for medicine in the West of Dr. Lane's donation of Cooper Medical College, and subsequent additions thereto, can hardly be overstated. We may even suggest that his acts of private philanthropy - humanitarian in their motivation, seminal in their effect, major in their scale - place him in the select company of such memorable contemporaries as Johns Hopkins and Leland Stanford.

The newly appointed Faculty of Cooper Medical College, in recognition of Dr. Lane's unselfish contribution to medical education and science, and in gratitude for his invitation to join the new College, adopted the following laudatory resolutions which were engrossed on parchment, signed by all members of the Faculty and presented to him[19]



Dr. Levi Cooper Lane (1828 - 1902)

Whereas our esteemed colleague, Dr. L. C. Lane, Professor of Surgery, has manifested his regard for the interests of the medical profession of the Pacific Coast, by erecting at his own expense the substantial and beautiful building dedicated to medical education, under the name of the "Cooper Medical College," and. has invited the Faculty of the Medical College of the Pacific to occupy Professorships in the new college on the same terms and according to the same principles which have heretofore governed them, and whereas the members of the Faculty of the Medical College of the Pacific have signified their acceptance, and have agreed to the change of name and transference implied in the said invitation; it is an appropriate occasion for the Faculty to record their sentiments; therefore

Resolved, 1st That the past success of the Medical College of the Pacific is a subject of just pride to the members of the Faculty as indicating solid scientific progress in the profession of medicine on the Pacific Coast.

2nd That the munificent gift of Professor L. C. Lane in the erection and furnishing so beautiful and elaborate a building for medical education, entitles him to the regard of his fellow citizens as a public benefactor, and establishes a firm foundation for the highest grade of medical scholarship known, so that for years to come San Francisco will attract students from surrounding States and Territories on account of its superior advantages.

3rd That while we may not be able to emulate the generosity of our colleague in the same or similar manner we regard the spirit in which it was performed as one of unselfish devotion to the interests of humanity which will prompt us to labor assiduously in our several departments so as to promote the same noble end.

Bylaws of the Faculty of Cooper Medical College

The Faculty of Cooper Medical College met on 9 November 1882 for the first time since the Commencement Exercises. They proceeded to reorganize in accordance with their new status by adopting the Bylaws of the Medical College of the Pacific as Bylaws of the Faculty of Cooper Medical College, and by electing the following officers:

President: Professor L. C. Lane

Vice President: Professor Clinton Cushing

Dean and Treasurer: Professor Henry Gibbons, Jr.

Professor Lane (Chairman) and Professors Ellinwood and Gibbons, Jr. were reconstituted as the Executive Committee of the Faculty of Cooper Medical College.

The Faculty voted to continue their generous practice of fulfilling their teaching responsibilities without pay so that all existing funds and future resources of the College, after payment of current expenses, might be devoted to the purchase of apparatus for thorough equipment of the College.

As a gesture of appreciation to University of the Pacific and University (City) College for their previous sponsorship of the School, the Dean was instructed to notify the Trustees of these institutions that Cooper Medical College would continue to grant each institution the privilege, as in times past, of sending two students to the medical school free of tuition with the expectation that most of these graduates would enter the mission field. Furthermore, it was announced that medical graduates of these institutions would be awarded the diploma of Cooper Medical College upon application - an offer to which 80 of some 180 former graduates promptly responded.[20]

Decline of University (City) College

The separation of the Faculty from University (City) College and departure from the premises on Haight Street were amicably arranged and, as noted above, Reverend W. A. Scott graciously participated in the Dedication of Cooper Medical College by offering the Invocation. He also responded as follows to the decision by the Cooper Faculty to continue to grant two tuition-free scholarships to students recommended by University (City) College:[21]

St. John's Presbyterian Church
San Francisco, 20 November 1882

Dear Dean Gibbons,
In behalf of the Trustees of University-College we return you our sincere thanks for your letter of the 15th inst, and generous offer from the Cooper Medical College.

Our association with your Faculty has always been a most pleasant and profitable one. We shall always cherish a lively remembrance of it and sincerely wish you great prosperity and usefulness in your new institution. Please make my salutation acceptable to your Faculty.

Yours respectfully,
W. A. Scott, President
Board of Trustees

With regret, we must end our account of University (City) College's contribution to medical education on the Pacific slope by reporting that the fortunes of the institution continued to decline after the move to Haight Street. Already burdened with debt, the relocation proved to be a financial disaster. When all the bills were paid, there was not enough money remaining from the sale of the downtown property to pay for needed repairs on the buildings. The extended period of closure of the College associated with the move was harmful to its public image and the teachers, who were Presbyterian ministers, had to struggle with rebuilding the school's reputation while attempting, with limited success, to raise funds. In April 1877 the Trustees were forced to sell 140 feet of the frontage of their Haight Street lot to a theological seminary for $ 12, 000. This tactic only temporarily postponed the insolvency which finally led to permanent closure of University (City) College in 1886.

The College Building on Haight Street fared somewhat better. It remained standing for another seventy-six years. Although its exterior changed little from its original appearance, its interior was converted into an apartment house for low income people and a Baptist congregation met in one of the larger rooms on the main floor. Finally, in 1962, the building was torn down to make way for new construction, thus expunging the last physical trace of the Medical College of the Pacific.[22]

Governance of Cooper Medical College

With the advent of Cooper Medical College a new framework of governance was adopted as prescribed in the following three instruments:

Articles of Incorporation

Bylaws of Directors of Cooper Medical College

Bylaws of Faculty of Cooper Medical College

These documents provided the administrative stability crucial to the survival and progress of the School in the years ahead. Their main features are outlined as follows:

Articles of Incorporation

We have already described the procedure whereby Dr. Lane and four colleagues incorporated as an Association entitled "Cooper Medical College" and took the necessary steps as Board of Directors of the College to co-opt a Faculty and award diplomas to twelve medical graduates. The next step to be taken was the adoption of a separate set of Bylaws for the Directors, entitled:[23]

Bylaws of Cooper Medical College

The following are the major elements of the Bylaws as adopted originally on 28 November 1882 and variously amended until 1904:[24]

Government

Article One. (as amended 25 January 1892) The government of the College shall be composed of five (5) Directors who shall be elected by the Members of the College at an election to be held on the last Monday in January of each year.

Said Directors shall elect from their own number a President, Vice President, Secretary and Treasurer, who shall hold office for the term of one year from the time of their election, and until their successors shall have been chosen and qualified.

The Directors shall meet on the last Monday in each month, and at such other times as the President may deem necessary.

If a vacancy occur in the office of President, Vice President, Secretary or Treasurer, such vacancy shall be filled by the Board of Directors by electing one of their own number; and in the event of a vacancy occurring in the office of Director, the Board shall elect one of the Members of the College to fill the same, and the officer or officers so elected shall hold office until the next annual meeting.

(Note. The Members of Cooper Medical College and the Directors of the College as referred to in these Bylaws derive from the Association of five physicians organized by Dr. Lane to incorporate as Cooper Medical College. These five physicians became the original five Members of the corporation known as Cooper Medical College, and they elected themselves as the original five Directors (i. e. Executives) of the College. These Bylaws were designed to govern the operation of the College. Since the Members and the Directors were the same five individuals, that is until the number of Members was increased from five to six in 1890, and separate minutes were kept of their activities as Members or as Directors, the records are sometimes confusing.)

Directors

Article Two. The Board of Directors shall prescribe the curriculum of studies to be taught by the corps of professors and teachers and such other rules and regulations as in their judgment may from time to time be found necessary and proper; it shall authorize all expenditures and shall constitute the ruling and governing power of the College.

President

Article Three The President shall preside at all the meetings of the Members and at all the meetings of the Directors; he shall see that the Bylaws and such rules and regulations as may be adopted by the Directors are rigidly enforced, and that the purposes for which the College was incorporated are strictly pursued; he shall have a general supervision of all the affairs of the College and at the annual meeting of members he shall present a report of the accounts and general concerns of the College during the previous year.

He shall sign all contracts, diplomas and other instruments in writing, which have been first approved by the Board of Directors, and shall affix thereto the seal of the College.

He shall have the casting vote (the deciding vote cast by the presiding officer when the voting on both sides is equal) at all meetings of the members and of the Directors.

Vice President

Article Four. In the absence of the President or inability of the President to act, the Vice President shall perform all the duties of the President. If both the President and Vice President be absent from a meeting of members or of Directors, the Secretary shall call the meeting to order and a temporary chairman shall be elected.

Treasurer

Article Five. The Treasurer shall receive the moneys belonging to the College and shall disburse the same under the direction of the Board of Directors. The funds of the College shall never be loaned to any member or to any Director nor used in any manner whatsoever save as directed by the Board of Directors. He shall make to the President an annual financial account immediately prior to the annual meeting of the members, together with estimates of receipts and disbursements for the ensuing year.

The Treasury of the College shall consist of four funds , to wit, the

Donation Fund, the Current Fund and the Lane Hospital Fund.

Lane Library Fund. On 29 September 1903 Article 5 3/4 was adopted, to wit: There is hereby created a new fund in addition to those already existing and to be designated as the "Lane Library Fund" into which shall be paid all the proceeds arising from the sale of the properties bequeathed to this College by Pauline C. Lane; all moneys bequeathed to this College by Pauline C. Lane, etc. Out of said fund shall be paid all moneys necessary for the purchase of a site for a library building; for the construction of a library building on said site; for the fitting up, furnishing and appointing of said building; for the purchase of books and periodicals; etc.

Secretary

Article Six. The Secretary shall keep an exact record of the proceedings and the meetings of the members of the College and of the Board of Directors.

He shall keep an exact record of the membership of the College, and on the admission of a new member he shall see that such new member subscribes his name to the Bylaws.

Meetings

Article Seven.. The Members of the College shall meet annually at the time specified in Article One for the purpose of electing Directors and a Board of Managers for Lane Hospital, and of transacting such other business as shall come before them - such as receiving the Annual Report of the President, and discussing such matters as have relation to the scientific or business concerns of the College.

Mode of Election - Article Eight.

Membership

Article Nine. (as amended on 24 November 1890) The number of Members of the College, until otherwise ordered, shall be six (6) and no more.

With the exception of Pauline C. Lane, wife of Levi Cooper Lane, no one shall be admitted to membership hereafter unless he be a member of the Faculty provided for in Article Ten of the 'Bylaws, and be not less than the age of thirty years, and unless he receive all the votes of the then Members of the College, and unless he be not related by affinity or consanguinity to any of the other Members of the College.

Such new Member shall not be entitled to exercise any of the rights of membership until he has subscribed his name to the Bylaws of the College.

(Note: Originally the Bylaws specified that "the number of Members of the College shall be five (5) and no more." Article Nine was amended on 24 November 1890 to permit six members as above ordered so that Mrs. Lane might be elected as the sixth Member of Cooper Medical College in 1891. She thanked the College for her election and stated that she had no desire to exercise any power but, at the same time, her great interest in the institution made this closer connection with it very satisfactory.)

The Faculty

Article Ten. As extensively revised on 28 March 1904:

Section 1. There shall be maintained an efficient teaching body in the College consisting of Professors, Associate Professors, Assistant Professors, Lecturers, Instructors and Assistants, as the Board of Directors shall elect for the proper instruction of students in all branches of medicine and the sciences cognate thereto.

The Professors shall constitute the Faculty and shall meet regularly once a month at such time or times as the Faculty shall determine.

Professors, Associate Professors, and Assistant Professors shall hold their positions indefinitely except as

hereinafter provided.

Section 2. Instructors shall be elected for terms of two years and may be reelected. Lecturers shall be elected for one year and may be reelected.

Section 3. No one shall be elected a member of the Faculty except on receipt by this Board of a report in his favor signed by all the members of the Faculty.. . . .

Section 4. No Professor shall be dismissed from the Faculty except on the receipt by the Board of a request to that effect, signed by two-thirds of the members of the Faculty. The same rule shall apply to dismissal from the positions of Associate Professor and Assistant Professor. . . .

Section 6. Anyone holding a position in this College either as Professor or teacher who from time to time shall drink intoxicating liquor to excess shall thereby forfeit such position. . . .

Section 8. Women shall not be eligible for the position of Professor, Associate Professor or Assistant Professor. . . .

Section 10. A Collegiate Council is hereby created to be constituted of the whole teaching body except only assistants in the various departments of the College. Said Council shall meet at least once in each semester and at such other times as the President shall determine. The purpose of said Council shall be the discussion of such matters as relate to the teaching in the College and of the making of such recommendations in that regard to the Board of Directors or to the Faculty as the Council may deem proper.

Diplomas

Article Eleven. The degree of Doctor of Medicine conferred on those students who shall have earned it, according to the rules and regulations of the Directors, shall be evidenced by written Diplomas issued to such students, which Diplomas shall be under the seal of the College and shall be signed by the President of the College and by each member of the Faculty.

The Lane Lectures

Article Twelve. There shall be delivered from time to time, in addition to the regular medical lectures, such Lectures on the Sciences cognate to medicine as shall be thought proper by the President. Such lectures shall be free to the public and shall be known as "The Lane Lectures." They shall be delivered by the members of the Faculty, or by such persons outside of the Faculty as may be indicated by the Board of Directors.

Tuition Fees

Article Thirteen.. All moneys received from tuition fees shall be appropriated as follows:

First. To the payment of all the incidental expenses incurred in the maintenance, cleaning and repair of the College Building; of taxes, street assessments and insurance; of such servants including janitor as are necessary to be employed; of all expenses for fuel, gas, water, dissecting material and maintenance of museum.

Secondly. After the above payments are made, the remainder of all moneys arising from tuition fees shall be placed at the disposal of the Faculty.

Under the Bylaws of Cooper Medical College, strict control was exercised by the Directors who were highly efficient and successful in their management of the School. This was due primarily to the leadership of Dr. Lane, and to the fact that the Directors were closely integrated with a devoted Faculty, a condition which promoted collegial relations.

Bylaws of the Medical Faculty

We have already noted that the Faculty met on 9 November 1882 and adopted the Bylaws of the Medical College of the Pacific as Bylaws of Cooper Medical College. It was not until nine years later, in 1891, that the Cooper Faculty adopted a new set of Bylaws to which we shall later return.

The Lane Popular Lectures

Dr. Lane insisted that Article 12 be included in the Bylaws of Cooper Medical College in order to assure that a course of public medical lectures would be delivered annually and in perpetuity. The idea was controversial but Dr. Lane was convinced of the importance of disseminating medical information among the laity. The result was an annual series of ten free lectures that became known as "The Lane Popular Lectures." delivered semimonthly from January to May, inclusive.

The following description of the first course was printed in the Annual Announcement of the Cooper Medical College describing the program of the College for the Session of 1883:[25]

> In the creation of this course, the founder has entertained the hope that besides being a public utility, it would tend somewhat to relieve medicine of the complaint of exclusiveness, often charged against it - of neglecting to contribute its quota to the diffusion of knowledge in those departments of science with which medical men are familiar. A prominent aim of a majority of these lectures will be to illustrate those topics which are comprised under the head of public health; some, however, will have a more scientific cast, and it is believed may aid in dispelling the errors popularly prevalent, that our profession is making no advances, and show to the contrary that no scientist is working more faithfully than the medical, and that in no department of science are more new tracts of knowledge being added than in medical science.
>
> To conform to the purposes of the donor, as just stated, the Faculty of Cooper Medical College will deliver the first course of lectures in the new building upon the evening of the first and third Fridays of each month, from January to May, inclusive.

The first course of lectures on the following subjects began on 5 January 1883 and was delivered by members of the Faculty.

- Physical Education of Women by Dr. Clinton Cushing
- Influence of Belief Upon Man's Organization and Character by Dr. Henry Gibbons, Sr.
- The Perpetuation of Disease by Dr. C. N. Ellinwood
- Mind and Brain by Dr. J. H. Wythe
- Suicide by Dr. L. L. Dorr
- Food and its Adulteration by Dr. W. G Johnston
- Infant Food by Dr. Henry Gibbons, Jr.
- Contagious Diseases and Disease Germs by Dr. J. O. Hirschfelder
- How Do We Hear and How Do We Lose Our Hearing ? by Dr. Adolph Barkan
- Anesthetics by Dr. L. C. Lane

Although the lectures during the earlier years were delivered by the older members of the Faculty, in later years the younger members were expected to participate for Dr. Lane believed that this would improve their public speaking ability.

As we might expect from our knowledge of the suspicious nature of San Francisco doctors, Dr. Lane was severely criticized in the local medical society for sponsoring public lectures which they considered nothing more than an advertising scheme. There were also those who believed that a little knowledge is a dangerous thing, and that teaching medicine to the public could only do harm.

In 1932 Dr. Emmet Rixford, former assistant to Dr. Lane and later Professor of Surgery at Stanford Medical School, delivered a lecture entitled "The Lane Popular Lectures" during the fiftieth consecutive course of those Lectures. He pointed out that this lecture series had continued for fifty years without interruption, and from the beginning with creditably large audiences. This strongly attests to the success of the undertaking and amply vindicated Dr. Lane who was years ahead of his time - witness the vast amount of medical information now published and broadcast by physicians for the instruction of the public.[26]

In 1895 Dr. Lane permanently endowed a biennial Lane Course of Medical Lectures to be delivered by some eminent personage in medicine, a subject to which we shall later return.

University of California Beckons Again

Also according to Dr. Rixford, at about the time of the founding of the Lane Popular Lectures in 1882, the University of California made another attempt to absorb the Cooper school:[27][28]

> About this time a determined effort (the second or third) to bring the two schools together was made by dear old Doctor John LeConte, when President of the University of California. In the goodness of his heart he went so far as to have an appointment to a professorship in the Medical Department of the University issued to each of the members of the faculty of Cooper College. The effort was well meant but not well timed, for Dr. Lane had just spent $150,000 of

> his money in constructing the college building, and it was not in him to give up then. When a committee of the Medical Faculty of the University waited on Dr. Lane he stated that he was opposed to the proposed union, that in his opinion there was room for the two schools, that the friendly rivalry which existed between them was beneficial to both; they could keep up the standard of medical education, but if they united other and inferior schools would surely rise up to take the place of one of them. When the matter was brought up in his faculty Dr. Lane summarily closed the incident by saying that if anyone wished to accept the appointment he had best do so at once.[29]

We find no mention of this invitation from the University of California in the minutes of either Medical College of the Pacific or Cooper Medical College. That is not surprising for Dr. Lane appears to have promptly squelched all interest in the proposal of President LeConte to abolish the Cooper school on the eve of its rebirth. John LeConte (c.1818 to 1891) was Professor of Physics in the University of California and served as President of the University from 1876 to 1881.

Henry Gibbons, Sr., (1808-1884)

The first of the Lane Lectures of the year 1885 was delivered by Dr. Lane on January 2nd as a eulogy for Dr. Gibbons, Sr., who died on 4 November 1884.[30]

> Eight years ago the health of Dr. Gibbons began to fail, and from that period until the time of his death, he was frequently ill. His affliction had no well defined character; at times it caused him to suffer greatly from violent pains of a seemingly neuralgic nature. His disease was doubtless due to over-work of body and mind, for age found in him no disposition to abate the exacting duties which had been the accustomed task of earlier years. In his busy career, upon his ear fell unheeded the whisperings of time that the sixth age had come, when men should shift into the penultimate act of repose, for one saw him still, more dead than alive, pale, feeble and suffering, pushing his course among the crowding throng of our city.
>
> At length exhausted nature clamored so loudly for rest, that for once he listened to it, and consulting with his friends, it was decided that he must make a journey for his health. But whither should he go? As the dying Greek of old, remembered and longed to see his native Argos, so he longed to revisit the home of his youth in Wilmington, Delaware. Early last autumn he repaired thither, and enjoyed the warm greetings of many old friends; met and addressed those kindred to him in faith in the meeting-house where his father had worshipped. That scene of silent worshippers, or rapt listeners to the aged speaker, as he told again the old story of simple piety and plain virtue, would have been a fit subject for the pencil of the Quaker artist, Benjamin West.
>
> The fields with their well-known Flora, the skies with familiar cloud-forms, no doubt awakened in his heart many an emotion of mute rapture, but it was in the home of his father that the sight of old remembered objects awakened the deepest feelings. Amidst such surroundings, he fell asleep, and was visited by two messengers; one, that of Death, who having touched his heart gently and painlessly, gave it rest and hasted away; the other, that of Peace, who, having placed upon his brow a chaplet of the white flowers of purity, remains by his side forever.

There can be no doubt of the crucial role of Dr. Gibbons in the ultimate survival of the medical school launched in 1858 against forbidding odds by Elias Cooper. When Cooper died in 1862 Dr. Lane, the heir apparent, had been on the faculty only one year and was not yet inured to the contentious medical environment of San Francisco. When the school was suspended in 1864 for want of Cooper's vigorous advocacy, Lane, Gibbons and others of the Cooper faculty joined Toland Medical College. It was chiefly Gibbons who, six years later with Lane at his side, rallied the dispersed Cooper faculty and revived the Cooper school in 1870.

By this time Dr. Gibbons had become editor of the Pacific Medical and Surgical Journal and was establishing himself as the foremost medical journalist of the West. He used the pages of the Journal to frustrate the efforts of Toland and his partisans to dissolve or engulf the renascent Cooper school.

Also in 1870, Dr. Gibbons joined with Dr. Thomas Logan in reorganizing the State Medical Society. The Society had been founded fourteen years previously by Thomas. Logan in association with Elias Cooper who, according to Dr. Logan, "was the leading spirit of the occasion." In the field of medical organization in the State, there was no one more effective and constructive than Dr. Gibbons in his day.

Dr. Gibbons was ever the Nestor of the medical faculty and wise personal counselor to Dr. Lane who was able to devote two important years (1876-1878) to study in Europe only by entrusting management of the Medical College of the Pacific to Dr. Gibbons, Sr. It was not until his return from abroad in 1878 that Dr. Lane firmly took up leadership of the school.

We may fairly conclude, then, that Henry Gibbons, Sr., was responsible for the revival and survival of the Cooper school during the critical sixteen-year period of transition from the death of Elias Cooper in 1862 to the return of Dr. Lane from Europe in 1878; and that, In the annals of the Cooper schools, Elias Cooper, Henry Gibbons, Sr., and Levi Lane should be always remembered as the triumvirate of patriarchs.

Endnotes

1. Henry Gibbons , "The San Francisco Medical Society, and the Medical College of the Pacific," Pacific Medical and Surgical Journal 16, no. 3 (Aug 1873): 144. Lane Library catalog record
2. R. Beverly Cole , "Change of Base," Western Lancet 2 (Jul 1873): 427-428. Lane Library catalog record
3. R. Beverly Cole , "Our Newly-Located Medical Society," Western Lancet 2 (Sep 1873): 552-223. Lane Library catalog record
4. Henry Gibbons , "The San Francisco Medical Society, and the Medical College of the Pacific," Pacific Medical and Surgical Journal 16, no. 3 (Aug 1873): 144-145. Lane Library catalog record
5. Clifford M. Drury , William Anderson Scott "No Ordinary Man" (Glendale, California: Arthur H. Clark Co., 1967), pp. 311-312.
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Chapter 25. Perfidy and Progress 1885-1895

The International Medical Congress of 1877

Dr. Beverly Cole Offends Dr. Lane

During the planning of the 1887 International Medical Congress by the American Medical Association, Dr. Beverly Cole summarily expelled Dr. Lane from the planning committees. The following account of this unfortunate incident will explain the deteriorating relationship between Lane and Cole, and illuminate the status of organized medicine in America at the time.

The Thirty-Fifth Annual Meeting of the American Medical Association was held in Washington in May 1884. Dr. Austin Flint, Sr., (1812-1886), Professor of Medicine at Bellevue Hospital Medical College in New York, a well-known authority on percussion and auscultation, was President of the Association for that year. In his Presidential Address Dr. Flint reviewed the progress of medical science, and the history of the A. M. A. with special reference to current dissension over its Code of Ethics.[1][2]

With respect to medical science Dr. Flint mentioned recent developments and made some shrewd predictions:[3]

> I do not doubt that the present stage of medical progress will hereafter be cited as an important epoch in its history. For the past quarter of a century, histological and clinical studies have tended to develop more and more our knowledge of the existence of specific agents in the causation of diseases. That, as regards certain diseases, these specific agents are micro-organisms, has been demonstrated. The latest discovery in this direction is that of the bacillus tuberculosis, a discovery which is the leading topic in medical literature at the present time. Recent trustworthy researches go far toward demonstrating the existence of specific organisms in pneumonia, typhoid fever, malarial fever, and epidemic cholera; and, reasoning by analogy, it is a logical conclusion that ere long a host of diseases will be proven to be parasitic. It is easy to perceive how important must be the bearing of these developments in etiology and pathology, on prophylaxis and therapeutics.
>
> A new era is about to be inaugurated in these practical departments of medicine. Professor Huxley, in his address at the international Medical Congress in 1881, uttered a prediction in these words: "It will become possible to introduce into the economy a molecular mechanism, which, like a very cunningly contrived torpedo, will find its way to some particular group of living element, and cause an explosion among them, leaving the rest untouched." I would rather say that the time will come when means will be found to destroy morbific agents outside the body, thereby securing the prevention of diseases; and that means will be found to effect the destruction of these agents within the body, thereby arresting the course of diseases.

In his sketch of the history of the A. M. A. Dr. Flint called special attention to its Code of Ethics, adopted at the Philadelphia Convention of 1847 without dissenting vote, and since then considered one of the most significant accomplishments of the Association:[4]

> It is only within a recent period that there have been anywhere manifestations of a disposition to change materially our National Code of Ethics, or to do away with any code. In 1882, at the annual meeting of the New York Medical Society, by a vote of 52 of 70 members in attendance at the meeting, a new code was summarily substituted for the Code of the American Medical Association. This precipitate and lamentable action has severed the New York State Society from its affiliation with our Association, and has resulted in a division of the members of the profession in the State of New York.

At the time of Dr. Flint's Presidential Address to the A. M. A. in 1884, a fierce battle was being waged between those physicians in New York and elsewhere who supported the "new code" and the majority of members of the A. M. A. who remained loyal to the original Code of Ethics. In reprisal against the "New Code men", as they were called, the loyalists sought to exclude them from the A. M. A. and all its activities. Herein lies the pretext for an attack by Dr. Cole upon the reputation of Dr. Lane.

Dr. Flint concluded his Address with the following suggestion: on an entirely different subject:[5]

> Our efforts to facilitate and foster friendly intercourse between members of the medical profession, as well as to promote the development and diffusion of medical knowledge, should not be limited to our own country. As the means of union for these objects of the medical profession of all countries, the meetings of the Intentional Medical Congress claim a warm interest. The meeting of the Congress in London, in 1881, will ever be memorable in the retrospections of its members, and they who expect to attend the meeting at Copenhagen in August next, may anticipate much enjoyment as well as improvement.
>
> It would prove, as I doubt not, a source of great gratification to the profession of our country if the meeting of the Congress in 1887 were to be held in the United States, and I suggest the propriety of action to be taken now with reference to this desirable end. Inasmuch as an invitation should be in behalf of the profession of the whole country, and not of any particular section, it appropriately should come from the American Medical Association. If the suggestion be favorably received, it seems to me advisable that a committee be appointed with instructions to convey an invitation from this Association through its delegates to the Congress in Copenhagen. The committee may also be empowered to designate the time and place of the meeting of the Congress in 1887, and to take such other preliminary steps as may appear to the committee to be requisite.

The A. M. A. delegates at the annual meeting of 1884 , to whom Dr. Flint addressed these remarks, followed his recommendations to the letter. They established a "Committee of Eight on the International Medical Congress" chaired by Dr. John S. Billings of the Surgeon-General's Office of the War Department, and including Dr. Flint. The Committee was authorized to invite the Congress to meet at Washington in 1887 and, upon acceptance of the invitation, "to proceed to act as an Executive Committee with full power to fix the time and to make all suitable and necessary arrangements for such Congress and to solicit funds for this purpose." The Committee was also empowered to elect its own officers, add to its membership and perfect its organization.

As ordered, the Billings Committee attended the meeting of the Congress in Copenhagen in August 1884 as a delegation from the A. M. A. Their invitation on behalf of the A. M. A. to hold the next meeting of the Congress in Washington, D. C., in 1887 was promptly accepted.

Trusting in the explicit delegation to it of responsibility "to make all suitable and necessary arrangements" for the Congress of 1887, the Billings Committee of Eight acted independently and so efficiently that it could publish in the J. A. M. A. on 11 April 1885 procedures for the organization and conduct of the Congress of 1887. Also published were the names of the officers of a General Committee on the Preliminary Organization of the Congress, and an extensive list of the many other distinguished American physicians and medical scientists who had agreed to participate in the planning and conduct of the scientific program. The Billings Committee clearly sought to place the Congress under the scientific auspices of the outstanding men in American Medicine and, as they soon learned, were all too successful in doing so.

Among the officers of the General Committee on the Preliminary Organization of the Congress were Dr. Austin Flint, Sr., as President; eleven Vice-Presidents including Dr. Levi C. Lane; and Dr. Billings as Secretary-General. Among the numerous physicians appointed to the nineteen Medical Sections under the General Committee were Dr. Henry Gibbons, Jr., as a member of the Council of the Section on Medical Education, Legislation, and Registration; Dr. Levi C. Lane as a member of the Council of the Section on Surgery; and Dr. John Scott of San Francisco as a member of the Council on Obstetrics. Drs. Gibbons, Lane and Scott were the only physicians from the State of California and the Far West in the entire organizational structure of the Congress. All three were members of the California State Medical Society. It seems a rather pointed omission that Dr. Scott was chosen as the consultant on Obstetrics rather than Dr. Beverly Cole, the most prominent obstetrician in West at the time.[6]

The next annual meeting of the A. M. A. was convened in New Orleans from 28 April through 1 May 1885. There were only two delegates from California in attendance. They were Dr. Beverly Cole, Dean of the Medical Department of the University of California; and Dr. Anabel McGaughey Stuart who graduated from the Medical College of the Pacific in 1878 and was the second woman to graduate from a Cooper school. Both Drs. Cole and Stuart were delegates from the California State Medical Society.

On the first day of the New Orleans meeting Dr. Billings was called upon to make a Progress Report on behalf of the Committee of Eight which had been appointed to invite the International Medical Congress to meet in the United States in 1887, and to make all suitable and necessary arrangements for the Congress. In his Report Dr. Billings described the various steps the Committee had taken during the past year to carry out its mandate from the Association He also provided the delegates with a copy of the policies and procedures for the Congress and a list of the many prominent physicians who had agreed to participate in planning and implementing the program.

Dr. Billings thought that he had every reason to be pleased with the remarkable progress made by the Committee to date, and concluded his verbal presentation of the Report by saying:[7]

> It is anticipated that within the next six months these programmes for the Congress will be approximately completed and, about the 1st of May 1886, the arrangements for the Congress will be in an advanced and definite shape for presentation and publication.

When his Report on the International Medical Congress was taken up for discussion on the following day, Dr. Billings was stunned by a vigorous protest against the Report. In spite of Association records to the contrary, Delegates from several states insisted that Dr. Billings' original Committee of Eight was only a "committee on arrangements" and had no authority other than to secure acceptance from the International Medical Congress to hold its 1887 meeting in Washington D. C.

Finally, after much heated debate, the following Resolution was adopted:[8]

> Resolved, That the committee appointed by this Association to arrange for the meeting of the International Medical Congress in America, in 1887, be enlarged by the addition of thirty-eight members, one from each state and territory, the army, navy, and marine hospital service, to be appointed by the chairman at this meeting, and that the committee thus enlarged shall proceed to at once review, alter, and amend the motions of the present committee as it may deem best.

The Resolution in effect rebuked the Billings Committee by imputing that it had grossly misinterpreted and exceeded its mandate. The reasons given for this controversial action were three. First, the dissidents claimed that the Billings Committee had included too many of its own members on the "General Committee on the Preliminary Organization of the Congress." Second, that some "New Code" men had been carelessly appointed to the General Committee. And third, that the Billings Committee in its zeal to involve the foremost physicians in the nation (these physicians being concentrated in the northeast sector of the country), had created a General Committee that did not reflect the geographic distribution of the A. M. A. membership.

Publication of the Journal of the American Medical Association began in Chicago with Volume 1 in 1883, and the ever-faithful Dr. Nathan S. Davis was elected as the first editor. In a lengthy editorial in the issue for 30 May 1885, Dr. Davis vigorously defended the decision of the delegates to enlarge and redirect the Billings Committee. He also spent an inordinate amount of his time during the ensuing year responding to editorial attacks on the A. M. A. in other medical journals for what was widely considered a politically motivated and egregious error by the Association. Word of the contention crossed the Atlantic and European physicians were highly critical of the unseemly bickering of the Americans. In brief, the Resolution and its aftermath were an international public relations disaster for the A. M. A.[9]

The discussion on the Resolution included the following substitute motion which was rejected by a vote of 88 to 129.

> Resolved, That the actions of the International Congress Committee, so far as they have gone, be approved by this body, provided all new-code men be left out.

This attempt to exclude "all new-code men" was thus soundly defeated and Dr. Beverly Cole of California, who was one of the discussants of this failed motion, was therefore fully aware that the A. M. A. did not authorize exclusion of "new-code men" from participation in the Congress.

In accordance with the Resolution passed at the New Orleans meeting in April 1885, thirty-eight new members chosen on a geographic basis were added to the original Billings Committee to constitute a new body entitled "The General Committee on the Organization of the Ninth International Congress in 1887." The General Committee assembled at the Palmer House in Chicago on 24 June 1885 "to review, alter and amend the motions" of the Billings Committee. Dr. Beverly Cole was elected Chairman of the General Committee which proceeded to revise the work of the Billings Committee.[10]

Billings was present at the Palmer House meeting and promptly wrote to Dr. Lane informing him of certain actions taken by the General Committee:[11]

> War Department
> Surgeon-General's Office
> Washington, June 29, 1885
>
> Dear Doctor Lane,
> You will see the doings of the Chicago Committee in the Journal of the American Medical Association. It made Cole, President of the Committee of Organization, and Shoemaker, Secretary. All New Code men were dropped. You were dropped at Cole's instance, as being New Code.
>
> Drs. Hays, Browne, and myself have resigned from the committee. It's a bad piece of business.
>
> Regretting the results of our efforts, I remain,
> Yours very sincerely,
> John S. Billings

Dr. Lane reacted to Cole's arbitrary banishment of him from offices in the Congress by publishing two weeks later a pamphlet entitled Shadows in the Ethics of the International Medical Congress. The following excerpts from the pamphlet reflect his resentment at Dr. Cole's duplicity:[12]

> I am not now, nor have I ever been, connected with the New Code movement, either here or elsewhere; in fact, the subject has never been a matter of division on this Coast. I am a member of the American Medical Association, and as a duly accredited delegate, I represented that body not long since in the British Medical Association, and my mission was not dishonored by ostentatious show there or elsewhere, during a sojourn of over two years, during which I met the leading men connected with the medical institutions of Great Britain, Sweden, Russia, France, and Germany.
>
> But my offense was quite outside of the New Code. Four years ago I reorganized in this city the first medical school ever established on the Pacific Coast, and to increase its efficiency and permanency, I gave it a property of value greater than any sum ever before given by any physician in this country for the advancement of medical science. This school, by winnowing out improper material by an enforced preliminary examination; and by the thoroughness of the instruction given in it by an educated faculty working in harmony, has naturally become the rival of another medical school in this city, Dr. Cole being connected with the last-mentioned school. Would it not be distrusting the reader's acumen to add further words to connect this paragraph with the subject here in question?

Dr. Lane was particularly hurt by Dr. Cole's ingratitude. While en route to the International Medical Congress in London in 1881 Dr. Cole learned of the serious illness of his daughter's husband in San Francisco. He wired his daughter to request Dr. Lane to attend to her husband and Dr. Lane managed the case successfully. He wrote to Dr. Cole informing him that the patient had improved and received from Dr. Cole the following letter of thanks:[13]

> London, September 30, 1881
>
> My dear Doctor Lane,
> Your kind letter of the 8th was received but yesterday. You cannot imagine how much pleasure it gave me to learn directly from you of the permanent improvement of my son-in-law, as also your expression of approbation of the conduct of my dear child in the case. A better child never lived, and in my experience, good children make good wives, and I believe she is one of the best.
>
> It is needless, dear Doctor, to presume to attempt to express my gratitude for your unremitting attention. I feel, from what my child has so often repeated - as well as the patient - that you could not have done more had she been of your kin; and to venture to say all I would under the circumstances would result in utter failure, hence I will only request that you reverse our positions, and what you would feel I do feel! With kind remembrances to all mutual friends, in which Mrs. C. unites with me,
>
> I remain, Dear Doctor,
> Yours,
> R. Beverly Cole

In addition to this letter, Dr. Lane received two others of similar tenor thanking him for his services, not only to Dr. Cole's son-in-law but also to his daughter. These services embraced a period of nearly three years, including nine months of almost daily visits. Besides these house calls, Dr. Cole's daughter and her husband were seen frequently in Dr. Lane's office where they always received preferred attention. Dr. Cole's daughter had actually been under Dr. Lane's care within the past few weeks.

Small wonder that Dr. Lane was astonished and bitter to learn that his colleague and presumed friend had, on a false pretense, stricken his name from the list of Vice Presidents on the Committee for the Preliminary Organization of the Ninth International Medical Congress, and from the Section of Surgery. In his frustration, Dr. Lane unleashed a personal attack on Dr. Cole that left little prospect that their relations could ever be repaired.[14][15]

> One seeks in vain for words to describe such action (as that of Dr. Cole), since such action has been so nearly unheard of as to have rendered it unnecessary to create words for its expression.
>
> The honors conferred on me by the original (Billings Committee) were given unasked for. I had already sketched out some work as a contribution on a topic of surgery, in which I have had much experience; besides, I was in negotiation with a man of wealth for the establishment of an international medical prize for researches upon typhoid fever. These facts are here mentioned to show that I had not entered on this labor with an idle hand.
>
> But my retirement has the solace of most excellent company; retirement with such men as Drs. Hays, Browne, and Billings can be borne. The first, the worthy heir of an illustrious name in American medicine, is the editor of the veteran mouth-piece of American medicine, viz.: The American Journal of Medical Sciences. The second has long been an ornament to the Surgical Corps of the United States Navy - a body of men second to none in refined culture and scientific attainments. As to the third, he and Dr. Cole were both at the International Medical Congress in London, 1881. and while Dr. Cole, conspicuous in his livery of bombast, was bringing derision on himself and odium upon American medicine by his exaggerations and incredible statements; while he was squandering the golden moments of that learned body, in the parade of his vaginal mechanical jim-cracks, which adverse criticism has already consigned to the lumber-room of oblivion (where a lover of antiquities might have found them years ago) - while this man was strutting and filling the learned ears from all nations with his "sound and fury," there stood there another man of unpretending demeanor, whose learned escutcheon bore the simple inscription, Modesty; and whose able papers, besides partially atoning for his countryman's parade and superficiality, won for their author an enduring place in the literature of the Congress, as well as in the memories of those present, and caused him to be recognized as the tongue, voice, fame, and honor of American representation in that august assembly; and the man was - John Shaw Billings.

As planning for the International Congress continued, the international carping against the ousting of the Billings Committee by the A. M. A. gradually subsided, largely due to the constant explaining and coaxing of Dr. Davis's editorials in the JAMA. When Dr. Billings resigned, Dr. Davis succeeded him as Secretary-General of the Congress. When Dr. Flint died on 13 March 1886, Dr. Davis was made President of the Ninth International Medical Congress which he ultimately convened in Washington, D. C., 5-10 September 1887.[16][17]

Then the Congress was over Dr. Davis, who more than anyone else was responsible for its ultimate modest success, was obviously tired of the whole affair. He published an evaluation of the Congress in an editorial in the JAMA which consisted almost entirely of a reprint of a leading article from the London Lancet that bestowed faint praise on the Congress, and referred tastefully to the discord associated with it.[18]

London Lancet, 24 September 1887 pp. 617 and 627

> The success of the Ninth international Medical Congress is a matter of thankfulness. The interruption of the series of Congresses would have been little less than a calamity and a disgrace for the profession in all nations. Any serious imperfection in the meeting, either as respects numbers or the character of the discussions would have been but little less unfortunate. But the Congress has been held under most honorable auspices; the famous hospitality of the Unites States has been fully realized; and those who went great distances to attend the Congress have been amply rewarded…
>
> Those in the United States who have worked to this end, and in spite of much discouragement, well deserve the gratitude which was accorded to them by formal resolution. We have purposely abstained, in our allusions to the Congress, from pointedly referring to the domestic differences among our brethren in the States, which threatened to seriously mar the success of the Congress, if not to prevent it altogether. Those who persevered in spite of all opposition, and who have carried through the Congress so successfully, may well be satisfied. They have done a great service to their country and to their profession in all countries. It is not necessary for us to say that they committed no faults and made no mistakes. Such praise is not for mortals in a world so full of 'spilt saltpetre' as ours. But they have carried through the Congress, and we thank them.

There is no evidence that Dr. Lane's indignant reproof troubled Dr. Cole in the slightest. Lane was by nature austere, scholarly, upright - and thin of skin. Cole was not a scholar but he was gregarious, witty, and a consummate politician. Following his defection to the Toland College, he was completely devoted to the extinction of all future versions of the original Cooper School that he had helped to found. There can be no doubt that he was motivated in removing Lane from committees of the International Congress by jealousy of Lane's new building and the prosperity of the Cooper institution. Medical politics was Dr. Cole's element and he could not resist the opportunity it gave him to eject Dr. Lane from a position of national prominence.

Dr. Cole's major role in the populist coup against the Billings Committee was a significant achievement in national medical politics. It was also a hefty step on the ladder to the presidency of the A. M. A. to which he was elected in 1895. His fondest hope, however, was to someday have a building to overshadow the expanding medical complex of the obnoxious Cooper College that dared to challenge the hegemony of his State school. At last, in 1898, he literally took the high ground when the State of California fulfilled Toland's expectations of State support by funding construction of the Affiliated Colleges, including a medical school. These buildings, perched on the eminence of donor Adolph Sutro's Parnassian acres, looked west to the Pacific and the Farallones; looked east to the outskirts of San Francisco - and down on the red brick complex of the Cooper Medical Center.[19]

In Dr. Cole's few remaining years, failing health and his declining effectiveness in the deanship sidelined him to a sinecure as Coroner of San Francisco. He held this post until age took its toll. He died of

a stroke at seventy-one on 15 January 1901. Dr. Cole's biographer, respected historian Frances T. Gardner, fancied that Dr. Lane relented in the end, and was seen at the last rites:[20]

> Dr. Cole's funeral was a masterpiece of Masonic pomp and ceremony and to it came the great and small of the city in which he had lived so long. Even Lane appeared, strangely downcast that his future held no more zestful squabbles with his ingenious rival. Lane knew that this old pioneer was the symbol of an era that was gone, a period unique in its lusty loves and hates and active lives and sudden deaths. He sighed as he left the church and sighed again as he looked toward the heights where the proud young buildings of the Affiliated Colleges stood alone in the sand dunes. As he turned away again to enter the doors of his own red brick buildings across the city, he shook his head and said as though to himself, "In spite of everything, Cole, God go with you."

In another short year, Lane was to follow his old adversary to that far country from which no traveler returns.

Addition to the College Building in 1890

During the year 1890 the College received two valuable donations of land: (1) two fifty-vara lots from Professor Lane; and (2) a one fifty-vara lot valued at $ 28,000 from Captain James M. McDonald, friend of Dr. Cooper. (A vara is a 32 inch square unit of area.) As a result of these acquisitions, the total College property in 1890 consisted of two-thirds of a block of land on part of which the original College building, completed in 1882, was then standing.

Cooper Medical College Faculty Room

In 1890, as an extension of the original College building, Dr. Lane erected, entirely at his own expense, another handsome brick and stone structure of equal size and similar architecture. The enlarged College building then covered a lot fronting on Sacramento and Webster Streets, measuring 145 x 100 feet, and leaving nothing to be desired in style and accommodations.[22]

Cooper Medical College Building with Addition of 1890

The new addition contained on the first floor a large clinical lecture hall; on the second floor a large and handsomely appointed public lecture hall (Lane Hall) and gallery with seats for a thousand persons; on the third floor rooms for physiological and pathological laboratories, and for instruction in the use of the microscope; on the fourth floor a chemical laboratory and a large anatomical amphitheater to seat five hundred students.[23]

The new structure was dedicated at the Commencement exercises held In Lane Hall on 13 November 1890. In an address to the graduates on that occasion, Dr. Lane expressed his pride and confidence in the College he had so generously endowed - and lashed out at baseless rumors (to which we have previously referred) that the money for the College buildings was not his own:[24]

> Eight years ago, in 1882, I delivered an address to the graduating students of this College… That occasion was a momentous one in the history of the institution since the original building of Cooper Medical College was just completed and was then donated by me for the purposes of medical education. The present time is a no less important one, since it is the occasion of the completion of an addition to the original building which greatly increases the capacity of the former one, and has been constructed at a cost of a greater sum of money. This structure, which, in its space and internal arrangements is equal to any edifice of the kind in the old or new world, has been built by me, wholly, through means earned in my profession; these means have not been derived from bequests, inheritance, or trust from the one whose name the institution bears, or from any one else; I make this public declaration since the contrary has been stated. Any doubt upon this matter will be silenced by a reference to the archives of the Probate Court of San Francisco… .[25]

> It is a source of great satisfaction to the friends of Cooper Medical College, that since the original building was erected the school has been successful beyond anticipation, the attendance having doubled in numbers. And this is due to the excellent work which has been done by the several professors; they have done their parts with punctuality, industry and faithful earnestness; they have been free from jealously and forgetful of self; in brief, they have done their duty and still intend to do it. This work has been recognized by the Royal College of Surgeons of England, the highest English-speaking authority; this learned body has recently given Cooper Medical College full recognition; an honor shared only by a few medical schools on this continent
>
> The completion of the work which establishes Cooper Medical College on a sure basis has been the chief object of my life; it has been the animating inspiration of twenty-five years of professional labor… To Medical Science, which is inseparably linked to all other sciences, and to the Healing Art, the greatest of all arts, this property is now given by me as a perpetual dedication.

Dr. Edward R. Taylor then delivered an address commemorating the unveiling of a bust of Dr. Lane in Lane Hall:[26]

> Eight years ago, with appropriate word, there was dedicated to the cause of Medicine the college edifice so well known to us all, and in which has been successfully carried on by Cooper Medical College the work of medical instruction. In fact, so successful has been that work, and so promising the future in connection with it, that the same self-sacrificing hand, which eight years ago reared the original structure, has now made an addition to it of such large proportions as to double its capacity. The college structure proper, as it now stands completed, whether considered from the standpoint of architectural beauty, or from the standpoint of adaptedness to purpose, is not surpassed by any Medical College building in America, and indeed there is perhaps but one which can be said in these respects, to at all equal it.…
>
> Now Dr. Lane himself, not content with his former benefactions to the College in the shape of lands and buildings, has, in addition, made a deed of gift to the College of the two fifty vara lots which adjoin the college premises on the east. Thus this corporation, devoted solely to medical instruction, owns, by free gift, a piece of land two hundred and seventy-five feet square, fronting on three important streets, and a college edifice architecturally imposing and beautiful, and possessing every present facility and resource for a complete medical education…
>
> The Faculty of Cooper Medical College have, more than others, as was natural, appreciated at their high value the great services rendered to medicine by their head. They have been his worthy and zealous coadjutors for years, and no word of appreciation to him is richer or weightier than theirs. But they have deemed it altogether fitting and appropriate to go beyond mere words, and to set up in this hall a lasting memorial to the friend they love to honor. To that end they have had his bust cut in the purest Carrara marble by an esteemed artist of Munich, and have had the same appropriately mounted upon a colored marble pedestal, and placed within a niche in this lecture hall, where it is to remain forever, the perpetual embodiment of the guardian spirit of this place.
>
> Upon behalf of the Faculty, who have deputed me to perform this kindly office, it gives me one of the greatest pleasures of my life to speak for them on this deeply interesting occasion, and in their name to formally present this truly beautiful work of art to Cooper Medical College with the hope that "Time's effacing finger" may never mar its pristine beauty and purity. The artist seems to have been inspired by his subject, for he has here produced the living, breathing man in his habit as he lives, and with such power and delicacy as to leave nothing further to be desired. Art here joins hands lovingly and rejoicingly with Science and Beneficence, to crown with imperishable laurel this glorious son of Medicine…
>
> And as we unveil this marble, and you look for the first time upon the work which Art has so perfectly achieved, there is no one here present but must deeply feel, that marble never served a nobler purpose and never shone with a richer luster; but while contemplating the sculptured form which shall thus be transmitted to future generations, our thought cannot but rise from the perishable stone to the character and life work of the man which may not perish but shall endure for ever more.

The estimated outlay for land and construction of the first phase of the Cooper Medical College building, opened in 1882, was at least $ 100, 000. The cost of the additional structure, dedicated in 1890 at the Commencement exercises just described, was about $ 150,000. The College building, as enlarged by the addition, was more than double its original size and its overall cost exceeded $ 250,000.

Revision of Faculty Bylaws

As we have seen, the Faculty of Cooper Medical College adopted the Bylaws of the Medical College of the Pacific in November 1882 at their first meeting after reorganization under Cooper Medical College. Now, eight years later, in November 1890, President Lane appointed Professors Cushing and Gibbons, Jr., as a committee to prepare a revised set of bylaws for consideration by the Faculty. The following is an abbreviated version of the Bylaws as adopted in February 1891.[27]

Bylaws of Faculty of Cooper Medical College

(Rules for Government of the Faculty as Adopted at the Meeting of 28 February 1891)

I. The Faculty for the transaction of business shall consist of all the active Professors holding chairs in the College. Each shall be entitled to one vote. When vacancies in the Faculty occur, recommendations shall be made to the Board of Directors. No one shall be recommended for a professorship or adjunct professorship without the unanimous consent of the entire Faculty.

No Professor or Adjunct shall be recommended for expulsion without a two-thirds vote of the entire Faculty.

Assistants at the clinics shall be appointed by the Faculty only upon unanimous consent, but may be dismissed by a majority vote.

II. Regular meetings shall be held once each month, and special meetings at the call of the President

III. The following officers and standing committees of the Faculty shall hold office for one year and until their successors are chosen, unless otherwise specified.

Officers

A President, Vice-President, Dean, Secretary, and Finance Committee of two members shall be elected at the last meeting in December.

Committees

Executive Committee (consisting of the President, Vice-President and Dean, ex-officio)

Clinic Committee (consisting of all those engaged in the college clinics)

Committees Appointed by the President (of three members each)

Museum Committee; Library Committee; Lane Lectures Committee; Thesis Committee; Special Examination in Arts Committee. The President shall be ex-officio Chairman of the Lane Lectures and Thesis Committees.

IV. Duties of Officers. The President shall preside at all meetings, appoint committees, call extra meetings when desirable, and perform such other duties as usually devolve upon a presiding officer.

> The Vice President shall act for the President in his absence.
>
> The Dean is the executive officer of the Faculty, and shall have general management of its affairs under direction of the Faculty.
>
> The Secretary shall keep a record of the meetings of the Faculty, assist the Dean in the performance of his duties, and attend in his absence to such duties as the Faculty may determine.
>
> The Executive Committee shall attend to all business of the Faculty in the intervals between Faculty meetings, and to such matters as may be referred to it by the Faculty.

These Faculty Bylaws of 1891 served until a Plan of Organization of the Medical Department of Leland Stanford Jr. University was adopted by the Board of Trustees of the University on 26 March 1909.

Faculty Affairs (Castor and Pollux)

Rixford, Emmet (1865-1938) with Dr. Stillman

Dr. Lane was fortunate in being able to recognize promising young physicians on whom he could depend to pursue his goals for the College. His practice of taking two junior medical students into his office at 652 Mission Street for a year or two during which they served as his assistants was an effective means of identifying and developing candidates for the faculty. Two of these students, Stanley Stillman and Emmet Rixford, later became Professors of Surgery at Cooper Medical College and Stanford Medical School, and both made significant contributions.[28][29]

Stanley Stillman (1861-1934) was born in Sacramento on the 23rd of August. His father was Dr. J. D. B. Stillman with whom we are well acquainted. John Maxon Stillman, Professor of Chemistry at Stanford, to whom we have previously referred, was one of his three brothers all of whom had distinguished careers.

He attended the Boys' High School in San Francisco and then entered the University of California in the class of 1882. He did not graduate for at the end of his second year his strong-willed father took him out of school and put him in charge of the family vineyard in Redlands, California. After three years of pruning and cultivating grapevines; driving a four-horse team and ranching; he broke away and, much against his father's wishes, entered Cooper Medical College in 1887. He was a Student Assistant in Dr. Lane's Office, probably in 1888 and '89. He received his M. D. degree in 1889, the year that Emmet Rixford entered the College and during which their life-long friendship began.

When Dr. Stillman died in 1934, the San Francisco County Medical Society called upon Dr. Rixford to prepare an obituary:

> I find it doubly hard to write of Stillman in any objective way, for I knew him intimately for more than forty years - nearly fifty. In fact, we grew up together professionally.
>
> When, not long since, Dr. Leo Newmark wrote me asking for Stillman's address, saying that when one wishes to know about Castor, he naturally calls on Pollux, I could only reply that my relation with Stillman was not that of Pollux to Castor, but rather that of Chauvin to Napoleon; that I had followed him about for years with admiration and devotion comparable only to Chauvin's.
>
> Stillman's nature was a complex of qualities not easily to find duplicated - proud, independent, critical, even irascible; yet kindly, sensitive as a woman… As a surgeon, he was not merely competent and skillful, but was gifted with an extraordinary human understanding, as honest, too, with himself as in his professional relations… .As a teacher, he had a great knack of painting word pictures which have become almost proverbial in his students' memories. His students adored him, even when savagely critical, as he sometimes was, for they could not but rise to his sterling honesty and his uncanny instinct which dictated his action and his words. (Trenchant qualities not unlike those of his father.)….
>
> It is a pity that he contributed so little to the surgical literature, for with a mental makeup peculiar to himself he could have reached a far wider audience than that of the classroom, and his message would have been worth while.

In 1893, both Stillman and Rixford were appointed as Adjuncts to the Chair of Surgery. In 1898, both were promoted to the rank of Professor of Surgery. In 1909, Stanford University organized its medical faculty and Stillman was made Professor of Surgery and Executive Head of the Surgical Department. He continued in that position until 1926 when he reached the age of sixty-five and retired in accordance with University policy. When he died of bronchial pneumonia on 13 October 1934, it was written that "California's best beloved surgeon has gone."

Emmet Rixford (1865-1938) entered Cooper Medical College in 1889 and received an M. D. degree in 1891 upon completion of the three-year course of lectures required at the time. During 1890 and 1891 he served as a Student Assistant to Dr. Lane who regarded him with a confidence and affection that were not misplaced. Following graduation and some travels to study in other institutions, Dr. Rixford returned to assist Dr. Lane in his practice. Looking back over those years, it would seem that Dr. Lane favored the young Rixford as he might have an only son.

Rixford, Emmet (1865-1938)

Emmet Rixford was born 14 February 1865, in Bedford, a small town in Canada near the Vermont border. His father, an engineer, was a Vermonter and his mother a Canadian. The family business was the making of axes and scythes in two factories, one in Vermont and the other in Canada. In 1867, when he was two years old, his parents set out for California. They followed the path chosen by Elias Cooper twelve years earlier - down the east coast in a side-wheeler, across Nicaragua, then up the west coast in another side-wheeler to San Francisco. His father, who became city editor of the San Francisco Bulletin, was also a State Horticultural Commissioner as well as an avid gardener. It has been suggested that Dr. Rixford's love of the outdoors, especially mountain climbing and sailing, was a legacy from his father.[30][31]

Rixford attended public schools in San Francisco and entered the University of California as a student of engineering, graduating in 1887. He often said that his engineering studies stood him in good stead during his practice of surgery, and helped him especially to understand the mechanics of fractures, a subject to which he gave particular attention. After he graduated in engineering he decided to become a doctor and enrolled in Cooper Medical College in 1889.

Dr. Rixford's recollections of his tutelage under Dr. Lane, and his account of postdoctoral travels in the East, provide a glimpse of the standards of practice at the time:[32][33]

> In my second year in medicine I was fortunate to be given a place in Dr. Lane's office where two of us spent alternate afternoons in routine office work, assisting in operations in the morning. We had the duties of operating room nurse; got the long, low and wide kitchen table out of the back hall into the patient's room where the operation was to be performed; cleaned a number of large white basins; got a quantity of hot water ready, towels, sheets, etc.; sponged off Dr. Lane's old oil cloth apron with its generations of pus and blood and his rubber cloth over-sleeves with elastic puckering strings which he used to protect his cuffs and shirt sleeves; sharpened the knives; got out the instruments, prepared sutures, etc.
>
> One of us gave the anesthetic, the other assisted in the operation. Generally the slower of the externs was stuck, as we said, to give the anesthetic. In this way, I had personally a very large experience in administering anesthetics, and since the anesthetic used was the A. C. E. mixture of Billroth (alcohol, chloroform and ether), I had a large experience in artificial respiration. When the operation was over and the patient in bed, instruments cleaned, paraphernalia put away, the table carried downstairs, one of us would be assigned to watch the patient as nurse. Many a night I have sat up all night listening for the first rumble of the wheels of the vegetable wagons as they came in slow procession down Mission Street at two or three in the morning. This was always the sign of approaching day….
>
> On Sunday afternoon when practice was quiet, Dr. Lane would often call his students into his office and read us a chapter from Hippocrates or Lucian or Tacitus, translating as he went along.
>
> When I was graduated in December 1891 I consulted Dr. Lane, said that I would like an internship. His reply was that I had learned most of the tricks of his faculty, that I would do best to go East, and he gave me a number of cards of introduction, but took occasion to say that I would be disappointed.

Dr. Rixford set out on his tour of the eastern medical centers in the winter of 1892. He stopped first in Chicago where he attended some clinics and operations at Rush Medical College and Cook County Hospital. He found surgical practice at much the same level as in San Francisco.

He spent several months in the spring in New York, principally at the New York Hospital for the Ruptured and Crippled. He divided his time between the very busy hernia clinic of W. B. Coley (4000 patients a year with very discouraging results in inguinal cases), and the orthopedic service.

Next he stopped briefly at Jefferson in Philadelphia. "It seemed that all the students chewed tobacco for in the operating room the floors below the benches were running with tobacco juice and one had to walk carefully to avoid skidding."

He finally arrived at Baltimore in the summer of 1892, a year before Miss Garrett gave the money which permitted the organization of the Johns Hopkins Medical School. But the pathologists were active and he was given the great privilege of assisting in the laboratory at the elbow of Simon Flexner. Dr. Welch came in every day or two to look over Dr. Rixford's work. It was practically private instruction for him from that great teacher.

Another privilege at Hopkins was to go through the wards on occasion with Professor Osler, and to observe in the operating department where Dr. Halsted had introduced many innovations, including the first use of rubber gloves.

In Washington, the final stop on his tour, there was not so much to attract the casual medical visitor, but there was the Surgeon-General's Library where he met Doctor John Shaw Billings and his associate, Dr. Robert Fletcher. They were interested in the efforts at developing a library in Cooper Medical College and gave him carte blanche to select books from their collection of duplicates in the basement. Dr. Rixford was tempted to take the whole collection, because the College library was so small that there was little chance of duplication. He afterwards regretted that his modesty curtailed his enthusiasm, for he took only half a dozen or so large cases of books which on their arrival in San Francisco made a very important addition to the College library.

After his return to San Francisco in 1893, Dr. Rixford entered the office of Dr. Lane and in December 1893 was appointed as Adjunct to the Chair of Surgery. As already mentioned, both Stillman and Rixford were promoted to the rank of Professor of Surgery in 1898. They continued in that rank after Cooper Medical College completed its merge with Stanford in 1912.

Dr. Hans Barkan (A. B. Stanford, 1905; M. D. Harvard, 1910), son of the distinguished Professor Adolph Barkan, joined the Stanford Division of Surgery as an Assistant in 1914. Having advanced over the intervening years to the rank of Emeritus Clinical Professor of Surgery (Ophthalmology), Dr. Hans Barkan wrote an "Historical Sketch of Cooper Medical College" which was published in the Stanford Medical Bulletin in 1954. The "Sketch," based on his personal recollections of Cooper Medical College and its succession to Stanford, is one of the most valuable sources of information on the school's transition from proprietary medical college to university department. He has not only provided intimate views of the faculty and issues of the period, but has also transcribed minutes of critical faculty proceedings, the originals of which have since been lost. He had fond memories of Drs. Stillman and Rixford:[34]

> From Lane's school arose an excellent group of surgeons… Of them all, two men, great contrasts in character, both ruling the surgical profession for many years, stand out in highlight: Stanley Stillman and Emmet Rixford, as surgeons the peer of any and the superior of almost all. I remember them when they were young assistants of Lane and I perhaps ten or twelve. A vivid picture to me still is the old-fashioned but comfortable living room of my parents, with my mother at the piano, Rixford singing Schubert songs, and Stillman puffing a cigarette in the bow window, with my father offering occasional musical suggestions, which were really commands. He had a great regard for both of them and with Lane recognized early that they were the coming men. Stillman served a year as my father's office assistant, and then one day suddenly, as was his wont, father told him that he was cut out for a big surgeon, and provided him with some funds to study. With whom and where I do not remember.
>
> Stillman finally was in charge of all surgery and teaching at the Cooper school and later, as was Rixford, a Stanford professor. Rixford held the same position at the San Francisco Hospital. Both Stillman and Rixford were hard workers; Stillman inclined to growl about it, Rixford always patient. They were impatient with each other often; Stillman arguing the matter with passion, Rixford shaking his head in negation - both great surgeons, great personalities, and great friends.
>
> Rixford was much more the student of the two, deeply versed in medical literature as well as general literature. He was a collector of many things; his collection, especially, of sea shells found at higher altitudes in the Sierra was a remarkable one. Among his favorite subjects was the rose, its development and growth. He was a mountaineer and a good sailor, and his yacht was well known on the bay. (It had originally been the ship on which "Boss" Tweed escaped from New York and took refuge in Cuba.)
>
> Rixford had an even disposition, whereas Stillman had a fiery temper. Many had to suffer by some outrageous remark or act of his in the operating room. But he had a wonderful quality of self-condemnation and would meet you in the hall afterward, stop dead in his tracks, put his hand on your shoulder, with his blue eyes shining affection at you, and say, "Now, my boy, you know I didn't mean that." If that ever happened to you once with him, you forgave him all and would do anything for him after that.
>
> On one occasion, at a banquet in his honor he was teased about this temper of his and told the following story:
>
> "My father had a canary and, when he was tired of hearing him sing, would throw a cloth over the cage. One day the bird continued to sing in spite of the cloth. My father, in a rage, reached into the cage, broke the canary's neck and threw him out of the window." Then Dr. Stillman said, with his charming smile, "Now, what in hell do you expect from a man with an ancestry like that?"

Progress Report

There were two other developments of interest in the 1890's.

Curriculum

The duration of the medical course was increased from three to four years effective 1 January 1894. The significance of adding one year to the course was watered down by provisions for avoiding the first year. For example, the student could skip the first year if he had a B. A. degree; or if he had a high school diploma accompanied by evidence that the curriculum pursued included the following subjects: Anatomy, Physiology, Chemistry and one of the following optional subjects: Pharmacy, Botany, Biology, Histology or Bacteriology; or if the student studied first year subjects privately and passed an examination on these by the Faculty. Another means of avoiding the first year was one year's pupilage with a physician whose standing and facilities for imparting instruction were acceptable to the Cooper Faculty - the old apprenticeship resurrected. Such loopholes served to depress the quality of students entering the medical school, and perpetuated a fundamental flaw in American medical education of the day - that of admitting poorly qualified students to the study of medicine.[35]

Library

At a meeting of the Faculty of Cooper Medical College on 17 June 1895, Dr. Rixford was appointed Chairman of the Lane Library Committee, in other words he was made the Librarian. There were some 300 volumes on the shelves at the time. Dr. Rixford's appointment was especially noteworthy for his tireless efforts were crucial to the future growth and development of the Library which he called "my most beloved hobby."[36][37]

The Founding of Stanford University

Paralleling these medical events during the 1880's and early 1890's was a development destined to have the profoundest influence on Cooper Medical College. This was the founding of Leland Stanford Junior University by Senator and Mrs. Leland Stanford in memory of their only child, Leland Junior.

Founding of the University was accomplished by a Grant of Endowment by Senator and Mrs. Stanford, dated 11 November 1885. To make the Grant legal under the constitution and statutes of the State of California, Senator Stanford procured passage on 9 March 1885 of an enabling act by the State legislature.[38]

Senator Leland Stanford (1824-1893), as we have already mentioned, moved from Wisconsin to California during the height of the Gold Rush in 1852 and opened a store in Cold Springs, Eldorado County. He had married Jane Lathrop (1828-1905) in 1850, but left her behind until he was able to bring her out to Sacramento in 1855 where he bought out a store from his brothers. He prospered materially and politically and on 10 January 1862, not yet thirty-eight years of age, was inaugurated as Governor of the State of California. He did not seek reelection as Governor but, instead, devoted his energies to the presidency of the Central Pacific Railroad which began laying track toward the east in 1863. The Union Pacific, laying track toward the west, met the Central Pacific at Ogden, Utah, on 10 May 1869 to complete the first transcontinental railroad.

In 1876 Governor Stanford purchased a large tract of land near a tall and time-worn Sequoia sempervirens thirty-five miles down the peninsula from San Francisco. This property, 8, 400 acres in extent and named "The Palo Alto Farm," is now the site of Stanford University. We have already referred to Governor Stanford's interest in horses and his friendship and collaboration with J. D. B. Stillman in a study of the "Horse in Motion" conducted at the Farm and published in 1882.

During the final decade of his life, Governor Stanford was immensely popular in the Republican Party. Not only was he elected U. S. Senator from California in 1885 and reelected in 1891, he was widely solicited to run for President. However, because of progressive illness he was unable to complete his second term in the Senate, and died in his sleep on the night of 20 June 1893 at the age of sixty-nine.[39][40][41]

The Stanfords' only child, to whom they were utterly devoted, was a son, Leland Jr. He was born 14 May 1868 in Sacramento. The tragic, defining moment of their lives occurred on 13 March 1884. On that date Mrs. Mark Hopkins, close personal friend of the Stanfords in San Francisco, received the following cablegram from Florence, Italy:

> OUR DARLING BOY WAS TAKEN FROM US THIS MORNING AFTER AN ILLNESS OF THREE WEEKS WITH TYPHOID FEVER. PRAY FOR US.
>
> LELAND AND JANE STANFORD

The Stanfords were prostrate with grief. The burden of their sorrow seemed unbearable until one troubled night, as vividly recalled by Governor Stanford, his son came to him in a dream, urging him not to despair of life but to "live for humanity." From that moment he resolved that he would build a university and that "the children of California shall be my children."

Governor and Mrs. Stanford never doubted the import of the revelation and on their journey back to San Francisco with the remains of their son they sought advice on the founding of a university from Harvard, Yale, Cornell, Massachusetts Institute of Technology and perhaps others. Following these consultations the Stanfords, their determination undiminished, legalized the grant of endowment on 11 November 1885, less than two years after Leland Jr.'s death. The construction of the University began with the laying of the cornerstone on 14 May 1887, Leland Jr.'s nineteenth birthday and three years after his death.

Opening exercises for the University were scheduled for 1 October 1891. As Opening Day drew nearer and a University President had not yet been chosen, Mr. Stanford, now a. U. S. Senator, and Mrs. Stanford sought urgently to fill this vital position.

David Starr Jordan (1851-1931) was recommended to the Stanfords for the presidency of the new university by Andrew D. White, retired president of Cornell University at Ithaca, N. Y. The circumstances were these. In early March of 1891, the Stanfords traveled to Ithaca to ask President White to accept the presidency of Stanford University. He declined. When asked whether there was anyone he would suggest, he advised that David Starr Jordan, one of his former students and now President of Indiana University, be offered the position.

That same day, after the meeting with President White, the Stanfords headed in their private car for Bloomington, Indiana, home of Indiana University. When they arrived Jordan had gone to the University of Illinois in Urbana to give an address. Upon his return to Bloomington at five on Sunday morning, he was met on the street by one of the Trustees of Indiana University who informed him that Senator and Mrs. Stanford had arrived in their private car on the previous day and were waiting to see him at the National Hotel. Jordan recalled their meeting and his momentous decision:[42][43]

> My first impressions of Leland Stanford were extremely favorable, for even on such slight acquaintance he revealed an unusually attractive personality. His errand he explained directly and clearly. He hoped to develop in California a university of the highest order, a center of invention and research, where students should be trained for "usefulness in life." His educational ideas, it appeared, corresponded very closely with my own. Indeed, from President White he had been assured that I was the man to organize the institution he contemplated.
>
> The Senator then went on to explain that since the formal founding of Leland Stanford Junior University in 1886, only buildings and land had been given, but that practically all the joint property of himself and wife, valued at more than $ 30,000,000, would ultimately form the endowment. Should Mrs. Stanford outlive him the bulk of the property would be willed to her, that she might still have the honor and enjoyment of giving, and not sit idly by while others administered the finances. I refer specifically to this chivalrous attitude on the part of Mr. Stanford, as it shaped the early history of the University endowment. He further stated that the board of trustees, already appointed, would remain without function during the lifetime of either founder, unless specially called upon to serve.
>
> In conclusion he offered me the presidency of the institution at a salary of $10,000.
>
> While I went home to discuss the matter, Mrs. Stanford and her faithful secretary, Miss Bertha Berner, attended service in a neighboring church. There a student preacher discoursed

somewhat vigorously on the wrath of God. At the end, he approached the two ladies to ask if the five-dollar goldpiece Mrs. Stanford had put into the contribution basket was perhaps dropped by mistake. She reassured him on this point, but said she was not acquainted with the God he had talked about; the One she knew was "a God of Love, who pities them that fear him, even as a father pitieth his children."

After a short consultation with Mrs. Jordan, I decided with some enthusiasm to accept Mr. Stanford's offer.

David Starr Jordan was born on 19 January 1851 to a family of limited means on a farm one mile from Gainesville, N. Y. , and 50 miles south of Rochester. He was a precocious, well-adjusted boy, blessed with intelligent and understanding parents and a wholesome family life. Duties on the farm were balanced with pursuit of early "scientific" interests in the stars and geography. In later life he was to say that "my very early education I received at home, and I cannot remember when I did not know how to read… I remember nothing which I can fairly count as an obstacle." His primary and secondary education was in a variety of local schools where devoted teachers and an eager pupil made up for sparse resources.

While engaged in a stint of teaching school in South Warsaw, N. Y., in 1868, Jordan's preparation for college was put to the test. He decided to compete for a free scholarship to Cornell University which had been founded in Ithaca, N. Y., in 1865. Leaving one of the older boys in temporary charge of the school, he took the scholarship examination that was being held in Warsaw. He won the scholarship over three other competitors and in March 1869, full of hope and ambition, entered the new University. Prior to entering , he wrote ahead to the registrar:[44]

> With youthful naiveté, I explained that I was eighteen years old, six feet tall, and weighed 180 pounds!. At that time I was a strong, muscular, though sparely built and somewhat round-shouldered, young fellow; and a good athlete, especially in sprinting and high jumping.

Entering the University in March, 1869, as a belated freshman, Jordan was able in June to pass all the prescribed first-year work except that in Physiology - which he had never studied - so that upon his return in the fall of 1869 he was admitted as a regular member of the sophomore class. During the three years which followed he completed all requirements for the degree of Bachelor of Science, besides about two years of advanced work in Botany. Taking this last into consideration, the faculty conferred upon him at graduation in June, 1872, the advanced degree of Master of Science instead of the conventional Bachelor's Degree received by the rest of the class. (We can interpose here the information that in 1886 Jordan was the recipient of the degree of Doctor of Laws, conferred simultaneously on him and retired President Andrew White by Cornell University.)[45]

During the latter portion of his undergraduate years at Cornell, Jordan came to feel that he wanted to be a teacher of science and that the field of Vertebrate Zoology was his primary interest. With this ultimate goal in mind, at twenty-one years of age he accepted a Professorship of Natural Science at Lombard University in Galesburg, Illinois, in 1872.

He resigned from Lombard in 1873 after one year of teaching which was marred by differences of scientific opinion with the outdated old guard of the institution.[46]

From Galesburg Jordan went directly to Penikese Island, a little forgotten speck on the ocean about eighteen miles from New Bedford, Massachusetts, off the heel of Cape Cod. He was one of those chosen by Professor Luis Agassiz of Harvard to constitute the first class in his proposed Summer School of Science, a program designed to improve the information and methods of teaching of American teachers of Zoology. Fifty teachers (35 men and 15 women) were chosen from hundreds of applicants for this first class of Professor Agassiz's experimental program of teaching teachers of Zoology.

During this summer of 1873, Jordan so impressed Professor Agassiz that he offered him an appointment as curator of fossil vertebrates in the Harvard Museum at Cambridge, Massachusetts. Meanwhile Professor Agassiz received a letter from the Appleton Collegiate Institute of Appleton, Wisconsin, a preparatory school emphasizing the teaching of science, requesting him to send one of his students to be Principal of the Institute. Jordan was strongly recommended, was promptly appointed, and at once set out for Appleton to undertake his new duties.

Unfortunately, the Institute was forced to close in June 1874 for financial reasons. Jordan was once more without a position and Professor Aggassiz was not to conduct another summer session on Penikese Island - he died in December 1873.

Jordan returned to Penikese in the summer of 1874. In the absence of Professor Agassiz, the program was under the direction of his noted son, Alexander Agassiz, and Professor Burt G. Wilder of Cornell. This was the school's last session, following which it closed forever.

At the end of this second and final summer of the Penikese school, Jordan's resources, and perhaps his spirits also, were running low. He was therefore pleased to receive a telegram from Superintendent George P. Brown of Indianapolis, Indiana, asking him to take up the teaching of science in the High School there in the fall of 1874. He gladly accepted the position.[47]

While engaged with his work in the Indianapolis High School, he was also able to spend some time in the near-by Indiana Medical College, from which, in the spring of 1875 (less than a year from his arrival in Indianapolis), he received the scarcely-earned degree of Doctor of Medicine. Though it had not at all been his intention to enter that profession, he thought that a certain amount of medical knowledge would enable him to teach Physiology better. The next year he gave a course of lectures on Comparative Anatomy in the Medical College. So much for the standards of medical education in Indiana in 1875.[48]

On 10 March 1875, Jordan was married in Peru, Massachusetts, to Susan Bowen whom he met at the first summer session of the Agassiz school on Penikese. After ten years of married life, she died in Bloomington, Indiana, on 15 November 1885, leaving three children. She was a woman at once gentle and enthusiastic, always hopeful, and of the type for which the word "beloved" is naturally employed.[49]

Late in 1875, at the end of one year as high school teacher in Indianapolis, Jordan found himself unexpectedly elected to the professorship of Biology in Northwestern Christian University. This school was, at the time, in the process of being moved from Indianapolis to Irvington, a suburb five miles distant and since included within the city of Indianapolis. Coincident with the move, the burdensome original name was changed to "Butler University" and later to Butler College.

With respect to Jordan's scientific work during the period from 1874 to 1876, he made large collections of birds in Wisconsin and Indiana and prepared a series of descriptions for his first real contribution to science: A Manual of Vertebrates of the Eastern United States, published in 1876. In the summer of 1876 and in the following years he conducted regional research on fish and other fauna. These studies were the basis for his growing reputation as an ichthyologist.[50]

The academic year of 1878-79 proved to be his last at Butler where faculty dissension over the religious affiliation of the professors led Jordan to resign on short notice in protest. He was then offered the professorship of Natural History (which meant zoology, geology, botany, and physiology) in Indiana University in Bloomington in the fall of 1879.

Almost immediately he was approached by the Fish Commission under the United States Census Bureau to take charge of an investigation of the marine industries on the entire west coast. Making arrangement for his collegiate work to be taken over temporarily by someone else, he entered upon the assignment in December 1879.

Having completed this important work, he returned to the University in the early fall of 1880. Thereafter he addressed the needs of the students in his Department of Natural History, while continuing his regional research to such good effect that on 1 January 1885 he was unanimously elected President of Indiana University. At that time the University contained 135 collegiate students, with about 150 in the preparatory department, which served as a high school for Bloomington.[51]

By 1891, Jordan had served as President of Indiana University for six years. Other noteworthy features of his career to date included the following. He discharged his duties as President of Indiana University so ably that, when offered the presidency of the University of Iowa in the spring of 1886, he was induced to decline the offer by the unanimous appeal of the Indiana Trustees. He married Miss Jessie Knight of Worcester, Massachusetts, on 10 August 1887. By this time he had personally visited every considerable river basin in the United States in connection with his highly-regarded studies of fish, and had received significant national recognition as an investigator, educator and academic executive.

It was at this juncture that Jordan met on Sunday morning 22 March 1891 with Senator and Mrs. Stanford. They offered him the presidency of Stanford University which he formally accepted the following day - fortunately for the future of Cooper Medical College and medical education in the West.[52][53]

Opening of the University

Dr. Jordan retained his presidency of Indiana University until the June Commencement in 1891, and his salary as President of Stanford University did not begin until 20 May . Nevertheless, immediately upon receiving his Stanford appointment, he began an intensive search for faculty, a campaign unprecedented in scope at the time in American higher education. By the end of the summer he had engaged a faculty and staff of twenty-five: fifteen professors (including President Jordan); four non-resident professors; two assistant professors; one instructor; and three staff.[54]

Faculty of the new university began to arrive at the campus in June 1891. The town of Palo Alto was not yet established and only a dusty dirt road connected the Quadrangle of the University with the railroad tracks beyond which was the prospective town of Palo Alto then known as University Park. Living accommodations were virtually non-existent on the campus for faculty and their families. They had to seek out small-town hotels and boarding houses in Menlo Park and other nearby communities until, months later, small cottages were completed on campus. Meanwhile construction of university buildings and student dormitories continued at a hectic pace to meet the deadline of October first for opening ceremonies.

President Jordan was in his element. His infectious energy and good humor lifted the spirits of faculty colleagues who responded to the pioneering living conditions by setting to work with enthusiasm on the new curriculum they were soon to introduce. President Jordan was later to refer to them as "A handful of young idealists… We did not mind the primitive conditions of our material existence, and accepted without a murmur the penury of books and apparatus, for poetry was in the air we breathed, hope was in every heart, and the presiding spirit of Freedom prompted us to dare greatly."[55]

Senator and Mrs. Stanford spent the summer in their home on the campus, participating in all major decisions and immensely gratified by the remarkable progress of construction, and the inspiring, irresistible leadership of their new President.

Dr. Orrin Leslie Elliott, first Registrar of the University, was present on Opening Day:[56]

> On the first day of October 1891 the breath of life was breathed into the fashioned clay. More than four hundred students appeared for registration on this opening day. The event of the occasion was the ceremony of dedication, which was held in the open court of the Inner Quadrangle. A stand for the speakers had been erected in front of the Spanish arch at the west end of the court, and the surrounding arches were profusely decorated with California's choicest flowers and shrubs. The western half of the court was filled with a great gathering of people from far and near. Here Mr. Stanford for the Founders, Judge Shafter for the Trustees, President Kellogg for the State University, and President Jordan gave appropriate expression to the feelings which the occasion called forth and to the aims and anticipations and hopes for the development of the institution for which such long and costly preparation had been made.

"For Mrs. Stanford and myself, " Mr. Stanford said, "this ceremony marks an epoch in our lives, for we see in part the realization of the hopes and efforts of years… You, students, are the most important factor in the university. It is for your benefit that it has been established. To you our hearts go out especially, and in each individual student we feel a parental interest. All that we can do for you is to place the opportunities within your reach. Remember that life is, above all, practical; that you are here to fit yourselves for a useful career; also, that learning should not only make you wise in the arts and sciences, but should fully develop your moral and religious natures."

It was for Dr. Jordan to speak directly of the task and ideals of the University…"It is the personal contact of young men and women with scholars and investigators which constitutes the life of the University. Ours is the youngest of the universities, but is heir to the wisdom of all the ages… We hope to give our students the priceless legacy of the educated man, the power of knowing what really is. Every influence which goes out from these halls should emphasize the value of truth… The University has its origin in the shadow of a great sorrow, and its purpose is the wish to satisfy for the coming generation the hunger and thirst after knowledge - that undying curiosity which is the best gift of God to man. The influence of the boy, to the nobility of whose short life the Leland Stanford Junior University is a tribute and a remembrance, will never be lost in our country. The Golden Age of California begins when its gold is used for purposes like this.… "

Unfounded Rumors and Friendly Relations

As early as September 1891, Senator Stanford stated in reply to an inquiry from a newspaper correspondent that he intended at some future time to establish a department of medicine in the University. A year later a story appeared in the San Francisco Examiner to the effect that the University of California and Stanford University "are both striving by every possible means to secure the Cooper Medical College." This statement had no basis in fact as far as Stanford was concerned, and President Jordan wrote, "There is nothing as yet in the discussion of the union of Cooper Medical College. It seems to have started in the City without any provocation on our part… I do not think Mr. Stanford wishes to extend the University in the direction of medicine for the present." Any further speculation on this subject was completely stopped by the death of Mr. Stanford in June 1893 and the financial reverses for the University which followed.[57]

In any case, interactions between Stanford and Cooper Medical College were likely to occur eventually in view of their common interest in higher education and the mutual respect tending over time to develop between President Jordan, eminent Natural Scientist, and Dr. Lane, foremost physician-scholar in the West.

The Faculty of the College took the initiative. At its Regular Meeting on 19 September 1892, Dr. Lane being present, it was voted to invite President Jordan to be the Orator at the Commencement Exercises of the College on the evening of 6 December 1892.

The Exercises were held in Lane Hall where fully one thousand people assembled to witness the conferring of M. D. degrees to thirty-eight graduates of Cooper Medical College. Punctually at eight o'clock the orchestra struck up a sprightly overture and shortly afterwards the graduates marched to their respective seats two by two with the Faculty at their head. The ceremonies were opened by Reverend Hirst who invoked the blessings of the divine healer upon those on the threshold of their professional careers. Professor Lane then conferred the degrees and Dean Gibbons gave a lengthy Valedictory Address in which he congratulated the students and paid glowing tribute to Dr. Edward R. Taylor who had drafted California's legislation against quacks and empirics that led to establishment of the State's Official Register of Physicians and Surgeons.[58][59]

President Jordan was the last of the several speakers, choosing as his subject "The General Training of the Physician:" He spoke bluntly of the current status of American medicine and of the need for premedical education to improve the quality of candidates for medical studies.[60]

> The medical colleges have made the preliminary training a matter of luxury rather than of necessity, by putting into the same classes under the same instruction the graduates of colleges and persons who come from the country district school. If general culture be essential to professional success, the medical college should say so to those who would enter its doors. So far as any official action in most of our medical colleges is concerned, the illiterate boor, if he can sign the matriculation book, is as ready for medical education as the most accomplished college graduate.
>
> The physicians of our country say the same thing, for the number of college-bred men in medicine is lower than in almost any other profession. Statistics show that in the United States at present, about one clergyman in four, one lawyer in five, and one physician in twelve, has had a college education. Taking the country over, of all classes of students, those in medicine are as a rule (though such a rule admits of many individual exceptions) the most reckless in their mode of life and the most careless of the laws of hygiene and of decencies in general of any class of students whatsoever. This is not so true now as it was a few years ago. In the Cooper Medical College it is doubtless not true at all. For this change the rising standards of our medical schools are certainly responsible. This change results directly from making it more difficult for uncultivated men to win the doctor's degree, and indirectly from bringing better men into the field as competitors. Already there is a good deal of crowding at the bottom of the stairs in the profession, and in view of this fact the scramble for the name of doctor is somewhat abating.
>
> It was my fortune some three years ago to meet that which in Europe is regarded as a typical American physician, one who was taught by nature and not by schools. He was, therefore, regarded by the people of rural England with a reverence which the man of training often fails to inspire. It was in the solemn and decorous village of Stratford-on-Avon that I met this physician. Riding on a gilded circus wagon attired in a cowboy's splendid uniform, with a band of musicians dressed as cowboys and stained as Indians, this man was going through England selling from the wagon, that famous remedy of the Kickapoo Indians, known as August Flower. It cures every disease known to that country-side by the simple purification of the blood. In one day in Stratford-on-Avon he won back for America all the money the Americans have spent on the shrine of Shakespeare within the past 300 years; and on Sunday evening I saw him installed in the famous parlors in the ancient Red Horse Inn at Stratford, sacred to the memory of Washington Irving, as the one American there worthy to dine within its historic walls.
>
> A concerted effort is now being made to raise the standard of the profession of medicine by raising the general culture of physicians. Its purpose is to make medicine a worthy branch of applied science, and its votaries men to whom the word science is not an empty name. It has been a frequent reproach to the medical profession that physicians are not doing their part in this age of scientific investigation and discovery, in a time when the boundaries of knowledge are widening in every direction at a rate of progress never before known.…
>
> If our physicians are deficient in general culture, and if it be true that they are not taking their share in the progress of science, may not these facts be associated? May we not have here the relation of cause and effect? What then is the remedy? Is it not this? Bring in better men; shut out from the medical profession the ignorant, trifling and unambitious, the tinker and the job-worker, and reserve the training of our medical schools for those who can bring to their work the instincts, the traditions, and the outlook of the scholar.
>
> This condition of things, I believe, has two causes - the one discreditable to the profession, the other to the colleges. In the first place most of our medical schools are scantily endowed, or else are purely private ventures. It has been for them a business necessity to demand not the preparation they want, but that which they can get. In other words, they have been forced to cater to the desire of ignorance and impatience to take part in the honor and emoluments of the medical profession. For the same reason the standard of graduation has been kept low. A high standard would diminish the sale of the lecture tickets. The character of the profession has been lowered that the medical college may be self-supporting, for not to support itself in part at least means to close its doors. I do not mean to depreciate this class of medical schools, for many of our best teachers of medicine have belonged to them and have given their instruction in the intervals of an active practice.
>
> But this is not the ideal medical school, for no school can be effective until it exists for its work alone - instruction and investigation with no ulterior end whatever. Its teachers should never have to look to the interests of the cash account, and its examiners should never be forced to say that black is white at the demand of an empty treasury. The medical schools of the future will be sustained as necessary parts of university work, and the freedom of the university professor will be the right of the teacher of medicine. The medical school has the same claim for support that other professional schools should have. They have the same claim on the interests of the wealthy friends of education. In the West and in the South, where colleges and the lower schools are alike maintained at the public expense, the medical schools have the same claim for State support that is awarded to other parts of the public school system.
>
> Such a course of study as is here contemplated is actually provided in the undergraduate department of several of our universities, notably at Cornell and Johns Hopkins, in both of which colleges it is known as the medical preparatory course. It is, however, a course of general culture not a technical or professional course. This course, or its equivalent, is to be recognized as a condition of entrance in the new medical school of Johns Hopkins University. No more important movement has been taken toward raising the standard of medical education in America than this recognition by Johns Hopkins University of the necessity of scientific and literary culture as a requisite for professional training.

As the first president of a new university in the West, now in only its second academic year, Jordan's harsh criticism and proposed reforms of the American medical profession and medical education must have seemed brash to Dr. Lane and the Cooper Medical Faculty. Such was Jordan's refreshingly outspoken nature and, furthermore, he had previously given much thought to the issues involved and welcomed the opportunity in the Commencement Address to expound his philosophy of medical education which he later summarized in his autobiography as follows:[61]

> As a university president, one of the aims I had long cherished was the development of a medical school on a modern foundation, and even before Johns Hopkins was established I worked out a plan quite in harmony with that adopted by President Gilman and his associates. For medicine always seemed to me essentially a university subject - the application of certain sciences to bodily welfare. Its methods of instruction, therefore, ought to be those of the scientific laboratory; its teachers should be devoted to the extension and diffusion of knowledge, and placed accordingly on the same basis as other university professors. They must, of course, have opportunity, through hospital service and advisory work, to keep abreast of modern methods as well as of research, but they should not have to practice medicine to make a living, nor use their positions for self-advertising.

There were already rumors that Stanford had designs on Cooper Medical College and eventual union of the two institutions had about it an inexorable logic. Let us assume that an intuitive President Jordan seized the opportunity with his Commencement Address to establish the guiding principles of the inevitable courtship and union yet to come. These principles were simple and specific: medical schools of the future will be an integral part of a university; three to four years of college preparation will be required for admission (as already planned at Johns Hopkins University); and core medical faculty will be university faculty and chosen on the same basis.

President Jordan, who had impending financial problems at Stanford, was in no hurry to effect a merger with Cooper Medical College which would be an added expense. Furthermore, the University of California was the only other university option available to the College, and that institution was anathema to Lane.

Time was on Stanford's side. The University could afford to wait until its finances were in better order, and until the College showed interest in a merger on Stanford's terms.

The Pledge

We do not know what the Faculty thought of President Jordan's Commencement address for there is no mention of it in existing College records except that the Minutes of the Faculty meeting on 19 December 1892 report a unanimous vote of thanks to him for his participation in the Commencement exercises.[62]

From Dr. Lane's viewpoint, the persistent and probably malicious rumors of a merger between Cooper Medical College and either the University of California or Stanford were quite disturbing for they implied instability of the College and undermined the confidence of Faculty and students in the permanence of the school.

Now President Jordan had made matters worse by predicting in his Commencement Address that "the medical schools of the future will be sustained as necessary parts of University work." Dr. Lane was firmly opposed to this outcome for his school and felt that he must act promptly to define the long range policy of Cooper Medical College with respect to University affiliation.

At the regular meeting of the College Faculty on 20 February 1893, less than three months after the Jordan Address, Dr. Lane recommended that "the College should never be made the medical department of any literary or scientific school or educational institution," and the proposal was unanimously endorsed by the Cooper Faculty.[63]

Six months later, on 28 August 1893, he brought the subject to a meeting of the Board of Directors which took the action described in the following Minutes:[64]

> The President made a few remarks upon the subject of the prosperity and perpetuity of Cooper Medical College, to the founding of which he had devoted so much of the energy and earnings of his life, and presented a paper embodying his wishes and requests concerning the future government of the corporation. Director Ellinwood then offered the following preamble and resolution which was seconded by Director Gibbons and unanimously approved:
>
> Whereas, Dr. L. C. Lane has heretofore given a large amount of property to this corporation, which said property is elsewhere described in this book of minutes; and whereas, the wishes of said donor in regard to said property are as herein below set out; and whereas, the carrying out of said wishes are in the opinion of this Board of paramount importance to the welfare and perpetuity of said college; Now Therefore, Be it Resolved, that it is the sense of this Board that said wishes should be faithfully and punctiliously carried out, and to that end that all those who are now, or who shall be members of this corporation, or members of the faculty thereof, shall severally subscribe their names thereto.
>
> Said wishes are as follows, to wit:
>
> 1. The College shall never be affiliated with, or become the department of any other educational institution; but it shall remain an independent school in which Medicine and its Kindred Sciences shall be taught.
>
> 2. No Father or Father-in-law, Son or Son-in-law, Brother or Brother-in-law, of any Professor in this College, shall be elected a Professor in the College during the life time of said Professor.
>
> 3. A course of ten lectures, now known as the Lane Lectures, upon Public Health, Natural History, or other subjects akin to Medicine, shall be given annually in Cooper College by the Faculty or by persons chosen by the Faculty.
>
> 4. The subscribers will not sell, nor permit to be sold, any portion of the property now possessed by the corporation of Cooper Medical College in Block 270, Western Addition in the City of San Francisco, nor will they permit the same to be diverted from the purposes of a medical college, hospital and dispensary for the treatment of the sick, for which the buildings erected by the Donor were intended.
>
> 5. When the period expires, viz. 1932, for which the corporation of Cooper Medical College was established, the subscribers then living pledge themselves to the renewal and continuance of the corporation in accordance with the conditions embodied in these wishes and requests of Dr. L. C. Lane.
>
> 6. No one shall become a member of the corporation or Faculty of Cooper Medical College until he has subscribed his name to these articles of request; and any member of either of said bodies who shall overtly or covertly violate any of the wishes of the Donor Dr. L. C. Lane contained in any of the preceding sections, shall thereby immediately forfeit his position in, and connection with, Cooper Medical College.
>
> The Secretary was then instructed to copy the preamble, resolution and requests into the back of the book of bylaws, where all present and future members of the corporation and faculty shall sign it.

It is clear that President Jordan's Commencement Address did not persuade Dr. Lane of the value of a university affiliation. On the contrary, the prospect so alarmed him that he sought permanently to forestall any movement in that direction by requiring all present and future Directors and Faculty to sign the above pledge that "The College shall never be affiliated with, or become the department of any other educational institution."

It should not pass without notice that Dr. Lane chose Professor C. N. Ellinwood to introduce the above important resolutions to which members of the Board of Directors and Faculty were thereafter required to affix their signatures. During the next decade he grew so in the favor of Dr. and Mrs. Lane that he became their confidante and personal physician, with consequences to which we shall later refer.

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Chapter 26. Lane Hospital 1895

Lane Hospital 1895

When the project to double the size of the original College building was completed in 1890, the classrooms and laboratories of the school were among the best in the country. Yet Dr. Lane believed that the College required additional facilities if it was to realize his dream of self-sufficiency and supremacy for the school. At the meeting of the Board of Directors on 18 March 1892 Dr. Lane stated enigmatically that he "contemplated improvements in the form of an extension of Cooper Medical College." He made no reference to the nature of the "improvements." until he delivered his "Annual Report of the President" to the Board almost a year later on 23 January 1893.

In that Report Dr. Lane stated, with obvious pride, that "During the year which has just elapsed the number of matriculates was one hundred and seventy-eight, a greater number of students than at any previous time in the history of the College. There were thirty-eight graduates; the proficiency of these as well as of the Junior and Freshmen, was in general of a high order. " He then added:

> To increase the efficiency in the work of Clinical Instruction, I will soon create a hospital on the grounds of the Corporation, with facilities for caring for about one hundred patients; and the funds for erecting the hospital will be furnished by myself.

Dr. Lane was so concerned with preserving a detailed account of his planning and building of the hospital that he left among his personal papers a small notebook containing an "Historical Sketch of Lane Hospital." It would be unpardonable not to pass along his observations by paraphrasing generous excerpts from the Sketch:[1]

> In 1882 the Medical College of the Pacific underwent an important transformation. In that year, I constructed a College building at the corner of Webster and Sacramento Streets from my private resources. The Medical College of the Pacific was then converted into the present institution known as Cooper Medical College and moved to the new building.
>
> After opening Cooper Medical College, the growth of the College was so rapid that the new building did not furnish adequate accommodations. Therefore, in 1890, I caused an annex to be erected and adjoined to the new building, doubling its capacity at a cost of over one hundred thousand dollars exclusive of the land on which it was built.
>
> In the building thus enlarged there was sufficient room for instruction in all the branches with the exception of clinical or bedside teaching. It was finally apparent that to make Cooper College a school where the student could have every possible opportunity for a perfect medical education, one thing more was necessary - this was ready access to a hospital in which clinical instruction could be given.
>
> Although such facilities had been enjoyed for some years at the County Hospital, the long distance to that institution involved a great loss of time in transit to both professors and students. This made another arrangement essential. Furthermore, the fact that we shared the County Hospital with Toland Medical College resulted in altercations in regard to division of the wards and assignment of the professors. Because of these difficulties, it soon became obvious to me that to complete the purpose of the College it must have its own hospital.
>
> Planning for construction of a hospital in association with Cooper Medical College began in 1890 when Captain James M. McDonald, friend of Dr. Cooper, purchased the land adjacent to the College Building at a cost of $ 28,000 and donated it to the Corporation as a site for the hospital.
>
> The most formidable obstacle encountered in building the hospital was a prejudice against it. There existed in San Francisco a vindictive enmity against hospitals. In 1890 an ordinance was then under consideration which forbade the erection of a hospital within the City and County of San Francisco unless permission was obtained from the Board of Supervisors. Passage of this ordinance would be equivalent to absolutely forbidding the erection of such a building for the Members of the Board of Supervisors were as hostile toward hospitals as the general public.
>
> When the illiberal ordinance was proposed, I lobbied strenuously against its passage, but the claims of the ignorant public prevailed and secured its adoption, thus placing the greatest difficulty in the path of anyone who would engage in such a charitable enterprise as building a hospital. And it should be remarked, in passing, that the existence of a similar though less-sweeping ordinance had in times past so deterred individual enterprise on the part of charitable agencies that they sought elsewhere for a field for their humanitarian work.
>
> The hostility to the building of a hospital in the neighborhood of Cooper College developed to such a degree of intense hatred that the opponents who lived in the vicinity held frequent meetings at which plans were discussed by which the erection could be prevented. From one who was present at one of those meetings it was learned that the malcontents had resolved to resort to violence if it was necessary to carry their point.
>
> The flame of opposition was kindled to such a high degree of intensity that acrimonious communications appeared in the public press, denouncing the proposed hospital as an outrage which must be prevented at all cost. At this time I received through the mail a letter in which the College and my private residence were threatened destruction by dynamite. That this was not an empty threat was plainly shown by the anarchistic act of some miscreant who threw an explosive bomb into my yard near my house. Fortunately this was discovered and removed without damage to my property.
>
> As reinforcement of the illegal methods intended to prevent the building of the hospital, a petition against the building was signed by nearly all property owners who lived in the area. This petition was submitted to the Board of Supervisors. Fortunately, Cooper College at this time had two strong friends in the Municipal Government, viz., Mayor Sanderson and Dr. Washington Ayer, a Supervisor; and another active friend was the Clerk of the Board of Supervisors, Mr.

John Russell. Through the active management of these gentlemen, especially Mr. Russell, the Board was informally convened before consideration of the petition. The Board then proceeded to review a previous request from me, which they had approved, to build an "additional structure" to Cooper College for the purpose of completing an original plan. This original plan to build an additional structure (i. e., a hospital), had already been approved and partly carried out before the enactment of the recent ordinance against the erection of hospitals. On the basis of this prior approval, the Board of Supervisors ruled the I had acquired the right to build the hospital in spite of the recent ordinance.

Afterwards, the Board took up the petition from the dissenting property holders and refused to comply with their request to prevent construction of the hospital. As is apparent from what has been stated, the permission to create a charitable institution was obtained through many difficulties.

The work of erecting the hospital was entrusted to the Architects Messrs. Wright and Sanders who had constructed the buildings of Cooper College. It was estimated that the hospital would cost one hundred and ten thousand dollars. Ideas for the building were derived from numerous observations, some made by me during visits to Washington, Baltimore, Philadelphia, New York, Boston, Cincinnati and Chicago. Messrs. Wright and Sanders also made observations on visits to cities of the Atlantic coast and Canada. The final plan combined the best features of the many institutions observed.

The plan also included the suggestions of Mrs. Lane who, from the beginning of the work, industriously watched the interior construction and on many occasions prevented errors from being committed which, if they had passed unnoticed, would have seriously lessened the excellence of the hospital. For nearly two years most of her leisure time was spent in this work. As a well-earned reward for her sacrifices, it was my intent that her name should be given to the new hospital. This, however, she modestly declined, preferring that the new hospital should bear the name mutually shared by herself and husband. Thus the name of Pauline Lane Hospital, that for some months stood traced on the block of granite spanning the vestibule of the building, was replaced by Lane Hospital.

As hospital construction was approaching completion it was found that the first estimate of cost fell far short of the amount necessary. I was therefore obliged to provide considerably more than $ 150,000 for the building. This sum did not include furniture and equipment; to meet these unfunded requirements, the Faculty of Cooper College voted to donate $ 20,000 from its treasury, which amount included the greater part of the earnings of the College during the last twelve years. The Faculty committee appointed to superintend the furnishing began their arduous task about the middle of 1894 and worked with commendable industry on the duties assigned to them. The greater part of this work fell to Mrs. Lane to whose discerning judgment is due much of the excellence observable in the furnishing of the hospital.

In 1894 the prospective hospital was the recipient of three important gifts, viz., from Captain James M. McDonald, $25,000 for further support of the hospital; from Col. Claus Spreckels, $25, 000 for the same purpose; and from Mr. Andrew B. McCreery, $6000 for the maintenance of a bed in the hospital.

The laborious task of furnishing the institution was nearly concluded at the end of 1894, and a formal opening of Lane Hospital was held from one to three p. m. on Tuesday January 1st, 1895. This opening witnessed the presence of many of the prominent citizens of San Francisco. Words of unstinted praise and admiration fell from the lips of every visitor, and made the founders of the new institution content with the assurance that they had well accomplished their purpose of giving San Francisco an institution at which the sick and afflicted of the city can find a home of refuge.

I am pleased to state that the hospital, when opened to the public, made so favorable an impression, that it tended to greatly allay the animosity which hitherto existed against it. The effect was that, of the enemies, some became neutral, and the majority were converted into friends.

Illustration of Hospital and Floor Plans

The reporters of the San Francisco Chronicle, Morning Call and Evening Bulletin newspapers and the Occidental Medical Times were lavish in their acclaim of Dr. Lane's princely gift. The following is a composite of their accounts:[2][3][4][5]

The hospital annex to the Cooper Medical College, which has just been completed, was the scene of a reception on the afternoon of January 1st, 1895. Several hundred invited guests visited the hospital and inspected its superb appointments. The magnificent structure of brick faced with California granite, when taken with the adjoining college buildings, forms a quadrangle with three sides facing on Sacramento, Webster and Clay streets. The hospital is situated on the corner of Clay and Webster with a front of 140 feet on Clay and a depth of 130 feet. It was erected by Dr. Lane at a cost of $ 160,000, and presented to the corporation of Cooper Medical College. The aggregate of the gifts of lands and buildings presented to the College by Dr. Lane amounts to nearly a half million of dollars.

While the exterior of the hospital presents many architectural beauties, it was with the interior that the many assembled guests were most impressed. Passing through the Grecian portico on Clay street and up imposing granite steps, one enters a spacious vestibule floored with marble mosaic in brown and gray tones, the woodwork being of highly polished mahogany. A large white marble panel, set in the wall to the left of the entrance, bears the following inscription:

"This hospital, erected in the year 1893, by Levi Cooper Lane, physician and surgeon, with money earned by himself in his profession, is given by him to suffering humanity and the healing art in the hope that the former may find refuge and relief; the latter exercise of its human skill and intelligent sympathy."

In the upper one of a triple panel on the west wall it is recorded that in 1890 Captain J. M. McDonald bought and gave the site of the hospital at a cost of $ 28,000. Below are noted gifts from Colonel Claus Spreckels and Andrew McCreary, and another donation from Captain McDonald.

The noble, zealous spirit of Mrs. Lane, wife of Dr. Lane, permeates the entire hospital. She has watched, guided, suggested and worked hand-by hand with her husband, and the gentle influence of her worth is felt everywhere through the building. She is its guardian angel.

Leading off the main vestibule is a general reception room, richly and appropriately furnished. In pursuance of the idea of Mrs. Lane, this room is so situated that it connects with no part of the hospital except through the vestibule. The object of this is that while visitors may be received, they can in no way disturb the patients until their business is ascertained.

Two years have been devoted to the construction of the building which has six floors. From the foundation stone right up through the building the construction has been on strictly scientific principles. A system of heating and ventilation, perfect in all its details, has been provided at great cost. Steam radiators have been placed in the walls for even distribution of the heat. The lighting is by electricity, although gas fixtures have been provided for an emergency. A large elevator, and three dumb waiters for food and supplies, connect the floors.

The sub-basement is occupied by the boilers, engines and other machinery necessary to a hospital built to accommodate one hundred patients. On the first floor, which is on a level with the street, there is an emergency ward for patients who have met with accidents. This is equipped the same as other wards. Also on this floor there are an isolation-room; a dining room for the doctors; sleeping-rooms for nurses and other employees; and a laundry fitted with the latest machinery.

Floors two, three and four contain private rooms, wards and related facilities, while on the fifth floor there is the department for children which is the special pride of Mrs. Lane. There is a ward for boys and a ward for girls, separated by a prettily furnished playroom, all lighted by a skylight and made a little more bright and attractive than other wards. There are beds for the larger children and cribs for the little ones, and there are also private rooms where the very ill children may be isolated.

The sixth floor contains a large and well-lighted culinary department. In it are ranges, steam-kettles, coffee-boilers and a kettle which will contain gallons of soup. Here are shelves and racks for linen and crockery, and gas stoves for heating quickly anything a patient may require. The kitchen has been placed on this top floor, so that the patients may not be annoyed by the slightest odor of food in process of cooking. Also on this floor there are rooms for nurses and other employees.

There are two operating rooms which were a special attraction to the visitors. One is located on the fourth floor. It is large and well-lighted from without, and from within by gas and electricity. The operating table and the carriages for transferring the patients to and from the wards are of iron. They are fitted with rubber rollers, as are the iron and glass instrument tables, so that they may be moved about noiselessly.

The second operating room is one of the most valuable features of the new hospital. Its floor, at the sub-basement level, is the center of an amphitheater which will seat about 250. The amphitheater is connected to the hospital by a passage. Patients in the hospital may be placed on the operating carriage, transferred by elevator to the sub-basement level, then wheeled through this passage into the amphitheater where the necessary operation may be performed in full view of doctors and students.

It is in this amphitheater that Dr. Lane on January 2nd 1895, the day following the public reception, performed an operation and delivered a brief address to mark the formal opening of the hospital for the care of patients. The event was intended primarily for the students and faculty of Cooper Medical College, but other physicians were cordially welcomed.

Dr. Levi Cooper Lane (1828-1902) in surgical amphitheater at Cooper Medical College with Adolph Barkan (1845-1935) and Richard H. Plummer (1840-1899)

The subject of the operation, Patrick O'Neill, seemed rather pleased than otherwise at being the object of so much attention. Dr. Lane had previously removed a cancerous growth from O'Neill's left cheek, and the present operation was to demonstrate the possibilities of plastic surgery in the cosmetic repair of the residual deformity.

After the operation was finished and Dr. Lane had removed his blood-stained over-garments, he spoke of the hospital and his hopes for it. Primarily addressing the medical students, he recalled how the ancient Greeks and Romans, whose literature he freely read in the original and often quoted, would, on the eve of an important undertaking, consult an oracle or offer sacrifice to conciliate the Deity of Good Fortune. Or would sometimes, in place of rude sacrifice or burnt offering, substitute an eloquent address that fired the listeners' hearts and spurred some noble action.

At this inaugural Lane chose the latter course and, in his opening remarks, revealed his personal aspirations by quoting Isocrates (436-338 B. C.), famed Athenian orator and rhetorician: "Think how illustrious it is to exchange this mortal and fragile body for deathless renown and, with the few years of life which yet remain to us, to purchase that celebrity which will endure through the ages."[6]

Continuing in the inspirational vein, Lane urged remembrance of the ancient wisdom of Hippocrates, particularly his advice for the doctor who enters the bed chamber of the sick:

On entering the room be careful in your manner of sitting; be reserved; appear in proper attire; be serious and use brevity in speech; have cool self-command, which cannot be disturbed; be diligent and industrious in the presence of the patient; use care; if the patient objects to what is being done for him, listen carefully,

and answer objections properly; never lose your self-possession in the presence of an unexpected act or contingency; be prompt to meet and repress any disturbing emergency; always have a good will to do that which is to be done. And above all things, remember that nothing is to be omitted that can be of benefit to the patient..

Take special care also to embrace the new medical sciences which have in our day grasped little beams of light and bent them into keys which open the chambers where the causes of disease are hidden. Remember, too, that the wards of this hospital will furnish countless opportunities for the solution of great problems as yet unsolved if, in your practice of the Art, you maintain that painstaking observation and accuracy that brought crowns of glory to such Geniuses of Discovery as Edward Jenner, Louis Pasteur and Robert Koch.

Routine tasks have deep import, Lane said. Among the duties of the interne, an important one is to make a careful record of the cases treated here. Such record does two things; the chief one is that it insures careful work; for thus the information is committed to the pages of history. There it will be legible to many eyes. He will work the best and with the fewest faults, who knows that each act will be delivered to open, unchanging record. A second purpose of such record is, that it gathers facts, which become an addition to the general fund of medical knowledge.

The goal which has inspired the erection of Lane Hospital is two-fold in character; one great object is to furnish the medical student the opportunity of pursuing his studies to the greatest possible advantage, and of fitting himself properly for his future vocation. The other is to assure that he will see medical and surgical art practiced with that excellence which will serve him as a future model for guidance and imitation.

If thoughtful care, vigilant attention, and trained skill be needed for the cure of the sick, they are not all. They will be sadly defective if they are not reinforced by another great quality - sympathy. Sympathy, like the quality of Mercy, "is twice blessed. It blesses him that gives and him that takes." I often recall what was said to me once by a lady, who for months was overburdened and worn by attention to an invalid parent: "It is my daily prayer that I may not become impatient and falter in my duty to my mother." Sympathetic care goes far in the cure of a patient. A harsh word, a petulant answer,

or a frown in reply to some question or request of the patient, cuts more keenly than

a surgeon's knife; and such petulance and impatience may fatally reinforce a lingering disease.

Briefly summed up, the cardinal qualities necessary for the successful management of our hospital, are good heads, good hearts, and willing hands; and a determination on the part of each attendant to do superior work, and a fixed resolve to live and labor in harmony with his fellow workmen. All thus doing their duty, the work done will represent a picture, in which is portrayed a legion of busy laborers bearing a standard, inscribed with the words: Self-sacrifice and Humanity; and such a picture will realize the donor's hope, chiseled in marble at the threshold of this edifice, that the Healing Art may here be given an opportunity for the exercise of its humane skill, and that suffering Humanity may here find refuge and relief from affliction.

Thus, with unostentatious proceedings and a simple homily, reflecting his ideals and beneficence, Dr. Lane inaugurated the crowning stage of his grand design for Cooper Medical College. Not only had he by 1895 created through foresight and philanthropy the essential elements of the first academic medical center in the West, but his moral and professional leadership in the following years shaped a resolute medical culture devoted to medical progress, educational reform and his memory.

Mrs. Lane

We have referred repeatedly to the significant contributions of Mrs. Lane to the planning and construction of Lane Hospital, but we have had few inklings of the private life of this gifted woman whose encouragement and assistance meant so much to her intense and studious husband. Therefore, when we came upon a reference to her personal affairs, published in the San Francisco Morning Call for 14 June 1891 at the height of the planning for Lane Hospital, we were pleased to transcribe it here.[7]

The Call's Gallery

The Call's Gallery,

Ladies Well Known in San Francisco Society

Mrs. L. C. Lane is a lady of fine literary taste and much ability as a writer. She is the wife of Dr. Lane, whose active life as a physician and surgeon in this city has made his name a household word, and whose many benefactions in regard to the Cooper Medical College have endeared him to a great throng of appreciative people. Before her marriage to Dr. Lane the lady who is now his wife devoted herself largely to educational pursuits and to literary work. Therefore, she could bring to the doctor an intelligent and a loving interest in what he had elected to make his life work.

Not only that, but Mrs. Lane posses the happy faculty of drawing around her a set of clever, intellectual men and women, and her reception-night salons are visited by some of the brightest minds and the leading thinkers on this Coast. One is sure there to meet the deepest logicians, the brightest conversationalists and the most talented musicians. And there is no doubt about it, Mrs. Lane is an ideal hostess, moving about among her guests with that ease and grace of manner that makes all feel perfectly at home and in a thoroughly enjoyable way. Among those who may be found around the Lane hearthstone on these delightful evenings may be mentioned Miss Cordelia Kirkland, Mrs. L. L. White, Robert Tolmie, John Hittell, Mr. and Mrs. A. L Bancroft and many others who represent the intellectual side of San Francisco society.

Dr. and Mrs. Lane spent some time abroad, and the account of their travels was published in book form as a series of letters written by Mrs. Lane, who is a keen observer and splendid descriptive writer. These were given to her appreciative friends in lieu of the personal letters which she did not have time to write while she was abroad.

Another literary venture took the shape of translations from the German, and was composed of a number of touching little tales of the Fatherland. Owing to her complete familiarity with the German language, and her knowledge of pure idiomatic English, Mrs. Lane was able to render these in a charming manner, preserving not only the ideas, but the true spirit of the original.

The residence of the Lanes in the Western Addition is a beautiful place, throughout which evidences of Mrs. Lane's fine taste and good housekeeping are to be seen on every side. In personal appearance Mrs. Lane is about the medium height, inclined to be stout, and with a round face that is adorned with wavy locks brought down over the brow. Her manner is bright, sprightly, yet dignified, cordial, and in her own home the very beau ideal of hospitality.

The Hopkins Connection

We have previously referred to the major influence of Johns Hopkins Medical School on Cooper Medical College and its successor, Stanford Medical School. We can now suggest that the origin of this important relationship dates from Dr. Lane's visit to hospitals in the Atlantic states during the early 1890's. Although he does not specifically mention having at that time visited Hopkins in Baltimore, Maryland, we can be reasonably sure that he did. There are several interesting reasons why he must have done so.

First, the 400-bed Hopkins Hospital, thirteen years in the building and widely recognized as the epitome of hospital design and construction, was an ideal model for Lane to inspect.

Second, among Dr. Lane's memoirs we find carefully preserved copies of the Baltimore American for the 7th and 8th of May 1889 which lavishly report the Dedication of the Hopkins Hospital on the 7th and its Formal Opening for patients on the 8th. The paper carried full-page articles on each date, replete with representative floor plans and flat scale drawings of the front and back of the impressive buildings. The May 8th edition of the Baltimore American also carried the full text of a comprehensive address delivered at the opening of the Hospital. The address was entitled "The Plans and Purposes of the Johns Hopkins Hospital" and it was delivered by Lane's old friend, Dr. John Shaw Billings, who had intensively researched and meticulously planned the building.[8][9]

As to the background of Dr John Shaw Billings(1838-1913), he was a Medical Officer with the rank of Colonel in the U. S. Army who served with distinction in the Civil War, and later became Librarian of the Surgeon General's Office and father of the Index Medicus. He was chosen in 1876 by the Trustees of the Johns Hopkins Fund as Medical Advisor on construction of the Hospital. He was greatly admired by Dr. Lane and we have already told how in 1885 Drs. Lane and Billings were both offended by the political maneuvers of Dean Cole.[10]

We should recall that Johns Hopkins University was founded in 1876; that the Johns Hopkins Hospital was not completed until thirteen years later in 1889; and that the Medical School was not organized until four years later in October 1893. The freshman class numbered 18 students, three of whom were women. We now look back on the opening of the Hopkins Medical School as an historic event, but at the time there were no formal dedicatory exercises such as are usually planned for such occasions. President Gilman did host a special reception for the entering students and delivered a welcoming address. Memorable features of the school's academic program were: admission requirement of an A. B. degree from Johns Hopkins University or the equivalent; admission of women on the same basis as men; and a four years' course of instruction for the M. D. degree. Memorable also were the faculty which included the comparatively young Drs. William Osler (Medicine), William Halsted (Surgery), Howard Kelly (Gynecology), and William Welch (Pathology) as Dean. These men pioneered the concept of the Academic Medical Center consisting of University Faculty (Clinician-Teacher-Investigators) in a University Hospital.[11][12]

While the medical schools in San Francisco and nationally were cautiously introducing certain of the measures advocated by reformers like Nathan Smith Davis, more advanced standards than those called for by the A. M. A. were immediately adopted at Hopkins under the leadership of President Gilman. He, like President Eliot at Harvard, insisted that American medical education should be "higher education" and that it was too important to be left to the practicing doctors. It was in large measure due to the influential examples of Harvard and Hopkins, coinciding as they did with the early manifestations of an epochal advance in medical science, that American universities assumed an increasingly active role in the direction of medical schools. We have seen that President Jordan of Stanford was in full sympathy with this evolving concept of medical education - and that Dr. Lane, in 1893, was not.

Board of Managers of Lane Hospital Established

President Lane called a special meeting of the Faculty of Cooper Medical College on 26 September 1894, three months before the opening date of the Hospital, in order to devise a plan for its operation. Two plans were presented, and from these the following principles were finally selected and adopted:[13]

Section 1. There shall be a Board of Hospital Managers, consisting of five members, to be nominated by a two-thirds vote of the Faculty, and appointed by the Board of Directors of Cooper Medical College. The Managers shall serve for one year. Said Board shall have complete control of all the affairs of the Hospital.

Section 2. The Board of Managers may create such administrative departments in the Hospital as to it seems best, placing the same in charge of sub-committees of Professors, Adjuncts or Assistants. It shall make quarterly reports to the Faculty.

The members of the first Board of Managers were Dr. Lane (President), Dr. Cushing (Vice President), Dr. Ellinwood (Secretary), Dr. Plummer and Mrs. Lane. Dr. Rixford was appointed to the Board of Managers on 29 January 1896 to replace Dr. Cushing.[14]

During the next twelve months the Board of Managers held fifty meetings and gave much time and thought to the work. They organized the hospital into its several departments, resulting in greater efficiency and improved services. The following are some of the

familiar issues with which they dealt.[15]

A Steward was employed to act as the Executive Officer of the Board with the main duty to order, receive and account for supplies of all kinds needed by the hospital, with the proviso that he was "to do and execute only such work and perform such functions as the Board shall direct."

A House Staff of three members was authorized.

One Resident Physician - On duty in hospital 7 am to 12 noon and 1 to 5 p.m., and subject to call at night.

Two Interns - On duty 6 am to 12 noon and 1 to 5 PM, and always one in the hospital overnight subject to call.

The Resident Physician and Interns served without salary but received board and lodging in the hospital.

Duties of the Resident Physician were professional in character and not administrative. His assignments were to:

- Attend the members of the Visiting Staff in making their visits and at surgical operations when required, and execute such directions relating to their patients as they may give him.
- Attend to all emergency cases occurring in or brought into the hospital, and report all such cases promptly to the Board of Managers.
- Make a morning and evening visit to all patients occupying beds in the hospital and render such professional service at other times as may be required.
- Instruct and direct the interns in their duties as his assistants in applying splints and dressings and in executing the orders of the Visiting Staff

Another stipulation was that the Resident Physician and Interns must, in the interest of a quiet environment, wear rubber-heeled shoes while on duty in the hospital.

Superintendent of Lane Hospital

On 5 October 1898, the Board of Managers established the position of Superintendent of Lane Hospital in order to maintain better control over the operation of the institution. The numerous duties of the new post included "a general supervision and direction of each and every department of the hospital." It was decided that a member of the Board of Managers would be elected every six months to serve as Superintendent for a six-month period. The rotating superintendence proved to be an inefficient arrangement and was discontinued after a year or two. On 1 October 1902 a search for a Superintendent was finally authorized but nothing came of it during the remaining four years of the Board's existence. The Minutes of its last meeting are dated 14 June 1906.[16][17]

It was not until 1912 that a Hospital Superintendent was finally appointed. At its first meeting, convened on 5 May 1911, the newly established Clinical Committee of the Medical Faculty of Stanford University recommended (1) that a Physician Superintendent of Lane Hospital be employed and (2) that Dr. George B. Somers be offered the position. These recommendations were approved by the Stanford Board of Trustees and, in 1912, Dr. Somers was appointed Physician Superintendent and Executive Officer in charge, under the Clinical Committee, of managing the Lane Hospital and other medical school facilities in San Francisco.[18][19]

Dr. Somers, who had received an A. B. degree from Harvard in 1886 and an M. D. from Cooper Medical College in 1888, was Professor of Gynecology in Cooper Medical College when the College merged with Stanford in 1912. Upon accepting the appointment as Physician Superintendent of Lane Hospital, he received a further appointment as Clinical Professor of Gynecology in the Medical Department of Stanford University. He held both appointments until he retired 14 years later; that is, to the end of the 1925-1926 academic year.

Dr. Somers, in his role as Physician Superintendent of Lane Hospital, was a staunch supporter of its Training School for Nurses. This is an opportune juncture at which to recognize the vital contribution of nurses and the Nursing School to Lane Hospital from its first day of operation.

Lane Hospital Training School for Nurses

When the Board of Managers of Lane Hospital was organized in October 1894, several months prior to the opening of the Hospital for patients on January 2nd, it was obvious to the Members that well-trained nurses were indispensable to its proper operation. They also rapidly learned that there were no such nurses in San Francisco. As a temporary expedient, when the hospital opened, they hired practical nurses; that is, women with some prior on-the-job experience. To these women Lane Hospital offered a three-month probationary appointment with-out salary. If performance was satisfactory, they were then paid $10 per month for the remainder of a two-year period. The position of Head Nurse was the most difficult to fill. The terms of employment were a three-month probationary appointment without salary and, if satisfactory, $ 35-40 per month for the remainder of two years. Attrition among these practical nurses was very high and proved to be a vexing deterrent to the efficient operation of the new hospital. This continued to be the case until, within a remarkably few years, the Lane Hospital Training School for Nurses began to provide nurses whose personal and professional attributes, and devoted service, are still recalled with admiration and affection. by the Nursing School's alumnae.[20]

The Lane Hospital Training School for Nurses was inaugurated by Mrs. Lane in 1895 soon after the opening of the hospital, and was but one of her many significant contributions to the farsighted and generous designs of her husband. The program might justly have been named the Pauline C. Lane School of Nursing. Possibly events moved too fast for such recognition to be accorded her, or perhaps she refused the honor as she had when Dr. Lane wished to dedicate the hospital to her.

From the School's inception, its students and later its graduates provided nursing services that earned the hospital a reputation for proficient and compassionate patient care.

Thirty-one students enrolled in the first class of the Training School in 1895. It was desired, but not required, that entering students present a high school diploma. All successful applicants were women. Country girls were preferred for they were thought to have greater endurance. The first five months of the two-year training program were considered a probationary period. The students, wearing uniforms designed by Mrs. Lane, worked in the hospital seven days a week and were on duty at least twelve hours a day. If the patient load was light, they were occasionally allowed a half day off. Two weeks' vacation were given during the two year training period. Student nurses were provided lodging, meals and laundry in the hospital, and there was no tuition.

Miss Clara DeForest, graduate of the Class of 1900 and able Historian of the Nursing School, recalled the rigorous working conditions: " I have heard nurses say, 'What a stupid group of women in the past, to work such long hours. They were just exploited by the hospital.' Not so! Everyone had longer hours in those days. I think they were a brave and courageous group of women, and we stand on their shoulders, reaching up and out to the future of nursing."[21]

During the early years of the School there were no trained nurses to serve as nursing instructors. Senior students held Head Nurse positions and were responsible for teaching nursing skills to younger students. For example, Miss Maude Copeland, who came to California for her health and entered the Lane Nursing School as a student in 1895, was at once assigned the position of Acting Head Nurse by virtue of her having previously spent several months at the Massachusetts General Hospital. Doctors from the Faculty gave an intensive course of lectures on a wide range of medical subjects. The sessions were held in the evenings when the nursing students were so tired and sleepy from long hours on duty that they often found it difficult to stay awake.

Miss Copeland, given credit for her prior nursing experience at the MGH, was awarded a diploma in 1896 after only one year in training, making her the first graduate of the Lane Hospital Training School. During the same year, twenty-seven students were admitted but the class was decreased due to the resignation of eighteen students.

The first graduation exercises of the School took place in 1897 on the evening of the 17th of March. The ceremony was held in the Hospital Library which had been carefully planned and beautifully furnished under the direction of Mrs. Lane. The Graduating Class of six young women, and their friends and families, heard an address by the President of the Board of Managers, Dr. L. C. Lane, who spoke with feeling of the honor of the nurses' calling and of the duties and responsibilities assumed by one entering the profession.

Mrs. Lane then presented to each member of the Graduating Class a pin of her design consisting of a gold shield, bearing in its center a Red Cross and above, in white enamel, the name of Lane Hospital Training School. As she presented each pin, henceforth the official "Badge of the Training School," she made a few happy and personal remarks appropriate to the character of the graduate. These touching tributes to the sincerity and zeal with which the young women had entered upon their life's work were printed in the Commencement Program for their future encouragement and reflection.

In concluding the Commencement exercises, Mrs. Lane gave the following charge to the Class[22]

> Lane Hospital has now conferred upon you the symbol of the Order of your chosen calling - the Shield and the Cross - the one to protect you in any danger to which your fortunes may call you; the other a key to open to you scenes secret and sacred as is the Holy of Holiest. May no danger, bodily, spiritual or moral, ever be stronger than your shield; may no cross more painful than this be yours; may you never have to carry within your breasts a cross you may not wear upon them.

As an indication of how rapidly graduates of the Nursing School were pressed into leadership roles, we can mention that Mrs. Fanny Caroline Liesy was, directly upon her graduation in the Class of 1897, appointed Superintendent of Nurses and Principal of the Training School at a salary of $ 40 per months. Later in the year, diplomas were awarded to two additional nurses bringing the total graduates of the Nursing School in 1897 to eight.

1897 was also a banner year for the Hospital on grounds other than Nursing, as President Lane pointed out in his Annual Report for the year to the Directors of the College:[23]

> Lane Hospital has had a successful career during 1897; the number of patients treated was an increase upon that of 1896. Its income has been sufficient for its maintenance and the professional service rendered the patients has been of a high order. The Hospital is acquiring celebrity in the treatment of affections of the ear and eye and grave surgical diseases. The work done by Drs.. Barkan, Cushing and Rixford merit laudable mention.
>
> The instrumental outfit of both the College and Hospital has received important additions during the year: an Xray apparatus has been introduced into the hospital, and several important appliances have been purchased for the chair of physiology.
>
> The fiscal condition of the College is satisfactory.
>
> (Xrays were discovered by Wilhelm Konrad Röntgen of Würzburg, Germany, while experimenting with a Crookes tube in 1895. Only two years later Lane Hospital purchased Xray equipment for clinical use.)[24]

In 1899 the nurses were moved from Lane Hospital to a "Nurses Home" in an old and leaky building on Clay street adjacent to the hospital. This was the site where Stanford Hospital was later constructed.[25]

The Board of Managers of the Hospital decided that on 1 January 1902 the Nurses' Training Course would be extended to three years, and that the third year's service would be compensated for at the rate of $10 per month.

By 1903 there was an average daily census of ninety-three patients in Lane Hospital; there were from fifty to sixty student nurses involved in their care; and the number of interns had been increased to four.[26][27]

In 1908 the teaching staff of the School of Nursing included the following four graduate nurses:

- Superintendent of Nurses
- Assistant Superintendent of Nurses

Head Nurse of the Operating Department
Head Nurse of the Obstetrics Department

The positions of Night Supervisor and Head Nurse on the patient care units continued to be filled by student nurses. As the years passed, the rigorous work-schedule of the nurses was gradually eased and the teaching staff increased.

Unidentified persons in operating room

Drs. Rufus Lee Rigdon (1859?-1936), Peck, and Vastal; and Clara DeForest and Clark

In 1908 some much needed enlargements and improvements in Lane Hospital were made, increasing its capacity from one hundred to one hundred and eighty beds. Also new laboratories were established for clinical pathology and for photography and actinography.

In 1909 there were twenty nurses in the graduating class and, reflecting new relations between Stanford and the School of Medicine, David Starr Jordan, President of the University, gave the Nursing Commencement Address in Lane Hall and Dean Gibbons conferred the diplomas.[28]

In 1912 the average daily occupancy of the one hundred eighty hospital beds was one hundred and twenty patients for an occupancy rate of 67 %. Charge per day for a Ward was $ 2,50. Private beds ranged from $ 3.50 to $ 8.00 per day. Eighty student nurses were matriculated in the Training School and diplomas were awarded to 11 graduates.[29][30]

Nursing School Joins Stanford

On 1 July 1912, Cooper Medical College, Lane Hospital and Lane Nursing School, became an integral part of Stanford University. The hospital was thereafter a University Hospital under control of the Clinical Committee of the Medical Department of Stanford University. Members of the first Clinical Committee were the following:[31]

Clinical Committee

Chairman: Dr. Ray Lyman Wilbur, Executive Head of the Medical Department

Secretary: Dr. George B. Somers, Physician Superintendent of Lane Hospital

Member: Dr. William Ophüls, Professor of Pathology and Secretary of the Faculty

Member: Dr. Stanley Stillman, Professor of Surgery

Member: Dr. Alfred B. Spalding, Professor of Obstetrics and Gynecology

As the new Physician Superintendent of Lane Hospital, recently appointed by the Clinical Committee, Dr. Somers made a comprehensive First Annual Report to that Committee for the year ending 30 June 1912. His Report included an outline of the program of the Lane Hospital Training School for Nurses.

Nursing care in Lane Hospital, from its opening in 1895 to its incorporation into the University in 1912, was provided almost entirely by the students and graduates of its Nursing School, and to the full satisfaction of patients and physicians. This extraordinary record was due to the commitment and endless toil of the young women who graduated from the school during that period. In recognition of their outstanding service Somers listed all their names in his First Annual Report. The number of graduates annually was derived from that list and summarized in the following table:[32]

Graduates of the Nurses Training School

1896 - 1	1902 - 13	1908 - 16
1897 - 8	1903 - 29	1909 - 20
1898 - 10	1904 - 0	1910 - 18
1899 - 14	1905 - 11	1911 - 16
1900 - 6	1906 - 18	1912 - 11
1901 - 15	1907 - 11	
Total Graduates, 1896-1912 = 217		

Dr. Somers concluded his memorandum transmitting the First Annual Report of Lane Hospital to the Clinical Committee with the following significant recommendation:[33]

> One of the greatest needs of Lane Hospital is a new home for nurses. The number of nurses in training has rapidly grown and has now reached a size where the present quarters are inadequate. They give three years of the best part of their lives to institutional work and when trained, become a valuable asset to any community to which they may offer their services. The training of nurses should receive generous support from the public. There is no more worthy philanthropy than the encouragement of this work. Lane Hospital urgently needs a modern fireproof building large enough to accommodate one hundred nurses.

In 1912 the name of the Nursing School was changed to Stanford School for Nurses, later to Stanford School of Nursing, and finally to Stanford University School of Nursing.[34]

On 24 June 1916, work began on the foundation of a new facility to be known as Stanford Hospital. In due course we shall return to the subject of this new construction and will at that point further trace the development of the School of Nursing.

Until then we will revert to 1895 and resume our generally chronological account of the main events related to Cooper Medical College.

Lane Course of Medical Lectures

At a meeting of the Board of Directors of Cooper Medical College on 26 August 1895, President Lane stated that he desired to present to the Board a matter which he had long had in contemplation. He was pleased to announce had now been perfected a plan to found and endow a Special Course of Lectures in the Cooper Medical College to be known as the "The Lane Course of Medical Lectures," and to be delivered by some eminent authority in medicine at the beginning of each regular term of the College.[35]

The Courses were to be clearly distinguished from the annual series of Lane (Popular) Lectures to which we have already referred. Dr. Lane outlined the format and endowment of the Lane Courses of Medical Lectures as follows.[36]

> The lectures are to be not less than ten in number, and to be delivered annually in Cooper Medical College, as near the beginning of the Regular term as circumstances will permit, and to be known as "The Lane Course of Medical Lectures"; the lecturer to be an eminent authority in Medicine, and during the life-time of the founder to be selected by himself, and after his death, should his wife survive him, to be chosen by her; and after her death the selection to be made by the corporate authorities of Cooper Medical College; the lectures to be given in English and their subject to be any matter within the range of Medical Science and Art, said subject matter to be determined by the governing authorities of Cooper Medical College. The lectures are to remain the private property of the lecturer for publication if he so desires, but are not to be delivered elsewhere.
>
> The permanent endowment is to be two thousand dollars a year, the whole of which is to go to the lecturer.
>
> President Lane then stated, that through the offices of Professor Adolph Barkan, of the Faculty of Cooper College, who is now in Europe, Professor William Macewen of Glasgow, Scotland, has been secured as the lecturer for the year 1896, at which time the Course will be initiated.
>
> Director Ellinwood thereupon moved the following resolution, which, on being duly seconded, was unanimously adopted:
>
> Whereas, Dr. Levi Cooper Lane has founded and pecuniarily provided for the perpetual maintenance of a course of lectures to be given annually in Cooper Medical College at an endowment of two thousand dollars a year; and whereas, the founder of this course has selected Professor William Macewen, M. D., of Glasgow, Scotland, to initiate the course of 1896;
>
> Now therefore, Resolved, that Professor Macewen be, and he hereby is, respectfully requested to accept the aforesaid selection, and to deliver the course of lectures for the year 1896 in Cooper Medical College pursuant to said selection.
>
> Director Taylor then moved the following resolution, which, on being duly seconded, was, by him put, and thereupon adopted:
>
> Be it Resolved, as the sense of this Board, that Dr. L. C. Lane, in the foundation and endowment reported by him to the Board this evening, has added additional proof of his munificence and wisdom in the cause of medical education, and has thereby furnished still further assurance of the permanency of the life of Cooper Medical College.

The first Lane Course of Medical Lectures began in Lane Hall on 14 September 1896. As arranged by Dr. Barkan, the guest lecturer was Dr. William Macewen, Regius Professor of Surgery in the University of Glasgow, Scotland. During the lecture week in San Francisco, Professor Macewen, a tall, spare man with short-cropped beard and extraordinarily brilliant blue eyes, was the house guest of Dr. Barkan. Two weeks later Dr. Lane gave his impressions of the Course to the Board of Directors.[37][38]

Sir William Macewen (1848-1924) with Adolph Barkan (1845-1935), Stanley Stillman (1861-1935). Levi Cooper Lane (1828-1902), Joseph Oakland Hirschfelfer (1854-1920) demonstrating Macewen's triangle

> The subject selected for the Course was "Surgery of the Brain." Professor Macewen delivered five masterly lectures on surgical anatomy in relation to neurological function, based almost entirely on his original research. The lectures were models of excellence in every particular and were listened to with "reverent attention" by the students and Faculty of Cooper Medical College, and by a large number of physicians, some of whom came from long distances, even from the states of Oregon and Nevada. In addition to those on Surgery of the Brain, Professor Macewen delivered other lectures and performed two operations in the amphitheater of Lane Hospital, one for correction of genu valgum (knock-knee), another being the so-called mastoid operation.

Dr. Lane also remarked that Professor, later Sir William, Macewen' s attractive personality greatly endeared him to students, Faculty and friends of Cooper College. In summary, Dr. Lane was highly gratified with the Course which "completely satisfied the purpose which was contemplated in the foundation of The Lane Course of Medical Lectures.

Adolph Barkan (1845-1935), Sir William MacEwen (1848-1924), Stanley Stillman (1861-1935) in carriage

Endowment of the Lane Course of Medical Lectures

When he inaugurated the Course in 1896, Dr. Lane erected a marble slab in Lane Hall describing the lectures and closing with the words "founded and endowed by Levi Cooper Lane." Dr. Rixford described the manner in which the Courses were funded prior to the merger with Stanford:[39]

> Unfortunately, in the matter of endowment, Dr. Lane's fortune was for the most part invested in unproductive real estate; the money he had in the bank he dared not deplete, for his health began rapidly to fail and his earning power in his profession to dwindle, and he and Mrs. Lane needed the income of this fund to live upon. He therefore postponed setting aside a definite sum for the endowment of the lectures but paid the honorarium annually out of his pocket. But after his death and that of Mrs. Lane, the College had no funds which might be used for this honorarium. It was paid one year by Mrs. Lane and the three following years by Dr. Ellinwood, President of the College, who had received two-thirds of Mrs. Lane's estate. On his refusing to continue this payment or to make effectual the endowment of the lectures, they ceased, but were resumed after the union of the College with Stanford in accordance with the following arrangement.
>
> When Cooper College was conveyed to Stanford University, the Trustees granted the Directors of the College the privilege of determining to what purposes the reserve funds of the College should be put. Until the union with Stanford University had been effected these reserve funds had been jealously guarded as furnishing an income to offset the annual deficit occurred in the running of the College, but under the University support the funds were not needed for this purpose. The Directors of Cooper College therefore made a number of much needed improvements in Lane Hospital and set aside $20,000 for the endowment of the Lane Medical Lectures, which would presumably give an income sufficient to furnish the honorarium for a course of lectures each second year.

On 30 October 1908, when the Board of Directors of Cooper Medical College were negotiating the transfer of the assets of the College to Leland Stanford Junior University , the Board of Trustees of the University adopted the following policy for the perpetual endowment of the Lane Course of Medical Lectures:[40][41]

> Whereas, The Board of Trustees of the Leland Stanford Junior University heretofore in a resolution adopted on the 30th day of October, 1908, stated , among other things, "And it is further resolved that such Trustees will maintain a perpetual fund for the maintenance of the Lane Medical Lectures, not to exceed fifty thousand dollars ($50,000), out of the moneys which may be transferred to said Trustees for said purpose";
>
> And whereas, the Directors of Cooper Medical College have offered to transfer to The Board of Trustees of Leland Stanford Junior University the following School Bonds of the City and County of San Francisco, to-wit:
>
> Twenty City and County of San Francisco 5% School Bonds dated July 1, 1908, par value $1,000 each, interest payable January and July first, maturing July 1926, and numbered from 2401 to 2420, both inclusive; the same or the proceeds therefrom, if sold by said Board or if said bonds be redeemed, to constitute the corpus of the endowment fund for said course of lectures;
>
> Now therefore, it is resolved, that the Board of Trustees of the Leland Stanford Junior University accept said offer;
>
> And be it further resolved that said bonds and the proceeds therefrom be used as a perpetual fund for the maintenance of a course of medical lectures; said fund to be known as the "Lane Medical Lecture Fund", and said course of lectures to be known as the Lane Medical Lectures";
>
> And be it further resolved that any moneys which may be donated, or which may be appropriated for the purpose of said lectures be added to said fund;
>
> And be it further resolved that the lectures be given in the Medical Department of said University in San Francisco biennially, or at such lesser periods of time as the Trustees may determine, and as the income of the fund may permit; the medical profession to be invited to attend, and the lecturer to be an eminent authority in Medicine or in a science cognate thereto, and to be nominated by the medical faculty of the University and not a resident of the State of California;
>
> And whereas it has been suggested that the honorarium heretofore paid to the lecturer has always been two thousand dollars;
>
> Be it further resolved, that until the further determination of said Trustees, such amount be fixed as the honorarium to be paid.

In other words, on 30 October 1908 the Board of Trustees of Stanford University accepted $20,000 in San Francisco School Bonds from the Directors of Cooper Medical College and agreed that these Bonds and the proceeds therefrom would be used as a perpetual fund, to be known as the "Lane Medical Lecture Fund," for the maintenance of the Lane Lectures. The Fund still exists as an endowment for the Lectures and the earnings from the invested principle are used to support the Lectures.

Financial Status of Lane Medical Lecture Fund

In mid 1995, the invested principle of the Lane Medical Lecture Fund had a market value of $238,000 and the income from the invested principle was about $12,000 annually. At that time the Fund also had a cash reserve of $187,000 held in the expendable funds pool of the University where it is invested at the rate of a few percentage points.[42]

A century has passed since Dr. Lane founded the Lane Course of Medical Lectures and forty Courses have been given thus far. The interval between Courses has varied but they have usually been held every second or third year, with lecturers chosen by a Faculty committee. The last Course was in 1991.[43]

In the declining years of his life, Dr. Lane chose two special ventures near to his heart for endowment - the Lane Course of Medical Lectures, and the Lane Medical Library. These two remarkable enterprises have proven to be the most enduring memorials to his vision and devotion to learning. It is to the Library that we will now turn our attention.

Lane Medical Library

We have already noted that Dr. Rixford was appointed Librarian to the College's small collection of books in 1895, and was made Professor of Surgery in 1898. The following are paraphrased excerpts from his recollections of the early years of Lane Library:[44][45][46]

Previous to 1895 there were several sporadic and poorly successful attempts to gather an appropriate collection of medical books for use of the Cooper College students. Members of the Faculty contributed from their private libraries and the College bought a few books. In 1898, thanks to gifts of $100 each from Drs. Barkan and Hirschfelder, books on pathology and physiology were purchased. With this stimulus and the energetic management of Dr. Rixford, the library began to grow vigorously.

A system of exchange was inaugurated; the State Library at Sacramento was invaded and some of its duplicates were bought; older practitioners were importuned to contribute their accumulations of pamphlets, journals, and current periodicals. A number of Eastern medical libraries gave very material assistance by contributing an occasional box of books - notably the Library of the New York Academy of Medicine and the Boston Medical Library. The Library of the Surgeon General's Office, perhaps the greatest collection of medical literature in the country at the time, receiving as it did a vast quantity of duplicate material, permitted librarians of struggling libraries to take what they needed from their duplicates. On each of several visits to Washington Dr. Rixford spent a day or so rummaging in the store room and digging out many useful books, reports, transactions and old periodicals which were transported to the College Library.

During all this time Dr. Lane apparently paid little attention to the College library beyond contributing occasionally a few books, among them a set of the Index Catalogue of the Library of the Surgeon General's Office. Thus Dr. Rixford's astonishment knew no bounds when, one evening in 1898, Dr. Lane summoned him to his house. Dr. Lane announced that he and Mrs. Lane had just made their wills and wanted Dr. Rixford to be one of the witnesses thereto. Dr. Lane then gave him a resume of the provisions of their wills, saying that it was their desire that the residue of their property should be devoted to the purposes of a Medical Library. The will provided that upon the death of Dr. Lane his entire estate would go to Mrs. Lane. Upon her death, she would leave one-third of the entire estate "to Cooper Medical College for the purposes of a Medical Library and a special library building therefor," one-third being all of an estate which, under the law of the State of California, could be conveyed by will to a corporation or for charitable purposes." The remaining two-thirds were left to the then President of the College.

With their minds settled on the building of a medical library as the ultimate disposition of their remaining resources, and their wills drawn to assure the funding, Dr. and Mrs. Lane engaged the architectural firm of Wright and Saunders which had planned the College Buildings and the Lane Hospital. Their instructions to the architects were to design a monumental edifice in the classical tradition, with the appurtenances and compass of a great medical library. The Lane's were confident that the totality of their assets would provide for this fitting memorial to their lives. It was to be known as "The Hall of Esculapius."

We shall later return to the wills of Dr. and Mrs. Lane, and to the frustration of their noble designs by the treachery and greed of a Judas in their midst.

Faculty Affairs, 1895 - 1900

Oliver Peebles Jenkins, AB, AM, MS, PhD, was appointed Professor of Physiology at Leland Stanford Junior University in April 1891. He was among the first eight professors of the new university appointed on the recommendation of President Jordan. When Professor Jenkins generously offered his services to Cooper Medical College, the Faculty of the College were delighted to recommend his appointment as Acting Professor of Physiology in May of 1895. He began teaching on June 1st. Before the arrival of Professor Jenkins, the Physiology Course had been taught by Dr. Ellinwood who was without special qualifications in basic science and was serving as both Professor of Physiology and Acting Professor of Clinical Surgery at the time.[47][48][49][50]

From 1895 through the academic year 1900-1901, Professor Jenkins came from Palo Alto twice a week, giving a lecture and recitation course, and receiving no compensation beyond his traveling expenses. On his own initiative he established a Physiology Laboratory at Cooper College and the Faculty gave $500 for equipment. The Laboratory Course was at first optional but as practically all students took the Course, it was soon made compulsory. Professor Jenkins was replaced in 1901 by Acting and later full Professor of Physiology Walter E. Garrey, Ph. D., who served until 1909 when, the school now under the aegis of Stanford University, Professor Jenkins resumed his teaching of the course.

The appointment of Professor Jenkins as Acting Professor of Physiology at Cooper Medical College in 1895 inaugurated an era of momentous academic change in the College. Henceforth the teaching of the basic science disciplines would be increasingly the province of full-time teacher-investigators with advanced education and experience in their respective fields.

Ray Lyman Wilbur (1875-1949)

Ray Lyman Wilbur (1875-1949)

Professor Jenkins made another significant contribution to Cooper Medical College by influencing one of his Stanford University students, Ray Lyman Wilbur, to attend the College.

The Wilbur antecedents in America were of English origin and among the earliest settlers in New England in the mid-1600s. Succeeding generations of Wilburs included both intrepid seafarers on the Atlantic and sturdy pioneers who joined the transcontinental migration to the Pacific Coast. Wilbur recalled the family's circumstances at his birth:[51]

From my very first day I showed my lack of superstition by being born on the 13th of April. The year happened to be 1875, and the place a town in Iowa called Boonesboro (later shortened to Boone). The fact that by the time I was born my family had traveled as far as Iowa in its westward trek rates me as a second-string pioneer, but I was still close to frontier conditions and continued to be so as we moved farther and father west. This westward migration of the Wilbur family shows …an American trend.

Ray's father was born in Mecca, Ohio, in 1839 and was the restless product of those stirring pioneer days. As the oldest of the eight children of a typically large pioneer family, he early learned the lessons of responsibility, self-reliance and enterprise. His mother, as was so often the case in the American family, was ambitious for her son to get an education. With her encouragement he worked his way through the Western Reserve Seminary at Farmington, Ohio, where he graduated in 1861. He then engaged in a series of unrewarding enterprises that stamped him as a man of uncertain fortune but unquenchable spirit. He taught school for a while; volunteered for the Union Army at the call of President Lincoln; was captured by Confederate General "Stonewall" Jackson at Harpers Ferry and came home a paroled prisoner of war. He then turned to the study of law and completed the law course at University of Michigan at Ann Arbor. After a wide search for a promising location to practice, he opened a law office in Boonesboro, Iowa, in 1866. In the same year he married Edna Maria Lyman. All of their six children - Ray Lyman Wilbur being the fourth - were born in Boonesboro.[52]

Ray's father soon found that there was not enough law business in the small Iowa community to interest him, so he turned to the opening of coal mines. In 1883, when the mines proved unprofitable, he moved the family to Jamestown in the Dakota Territory where he was general land agent for the Northern Pacific Railroad. He also established two law firms for handling the lands of the Railroad, and the loans stimulated by Jamestown's booming economy. The first crop from the raw Dakota prairies was buffalo bones, strewn far and wide, stark reminders of the wanton slaughter of the great herds. The bones were gathered up and sent by train loads for fertilizer. With cash from the crop of buffalo bones, the settler could get along until his first wheat crop came in. This wide expanse of fine wheat land was just being opened to homestead settlement. and was one of the great wheat frontiers of the country when the Wilburs arrived.

In spite of arctic winters and blistering summers, the life of the family during their four years in Jamestown was a happy one. But as businesses in the region began to fail due to drought and collapse of the economy, financial insecurity returned and Ray's father again set out in search of employment. In response to glowing accounts of California's climate and the opening up of new lands for orange orchards in Southern California, he left Jamestown for California in January 1887 to explore the possibility of settling there. Prospects looked brightest in the neighborhood of Riverside, California, and he sent for his wife and children. On the evening of September 7th, Ray's father met the family at the Riverside station, where they arrived by train from Jamestown. In reaching their new home, which was only a short distance from the station, they walked under magnificent pepper trees and palms and along open irrigation ditches running with the limpid waters of the San Bernadino Mountains. To a twelve year-old Dakota boy, this was paradise.[53]

Ray's father had the good fortune to arrive in Riverside at the time of an incipient boom. He was ideally prepared by profession and experience to take advantage of the business opportunities which arose where virgin lands were being transformed into productive orchards on a grand scale. Within a few years he was the President of the Board of Trade.[54]

So far as Ray was concerned, the Riverside experience was also that of a pioneer. The family moved out three miles east of town to a raw sagebrush patch and planted an orange orchard on the high ground. There he had first hand experience as a day laborer in making the desert productive. In due course he entered Riverside High School. For the most part California high schools were on a three-year basis, but Riverside was one of the early ones with a rigorous four-year program. When he graduated on 20 June 1892, his class was a small one. It consisted of three girls and five boys. Out of this class of eight, three went to Stanford University, including Ray himself.[55]

Years later, Dr. Wilbur was to suggest that the amazing speed with which our people swept from ocean to ocean and settled the wilderness between was due largely to the durable quality of the American family. Families cooperated and helped each other. It was all for one and one for all. They and their neighbors stood together. One of the more daring would thrust westward and establish a "beachhead," as it were. Then some of the relatives would follow. Such was the Wilbur experience and we may reasonably conclude that the supportive environment of Ray's extended family during his formative years fostered in him those qualities of sound judgment, integrity and leadership for which he later became well-known and highly respected.[56]

The future Doctor Wilbur was a lanky, self-possessed young man standing nearly six foot four. He entered Stanford University as a freshman in 1892, the second year of Stanford's existence. As we have already noted, he promptly made the acquaintance of Herbert Hoover who became a life-long friend and associate.

Wilbur received an A. B. degree with the Stanford Class of 1896, of which he was the student President. In pursuit of his primary interest in Physiology he took a postgraduate year (1896-1897) at Stanford under the continuing preceptorship of Professor Jenkins in whose laboratory he had worked as an undergraduate. In January 1896, at the second annual meeting of the California Science Association in Oakland, he made a report on the "Effects of Variation of Temperature on Muscle Irritability." On the basis of this and other work, he was awarded an A. M. degree at Stanford in 1897.[57]

While a Stanford student, Wilbur assisted Professor Jenkins in establishing the Physiology Laboratory and Course at Cooper Medical College. As a result of that experience, and the encouragement of Professor Jenkins, he decided to study medicine. He matriculated at Cooper Medical College in 1897; married Marguerite Blake on 5 December 1898; and was awarded an M. D. degree in 1899 (again he was the President of the Senior Class). After receiving his medical degree, he served as an extern at the San Francisco City and County Hospital for the year 1899-1900. During this period he was also an assistant in the medical clinic at Cooper Medical College and a member of the teaching staff as Lecturer on and Demonstrator of Physiology. These activities absorbed his whole day. In the evenings he kept an office hour from seven to eight o'clock at his home on Scott Street, but his private practice was light.[58]

Ray Lyman Wilbur (1875-1949) with unidentified persons

At the end of the year as an extern, Dr. Wilbur accepted the invitation from Professor Jenkins to return to the University in the fall of 1900 for a three year term as Assistant Professor of Physiology. By this return to University work he hoped to determine whether his bent was for basic science or for the practice of medicine. In addition to the teaching of physiology, Dr. Wilbur wished to continue doing research, picking up where he left off in getting his master's degree in 1897. There were several lines of investigation that he wished to pursue further. Therefore, in addition to settling down promptly to his assistant professorship, he registered as a graduate student for a doctor of philosophy degree in physiology, and started some projects.

Dr. Wilbur recalls the distractions he then encountered as a young physiologist who was also an able physician;[59]

> Almost from the first, something happened which was merely a prelude to a series of interruptions of the schedule I had laid out for myself. I arrived on the Stanford campus in early September 1900 at noon (to take up my position in the Department of Physiology). The very next morning, so early that I had not yet gotten up, I was called by one of the professors to see his son, who was suffering rather violent abdominal pains. As there was no local hospital available, I had to rush the boy up to the Lane Hospital in San Francisco. We went up by train, there being no ambulances. Following an appendectomy by Dr. Rixford and a rather precarious after-period, the boy recovered.
>
> The incident led to the discovery that I was the only medical man on the Stanford campus. Having started in to take care of that one patient, I found that the community soon began to call on me for all sorts of medical services. For the most part this did not interfere with my routine physiology work, but before long I was leading a double life, with practically full time in the laboratory and full time in medical practice, and without adequate facilities for practice or time for research work. I was seldom called away from the classroom or laboratory. One time, though, I did have to dismiss my class to go to a professor's child who had taken an overdose of laudanum. Fortunately I got there in time.
>
> By January 1901, I had developed quite a practice. In addition, I was asked by President Jordan to fill the gap left by the resignation of Dr. Thomas Denison Wood as Professor of Hygiene and Organic Training and University Physician, and to supervise the health of the students and take on the medical responsibility insofar as the gymnasia were concerned. By February I had what ordinarily would be considered a well-developed medical practice, but I was still carrying on my University work… As I was accustomed to plenty of work, that did not disturb me particularly, but it did not advance my research. After a careful personal analysis, I came to the conclusion I did not have the peculiar quality that makes a high-grade research worker in physiology. Medicine rather than physiology looked to me as offering a much better opportunity for my talents as I judged them.
>
> When I sent a letter to Dr. Jenkins …telling him that I had decided to give up my work in the physiology department and go definitely into medical practice, he replied: "I have been prepared for your making such a decision for some time, by various indications. While I believe you would have equally succeeded in the line in which you were at work here at Stanford, you will no doubt succeed in the line of practice, and a man best succeeds where his heart most lies. Personally I should be pleased if your choice fell on this community as your field of work."

Dr. Wilbur's First Trip to Europe, 1903-1904

Having decided to devote his career to medicine, Dr. Wilbur set about with characteristic zeal to prepare himself thoroughly for advanced work in the field. The favored means of acquiring such preparation being a period of study in Europe, Dr. and Mrs. Wilbur departed on their

first trip abroad on 4 July 1903. They stopped first in London where Dr. Wilbur attended lectures and clinics in major medical schools and hospitals. He also spent a day at Oxford with Sir William Osler. While in England, Mrs. Wilbur gave birth to their second son, Dwight Locke Wilbur (later Clinical Professor of Medicine at Stanford).

In the fall of 1903, the Wilburs moved on to Germany , preeminent in Europe in medicine and medical science, where many American physicians and medical students came to study and observe. Dr. Wilbur's most memorable experience was in Frankfurt. There he served as a volunteer assistant in the chemistry laboratory of the distinguished Professor Paul Ehrlich (1854-1915), father of hematology and chemotherapy. Professor Ehrlich had just recorded Experiment No. 404 in his series of investigations that later led in Experiment No. 606 to the discovery of Salvarsan, an arsenic compound that proved to be the most effective agent in the treatment of syphilis at the time.[60]

As it seemed probable that he would spend a good deal of his time teaching Clinical Medicine, he arranged as many exposures as possible to the men who were at the top of that field in the various German medical schools. The fact that he had already had some active experience in medicine made every one of their presentations of absorbing interest to him.[61]

Dr. Wilbur's Second trip to Europe, 1909-1910

On return from Europe in 1904, Dr. Wilbur resumed his medical practice on the Stanford Campus and in the vicinity. Then, in 1909, he and Mrs. departed for a second year in Europe. They went directly to Munich and rented an apartment in the neighborhood of the University and Hospital where Dr. Wilbur spent most of his days for a number of months. He had arranged in advance to work in the clinic of Professor Friedrich von Müller who was a great clinician and outstanding teacher of medicine. Dr. Wilbur also registered for the winter semester in the University of Munich where he heard dramatic and informative lectures on psychiatry from Professor Kraepelin whose clinic on nervous and mental disorders he also attended. The skin clinics in Munich were especially valuable in providing abundant examples of skin disease, an experience which Dr. Wilbur augmented by going to Vienna for special courses in dermatology. In Vienna he also took a course in general pathology during which he tried to attend every autopsy in the hospital. He and Mrs. Wilbur returned from Europe late in 1910.[62]

Dr. Wilbur Appointed to Stanford Medical Faculty

In 1907 President Jordan and the Trustees of Stanford University decided to accept the gift of Cooper Medical College from the Board of Directors of the College and to convert the facilities in San Francisco to the Medical Department of Stanford University, a transaction that we shall later discuss in detail. When Dr. Wilbur departed in 1909 on his second trip to Europe for further study it was already with the understanding that upon his return he would be appointed Professor of Medicine and Executive Head of the new Medical Department of Stanford University.

Reflecting these arrangements Dr. Wilbur received the following sequence of appointments to the Stanford University Faculty:

Professor of Clinical Medicine (1908-1909)

Professor of Medicine (1909-1910; absent on leave)

Professor of Medicine (1910-1911; AOL, first semester)

Dr. Wilbur returned to active duty on 1 January 1911. On that date his appointment became Professor of Medicine and Executive Head (Dean) of the Medical Department of Stanford University. He served in these capacities until 1916 when he became President of the University. He was well prepared by temperament, training and experience for these responsibilities.[63][64]

William Ophüls (1871-1933)

A Search Committee of the Faculty was appointed to find a replacement for Dr. Albert Abrams, the Professor of Pathology whose performance had become distinctly questionable. On 18 April 1898 the Committee recommended and the Faculty approved the appointment of Dr. William Ophüls as Professor of Pathology and Bacteriology. The most notable aspect of this appointment was that he receive a salary of $1000 a year. This first appointment to the Faculty of a full-time salaried professor marked the advent of a new era in the academic standards of Cooper Medical College, and a significant step in the modernization of medical education on the Pacific coast.

Other provisions of Dr. Ophüls' appointment were that he not engage in the practice of medicine, but devote his entire time to Pathology and Bacteriology; that $500 be appropriated for the expenses of the Laboratory for the first year; that an additional intern be appointed to receive board and lodging at the Hospital and act as his Assistant; that, if mutually agreeable after a year's probation, he be elected Professor of Pathology and Bacteriology; and that, meanwhile, he be appointed to the position of Pathologist to Lane Hospital and Acting Professor of Pathology and Bacteriology in Cooper Medical College.[65]

These recommendations were approved and forwarded to the Board of Directors for final approval which was granted in May or June 1898. The Board prescribed that he enter upon his duties about 1 July 1898 and that these duties shall be to carry on the teaching of Pathology and Bacteriology in Cooper College by lectures and laboratory courses and to take full charge of the same; to make all autopsies in Lane Hospital and all those in the City and County Hospital which are under the control of Cooper Medical College; and that he shall also make all pathological examinations of tissue, sputum, etc., required in both hospitals.[66]

The performance of Dr. Ophüls having been satisfactory, the Faculty of the College unanimously recommended and the Board of Directors approved his appointment as Professor of Pathology and Bacteriology effective 7 December 1898.[67]

Dr. Ophüls was born in Brooklyn, New York, on 23 October 1871. He was taken to Germany in early childhood where he attended high school (Gymnasium) in Crefeld, and attended the University of Würzberg from 1890 to 1893, where he was a member of the student corps, Rhenania. He spent 1894 in the University of Berlin and in 1895 he received the degree of doctor of medicine in Göttingen under Professor Johannes Orth. In 1896-1897 he was an Assistant at the Pathologic Institute at Göttingen.

On returning to America in 1897 Dr. Ophüls was almost immediately appointed Professor of Pathology and Bacteriology in the University of Missouri at Columbia, where he spent one year; that is, parts of 1897 and 1898. When the search for a Professor of Pathology and Bacteriology at Cooper Medical College came to the attention of Dr. William H. Welch of Johns Hopkins, he recommended Dr. Ophüls who was promptly appointed to the position.

The College could hardly have been more fortunate in the selection of Dr. Ophüls as the first full-time member of the Faculty. He was an outstanding teacher and academic administrator (serving as Dean from 1916 to 1932), and was also the foremost tissue pathologist in the West at the time. As we shall see, he had significant influence on the course of events during the impending period of transition for the school.[68][69]

Albert Abrams (c.1863-1924)

Dr. Ophüls replaced Dr. Abrams as Professor of Pathology on the Faculty of Cooper Medical College. There could hardly have been greater dissimilarity between the two.

Dr. Abrams submitted his resignation as Professor of Pathology to the Faculty at its regular meeting on 16 May 1898 and it was accepted by the Board of Directors of the College on 15 November 1898 without the usual expression of appreciation for prior services. The records of the College contain no information as to the reasons for the resignation. However, considering the nature of Dr. Abrams' practice, which we will now describe, it can be assumed that he was requested to resign.[70][71]

In a few words, Dr. Abrams was the most ingenious and notorious quack to be found in the practice of American medicine during the first quarter of the twentieth century. He was also a graduate of Cooper Medical College and a long-term member of the Faculty.

The following data regarding Abrams' relation to the College were obtained from the Register and Annual Announcements of the school. With respect to his attendance as a student we find that his signature appears in the Register of the College only for the year 1881, at which time he gave his age as nineteen. It is impossible to determine whether he matriculated for more than that one year. In any case he was awarded an M. D. by the College in 1883. He served on the teaching staff of the College for a total of fourteen years - five years (1885-1889) as Demonstrator of Pathology; four years (1890-1893) as Adjunct to the Chair of Clinical Medicine and Demonstrator of Pathology; and five years (1894-1898) as Professor of Pathology.

Who's Who in America for 1922-1923 contains a lengthy entry on Albert Abrams, physician: "Born in San Francisco 8 December 1863; M. D. University of Heidelberg, 1882; A. M. Portland University, 1892; and LL. D. (date and institution not specified). The M. D. degree in 1883 from Cooper Medical College is not mentioned. When the American Medical Association sought to validate Abrams' credentials, it was found that he had previously given his date of birth variously as 1862, 1863 and 1864; that there was no evidence of his having received an M. D. degree from Heidelberg; and that there was no record of the existence of a "University of Portland" at the time. It would appear that the LL.D. degree was also ephemeral.[72][73][74]

Dr. Ray Lyman Wilbur was a medical student from 1897 to 1899 at Cooper Medical College, and during that period grew suspicious of Professor Abrams' qualifications and ethics:[75]

> It was during my student days at Cooper that I made my first personal acquaintance with a quack, Dr. Albert Abrams, then (unfortunately) Professor of Pathology until his connection with the college was severed. Abrams became one of the sensational medical characters of the early 1900's. Like Wilshire with his "Magic Horse Collar," Abrams had an electrical machine with which he claimed to diagnose … almost every ailment. It was known as the "Magic Box" (which was supposed to measure the "Electronic Reactions of Abrams"). He was so plausible and those interested in him often so guileless and gullible that he made quite a stir. He was a complete and total fraud.
>
> As a medical student I was somewhat further along in physiology and chemistry than most of my fellow students. I can still see Abrams in a clinic demonstrating on a Chinaman who had an enlarged abdomen. He said, "This is a case of syphilis of the liver. How do I know it is syphilis of the liver? First because he is a Chinaman and, second, because his liver is enlarged." I watched him after that, and saw him fake part of a test in making a urinary analysis before a class. I made some comment about it, and Dr. Lane sent for me to know what I thought about Abrams. I told him exactly what I thought. Not long after that, Abrams' appointment in the medical school was withdrawn. Nevertheless he continued to use the name of the Cooper Medical College and later that of Stanford University in his publicity, particularly in newspaper publicity.

(In 1922 Abrams was riding high as the guru of electronic medicine and claiming in his publicity that he was affiliated with Stanford University. Dr. Wilbur, then President of Stanford, protested vigorously to the Associated Press:[76]

> May I call your attention to the enclosed clippings, apparently sent out from your office, indicating that Dr. Albert Abrams is connected with Leland Stanford University. The same error has been corrected several times. Dr. Abrams has never had any association with Stanford University. He is a graduate of Cooper Medical College, which was taken over by Stanford University long after his graduation. It is evident that Dr. Abrams, or some one associated with his publicity work, has tried to keep up the fiction of his association with Stanford.
>
> It seems to me bad enough for such a responsible institution as the Associated Press to herald far and wide the scientific rubbish of Dr. Abrams, and worse still to connect the name of the University in any way with such absurdities.)

The public, some members of the medical profession, and numerous eclectics, homeopaths; osteopaths, chiropractors, etc. were far less insightful than medical student Wilbur and the Cooper College Faculty in recognizing Abrams as an impostor. In fact, after his separation

from the College in 1898, Abrams went on to develop a wide following of admirers and grateful patients. Among his patients was the well known author, Upton Sinclair, popular writer on social themes, who was a particularly vociferous supporter. Abrams also attracted a large cadre of spurious practitioners who employed and vigorously touted his faked methods. The outrageous "electronic hoax " perpetrated by Abrams reached such an extent that both the Journal of the American Medical Association and the Scientific American each sought in a series of articles to expose and discredit his ridiculous paraphernalia and preposterous claims.

The following is a paraphrased and condensed version of the numerous articles on Abrams and his methods published in the JAMA during 1922:[77]

> Dr. Albert Abrams of San Francisco is the latest rocket to blaze a somewhat polychromatic course across the firmament of pseudo-medicine. In the field of diagnosis. Dr. Abrams claims to have evolved a system of abdominal percussion, practiced in connection with certain apparatus that he has made, from which he derives what he is pleased to term the "Electronic Reactions of Abrams": (abbreviated ERA).
>
> By means of this system Abrams claims that he "can diagnose the sex, race and disease" of a patient that he has never seen, and who does not need to be present. All that Abrams needs is a sample of blood from that patient. A few drops of blood, taken from that individual while he is facing west, but who may be a thousand miles or more away, are put on a piece of paper which is mailed to Abrams. The paper is then placed in what Abrams calls his "Dynamizer." This is connected with his "Rheostatic Dynamizer," from which, in turn, wires go to the "Vibratory Rate Rheostat" that is connected with the "Measuring Rheostat." From the "Measuring Rheostat" comes a wire at the end of which is an electrode which is pressed to the forehead of some other healthy individual who is termed "the subject" whose abdomen is then percussed. The subject must face west and be in a dim light. The mysterious energy from the patient's blood sample or other specimen passes from the subject's forehead to the subject's abdomen where this mysterious electronic emanation sets up certain changes in the hollow organs which may be detected by percussing the subject's abdomen.[78]
>
> The nub of the whole matter is that the alleged diagnosis is made by mapping out various areas of resonance and dullness in the subject's abdomen by percussion. Dr. Abrams claims to be able to tell by this means whether the individual whose blood is being "tested" is suffering from syphilis, sarcoma, carcinoma, typhoid fever, malaria, gonorrhea or tuberculosis and, if so suffering, where the diseased area is located. He can also diagnose pregnancy and the paternity of the fetus by the same method.
>
> More wonderful still, some operatives of the equipment have claimed that, for the drop of blood, one may substitute the autograph of an individual, living or dead, and by this incredible procedure determine whether or not the individual is or was a sufferer from syphilis, etc. When the autograph of Samuel Pepys was tested, this famous diarist was alleged to have suffered from congenital syphilis; the autographs of Henry Wadsworth Longfellow and Edgar Allen Poe gave the same result and, in the case of the latter, there was also the "reaction of dipsomania." The autograph (written in 1775) of that stern old moralist Dr. Samuel Johnson gave the "reaction" for acquired syphilis and tuberculosis. Nor is this all, Dr. Abrams announced that by his method he could determine the religion of the patient.
>
> In the field of treatment Abrams claims equal marvels. He has discovered that every disease has its rate of vibration, and that all drugs that are specific in the treatment of disease have a definite vibration rate. He has, therefore, devised another instrument which he calls the "Oscilloclast." This is capable, so it is claimed, of producing vibrations of various rapidity's. Instead of using a drug, one starts the "Oscilloclast" going, moves the indicator to the number corresponding to the vibration rate of the indicated drug and applies the instrument to the sufferer who then gets, it is alleged, the therapeutic action of the drug in question.
>
> The Oscilloclast is not for sale but can be leased to those willing to pay the price for it and sign a contract that they will not open it.

In 1917 Drs. Hyman and Reed, two reputable San Francisco physicians, proposed to Dr. Abrams that they furnish him with blood from 200 patients at the University of California and Stanford University Clinics on which to test the diagnostic accuracy of his "Electronic Reactions of Abrams." He refused to cooperate in any way with such an investigation.[79][80]

Abrams assiduously avoided controlled evaluation of his claims. One of his henchmen, a Dr. Caesar, was not so cautious, thinking that he could successfully outwit any protocol designed to evaluate the diagnostic accuracy of the Abrams test. In March 1918 Caesar offered to conduct diagnostic tests on blood samples from 192 patients at the State Hospital in Stockton, California, each of whom had either tuberculosis or syphilis. When Caesar refused to allow the Hospital-Physician in charge of the patients to observe the performance of the Abrams test, she secretly assigned an incorrect diagnosis to sixty-four of the 192 samples submitted for testing. When he tested the samples, Caesar reported the incorrect diagnosis on each of the sixty-four patients, indicating that he had surreptitiously obtained the information on which he based the diagnosis in each case.[81]

Two Ohms of Tuberculosis

In October 1922, Abrams came to Boston and "was given an opportunity to lay his cards on the table, face up." On Sunday afternoon, October 8th, he delivered a lecture at the Copley-Plaza at which between 800 and 1000 persons were present. On October 9th he appeared before the Board of Registration in Medicine on the understanding that he would demonstrate his method, and all preparations had been made for him to do so. When the meeting came to order, however, Abrams said that it was impossible for him to give a demonstration at that time and the meeting was adjourned. However, he agreed to give a clinical demonstration in the "laboratory" of one of his Boston disciples on the following day, but insisted on confining himself to demonstrating the presence of lesions "the existence of most of which could be proved only by post-mortem examination."

A member of the staff of the Boston Medical and Surgical Journal, who was present, volunteered to provide a blood sample for the experiment with the following result as reported in the Journal:[82]

> The volunteer accepted by Dr. Abrams for his experiment was in apparently perfect health. Yet this individual, according to Abrams, presented the following pathological conditions: streptococcus infection of the left frontal sinus and of the right antrum; two ohms of tuberculosis, location, intestinal tract; congenital syphilis; sarcoma, non-metastatic, of the intestine. In demonstrating the situation of the sarcoma, Abrams located it first in the right lower quadrant and later, by another method, in the left lower quadrant.
>
> Abrams says that his Electronic Reactions are either the greatest miracle of the age or the greatest fake. No one who witnessed the above demonstration and who listened at all critically to his vague explanation of the theory of these reactions could concede the former. Whether the thing is a conscious hoax or is a case of self-deception we cannot say. Whichever it is, it is a dangerous doctrine; the time has come for the Board of Registration in Medicine to put a stop to the further perpetration of this fraud.

By 1923 thousands of American doctors and impostors were dabbling in "electronic medicine" which had many manifestations, chief among them the Abrams cult. The mystique of the bogus "electronic technology" made it a simple matter for the unscrupulous practitioners of this thriving fad to dupe and defraud the credulous public. The extravagant aura of "science" and "progress" at the time gave free rein to idiotic ideas.

In 1923, in order to settle once and for all the authenticity of the claims of Abrams and his disciples, the publishers of the Scientific American organized the "Scientific American Abrams Investigation Committee." Managing Editor Austin C. Lescarboura (an electrical engineer) acted as Secretary of the Committee which also included four distinguished representatives of various scientific disciplines: Dr. William H. Park (bacteriologist); Robert C. Post (civil engineer); M. Malcolm Bird (mathematician); and Dr. Walter C. Alvarez (medical investigator, graduate of Cooper Medical College in 1905, and Associate Professor of Research Medicine at University of California).

Dr. Walter Alvarez's father, Luis F. Alvarez, M. D., was also a graduate of Cooper Medical College. Luis Alvarez received his M. D. degree from Cooper Medical College in 1887 and Albert Abrams was Professor of Pathology at the time. Dr. Walter Alvarez remembered what his father said about Abrams:[83]

> My father told me that the students soon found out that Albert Abrams, who after his return from Europe was put on the Faculty, was a crook. He was supposed to give them a course in physical diagnosis, and also a course in pathology. Apparently, he did not know one end of a microscope from another and so his supposed training in Germany was very questionable. My father said that Abrams told the students that if they would come to his office at night, for $100 he would give them a good course in physical diagnosis…
>
> Once around 1920 I went to see Abrams with Paul de Kruif, and we could easily see that he was a self-deluded crook. He had one great gift. He learned the trick of getting free advertising from the newspapers by making such weird, stupid statements that they were copied all over the world. For instance, one day Abrams told the reporters that by taking a drop of blood he could tell whether a man was a Methodist, a Baptist, a Congregationalist, or a Jew.

The Committee's investigation in 1923 and 1924, reported in twelve articles in Scientific American, was wide-ranging, objective and thorough. Article number six in the series, published in March 1924, two and a half months after Abrams' death, portrayed the late Dr. Abrams as a cornered man, determined to preserve his grand illusion to the bitter end:[84]

> Dr. Albert Abrams is dead. He passed away suddenly on Sunday, January 13, from an attack of pneumonia, on the very eve of his scheduled appearance as the star witness in the trial at Jonesboro, Ark., of Dr. Mary Lecoque, an E. R. A. practitioner charged with using the mails to defraud. The Government alleged that the Abrams practitioner in this case diagnosed the blood of a chicken as that of a human, and offered a cure after the specimen had been sent to her through the mail. This trial was one of several disagreeable events confronting Dr. Abrams, and no doubt weighed heavily on his already over-taxed mind and health.
>
> It is fitting at this time that our investigation be directed towards a study of Dr. Albert Abrams who, after all is said and done, was the mainspring of the entire E. R. A. technique. To this day the basic facts of E. R. A. remain unproved, so far as the scientific world is concerned; and those who have accepted the E. R. A. technique have done so largely on their faith in Dr. Abrams. Indeed, in our constant and unrelenting efforts to obtain some evidence of the basic phenomenon on which this entire structure of queer ideas and still queerer practice rests, we have always been referred to Dr. Abrams. Individual E. R. A. practitioners, despite their every-day use of this method in making diagnoses and giving treatments to their patients, have declined to submit themselves to our tests and have preferred to have us deal directly with Dr. Abrams. Then, when we have tried in every possible way to make some kind of test with Dr. Abrams which would immediately prove or fail to prove his basic claims, we have found Dr. Abrams quite unprepared and obviously unwilling to aid us in our sincere quest except under his own, unscientific conditions.

The final article by the Scientific American Abrams Investigation Committee is an unsparing rebuke of the Abrams' pretensions:[85]

> This Committee finds that the claims advanced on behalf of the Electronic Reactions of Abrams, and of electronic practice in general, are not substantiated; and it is our belief that they have no basis in fact. In our opinion the so-called electronic reactions do not occur, and the so-called electronic treatments are without value.
>
> The so-called Electronic Reactions of Abrams do not exist - at least not objectively. They are merely products of the Abrams practitioner's mind. These so-called reactions are without diagnostic value. And the Abrams' oscilloclast, intended to restore the proper electronic conditions in the diseased or ailing body,

is barren of real therapeutic value. The entire Abrams' electronic technique is not worthy of serious attention in any of its numerous variations. At best, it is all an illusion. At worst it is a colossal fraud.

The scientific community in general vigorously repudiated and censored Abrams and his multitude of staunch adherents. Nevertheless there was still a certain ambivalence in the public mind as suggested by the tone of the front-page obituary published in the San Francisco Chronicle on Monday 14 January 1924, the day after Abrams' death. In the end, Abrams once again captured the headlines. They read:

Albert Abrams, World Famous S. F. Physician, Dies

Doctor's Death Attributed to Nerve Strains

Was Discoverer of Electronic System for Treating Disease,

Theory Was Attacked Year Ago Forecast his Passing Almost to the Month, Associate Says

Dr. Albert Abrams, discoverer and exponent of the electronic method of detecting and treating diseases died in his residence and clinic at 2151 Sacramento street, at 8:30 o'clock last night, following a seven day illness of bronchial pneumonia.

(Note: Death Certificate of Albert Abrams obtained 31 July 1995 from the San Francisco Department of Public Health, Bureau of Records and Statistics, lists date of birth as 8 December 1864; date of death as 13 January 1924; and cause of death as "Broncho-pneumonia." There was no autopsy.)

Dr. Abrams was 61 years old. His death, which he had predicted almost to the week of the occurrence before an assemblage of his disciples in San Francisco a year ago, was directly due to the mental and physical strain which vigorous attacks of the medical profession had made upon him and his theories, according to the statements last night of his close associates.…

"Dr. Abrams tried not to show how deeply he was wounded by the constant and bitter attacks made against him by the orthodox medical men, but the attacks undermined his strength." Dr. Wirth continued, "He has gone, but his theories of treatment will continue; we shall carry on his work unflaggingly."

"Dr. Abrams was to have left Tuesday for Jonesboro, Ark., where a physician using his method of treatment of disease will go on trial in the courts this week. He then was to have proceeded to Ohio, where the Ohio Medical Association is carrying on a campaign against his doctrines," Dr. Wirth said, "and after defending his theories and practices in other Eastern states he was scheduled to sail for London for an appearance before medical associations of England. "

Work will continue uninterrupted on the ten-story building at Sutter and Hyde streets which is to be the Abrams College of Electronic Medicine….

At the time of his death the discoverer and exponent of the new science of healing had more than 3000 "disciples" in the Unites States, Europe and Asia, according to statements last night of his associates. Twelve schools for the teaching and practice of his electronic reaction theories were in operation in the United States alone, and 1000 patients had been treated at his Sacramento street clinic itself.

Dr. Abrams' prediction of the probably date of his death was recalled by Dr. Wirth last night. "In addressing a meeting of his disciples in the new method of healing," Dr. Wirth said, "Dr. Abrams told us that he had made an examination of his own blood, and that his tests of his blood's energy output showed that he had less than two years to accomplish the many things he had in mind. He forecast his passing down almost to the month." …

Last August local friends of Lenin, the soviet dictator, asked Dr. Abrams to permit the use of his "oscilloclast" to determine the mysterious maladies then afflicting the Russian.

Medical impostors have always victimized the public, and other than science-based systems of medicine will always persist because of their peculiar emotional appeal, and in spite of their nonsensical basis. Medical charlatans like Abrams, claiming a scientific rationale for their methods, are now promptly discredited, but early in the century American physicians and the lay public were still learning to trust and apply the stricter standards of modern medicine. Paradoxically, Abrams' phenomenal success over a period of twenty years was based on his ability to convince his followers and hordes of patients that his pseudoscience was at the forefront of the medical renaissance then clearly in progress.

Unfortunately, the name of this cool prince of fakery has been associated in the annals of western medicine with Cooper Medical College, and questions regarding his methods, career and relation to the College continue to arise. That being the case, it seemed appropriate to provide the above detailed account in the hope of settling these questions.

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Chapter 27. Evaluation of Cooper Medical College 1901-1902

The year 1901-1902 was not only the twentieth anniversary of the founding of Cooper Medical College, but it was also the eve of revolutionary reforms in American medical education. Thus it is an appropriate year in the life of the College to review its academic status. We shall begin by evaluating the educational program of the school in the light of national standards at the turn of the century.

Vincenz Czerny (1842-1916) with Dr. Levi Cooper Lane in surgical amphitheater at Cooper Medical College

Educational Standards

In so far as national standards of medical education existed in 1901-1902, they were those promulgated by the Association of American Medical Colleges. The most controversial issues under consideration by the Association were: (1) requirements for admission to medical school and (2) duration and content of the annual lecture program. The Association met at San Francisco in 1894, and voted to amend their constitution to specify: (1) a high school diploma as the minimum requirement for admission to medical school and (2) four annual graded courses of lectures of not less than six months' duration each as a minimum requirement for graduation.[1]

By 1901-1902 Cooper Medical College had met both these requirements. As we have already reported, in 1884 the Faculty of the College adopted the high school diploma as the minimum standard for admission, and on 1 January 1894 its three-year graded curriculum was replaced by a four-year graded program, each annual lecture series being of six months' duration.[2][3]

As pointed out previously, the Cooper College Faculty weakened its academic program in 1895 by adopting several provisions for skipping the first year of the curriculum. One of these provisions was private study of first-year subjects followed by the passing of an examination by the Faculty. Another means of by-passing the first year was one year's pupilage with a physician approved by the Faculty. Effective in 1900, the Cooper College Faculty closed these two loopholes by the simple proscription: "Private study will not hereafter admit to advanced standing.[4][5]

Admission Requirements

On 1 November 1898 the Faculty of Cooper Medical College issued a "Preliminary Announcement of Change of Course " which included the following revised Requirements for Admission to take effect on 15 August 1902:[6]

> (1) Evidence of good moral character.
>
> (2) One of the following qualifications:
>
> (a) A certificate showing that the applicant has passed the regular examination for admission to Stanford University, the University of California, or any other university or college whose standard of admission is equivalent; provided, that students deficient in Latin may be allowed one year to make up such deficiency.
>
> (b) A certificate of graduation from an accredited high school or academy.
>
> (c) A certificate of graduation from a state normal school.
>
> (d) A first grade teacher's certificate.

The above version of admission requirements represents no substantial change from the policy adopted in 1884 to the effect that a high school education was sufficient preparation for admission to Cooper Medical College.

With respect to the critical issue of admission standards, which ultimately determine the quality of the profession, the Faculty was well aware that Presidents Eliot of Harvard, Gilman of Hopkins and Jordan of Stanford all advised that a bachelor's degree or its equivalent should ultimately be required for entrance to medical school. Nevertheless, the Faculty was unprepared to take such a step. Like other free-standing proprietary schools, Cooper College depended upon tuition for its support. High standards for admission would have resulted in a disastrous reduction in the student body and in tuition income. It was growing increasingly clear to the Directors and Faculty of the College that only financial underwriting by a parent body such as a university could provide for the higher admission standard called for by the presidential triumvirate.

The Annual Lecture Program

Throughout the two decades prior to 1901-1902 the lecture program at Cooper College consisted of an optional Short (Intermediate) Course of three months (February 1 to April 30), and a required Long (Regular) Course of six months (June 1 to November 30). The annual total of instruction by lecture was nine months, only six months of which were required.

The "Preliminary Announcement of Change of Course," issued on 1 November 1898 and referred to above, announced the following major changes in the dates and duration of the lecture program.

In order to conform to the almost universal custom of colleges to begin courses in the fall and conclude them the following spring, the Faculty decided to eliminate the optional Short Course of lectures entirely. Instead it would give annually a single required Regular Course of eight months' duration to be held during the winter instead of the summer months.

This new arrangement was initiated in 1899 and phased in over a two-year period so that on 15 August 1900 a regular schedule was established to begin August 15th each year, and continue for eight months (i.e., to mid-April).

Henceforth, Requirements for Graduation at Cooper College included the satisfactory completion of a graded curriculum of four annual Regular Courses, each of eight months' duration.[7]

AAMC Survey of Lecture Courses

In connection with its limited effort to evaluate American medical education, the Association of American Medical Colleges conducted a survey by questionnaire of sixty-six of the 160 medical schools in order to determine the number and length of their annual lecture courses The following results of the survey were reported at the 1904 meeting of the Association:[8]

Length of Lecture Course

4 years of 6 months each	6 Schools
4 years of 7 months each	19 Schools
4 years of 7 1/2 months each	2 Schools
4 years of 8 months each	23 Schools
4 years of 8 1/2 months each	1 Schools
4 years at 9 months each	15 Schools
TOTAL SCHOOLS IN SURVEY	66

The above data showed that four annual courses of eight months each was the pattern most frequently chosen by the sixty-six medical schools surveyed. We have just seen that Cooper Medical College adopted that schedule in 1899, making it possible for us to conclude that the College was then following common practice with respect to the number and duration of its lecture courses. We also learned from the survey that 15 trend-setting medical schools had by 1904 already extended their annual courses to nine months, theoretically enhancing their programs over those of schools with a shorter curriculum.

National Standards Imposed

At a meeting of the AAMC in Chicago on 10 April 1905, a new constitution was adopted that reaffirmed the minimum entrance requirement as "a diploma from an accredited high school." It was decided to increase the curriculum to "a four years' course of study in four calendar years, each annual course to have been not less than thirty teaching weeks (seven months)." This undemanding standard for the annual lecture course was less than that already adopted by forty-one (over half) of the sixty-six medical schools surveyed by the AAMC and reported in the above table. Nevertheless, the AAMC was reluctant to press for higher standards simply because it was assumed, no doubt correctly, that many schools would object and would refuse to participate in the Association.

In 1905 the halting efforts of the AAMC to set standards received welcome support from an important source. The National Confederation of Examining and Licensing Boards announced that it was adopting as its standard the AAMC's admission and curriculum requirements. Pursuant to this action by the National Confederation, the State of California decreed that the admission standards for medical schools in the State should in no particular be less than those established by the AAMC for that year. This California statute did not affect Cooper Medical College for it had already met (and exceeded) the AAMC requirements. However, the policy of the National Confederation had a beneficial effect nationwide in that it denied registration to graduates of the many schools not meeting AAMC standards, thereby putting irresistible pressure on them to make some modest reforms.

The decision of the National Confederation to enforce the matriculation and curriculum guidelines of the Association of American Medical Colleges as a national standard can be seen as recognition of the Association's long struggle to induce medical colleges to adopt higher standards voluntarily. This action also called attention to the powerful leverage of the National Confederation of Licensing Boards on the medical schools. In spite of this helpful development, the AAMC was actually making little progress in reforming medical education and a more effective agency under the aegis of the AMA was needed to achieve better results.[9][10][11]

AMA Council on Medical Education

In spite of its limited past success in the arena of medical education, the American Medical Association had continued its efforts, in parallel with those of the AAMC, to reform American medical schools. For example, at its annual meeting in 1900 the AMA revised its constitution to prescribe that no state society or other organization would be allowed representation at future AMA conventions if it admitted to membership anyone who received the MD degree in less than four years of graded instruction.[12]

This move to put pressure on the many inferior medical schools in the country was followed in 1902 by the appointment of a new AMA Committee on Medical Education to survey the problem of medical education in the country and make recommendations concerning the role which the AMA should play in its improvement. On the advice of this committee the AMA voted at its annual meeting in 1904 to establish a permanent agency, the Council on Medical Education, for the purpose of inspecting, classifying and improving American medical schools.[13][14]

On 20 April 1905 the Council on Medical Education hosted its first annual conference in Chicago. The objective was to enlist the cooperation of the state medical societies, the AAMC, the Southern Medical College Association and the federated licensing boards in a coordinated assault on the low standards in many of the nation's 160 medical schools. Through data collection and analysis, and leadership in promoting reform, the Council was destined to play a major role in the improvement of American medical education in the twentieth century. The original purpose of the American Medical Association when founded in 1847 was to elevate the standards of medical education in the country. In the Council on Medical Education the AMA had at last created an effective instrument for the task.[15][16][17]

Early Council Method of Grading Medical Schools

We have seen that Cooper Medical College readily fulfilled the

admission and curriculum requirements of the AAMC However, none of the AAMC efforts served to gauge the quality of the education provided by Cooper College relative to that of other schools.

In searching for some practical means of measuring quality, the Council on Medical Education recognized that the performance of medical school graduates on state licensure examinations was an elementary, yet reasonably objective, criterion of a medical school's capacity to educate. From the results of these licensure examinations, as published periodically in the JAMA, the Council divided medical schools into the following three classes based on the percentage of failure of their students on the licensure examination:[18]

Class 1, schools with less than 10 per cent of failures.
Class 2, schools with 10 to 20 per cent failures.
Class 3, schools with more than 20 per cent failures.

The following performance data on State Board Examinations are derived from a JAMA Table that included all physicians who graduated from American medical schools during the period from 1900 to 1904 inclusive, and who took the State Board Examination in 1904.[19]

Results of State Board Examinations of Physicians Graduating 1900-1904, Inclusive

School	Passed	Failed	% Failed
Cooper Medical College	43	4	8.5%
Univ Calif Medical Department	33	2	5.7%
Dartmouth Medical College	11	1	8.3%
Harvard University Medical School	155	1	0.6%*
Yale University Medical Department	34	2	5.6%
College, Physicians and Surgeons, NY	214	7	3.2%
Univ Pennsylvania, Med Department	111	7	5.9%
Rush Medical College	216	5	2.3%

*1904 only

The above table shows that graduates of Cooper Medical College during the period from 1900 to 1904 had a failure rate on the State Board Examination of 8.5% (i.e., less than 10 per cent). The failure rates of graduates of seven other well-known medical schools are listed for comparison. On the basis of this very gross indicator of institutional performance, Cooper Medical College rated as a Class 1 school, as did the other schools listed in the table.

Later Council Method of Grading Medical Schools

It was clear to members of the Council on Medical Education that a more comprehensive procedure for classifying medical schools was essential, and that such a procedure must include on-site inspection of and extensive collection of data on each school. The Council then used the information collected on each school to assign it a grade.

Listed below are the ten categories of information selected by the Council as the basis for its grading system. Each category received a grade of 10 for full compliance with accepted standards. Full compliance in all ten categories would result in a grade of 100. We take this opportunity to evaluate Cooper Medical College by entering our own grade for the College in each of the categories with the following result:[20][21]

Grading of Cooper Medical College

Categories of Information Selected by the Council	Cooper Grade
1. Showing of graduates before state boards.	(9)
2. Requirements of preliminary education.	(10)
3. Character of medical curriculum.	(10)
4. Medical school plant.	(10)
5. Laboratory facilities and instruction.	(5)
6. Dispensary facilities and instruction.	(10)
7. Hospital facilities and instruction.	(10)
8. Extent to which the first two years are offered by men devoting entire time to teaching and also evidence of original research.	(2)
9. Extent to which the school is conducted for the profit of the faculty directly or indirectly, rather than for the teaching of medicine.	(10)
10. Libraries, museums, charts and teaching equipment.	(10)

Overall Grade of Cooper Medical College: 85

The above grades for Cooper Medical College are based on information to be found in the Annual Announcements of Cooper Medical College and in this and previous chapters. For example, with respect to Category 1, we have shown that over 90 % of Cooper graduates passed the State Board Examination. We therefore assign Category 1 a grade of 9.

Because Cooper College fulfilled the admission and curriculum requirements adopted by the AAMC in 1894, and these represented national standards at the time, we have assigned a grade of 10 to each of Categories 2 and 3.

Category 4 concerns medical school plant. There can be no doubt that the College and Lane Hospital buildings, planned and donated by Dr. Lane, warrant a grade of 10 based on standards of the day.

The chief deficiencies of the school are to be found in laboratory facilities and instruction (Category 5) and in full-time basic science faculty (Category 8), which received grades of 5 and 2, respectively. Category 9 concerns profit motive for conducting the school. Since all tuition income was allocated to support of the school, and the Faculty, with rare exception, receive no payment for teaching, a grade of 10 for Category 9 seems well justified.

In summary, the outcome of this hypothetical inspection process is an overall grade of 85 for Cooper Medical College, a very respectable showing, which we shall later have an opportunity to compare with that in the Flexner Report of 1910.[22]

The Council for Medical Education began its inspection of the nations 160 medical schools in 1906. Each school was visited by some member of the Council or by the secretary, Dr. Colwell; in most instances by both. Each school was graded on its performance in each of the ten categories listed above. On the basis of their overall grades, the schools were then classified into three groups as follows:

Class A, those graded above 70, the acceptable class (82 schools)
Class B, those graded from 50 to 70, the doubtful class (46 schools)
Class C, those graded below 50, the nonacceptable (32 schools)

These results were reported to the Council in 1907. Although the Council was very lenient in its grading, the above summary shows that only half of American medical schools (82 out of 160) were classified as "acceptable." Half (78 out of 160) of American schools were classified as doubtful or nonacceptable.[23][24]

The above classification of the schools was not published, but each college was privately notified of the rating given to it. As a result of this first inspection by the Council, the first major wave of improvement swept over the medical schools of the country. Fifty schools improved their curricula. Consolidations occurred in many cities having several medical schools. A number of schools went out of business entirely because state boards refused to examine their graduates. It became evident that the 160 schools would in a short period be reduced to less than a hundred.[25]

Even though the delinquent schools were not identified openly, the Council's report caused considerable resentment among the medical colleges. It occurred to the Council that resistance to an on-going evaluation of the schools could be most effectively minimized by its joining with a respected private organization in the further pursuit of reform.

By a fortunate coincidence the trustees of the Carnegie Foundation for the Advancement of Teaching at their meeting in November 1908 authorized a study and report on the schools of medicine in the United States and appropriated money for the project. At the New York meeting of the Council in December 1908, members of the Council expressed keen interest in cooperating with the Foundation in this study. As a result, an informal conference was held with Henry S. Pritchett, President of the Foundation, and Mr. Abraham Flexner who had been chosen by the Foundation to conduct the study. President Pritchett expressed himself as agreeably surprised not only at the efforts being made by the AMA to improve medical education but also at the enormous amount of information that had been collected by the Council.

In the course of further discussion, Mr. Pritchett agreed with the opinion previously expressed by the members of the Council that while the Foundation would be guided very largely by the Council's investigation, to avoid the usual claims of partiality no more mention would be made of the Council's report than of any other source of information. The Foundation report would therefore be, and have the weight of, an independent report of a disinterested body. It would then be published far and wide, and do much to develop public opinion.[26][27]

As a result of understandings such as the above, the Council on Medical Education cooperated fully with Dr. Flexner during his studies of medical education which culminated in the provocative Flexner Report published in 1910. By that date, Cooper Medical College was well on its way to full integration with Stanford University.

Evaluation of the Faculty

The original Faculty of Cooper Medical College in 1882, as listed previously, was composed of 12 full professors, and 3 teaching assistants.

Twenty years later, in academic year 1901-1902, the Faculty as listed below consisted of 13 full professors, 2 emeritus professors and 2 acting professors - constituting a professorial staff of 17, augmented by 13 teaching assistants. Considering the programmatic change during the intervening years from three annual courses of identical lectures to a four-year graded curriculum, and the advent of new clinical and basic science disciplines, the growth of the Faculty over the twenty-year period was commensurate with the increase in their teaching responsibilities.

Faculty of Cooper Medical College in 1901-1902

L. C. Lane, M. D., President
Professor of Surgery

C. N. Ellinwood, M. D.
Professor of Physiology

Adolph Barkan, M. D.
Professor of Ophthalmology, Otology and Laryngology

Henry Gibbons, Jr., M. D., Dean
Professor of Obstetrics and Diseases of Women and Children

Jos. O. Hirschfelder, M. D.
Professor of Clinical Medicine

A. M. Gardner, M. D.
Professor of Legal Medicine, Mental and Nervous Diseases

W. T. Wenzell, M. D., Ph. M.
Professor of Chemistry

Stanley Stillman, M. D.
Professor of Surgery

Emmet Rixford, M. D.
Professor of Surgery

William F. Cheney, M. D.
Professor of Principles and Practice of Medicine, and Secretary

Wm. Ophüls, M. D.
Professor of Pathology

Geo. F. Hanson, Ph. G., M. D.
Professor of Materia Medica and Therapeutics

Geo. B. Somers, M. D.
Professor of Gynecology

Clinton Cushing, M. D.
Emeritus Professor of Gynecology

Jos. H. Wythe, M. D.
Emeritus Professor of Microscopy and Histology

Walter E. Garrey, Ph. D.
Acting Professor of Physiology

Albert H. Taylor, M. D.
Acting Professor of Anatomy

Teaching Assistants (13)

- Anatomy 5
- Histology 1
- Hygiene 1
- Materia Medica 1
- Medicine 2
- Obstetrics 1
- Pathology 1
- Surgery 1

With respect to the quality of teaching, we have referred previously to the excellence of such professors as Lane, Henry Gibbons, Sr. and Jr., Barkan, Hirschfelder, Stillman, Rixford and others, who were outstanding clinicians by regional standards. According to the testimony of graduates, they were also respected teachers. In brief, Cooper Medical College had a strong clinical program, an asset that was ably preserved during and after its transition from proprietary institution to university status. As we have frequently noted, the professors of the clinical departments received no income from the school and were self- supported by their medical practices. This would continue to be the case in these departments for many years to come.

On the other hand, as in the vast majority of American medical schools, the basic science curriculum at Cooper College was under-developed. In 1901-1902 at Cooper these subjects were in the main taught gratuitously by practicing physicians with special preparation and interest in the fields of Microscopy and Histology (Wythe); Chemistry (Wenzell); Pathology (Ophüls); Pharmacology (Hanson); Physiology (Garry); and Anatomy (Taylor). Of these professors, only Dr. Ophüls was salaried full time by the College, thus providing him alone with the support to conduct teaching and research at the university level.

We should add that American medical schools generally were unable to provide adequate support for basic science departments. Income from student fees upon which the schools relied for funds was insufficient to cover salaries and other costs incurred by teaching programs in these rapidly developing and now essential branches of medical education.

American medical schools, including Cooper Medical College, were faced with increasingly insistent pressure to undertake radical reform, and with the growing realization that they had neither the fiscal nor the intellectual resources for the task. Organic union with a university and transition to an authentic doctoral program within that context was being widely recognized as the course to be followed.

Internships Available in 1901-1902

According to the "Ideal Standard" of the AMA Council on Medical Education as published in 1905, every medical graduate should have an internship of one year's duration to supplement the clinical experience gained as an undergraduate. Therefore, the availability of internships to Cooper graduates is among the valid indicators of the relative quality of the school's educational program.[28]

The Annual Announcement of Cooper College for 1882 listed internships as available only at the San Francisco City and County Hospital. Significant progress was made during the following two decades. According to the Annual Announcement for the Session of 1901-1902 seventeen internships were available in that year to Cooper graduates These positions of one year each in the following eight San Francisco hospitals entitled their possessors to room and board free of expense, and afforded invaluable opportunity for obtaining practical knowledge and experience:[29]

Lane Hospital	4
City and County Hospital	4
St. Luke's Hospital	1
German Hospital	2
Children's Hospital	2
California Women's Hospital	1
French Hospital	1
U.S. Marine Hospital	2

Total: 17

In 1902 there were twenty-five graduates of Cooper Medical College whereas only seventeen internships were available according to the above tabulation. Thus Cooper College was eight internships short of meeting the "ideal standard" of the AMA Council on Medical Education, a serious deficiency. We should keep in mind, however, that the Medical Department of the University of California was also producing graduates in need of internships in San Francisco Hospitals. Under the circumstances a shortage of internships is not surprising. We shall later see how the successor to the Cooper school provided internships for its students.[30]

Financial Affairs

We last discussed Student Fees in a previous chapter. There we noted that, when the curriculum was lengthened from a two-year program to a three-year program in 1879, the total student fees for the entire program were not increased but remained at $ 315. However, when the curriculum was lengthened from a three-year to a four-year program on 1 January 1894, the total student fees were increased to $ 445. Total student fees for academic year 1901-1902 remained essentially the same, as shown by the following table.[31][32]

Student Fees in 1901-1902

Matriculation Fee	$5
Demonstrator's Fee, first year	$10
Demonstrator's Fee, second year	$10
Lecture Fee, first year	$100
Lecture Fee, second year	$100
Lecture Fee, third year	$100
Lecture Fee, fourth year	$100
Graduation Fee	$25
TOTAL FEES	$450

As we have previously indicated, the income of the medical school was practically all derived from student fees. It is apparent from the above list of student fees that each matriculant annually contributed about $ 100 to the school budget. From the data on Cooper matriculants to be found in the following table, it is possible to calculate the school's approximate annual income (number of matriculants x $ 100), and to appreciate the negative effect of reductions in class size on the finances of the school. (For example: Annual Cooper Income for 1902: 212 Matriculants x $100 = $ 21,200.)

Matriculants and Graduates of Cooper Medical College 1882 to 1902 and Graduates of Medical Department of University of California

Year	Matriculants CMC	Graduates CMC	Graduates MDUC
1882	0	12	13
1883	0	13	11
1884	0	16	14
1885	83	19	11
1886	89	11	11
1887	107	28	11
1888	104	14	6
1889	126	41	11
1890	129	18	16
1891	148	29	23
1892	176	38	0
1893	228	42	28
1894	230	73	18
1895	219	64	38
1896	204	37	47
1897	191	45	39
1898	187	47	39
1899	154	44	42
1900	161	38	41
1901	167	27	49
1902	212	25	45
Total Graduates. 1882 - 1902		681	513

The financial condition of the College in 1901-1902 and in previous years was very satisfactory as a result of the sustained high number of matriculants as shown in the above table. . The annual occupancy rate of Lane Hospital was consistently at such a level as to make that institution also self-supporting.

Summary

This brief evaluation of the status of Cooper Medical College in 1901-1902 includes various evidence to support the view that the school's program, faculty and facilities were above the average of American medical schools of the day. It is also clear from the data on annual number of graduates cited in the above table that the College was successful in the competition with the Medical Department of the University of California for students, a practical indicator of relative standing.

The President's Financial Report for 1902 to the Board of Directors of the College showed that the medical school and Lane Hospital were both financially self-supporting and unencumbered. Together they comprised a thriving medical center.[33]

These favorable conditions, to which should be added the abiding loyalty of the Cooper Faculty, were a tribute to Levi Cooper Lane. His tireless efforts, selfless generosity, and far-sighted ideals of education and service to humanity were the source of a creative energy that fulfilled the aspirations of Elias Cooper and profoundly influenced the early course of medical education in the West.

In counterpoint to currently favorable conditions at Cooper Medical College, we have called attention to nationwide forces then increasingly at work to reform American medical schools. This movement was certain in due course to have a major effect on the College.

In respect to this reform movement, we have referred to the revival of interest at the American Medical Association in the restructuring of the medical schools; the creation of the Council on Medical Education as an agency for that purpose; and finally to the Council's agreement to cooperate with Abraham Flexner in his definitive study of American medical education under the auspices of the Carnegie Foundation.

We have already commented amply on the excessive number and sad state of American medical schools, and will now only briefly mention an important consequence of this condition, namely, the gross overproduction of ill-trained American doctors. In the early 1900's, the 160 American medical schools numbered as many as in Great Britain, France, Germany and Austria combined. Germany had one doctor for every 2000 souls, and one for every 1000 in the large cities. In this country there was an average of one doctor for every 570 persons; and frequently for every 400 or less in large cities. Many small towns with less than 200 inhabitants had two or three physicians. In general terms, the United States had about four times as many doctors per capita as Germany. Proprietors of low-grade medical schools were wont to advance the specious argument that their standards were low to enable economically disadvantaged students to attend medical school and serve their communities. Obviously, low standards and poor training were no longer needed in order to supply physicians, much less poor ones, to America.[34][35]

This review of the status of medical education at Cooper Medical College and in the nation at large, will serve as background for our consideration of an impending crisis in the life of the Cooper school when : "The old order changeth, yielding place to new."[36]

Second Thoughts

When Dr. Lane established Cooper Medical College in 1882 he deeded all its lands and premises to the Corporation of Cooper Medical College. We recall that in 1893 he encumbered the deed by affixing to it a pledge from the Board of Cooper Medical College and the Faculty that "the College shall never be affiliated with, or become the department of any other educational institution, but shall remain an independent school in which Medicine and its Kindred Sciences shall be taught."

By 1901, Dr. Lane began to recognize that the ultimate destiny of medical education in the United States, as in Europe, was to be under the control of universities. He also realized that the expenses of his College would increase enormously as it became necessary to appoint more salaried professors; that the practice income of Faculty and tuition of students could no longer be expected to pay the full cost of medical education; and, finally, that eventual union with a University was necessary to the survival of Cooper Medical College.[37][38]

On at least one occasion, and possibly more, Dr. Lane discussed with President Jordan the feasibility of a merger with Stanford. Although Stanford's financial condition had begun to improve, President Jordan was cautious in his assessment of the University's ability to fund a medical school. On 30 October 1901 he wrote: "As to the possibilities of organic union, should this be considered desirable by the Cooper Medical College, I may say that we would strongly favor it if it were practicable. Our main difficulty is this: We are not now ready to incur the expense of a salaried faculty; we do not think it wise to begin without one."[39][40]

In view of the advantages to Cooper College in a union with Stanford University now foreseen by Dr. Lane, he decided to rescind his restriction on such a transaction. In order to do so it was necessary for him to regain possession of the College property that he and Mrs. Lane had previously deeded to the Corporation, and then reconvey it to the Corporation devoid of the encumbrance he had placed upon it. To this end Dr. Lane, who was seriously ill and failing rapidly at the time, initiated a series of meetings of the Board of Directors of the College from the 15th through the 18th of January 1902.

In the course of these meetings, the Corporation and Dr. and Mrs. Lane took the necessary legal steps to convey the Cooper properties to the Lanes and on 17 January 1902 they deeded the property back to the Corporation free and clear of the aforementioned restriction. In consequence, from this date forward, the Directors of the Corporation were at liberty to negotiate with Stanford regarding a relationship that might include organic union with the University. Dr. Lane's decision, at the eleventh hour of life, to remove all barriers to such negotiation was an evidence of his vision and a measure of his greatness as the century's leading benefactor of medical education in the West.[41]

The AMA Council's "Ideal Standard" of 1905

In 1905 the newly established Council on Medical Education adopted the following statement regarding an "ideal standard" for American medical colleges based on the programs of the better schools in England, Germany and France:[42]

> One of the chief functions of the American Medical Association should be the elevation of medical education in this country and it should be its avowed purpose to secure throughout this country, within a reasonable time, as high a standard as that of any country in the world.
>
> The elevation from present conditions to the highest standard desired must be gradually brought about in justice to all concerned and we would not at this time recommend too sweeping changes. The ideal standard to be aimed at from our present view-point should consist of:
>
> Preliminary education sufficient to enable the candidate to enter our recognized universities, the passing upon such qualifications by the state authorities. (Note: This is equivalent to accepting a high school diploma as the minimum standard for admission to medical school.)
>
> A five year medical course, the first year of which should be devoted to physics, chemistry and biology, and such arrangements should be made that this year could be taken either in a school of liberal arts or in the medical school. Of the four years in pure medical work, the first two should be spent in laboratories of anatomy, physiology, pathology, pharmacology, etc., and the last two in close contact with patients in dispensaries and hospitals in the study of medicine, surgery, obstetrics and the specialties.
>
> A sixth year as an interne in a hospital or dispensary should then complete the medical course.
>
> It is believed that it will require about two years to secure the general adoption of these requirements by state boards and medical schools; and we, therefore, recommend that the effort be made to make these requirements effective by 1 January 1908.

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Chapter 28. Fateful Year 1902 - Last Days of Dr. Lane

Although Dr. Lane was a tireless worker and exceedingly productive, his health was not robust. Dr. Rixford, his surgical associate, noticed that he would from time to time leave the operating room in the midst of an operation and be gone for ten or fifteen minutes. Meanwhile the operating team would ligate small blood vessels and carry on minor parts of the procedure until Dr. Lane would return to complete the work. Dr. Rixford assumed that he had a chronic digestive disorder of some kind. Dr. Lane also suffered greatly from sciatica although few were aware of it. There is nothing more specific than the above in Dr. Lane's past medical history.[1]

In the winter of 1901-1902, Dr. Lane's strength began noticeably to fail. Long procedures left him exhausted. It was at this time that Rixford assisted him on his last operation - the removal of a cancerous breast. Dr. Lane grew so weak during the operation that he was finding it difficult to complete the dissection. At one stage he said, "Give me more light, I can't see in the depth." Among the surgical instruments on the tray there was an old pair of scissors he had used for many years. Rixford handed them to him saying, "Use these, Doctor Lane; they have been there so often they would scarcely need light." He smiled, and after the operation held up the scissors and said, "Never cut adhesive plaster with these scissors. That's what Doctor Cooper said to me when he gave them to me forty years ago." With this casual gesture Dr. Lane passed the baton of surgery to the capable Emmet Rixford who more than anyone else has by his reminiscences preserved the memory of Cooper, Lane and their school.[2]

The Pledge Revoked

We recall that when Dr. Lane established Cooper Medical College in 1882 he deeded all its land and buildings to the Corporation of Cooper Medical College. In 1893, fearing extinction of his school through annexation by another institution (he certainly had the University of California in mind as the predator), he exacted a pledge from the Board of Cooper Medical College and the Faculty that:

> This College shall never be affiliated with, or become the department of any other educational institution, but shall remain an independent school in which Medicine and its Kindred Sciences shall be taught.

In January 1902, during the last weeks of a terminal illness characterized chiefly by progressive exhaustion and anxiety, Dr. Lane decided to revoke the pledge. By this time he had accepted the view that medical schools in the United States were destined, as in Europe, to be integral parts of universities. He saw that the expenses of his College would increase enormously with the appointment of more salaried professors, and it was clear that the tuition of students could not cover the cost of medical education in a modern school. Faced with these realities, Dr. Lane reasoned that Cooper Medical College, in uniting with Stanford, would be making an orderly and inevitable transition to university status, and would henceforth be remembered and respected as the firm foundation upon which the University's medical school was established. He would be immensely gratified by the extent to which his expectations were fulfilled.[3][4]

On at least one occasion, and possibly more, Dr. Lane discussed with President Jordan the feasibility of a merger with Stanford, but no agreement on the subject was reached. Although Stanford's financial condition had begun to improve, President Jordan was cautious in his assessment of the University's ability to fund a medical school. On 30 October 1901 he wrote:

> As to the possibilities of organic union, should this be considered desirable by the Cooper Medical College, I may say that we would strongly favor it if it were practicable. Our main difficulty is this: We are not now ready to incur the expense of a salaried faculty; we do not think it wise to begin without one.[5][6]

In view of the manifest advantages to Cooper College in a union with Stanford University, as now foreseen by Dr. Lane, he decided to rescind the prohibition of such a merger which he had placed in 1893 on the deed to the College property. In order to remove the restriction. it was necessary for him to regain possession of the property and then reconvey it to the Corporation devoid of the encumbrance. To this end Dr. Lane, who was seriously ill and failing at the time, called a special meeting of the Board of Directors of the College at his home on the evening of Wednesday, 15 January 1902.

All of the Directors were present: Dr. Lane, President, Mrs. L. C. Lane, Drs. C. N. Ellinwood, Edward R. Taylor (Vice President), Henry Gibbons, Jr. (Treasurer), and Emmet Rixford (Secretary). At the request of Dr. Lane, Dr. Taylor chaired the meeting. Dr. Ellinwood then proposed a resolution to the effect that the Corporation transfer all the property of the School and Hospital back to Dr. and Mrs. Lane. The resolution was unanimously adopted. Pursuant to it, Drs. Taylor and Rixford delivered to Dr. and Mrs. Lane on 16 January 1902 a duly executed deed of conveyance back to them of all the property belonging to the Corporation.

On the following day, 17 January 1902, Dr. and Mrs. Lane made in the presence of Dr. Taylor a deed of conveyance to the Corporation of the aforesaid property, free and clear of all conditions, and delivered it to Dr. Henry Gibbons, Jr., who accepted it on behalf of the Corporation. In consequence, from this date forward, the Directors of the Corporation were at liberty to negotiate with Stanford (or any other entity) regarding a relationship that might even include organic union. Dr. Lane's crucial decision, at the eleventh hour of his life, to remove all barriers to such negotiation, is further evidence of his vision and stature as the preeminent benefactor of medical education in the West.[7]

Building Named for Dr. Lane

Mindful of the possibility that future generations of faculty and students might be unaware of the unprecedented generosity of Dr. Lane in constructing the buildings of Cooper Medical College, Vice President Taylor called a meeting of the Directors of the College for the purpose of honoring Dr. Lane by naming a building for him. The meeting was convened on the evening of 29 January 1902. Those present were Drs. Taylor, Ellinwood, Gibbons and Rixford.[8]

It was unanimously decided that the words "Lane Hall of Cooper Medical College" be suitably inscribed upon a bronze or granite tablet and that the tablet when so inscribed be permanently affixed to the front on the wall of the second of the two College buildings erected by "that noble man whose love for medicine prompted and whose moneys alone were devoted to their construction."

It was further decided that an engrossed copy of the preamble and resolution authorizing this action be framed and given a permanent place upon one of the walls of the Faculty Room of the Corporation.

The Lane residence was the site of the meeting. Upon its adjournment we can be sure that the purpose and results of the meeting were imparted with grace and feeling to Dr. and Mrs. Lane to the great satisfaction of all.

This was the last meeting of the Board of Directors of Cooper Medical College during the lifetime of Dr. Lane. The press took the following notice of his worsening condition:[9]

> San Francisco Examiner
>
> Saturday, 15 February 1902
>
> Dr. Levi C. Lane Calmly Awaits the End
>
> One of the World's Eminent Surgeons and Founder of Cooper Medical College
>
> Now at the Portals of Death
>
> Dr. Levi Cooper Lane, the eminent surgeon and physician, is critically ill at his residence at Clay and Buchanan streets. Owing to his aged and feeble condition it is not thought he will ever arise from his sickbed.
>
> Last night at 10 o'clock he showed some improvement. But the physicians in attendance have no hope this improved condition will continue. They are of the opinion that he may pass quietly away at any hour. Dr. Lane realizes his own condition and while making a fight for his life is ready for the end when it comes.
>
> Drs. Ellinwood, Hirschfelder, Stillman, Rixford and Gibbons are giving the distinguished patient every attention by day and by night. At 8 o'clock last night Dr. Ellinwood in speaking of Dr. Lane's condition said:
>
> "While Dr. Lane is not in imminent danger of death he is a very feeble and very sick man."
>
> The annual course of lectures at the Cooper Medical College by leading medical men from all parts of the world have become a matter of favorable comment in the older seats of scientific learning both at home and abroad. As a means of keeping professional men on this Coast in touch with the most advanced thought and practice of their profession, they have been of incalculable benefit.
>
> Many of the practicing physicians and surgeons on this Coast and in other parts of the country have had the benefits of an education and training at the Cooper College and the Lane Hospital. Hundreds of them have also received from the lips of the founder memorable advice and precious encouragement. These men will grieve to hear of Dr. Lane's condition. And the public in general, which has long delighted to honor him, will also hear with sorrow of the serious illness of the old white-haired physician.

Death of Dr. Lane

The long vigil at the Lane residence on Clay street finally ended at a quarter to eleven o'clock on Tuesday evening, the eighteenth of February 1902. The nurse in attendance called urgently for Drs. Rixford and Stillman who were standing by in a nearby room. She told them that Dr. Lane awoke suddenly from a drowse, partially sat up and said, "Oh, it is death, it is death," and expired. He was seventy-one years of age.[10]

The Death Certificate was filed at the San Francisco Department of Public Health by the physician of the deceased, Dr. C. N. Ellinwood. The Certificate states that the chief and determining cause of Dr. Lane's death was "Bronchitis" with "Emphysema" as a contributing cause. The place of burial was listed as the Crematory of the Independent Order of Odd Fellows.

On 19 February, the day following the death of Dr. Lane, Dr. Ellinwood called a meeting of the Faculty to announce the death of the President of the Faculty. He informed the professors that a private funeral would be held (on 21 February) and that public memorial exercises would be scheduled (for 9 March in Lane Hall). Professors Gibbons, Stillman and Rixford were appointed to plan the memorial service.

On the next day, 20 February, Dr. Ellinwood, who was now acting as President of the Faculty, gave press releases to the San Francisco Examiner and the Evening Bulletin which included the following information:[11][12]

> Mrs. Lane desires a private funeral and cremation at Odd Fellows' Cemetery on tomorrow, 21 February. There will be no pallbearers. Only a few people will be asked to attend these services. Mrs. Lane is not unmindful of the fact that her distinguished husband had a wide circle of friends. Still, she asks for no intrusion at the private funeral. The urn containing the ashes is to be placed in the Cooper Medical College.

Private Funeral of Dr. Lane

The private funeral desired by Mrs. Lane was held on 21 February and described in the San Francisco Chronicle.[13]

> After a simple private ceremony attended by the family and a few close friends and representatives from the Cooper Medical College, the remains of the late Dr. Levi Cooper Lane were taken yesterday to Odd Fellows Cemetery and cremated. Rev. Joseph Worcester of the Second New Jerusalem Church officiated.
>
> Before 2 o'clock, the hour for the funeral, the students of Cooper Medical College, founded and endowed by the deceased, walked to the Lane residence, at 2302 Clay street, to take a last look at the man so well beloved by all. They returned to the College, and as the funeral cortege passed stood with uncovered heads.

Dr. Ellinwood Elected President of Cooper Medical College and of the Faculty

Upon his death, Dr. Lane had served for the previous twenty years as the first and only President of Cooper Medical College and President of the College Faculty. It was essential to the efficient operation of the school that he be replaced in these two important offices as soon as possible. We have already intimated that Dr. Ellinwood had over the years grown in the favor of Dr. and Mrs. Lane and, as we noted above, he was also Dr. Lane's personal physician. Therefore, it is not surprising that he came to be considered the logical successor to Dr. Lane.

The Directors of the College met at the Lane residence on the evening of 25 February, a week after Dr. Lane's death, for the purpose of filling the vacant office of President of the College. Vice President Taylor chaired the meeting which was also attended by Drs. Ellinwood, Gibbons and Rixford. Dr. Ellinwood was elected President of Cooper Medical College. Mrs. Lane was elected as a Director of the Corporation.

On 17 March the Faculty convened and Dr. Ellinwood, being the only nominee for the post, was elected President of the Faculty to succeed Dr. Lane.

Dr. Ellinwood was thus promptly installed, essentially by acclamation, as chief executive officer of the institution.[14]

Charles Norman Ellinwood (1838-1917)

As we previously noted, Dr. Ellinwood joined the Faculty of the Medical Department of the University of the Pacific as Professor of Physiology in 1870. Upon the death of Dr. Lane, Ellinwood was exceeded only by Dean Henry Gibbons, Jr., in duration of service to the school. As to Ellinwood's background prior to arrival in San Francisco, he was born in 1838, raised in Baltimore, and graduated from Rush Medical College in Chicago in 1858 at the age of twenty. He is said to have served as a surgeon in the Civil War; and to have helped - in what manner we do not know - to organize the United States Public Health Service. We have no information regarding his having had training or experience that would prepare him for the chair of Physiology which he held throughout his tenure in Cooper Medical College and the predecessor schools. Nor does it appear that he was a very good teacher. One student claimed that all he learned from Dr. Ellinwood's physiology course was the word "metabolism," and that he never fully understood what it meant. We shall later learn that during his last four or five years at Cooper College he did not teach at all. His extracurricular activities included surgical services at various hospitals and appointment as a Regent of the University of California. In any event his income was sufficient to support a palatial home and exquisite furnishings.[15]

Memorial Service

Public exercises honoring the memory of Dr. Lane were held in Lane Hall of the College at two o'clock on Sunday afternoon the ninth of March 1902. A large audience assembled in the Hall which was profusely decorated with greenery and flowers appropriate to the occasion.

Dr. Lane's scholarly attainments and humanitarian contributions were eulogized by a succession of faculty associates and a medical student, with appropriate musical renditions of Mozart, Mendelssohn and Schubert interspersed between the addresses.[16]

Dean Henry Gibbons told of being present as a student at Lane's first lecture in the Medical Department of the University of the Pacific forty years ago.

> Dr. Lane had recently resigned from the Navy, and had spent some time in Europe in study preparatory to accepting the chair of physiology in the Medical Department of the University of the Pacific, of which his uncle, Dr. E. S. Cooper, for whom the present college is named, was the leading spirit. My recollection is almost as clear as though it were yesterday - a slender man, dressed in the conventional suit of black, much the same as he dressed in all the succeeding years - concise in speech, clear and accurate in statement, master of his subject, as he was of everything he undertook. During all the following years I have been proud to call him "guide, philosopher and friend," and surely no man had a better…
>
> Thus my years of close association with Dr. Lane have shown him to be a man of vigorous and untiring intellect; of sturdy, upright character, rigid in his ideas of right, noble in his aspirations, wise in counsel, clear in prevision, prompt and decisive in judgment, steadfast in purpose, firm and unyielding in action, and withal modest and unostentatious, as becomes a wise man. These are attributes of greatness, and like Hamlet I say, with all my heart,
>
> "He was a man; take him for all in all,
>
> I shall not look upon his like again' "

At the conclusion of Dr. Gibbons' opening remarks, Mr. William Ford Blake of the class of 1902 spoke on behalf of the current medical students. Dr. Chester Rowell, graduate of Medical Department of the University of the Pacific in 1861, unavoidably detained at his home in Fresno, sent an expression of appreciation on behalf of the alumni to be included in the published proceedings of the memorial service.

Following Mr. Blake's presentation Dr. C. N. Ellinwood, now President of the College, delivered on behalf of the Faculty a biographical summation in which he traced Dr. Lane's life from his birth in Ohio to the fruition of his career as founder of Cooper Medical College.

Then, following Schubert's "Great is Jehovah" sung by a double quartet of mixed voices, Dr. Edward R. Taylor, Vice President of the College, pronounced an eloquent benediction upon "Dr. Lane as Surgeon and Man:"

> We are most worthily gathered together, for we are here to commemorate, as far as an occasion of this kind may serve to do so, the life and services of a man who won our admiration and love; a man who was one of the pioneers of medical teaching in this State, and who so devoted his great abilities to surgery and medicine that, at the time of his death, his was the most luminous name in California medicine; a man who published a great work on surgery; a man who founded a medical college and hospital, and who, from the resources accumulated from his practice, caused to be constructed for them imposing buildings of architectural suitableness and beauty.
>
> Dr. Lane was a man of character. Character is beyond all definition, but when one possesses it, it shines in that one so distinctly that there is no mistaking it. The Star of Duty ever lighted his way, and on that star he kept his eye at every step of his life. No circuities, no deviations were his, no idling in the by-paths of pleasure. Straight on he walked, no matter what hap might be, discharging to the utmost the task that lay at hand, and leaving it not till accomplishment was complete. No siren voice could lure him as on he voyaged. And if genius be as Turner said it was, the capacity for hard work, or as another has said, the capacity for taking infinite pains, then indeed was our friend a genius.
>
> Dr. Lane had no children but his works. Fortunately for him he united himself more than thirty years ago with a lady of rare accomplishments, who so fitted into his life that the two became spiritually one. The thought of the one was the thought of the other; together they planned everything connected with the college and hospital buildings; together they explored literatures; together they trod the shards as well as walked the flowery meads; and when the husband was doing work in which by reason of its nature the wife could give no assistance, he felt himself taking in at every breath the refreshment of her love and sympathy.
>
> Fortunate, thrice fortunate man! What fullness, what roundness of completion, what achievement following on concentration of faculty and effort, what heritage as result of all, rises before us here in the very sublimity of harmonious proportion! Why then should we grieve for him, our brother? Why should we not rather send up our paeans of praise, that he was given to us for our enrichment and the enrichment of those who will come after us? We crown him with laurel that can never fade, and with that laurel round his noble brow we take earthly leave of his personal presence, and hail with jubilation his entrance into the company of the immortals.

Professor Jacob Cooper and Mrs. Lane's Will

We have already told how Dr. and Mrs. Lane called Dr. Rixford in 1898 to witness their wills in which Dr. Lane devised his entire estate to Mrs. Lane and she in turn consigned the estate to Cooper Medical College. During the last decade of Dr. Lane's life, he and Mrs. Lane decided to endow the Lane Medical Lectures (1895) and the Lane Medical Library (1898) in order to assure survival in perpetuity of these two projects of special significance to them. To this end, Dr. Lane named Mrs. Lane in his will as the sole beneficiary of his entire estate of $500,000.

In accordance with their plan, Mrs. Lane in turn sought in her will to leave the whole Lane estate to Cooper Medical College with the understanding that it would be devoted to the support of the chosen projects.

There was, however, a legal obstacle to their plan for her to leave the entire estate to Cooper Medical College. Section 1313 of the California Civil Code prohibited leaving more than one-third of an estate to "any charitable or benevolent society, or corporation for charitable purposes."[17]

During the last month of Dr. Lane's illness, Mrs. Lane corresponded with Doctor Jacob Cooper, Professor of Philosophy at Rutgers University in New Jersey, Dr. Lane's childhood companion and affectionate uncle to whom we have previously referred. After Dr. Lane's death, she pled with Professor Cooper, who was the same age as Dr. Lane, to come to California and consult with her in regard to the disposition of the Lane estate.

The following account of Professor Cooper's visit to California is adapted from his remarkable Diary, in which he made almost daily entries.[18]

It was clear to Professor Cooper that Mrs. Lane was much in need of his advice and emotional support. He therefore felt duty-bound to undertake the long railroad journey to California in response to her request. He left Rutgers on 7 June 1902 and arrived one week later in San Francisco. He took the trolley to the Lane residence at 2302 Clay street where Mrs. Lane met him at the door. That evening Professor Cooper confided these first impressions of her to his Diary:

> Pauline looks exhausted. All the sweetness is gone out of her life. She feels this keenly and I do not think she will survive Dr. Lane by many months

During the next few days Professor Cooper spent much time with Mrs. Lane, talking of the dear one she had lost, and trying to comfort and reassure the poor crushed and lonely woman. He summarized their discussion in his Diary:

> I conferred with Pauline about the disposal of Dr. Lane's residuary estate. This was the main object for which she summoned me. I learned that she had already made her Will. In it she left one third of the estate to Cooper Medical College for the founding of a Medical Library. She wished to dispose of the other two-thirds in a similar manner, but this was contrary to California law which permitted only one third of an estate to be alienated from the lawful heirs. She therefore made a Will giving the two thirds to my son William, outright and with no conditions, trusting to his family loyalty to dispose of it for the purpose in view.
>
> The residuary estate is about $ 500,000 and so my son would become heir to about $ 375,000. The Will shows a wonderful confidence in his integrity as he is made heir without any condition or stipulation except that expressed in profound secrecy - as the divulging of the ulterior purpose of the Will would invalidate it.
>
> Dr. and Mrs. Lane had taken a fancy to my son William in his childhood when they visited us in the East in 1874 and 1876.

While he was Professor in Tulane University, New Orleans, William visited San Francisco and was their guest for a while when the favorable impressions which he had made in childhood were greatly deepened and strengthened. It was strange that Mrs. Lane made him her sole heir. But such was the fact and this action was taken in the belief that he would donate the great estate to works of benevolence and charity in the line of Dr. Lane's previous action. Yet no condition was imposed on him. He was made heir de facto and de jure of the whole estate.

William, however, did not wish this fortune. He is too independent to seek help or to accept it when offered. Neither he nor any of his family desired this wealth. He said that he is able to care for himself; that he can make all he needs (in his position with the Pennsylvania Railroad); and that the care of this fortune would divert him from his life profession, his chosen work.

I had most clear and confidential conferences with Mrs. Lane and communicated to William. The result of my coming was that Mrs. Lane made another Will dated June 28th 1902 - her previous will was made in March 1902 - in which she gave one third of the estate to found a library for the Cooper Medical College and Lane Hospital and two-thirds to Dr. C. N. Ellinwood, President and successor of Dr. L. C. Lane - with the tacit understanding that he would appropriate it all for the founding of a great library and endowment of the Lane Medical Lectures.

Dr. Ellinwood is the man of my choice above all others. He has the integrity, the ability and the spirit for such trust. I am profoundly thankful that I went to San Francisco and by my going, was indirectly - possibly directly - the cause of this change of Will by Mrs.. Lane through which my son is relieved from the care and responsibility of a fortune which he had not earned by his own genius and labor. This is one of the many clearly Providential dispositions of my life.

Indeed, Professor Cooper thought so highly of President Ellinwood that he arranged for him to receive an LL. D. degree from Rutgers University in 1903.

Professor Cooper wrote the above summary of the final conveyance of the Lane estate on 26 July 1902, the day of his departure from San Francisco. He had spent the previous six weeks from 14 June to 26 July as Mrs. Lane's guest at 2302 Clay street. He was also most cordially received by the Cooper Faculty and entertained royally by individual members on numerous occasions. Dr. Ellinwood and his family were particularly attentive. He wrote of dining with the Ellinwoods on 3 July - "a grand affair. The young Master Ellinwood treated me with great affection. The house is a Palace both for size and location, and the furnishings are exquisite."

In some ways Professor Cooper, also a strait-laced minister of the gospel, did not feel quite at home in the liberal San Francisco environment. On Sunday evening, July 6, after a busy day of receiving guests he made the following entry in his Diary: "The usages at the Lane Mansion are not favorable to the sanctity of the Sabbath nor does society generally in the city observe the day at all in a religious way. I scarcely feel comfortable in such a condition of social life."

During his stay in San Francisco Professor Cooper made many tearful visits to Cooper College to view the receptacle containing the Brain and Heart of his brother Elias - and to the monument marking the burial site of Elias' ashes. The granite obelisk on Lone Mountain was visible in the far distance from his room at the Lane residence.

Of his departure from the grief-stricken Mrs. Lane - now emotionally spent - Professor Cooper wrote:

> Took leave today of my niece Pauline who looked very badly but said little. She seems in better health and spirits than when I came six weeks ago, but I do not think she will ever recuperate or that she will long survive her great loss. She has no well grounded religious life. She lives largely if not exclusively for this world. She is aristocratic in her feelings and affects grand society and the death of her noble and distinguished husband leaves her almost cut off, stranded on the shores of life with little to live for and absolutely nothing to hope for.

Dr. Rixford's Version of Mrs. Lane's Will

In the unpublished draft of an article intended for publication in the JAMA, Dr. Rixford gave the following account of the Wills of Dr. and Mrs. Lane:[19]

> Dr. Lane projected the founding and endowing of a great medical Library in connection with Cooper Medical College, and several times talked of the same with individual Directors of Cooper College. It was common knowledge that he designed his whole remaining fortune to be devoted to the endowing of the Lane Course of Medical Lectures, the perpetuation of Lane Hospital, and the founding and endowing of a Medical Library. To this end he made a will in which his whole estate was left to Cooper Medical College and, lest his will be attacked, paid to each of his living relatives a sum of money in consideration of which they were enjoined from making any claims against his estate.
>
> On it being shown to Dr. Lane that the law of the State of California did not permit a person to bequeath by will more than one-third of his estate for charitable purposes or to a corporation, Dr. and Mrs. Lane made wills each bequeathing his entire estate to the other, it being understood that the survivor should carry out the plans for the endowment of the Lane Medical Lectures and the founding and endowment of a medical library.
>
> Dr. Lane died on 18 February 1902 and his estate was distributed by decree of court in accordance with this will last mentioned.
>
> mmediately after the death of Dr. Lane, Mrs. Lane was urged by Dr. E. R. Taylor, who drew all the wills mentioned above and was thoroughly conversant with the plans of Dr. and Mrs. Lane, to make a will at once by which alone could be assured the consummation of the aforesaid plans, in default of which action on her part the whole estate of herself and Dr. Lane would by law revert to her heirs and the aforesaid plans be defeated. In accordance with this advice Mrs. Lane executed a will prepared by Dr. Taylor in accordance with which one third of her estate would be distributed to Cooper Medical College and two-thirds to Mr. William Cooper, son of Dr. Jacob Cooper of Elizabeth, New Jersey, and cousin of Dr. Lane.
>
> To the end that she might insure the devoting of this two-thirds of her estate to the carrying out of the aforesaid plans she entered into correspondence with the family of Mr. Cooper, offering to pay the expenses of a visit from them to San Francisco where she could more fully explain to Mr. Cooper her desires. The father, Dr. Jacob Cooper, responded and came to San Francisco and gave Mrs. Lane the reluctant acceptance of his son of this great trust. Subsequently, because of personal antagonisms which developed during Dr. Cooper's visit in San Francisco, Mrs. Lane made another will in which she bequeathed one third of her entire estate to Cooper Medical College and the remaining two-thirds to Dr. Charles N. Ellinwood, President of Cooper Medical College. In accordance with this will the estate of Mrs. Lane, including that of Dr. Lane, was distributed by decree of the court in September 1903, one third to Cooper Medical College and two thirds to Dr. Charles N. Ellinwood.

Professor Cooper died on 31 January 1904, a year and a half after his return to the East from San Francisco. It was not until after this date that Dr. Ellinwood's stewardship of two-thirds of the Lane estate came into question. Professor Cooper was thus spared the painful knowledge of Ellinwood's betrayal of the trust which had been placed in him by Mrs. Lane.

Death of Mrs. Lane

Professor Cooper's somber prognosis of Mrs. Lane's condition was soon borne out. Priscilla C. Lane, aged 65, died in the Lane residence at 2302 Clay street on 9 August 1902 - six months following the death of Dr. Lane, and just two weeks after Professor Cooper's departure from San Francisco. The death certificate, filed at the San Francisco Department of Public Health by Dr. C. N. Ellinwood, her personal physician, assigned the chief cause of death to "Fatty Degeneration of the Heart," with "Dilatation of the Right Ventricle" as the contributing cause. It would have been simpler and perhaps more plausible to attribute the death of this accomplished and dutiful woman to a broken heart.

Annual Meeting of Cooper Medical College

This Twentieth Annual Meeting, held on 11 and 20 August 1902, immediately after the death of Mrs. Lane, was the occasion for making funeral arrangements for the deceased and administrative adjustments in the governance of the College.[20]

It was announced that Mrs. Lane wished her body to be cremated after death and her remains to find a last resting place with those of her husband in a suitable receptacle in the College building.

Two new Members of Cooper Medical College Corporation were chosen by the surviving Members to replace Dr. and Mrs. Lane. Fortunately for the future welfare of the College, two strong men were unanimously elected to these positions - Drs. Adolph Barkan and Stanley Stillman. As a result of these and previous elections, the following were now the statutory six permanent Members of the Corporation; and the five Directors elected annually by the Members:

Members Board of Directors
- Dr. C. N. Ellinwood, President
- Dr. E. R. Taylor, Vice President
- Dr. Henry Gibbons, Jr., Treasurer
- Dr. Adolph Barkan
- Dr. Stanley Stillman
- Dr. Emmet Rixford (Secretary -not a Director)

In view of the unprecedented administrative problems soon to be encountered by the Members and Directors of Cooper Medical College, the composition of these important bodies (as of 11 August 1902) is outlined above for future reference.

Memorial Statement in Honor of Mrs. Lane

At a Regular Meeting of the Faculty on 17 November 1902 Professor Ellinwood read the following memorial statement to express the sorrow of the Faculty at the death of Mrs. Lane:[21]

> We, the Faculty of Cooper Medical College, recognize in the death of Pauline C. Lane the loss of one whose life and ambition were in perfect unison with that of her husband, Dr. Levi Cooper Lane, in the founding, development and fostering care of Cooper Medical College and Lane Hospital.
>
> We record to her all honor for her noble participation in the high aspirations and great achievements of Doctor Lane for the advancement of medical education; for her beneficent and intelligent interest in the Medical Profession and in humanity; and also for the crowning act of her long life of devotion to the diffusion of knowledge, for the welfare of mankind in the endowment of Cooper Medical College with one third of her entire estate, for the founding of the Levi Cooper Lane Library of Medicine and Surgery.
>
> Well done noble woman; thy work lives, fitly entwined with the great deeds accomplished by thy love and loving husband.
>
> May we, and those who come after us in maintaining the perpetuity and influence of this Institution be ever inspired with such laudable and self-sacrificing devotion to the love of truth and the advancement of knowledge for humanity's sake as was manifested in the life of Pauline C. Lane.

Purchase of Lots for Lane Medical Library

Anticipating the later availability of funds from the Will of Mrs. Lane, the Directors of Cooper Medical College on 18 September 1902 authorized President Ellinwood to purchase two lots with funds borrowed from the College as a future site for Lane Medical Library. The lots were ideally situated across from the College Building on the southeast corner of Sacramento and Webster streets. The asking price for the lots was $ 16,000. At the Director's meeting on 21 November 1902, President Ellinwood was pleased to report that he had purchased the two lots for $15,812.[22][23]

A year later, after establishment of the Lane Medical Library Fund, the money borrowed from the College to buy the lots was repaid to the College by the Library Fund.

Interment of the Ashes of Dr. and Mrs. Lane in Lane Hall

A meeting of the Directors of Cooper Medical College was convened in Lane Hall of the College Building on Saturday 17 January 1903 for the purpose of witnessing the interment of the ashes of Dr. and Mrs. Lane. Those present were President Ellinwood, and Drs. Taylor, Gibbons, Rixford and Stillman. The minutes of this meeting read as follows:[24]

> At noon on 17 January 1903, President Ellinwood caused the ashes of Dr. L. C. Lane and Mrs. Pauline Lane to be interred in the central niche in Lane Hall, beneath the bust of Dr. L. C. Lane.
>
> The ashes of Dr. Lane and of Mrs. Lane are in separate copper urns with the coffin plates of each officially sealed by the Odd Fellow Cemetery Association;
>
> The case or casket in which the urns are contained also includes a copy of the record of the Exercises held in memory of Dr. L. C. Lane on 9 March 1902; and a copy of the resolutions passed on 17 November 1902 by the Faculty of the College on the death of Pauline C. Lane.
>
> The casket was placed in the north brick wall beneath the marble slab on which the pedestal of the bust of Dr. L. C. Lane rests and was sealed therein in the presence of Drs. Ellinwood, Taylor, Gibbons, Rixford and Stillman, Members of Cooper Medical College.
>
> The marble slab which covers the remains and supports the pedestal bearing the bust of Dr. Lane is inscribed with this record: "Here rest the remains of Dr. Levi Cooper Lane and his wife Pauline C. Lane, incinerated by their request, 1902."[25]

In 1959, Stanford Medical School, formerly Cooper Medical College, moved from San Francisco to the Stanford campus and the Cooper College buildings and Lane Hospital in San Francisco were incorporated into the Presbyterian Hospital and Medical Center. By 1974, both the Cooper College buildings and the Lane Hospital were hopelessly outmoded and unable to meet San Francisco earthquake standards. For that reason they were completely demolished in 1973 and '74 to make way for construction of the Pacific Medical Center.

Since the demolition of the Cooper College buildings which included Lane Hall, no trace has been found of the burial urns and casket containing the ashes of Dr. and Mrs. Lane, or of the marble slab covering them. There is no record of reburial of their remains in any of the many local cemeteries and burial parks that have been contacted. We continue to hope that the interment site of Dr. and Mrs. Lane in the wall of Lane Hall was identified before the demolition, and that their copper burial urns were removed and stored safely elsewhere, to be someday discovered and brought to the attention of the Archivist of Lane Medical Library.[26][27]

Will of Pauline C. Lane Contested

Messrs. Bergin and Lloyd, Executors of Mrs. Lane's Will, submitted the Will to probate in the Superior Court of the City and County of San Francisco on 15 September 1902. Immediately thereafter, as required by law, they published a notice of the probate to creditors and all others claiming to have an interest in the estate.

In the following letter to the Board of Directors of Cooper Medical College and C. N. Ellinwood dated 8 July 1903, the Executors notified them that a claimant had come forward:[28]

> We are informed and believe that Mrs. Pauline C. Lane, deceased, left her surviving Mrs. S. F. Yager, a sister, who has a son, J. Frank Yager, and a daughter, Rose N. Yager, all residents of the City and State of New York. Mr. William M. Pierson, of this City, has already entered an appearance on behalf of Mrs. Yager. He has expressed the determination to contest the will of Pauline C. Lane, deceased, upon the grounds following, to wit:
>
> (1) Mental incapacity; (2) That Mrs. Lane did not make a will; (3) That the will she left was made under undue influence; (4) That she made her will within thirty days of the date of her death; (5) That the will she made is in contravention of the provisions of Section 1313 of the Civil Code reading:
>
> "No estate, real or personal, shall be bequeathed for charitable purposes in excess of one third of such estate…."
>
> The position upon this point taken is that in truth Mrs. Lane, in and by her will, devised all her estate to charitable purposes; that the devise to C. N. Ellinwood (of two-thirds of the estate) was a mere cover to evade the provision of the statute, as in reality the devise to Dr. Ellinwood was intended for the uses and benefit of the College.
>
> Mrs. Yager is advanced in years and in destitute circumstances. Her son J. Frank Yager is himself an attorney at law who, we are informed, has not been generous or liberal in his contributions to the support of his mother -- in fact, we learn that he has treated her with rather cold neglect. Her daughter Rose N. Yager is a young woman, destitute of means, but who is endeavoring to prepare herself as a student in Cornell University for the vocation of school teacher. She, we understand, has been attentive and considerate in the care of her aged mother.

Mr. Pierson, attorney for the Yagers, let it be known that his clients would consider an amicable settlement out of court for the sum of $ 125,000. The Executors of the Will advised that a counter offer be made.

President Ellinwood convened a meeting of the Directors of Cooper Medical College on 15 July 1903 to consider the question of making a counter offer. Dr. Gibbons then made the following motion which was adopted:[29]

> That whereas there is no truth in any or all of the above mentioned grounds of contest of the Will of Pauline C. Lane, still in order to avoid expensive litigation and long delay in the settlement of the Estate, the Board of Directors of Cooper Medical College authorize the Executors to make a counter proposition looking to an amicable settlement of the claims of Mrs. Yager and her son and daughter, and to submit to this Board for final action a statement of the best terms at which they can arrive with the attorney for the contestants.

"Whereas there is no truth in any or all of the above mentioned grounds of contest of the Will…" Although this statement was hypocritical at the time, Ellinwood's later actions made it, instead, prophetic.

At a meeting of the Directors of Cooper Medical College on 22 August 1903, the Executors reported that they were successful in their negotiations with the litigants who agreed to withdraw their contest of the validity of Mrs. Lane's will upon the payment to them of $ 65,000. The Directors paid one third of this amount to the Yagers, Dr. Ellinwood paid the remaining two thirds, and the claim was dropped.[30]

Upon settlement of the claim, the estate of Mrs. Lane was awarded to the designated beneficiaries. At a meeting of the Directors on 25 September 1903 President Ellinwood announced that the Superior Court of the City and County of San Francisco had on 16 September 1903 distributed the estate of Mrs. Lane, (total value: $ 500,000) according to the provisions of her will - one third ($166,667) to Cooper Medical College and two thirds ($ 333,333) to C. N. Ellinwood.[31]

The Lane Medical Library Fund

It was now, in September 1903, just over a year and a half since the death of Dr. Lane and a year since the passing of Mrs. Lane, a period during which the Directors of Cooper College were adjusting themselves to the loss of Dr. Lane's leadership, and to the responsibility for managing one third of his estate. They were convinced, a conviction which they assumed was shared by Dr. Ellinwood, that it was Mrs. Lane's expectation in leaving one third of the estate to the College and two thirds to Ellinwood that he would also devote his share of the legacy to the support of Dr. Lane's chosen projects - the Levi Cooper Lane Library of Medicine and Surgery, and the Lane Medical Lectures.

With a view to proceeding with construction of the Lane Medical Library as soon as possible all six Members of the College Corporation met on 29 September 1903 for the sole purpose of amending the Bylaws of the College to create a special fund, the "Lane Medical Library Fund." The terms of the Amendment were as follows:[32]

> Into said fund shall be paid all the proceeds arising from the sale of the properties bequeathed to the College by Pauline C. Lane, and all moneys and all the proceeds from the sale of all properties which may be devised, bequeathed or given to this College for said library by any person now or hereafter; together with the rents, issues, interests and profits of all and singular of the aforesaid properties and moneys.
>
> Out of said fund shall be paid all moneys necessary for the purchase of a site for a library building; for the construction of a library building on said site; for the fitting up, furnishing and appointment of said building; and such moneys for the maintenance of said library as the Board of Directors of this College shall deem necessary and all expenses including taxes necessary to be paid in connection with said lot, building and library.

The Members, who also constituted the Board of Directors, voted unanimously to adopt the Amendment. The wording of the Amendment, and the full participation of President Ellinwood in its enactment, clearly implied to the other Members that Ellinwood would contribute to the Lane Medical Library Fund from the assets he received from the Lane estate. In fact Dr. Rixford recalled that Dr. Ellinwood had promised the Board that the two-thirds of the Lane estate in his possession should be available whenever "you gentlemen (meaning the Board of Directors) get ready to build the library building."

Endnotes

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16. Exercises in Memory of Levi Cooper Lane Held at Lane Hall of Cooper Medical College on Sunday Afternoon the Ninth Day of March in the Year Nineteen Hundred and Two (San Francisco:

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17. "Memorandum to President and Board of Directors of Cooper Medical College from Executors of the Last Will of Pauline C. Lane, dated 8 July 1903." Historical Items from Dr. Hans Barkan to Miss Clara Manson, Director of Lane Library. Item No. 5. Lane Medical Library. Lane Medical Archives. MSS H747.6H C73.
18. Jacob Cooper's Diary, Vol. 7, pp. 56-113, in the personal collection of John McDonnell.
19. Emmet Rixford, Unpublished draft of an article for the JAMA - Box 5, Folder 5.1, Rixford Papers - MSS 8, Lane Medical Archives, Stanford. Lane Library Catalog Record
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21. Minutes of 17 November 1902, Minutes of Faculty of Cooper Medical College, Vol. 3, p. 5-6 - Box 6.3, Cooper Medical College Collection of publications, Lane Medical Archives, Stanford. Lane Library Catalog Record
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Chapter 29. The Ellinwood Affair 1905 - 1907

Planning for the Construction of Lane Medical Library

In November 1902, three and a half months after the death of Mrs. Lane, the Board of Directors of Cooper Medical College purchased the land on which to build the future Lane Medical Library.

It was not until about a year later, in September 1903, that all claims against Mrs. Lane's estate were settled in Superior Court of San Francisco and awards were made to the beneficiaries of her will, one-third of the estate to Cooper Medical College and two-thirds to C. N. Ellinwood, President of the College. Also in September 1903, the Board of Directors established the Lane Medical Library Fund to receive and disburse funds required for the planning and construction of the Library.

There followed a period of two years during which President Ellinwood cooperated with the Board of Directors in selling off some of the unproductive Lane real estate properties (which comprised most of the Lane bequest) in order to acquire funds for the construction of Lane Medical Library. One third of the amount collected from the sale of the land went to the Lane Medical Library Fund which on 1 July 1904 showed a balance on hand of $32,415. Two-thirds of the receipts from the land sales went to the personal bank account of Dr. Ellinwood whose verbal statements led the other members of the Board to assume that he intended in due course to make these funds available for construction of the Library. On the basis of this assumption, Dr. Ellinwood was reelected President of the Board for the ensuing year at the Annual meeting of the Board in August 1904 . The other incumbent Directors were also reelected. [1]

At the Annual Meeting of the Board of Directors on 6 September 1905, President Ellinwood delivered his Annual Report for the year ending 30 June 1905. His Report included no reference to planning for the Lane Medical Library, but it did show that the Lane Library Fund had increased to $40,000. Again, President Ellinwood and other members of the Board were reelected for the ensuing year. [2]

The minutes of the meetings of the Board of Directors for the years ending 30 June 1904 and 30 June 1905 again contain no comment on Dr. Ellinwood's intent regarding disposition of the Lane bequest.

Nor is the subject so much as mentioned in the Regular Minutes of the meeting of the Board of Directors on 27 November 1905. Fortunately Dr. Rixford, Secretary of the Board, kept copious personal notes on this and other meetings dealing with Dr. Ellinwood's evolving attitude toward the Lane bequest. Rixford's notes were quoted extensively by Professor Hans Barkan in his vintage article on Cooper Medical College in 1954. These notes have since been lost. Thus we are fortunate to be able to draw upon Professor Barkan's transcription of them for the following information: [3]

Dr. Rixford's Personal Notes

27 November 1905 11:20 PM [4]

I have just come from a most interesting meeting of the Board of Directors of Cooper Medical College at which were also present Drs. Ellinwood, Barkan and Gibbons, and of which the Regular Minutes of the Board record nothing but one or two items of routine business. The discussion which took place may mean much for the future of Cooper College and I think should be preserved with as much accuracy as possible in case it may hereafter be quoted.

It came about through some supposed error of the Treasurer in not recording any draught from the Lane Medical Library Fund during the year 1904 that Dr. Ellinwood asked whether the income of the Lane Medical Library Fund was being expended for the purposes of the College Library and said that there were legal relations in regard thereto which had best be seen to. I replied that the expenditure had been authorized by the Board, the understanding being very clear that the College Library was to be considered the nucleus of the Levi Cooper Lane Library of Medicine and Surgery; that furthermore the Directors had authorized me as Librarian to incorporate the Library of Dr. Lane with the College Library.

I then went on, there being no business before the Board, to state that the time seemed ripe for a beginning to be made in planning for the Library; that after the fundamental questions of size and character of the Library, and its relations to the College and to the Medical Profession had been determined, a beginning should at once be made because (collections of books and journals) are rapidly getting more rare in consequence of the development of a large number of medical libraries in the United States, all of which are hungry for the very material required by the Lane Library. I further stated that Libraries are not purchased outright but grow; that the logical plan for the creation of the Lane library would be to gather together the books and when a sufficient collection had been secured to build the building; that if the building were to be built first the running expenses would have to be met and the interest of the investment would be lost.

I then said that in as much as Dr. Ellinwood had promised this Board that the 2/3 of the Lane estate in his possession should be available whenever "you gentlemen get ready to build the library building" (meaning the Board of Directors) it was time to begin planning for the library. Dr. Ellinwood denied having said the above. I asked "What did you say ?" "Not that; go on and finish." Dr. Gibbons and Dr. Barkan both corroborated my statement but Dr. Ellinwood persisted in his denial and finally said he expected to cooperate with the Board in building the Lane Library…

Dr. Ellinwood then entered into some criticism of the Faculty and the Directors for treating him discourteously by voting him down on pretty much all occasions. When he denied having said that he would "see that the money was forth-coming," each of those present in turn stated that he had so understood Dr. Ellinwood and had acted under that understanding…

Dr. Gibbons asked what reasons he had for not coming more directly forward and taking the members of the Board into his confidence? Dr. Ellinwood vouchsafed no answer beyond intimating that his reasons were sufficient - that this money had been given to him by

Mrs. Lane unconditionally and he was prepared to use it in the way Dr. Lane would have used it - to the best of his (E's) knowledge.

I said that Dr. E's complaint that the Faculty and Directors had not given him the support that should be given the President of the College, had no foundation - on the contrary, both Faculty and Directors had given him an amount of support and cooperation truly extraordinary in view of his treatment of them - that he had persisted in repelling all confidence on the part of his associates and had grievously hurt the feeling of all of them - and particularly of myself.

Dr. Barkan said: "Dr. Ellinwood, you complain of the lack of respect shown you. I assure you your present course is not calculated to increase my confidence or respect." Whereupon Dr. E. hung his head and had nothing to say.

During the evening he said that it was not reasonable to suppose that Mrs. Lane had given him two-thirds of her estate without some instructions as to how it should be expended.

Again he said that when he took the Presidency of the College he had expected for that reason to meet antagonisms, and was not surprised; that he had been asked by Dr. Lane to take the Presidency and had said to him that he foresaw certain difficulties, and asked his advice; that thereupon Dr. Lane had said that he had had such difficulties to contend with and that he had met them by listening to all that people had to say and then using his own judgment. Dr. E. said further that he had gone to Dr. Lane again with a statement of other difficulties and had been met with the advice.: "Listen to what they have to say and act on your own judgment."

From all these statements it was evident to the members of the Board that Dr. Ellinwood intended to administer the Lane bequest in his own way. I afterward stated to Dr. Barkan that while I was hurt, I felt that Dr. Ellinwood would give the money to spend it for the library and I could not see but that he had a right to do so, and that to that I would not object.

Dr. Rixford's Personal Notes 19 January 1906 [5]

Dr. Ellinwood, Dr. E. R. Taylor and myself were appointed at the Board meeting on 27 December 1905 as a committee of the Directors of the College "to draw up a comprehensive plan for the Levi Cooper Lane Library of Medicine and Surgery, and to report at the next meeting of the Board.." Pursuant to this charge we met on the evening of 19 January at the residence of Dr. Ellinwood.

Dr. Taylor stated that after mature deliberation we must admit of the precarious present position of the College, and of the fact that medical education is becoming so costly that independent medical schools cannot exist and maintain a high standard of scholarship without great endowment. He stated that he had come to the conclusion that the Lane Medical Library should be so endowed as to insure its permanency because of the possibility that the Library might be the only surviving monument to Dr. Lane.

Dr. Taylor further stated that in his judgment, in the event of the College being absorbed into Stanford, the Library should persist as an independent institution; that entangling alliances of all sorts should be avoided; that no one should be given a voice in the management of the Library outside this Board; and that the question of endowment is fundamental and only when that issue is settled will it be possible to make plans for the building.

When it came my turn to speak, I stated that on the understanding that the remainder of the Lane Estate after the Lane Lectures were founded should go to this Library, the Library would be of monumental dimensions and, if administered in a broad spirit, would be a great monument to Dr. Lane…

I further stated that it should be seriously considered whether the present lot is large enough - whether either the adjoining lot of 30 x 100 ft. should be purchased or at least the building so designed that it could eventually be extended in that direction.

Dr. Taylor said that these matters were interesting and very proper but were matters of detail to be worked out by a committee on architectural program, and that the important thing before us was to determine as nearly as possible the amount of money available for the building, and for the support of the library. He then asked Dr. Ellinwood for his opinion in the matter.

Dr. E., who had made notes from time to time, replied that the 1/3 of the estate would probably amount to $200,000, and that when the plans were worked out he would see how much of his 2/3 he would devote to that purpose - that he wanted it definitely understood that the idea shared by several members of the Board (this with a queer little smile) that this money was left in trust for the College was erroneous; that the money was left to him unconditionally by Mrs. Lane and he proposed to use it as he saw fit and he would make no promises in regard to the matter. He said he agreed in the main with the suggestions made by me but thought I had planned the institution on a larger scale than the funds would permit of. He said he would advise that the Board draw up a plan of what the library should be and then turn it over to him with the $200,000 - the 1/3 willed to the College - for him to execute.

Dr. Taylor asked him what he meant by "executing it" - whether that meant that the Board was to have nothing to say in regard to the administration or the plan of the institution? Dr. E. replied, "I did not say that."

I said that Dr. E. had said at a meeting of the Board that he "wanted to cooperate with the Board in the building of the Library" but that his present interpretation of the word cooperate would scarcely be found in the dictionary.

Dr. E. said that he was not actuated by any selfish motives but purely by a sense of duty - his present position was not of his seeking and he would get out of it if he conscientiously could. He had been selected by Mrs. Lane to do this thing and he proposed to do it. Dr. Taylor said that Mrs. Lane made a will shortly before the one under which the distribution had been made in which she gave the 2/3 to Dr. Lane's cousin, young (William) Cooper, and I said if Mrs. Lane had intended Dr. E. to administer the whole of the property she would have willed it all to him instead of giving all that the law would allow to the College.

Thereupon Dr. E. said there was nothing to be gained by talking of what dead people intended to do or what they were supposed to have said.

I asked "did Dr. Lane tell you that he wanted you to do this thing?" and he answered "no." "Did Mrs. Lane tell you?" and he answered "I am not saying anything about what Mrs. Lane said or did not say to me."

"Well," I said, "this matter is fundamental. What shall this committee report to the Board?" Dr. E. answered, "You should report your general plans outlined for the Library together with my recommendation."

I said Dr. Ellinwood is chairman of the committee, meaning that it would be proper for him to make the report. I said further that the matter was at this state very simple - the determination of whether the library should be a College library with the $ 200,000 which would build a modest building… or whether it should be a monumental library dedicated to the medical profession; that this determination rested solely with Dr. Ellinwood and, until he vouchsafed a statement of what funds he would furnish, the desirable monumental library was out of the question.

With that Dr. Taylor and I said "good night." On the way home T. said, the Directors ought to have a meeting before Monday night. I said "no, I would prefer to have this denouement made in the Board meeting with Dr. Ellinwood present - it would be of at least considerable dramatic interest." I further said that if I were to act on my present feeling I would tell Dr. Ellinwood to take his 2/3 and leave the school.

Dr. Taylor said as we parted, "Did you ever hear anything so preposterous? To make the devoting of E.'s money, and only an indefinite part of it, conditional on the Board's giving him complete control not only of his 2/3 but also of the 1/3 belonging to the College. It is a direct insinuation of incompetency and an insult."

I think it would be well to postpone all action in the matter of building the Library until matters are a good deal clearer. I do not believe it would be in the best interests of the College to permit E. to have the 1/3 (1:45 AM, Jan. 20)

Acquisition of New York Academy of Medicine Collection for Lane Medical Library

The behind-the-scenes negotiations within the Lane Medical Library Committee described above did not impede Dr. Rixford's continuing efforts to expand the holdings of the existing Lane Medical College Library. We have already mentioned his acquisitions from the Surgeon General's Library in Washington. After Mrs. Lane's death, the Lane Medical College Library was further enriched by the addition of Dr. Lane's private library consisting of some 2,000 volumes, including many medical classics and some valuable historical material. This addition raised the total number of volumes in the Library to 10,000, exclusive of duplicates. [6]

At a meeting of the Directors on 22 January 1906, Dr. Rixford reported that he had entered into correspondence with John S. Brownne, Librarian of the New York Academy of Medicine, regarding a valuable collection that Mr. Brownne would like to sell. Dr. Rixford had received the following letter from Mr. Brownne: [7] [8]

New York Academy of Medicine
Undated

Dear Doctor Rixford:
Your letter of the 3rd ultima received. I have been so very busy that I have not had time to answer it. Will write later. Would like to talk the matter over with you.

I have the N. Y. Hospital Library that I could let you have at a very low figure if you would take the whole collection - about 30,000 volumes - contains a fine collection of periodicals: French, German, English, etc.

Yours most respectfully,
John S. Brownne, Librarian

Dr. Rixford's Personal Notes 26 December 1906

The following commentary by Dr. Rixford on the subsequent purchase of the New York Academy collection is from his personal notes: [9]

In the winter of 1905-1906 I began to correspond with Mr. Brownne, Librarian of the New York Academy of Medicine, looking to purchase of the great collection of duplicates of the Academy, the bulk of which was the former Library of the New York Hospital of about 25,000 volumes, rich in periodicals.

I had Dr. Joseph O. Hirschfelder, Professor of Clinical Medicine at Cooper Medical College, examine the collection and he reported that it was worth a great deal of money, could not be duplicated in his opinion in the open market for $ 100,000. He suggested that we make an offer - say $ 5,000 - to start negotiations.

Dr. Ellinwood came to me one day and said that if I would turn over to him the correspondence he would pay for the books. I agreed and the Library Committee concurred. He paid $6,000 for the collection, had it shipped to San Francisco and at the Directors' meeting on 17 July 1906 presented it as a "personal gift.' to Cooper Medical College as a part of the Levi Cooper Lane Library of Medicine and Surgery, on condition that the College pay the freight charges from New York to San Francisco (which later proved to be $ 864. 25). [10]

Dr. Barkan moved that the gift be accepted from Dr. C. N. Ellinwood, President of Cooper Medical College, which was carried. At a subsequent meeting on 29 August 1906, after some debate, the resolution was reconsidered and on Dr. Ellinwood's request as to the wording of the resolution, the words "President of Cooper Medical College" were omitted.

Dr. Ellinwood took this occasion to say that he desired definitely to disabuse the minds of the Directors that the money left him by Mrs. Lane was in any way a trust, that it was no concern of any of the Directors where he got the money (to pay for the New York Academy of Medicine collection).

I stated that it was inconceivable to me that anyone in the position of Dr. Ellinwood could make a gift to the Lane Library out of the money left by Dr. Lane without mentioning Dr. and Mrs. Lane. His failure to do so made it evident that the gift was as he had stated - a personal gift - and therefore out of other moneys than those left him

by Mrs. Lane; and that therefore the Directors ought to accept the gift and thank Dr. Ellinwood therefor.

Everyone of the College staff to whom I expressed the above interpretation of Dr. Ellinwood's action scoffed at the idea.

Ellinwood Correspondence with the New York Academy of Medicine

Dr. Ellinwood's correspondence related to the purchase of the collection from the New York Academy of Medicine illuminates the strained circumstances under which this valuable asset was acquired by Cooper Medical College.

On 24 February 1906 Dr. Ellinwood took over Dr. Rixford's correspondence with John. S. Brownne, Academy Librarian, and made the following offer to purchase the collection: [11]

San Francisco
24 February 1906
Mr. John S. Brownne, Librarian
New York Academy of Medicine

My dear Sir:
Referring to your previous letter I beg to say that we are desirous of obtaining the New York Hospital Library mentioned in your letter, of which our secretary, Dr. Rixford, has had some correspondence with you, and Dr. Hirschfelder of our College has also conferred with you in relation to it.

We desire this library to become an important addition to our Lane Library which is being established as a factor in medical education and freely available also to the medical profession in general, to be maintained, we hope, in such way as to contribute most to the progress of Medicine.

Please be good enough to submit to your Academy trustees an offer of $ 5,000 as the purchase price of the library (emphasis added). Hoping to hear from you at an early day and hoping for your continued good offices in our behalf, I am,

Sincerely,
C. N. Ellinwood.

Responsibility for negotiations on behalf of the Academy was at this point assumed by Dr. Abraham Jacobi, Chairman of the Board of Trustees of the Academy, to whom Dr. Ellinwood made a second offer in a letter of 10 April 1906: [12]

San Francisco
10 April 1906
Dr. Abraham Jacobi, Chairman of Trustees
New York Academy of Medicine

Dear Doctor and Sir:
Replying to yours of the 1st inst, I beg to say that our proposal to pay $5,000 for the New York Hospital Library which the Academy of Medicine is seeking to dispose of, was made, not with a view of estimating its commercial value, but with the desire on our part of doing the best we could to secure it, with our limited means as an acquisition to our new library, which is being organized in the interest of progress in the science and art of medicine, in aid of medical education, the medical profession and a beneficence to humanity.

…With us the library will be kept undivided and permanently housed in such way as to start a foundation on which we hope to build and so make and maintain a complete public medical library.

Will you kindly present this view of the matter to your Board of Trustees of the Academy and if you desire that we add another thousand dollars to our proposal, making it $6,000 in all, to include labor and expense of packing, ready for shipment, of the library, we will try to provide the additional sum (emphasis added).

C. N. Ellinwood, President
Cooper Medical College

Not having heard from Dr. Jacobi in response to his second offer, Dr. Ellinwood addressed to him the following third and final offer on 22 May 1906: [13]

San Francisco
22 May 1906
Dr. A. Jacobi
New York Academy of Medicine

My dear Doctor and Sir:
Notwithstanding the great catastrophe to our City from earthquake and fire (18 April 1906), Cooper Medical College survives and is going on undaunted in its work, and duty to medical education and the medical profession.

I have not heard from you as I expected, since you proposed to submit my last proposition with your approval to the Academy Trustees for the purchase of the New York Hospital Library, in which I offered to add one thousand dollars, if you so desired to my former offer of $5,000, this to cover the cost of packing and shipping the books (emphasis added).

Hoping to hear from you with the kindly interest of the Trustees of the Academy of Medicine expressed in our behalf, I am

Sincerely yours,
C. N. Ellinwood.

The difference between the second and third offers is critical in that the second offer included only "the expense of packing, ready for shipment; " whereas the third offer specified that the total payment of $6,000 is "to cover the cost of packing and shipping the books " (emphasis added).

As we shall see, according to the Treasurer of the New York Academy of Medicine, the Trustees of the Academy approved only the second offer and Dr. Jacobi approved the third offer on his own initiative - assuming that the Trustees would honor his commitment to include the shipping costs within the overall payment of $6,000. The implications of this assumption were not readily apparent and Librarian Brownne proceeded to pack and ship the New York Hospital collection to Cooper Medical College. On 6 July 1906 he advised Dr. Jacobi that the shipment consisted of 269 cases of books, weight 81225 lbs. (41 tons), and that the ship would leave Brooklyn on 20 July 1906, to arrive in San Francisco in sixty days. He quoted the cost of shipping and insurance as $864.25. [14]

Dr. Jacobi wrote on 23 July 1906 to inform Dr. Ellinwood of the shipment of the books: [15]

New York Academy of Medicine
23 July 1906
C. N. Ellinwood
San Francisco

Dear Professor Ellinwood:
Mr. Brownne has informed me that your books have been packed and sent off. The work has been done carefully and expensively, so that I feel certain the library will arrive in a good condition. May it contribute to enlarging and warming the West and the Phoenix of the Pacific. I beg to propose to you to deduct 864.25 dollars freight and insurance from the six thousand. Our expenses here, have amounted to $496. 20 which I shall advise our Trustees to settle out of the balance (emphasis added).

With my good wishes and congratulations, I remain,
Yours very sincerely,
A. Jacobi, Chairman of Trustees
N. Y. Med. Academy of Medicine

The books arrived in San Francisco in late September or early October. Thinking to close his account with the New York Academy of Medicine in accordance with the advice received in Dr. Jacobi's letter of 23 July 1906, Dr. Ellinwood wrote to him as follows on 9 October 1906: [16]

San Francisco
9 October 1906
Dr. A. Jacobi, Chairman
N. Y. Academy of Medicine

My dear Sir:
Herewith I enclose to you my check on the Bank of California, certified and made payable by Laidlaw & Co., New York, for the sum of $ 5135. 75 the amount named by you in your letter of July 23 in payment for the books which the Academy kindly sold to us (emphasis added)..

The books arrived in good order and they are now contributed to and constitute a valuable acquisition to the Levi Cooper Lane Library of Medicine and Surgery, available for the use of the medical profession, and devoted to the advancement of science and progress in the art of medicine.

I beg to thank you sir for your kindly interest in our behalf and also Mr. Brownne your Librarian.

Sincerely yours,
C. N. Ellinwood.

Dr. Ellinwood's facts and arithmetic were accurate. In a letter dated 23 July, Dr. Jacobi had specifically instructed him to "deduct 864. 25 dollars freight and insurance from the six thousand"(emphasis added). Dr. Ellinwood did so and obtained the correct remainder of $ 5135. 75 which he duly remitted to Dr. Jacobi on 9 October 1906 and considered the transaction complete.

Some two months later Dr. Ellinwood was surprised to receive the following letter from the New York Academy of Medicine: [17]

New York Academy of Medicine
1 December 1906
Charles N. Ellinwood, M. D. President
Cooper Medical College, San Francisco, Cal.

My dear Sir:
I am in receipt of your check for $5135.75 and note that you have deducted from the purchase price of $6000, the amount paid by (us) for freight and insurance, viz. $864.25.

I enclose copies of your letters in regard to the purchase of this library, in which you will note that the final offer which the Trustees of the Academy of Medicine accepted, was for $ 6000 in all to include labor and expense of packing ready for shipment (emphasis added). I also enclose a copy of a letter from our Superintendent Mr. Brownne to Dr. Jacobi, Chairman of the Board of Trustees, which gives in detail the expense of packing the library, and in which he has included the expense of carting from the Academy to the dock, viz. $168.00, which should be added to the cost of freightage and insurance, making a total of $1032.25 still due for expenses of shipping the books.

I feel sure that you did not have a copy of your letter at hand, and from recollection presumed that the cost of sending the books was to be deducted from the purchase price, but as you will see from reference to the enclosed copies of the correspondence, the latter simply stipulated that the Academy pay for the labor and expense of packing ready for shipment (emphasis added). .

As I would like to include this transaction in my annual report, I will be greatly obliged for the early remittance of this amount.

Reginald H. Sayre

(Note: Dr. Ellinwood later complained in his letter to Dr. Jacobi dated 8 April 1907 that the above letter did not identify Dr. Sayre as an officer of the Academy. Furthermore, Dr. Ellinwood objected to the unexplained intrusion of Dr. Sayre as a third party in negotiations that had been exclusively with Dr. Jacobi.)

The following is Dr. Ellinwood's tart response to Dr. Sayre's rather peremptory letter: [18]

San Francisco
8 December 1906
Dr. Reginald H. Sayre, Treasurer
New York Academy of Medicine.

My dear Sir:
Yours of the 1st inst. is received and I must express my surprise at its import.

In reply I beg to say that if you will kindly complete the correspondence of which you send me a copy in part and supply letter of your chairman bearing date of July 23rd to which I referred in my letter of remittance covering the amount named in full payment of the library, I trust that you will find the proper sum has been remitted to you and that all interested will be satisfied.

It just occurs to me that perhaps your chairman has forgotten to furnish you with a copy of his letter to me bearing date as above and which was the final word in the negotiation and my remittance to you completed the transaction which I hope is now happily closed.

Yours very respectfully,
C. N. Ellinwood.

The remainder of the troubled history of Dr. Ellinwood's role in the purchase of the New York Hospital Library from the New York Academy of Medicine is best told in the following six letters by principals with whom we are now familiar. [19]

San Francisco
25 December 1906
Dr. A. Jacobi, Chairman of Trustees
New York Academy of Medicine.

My dear Sir:
Yours of the 15th inst. is received and as you request I enclose to you a copy of your letter of 23 July 1906.

With the compliments of the season,

I am sincerely yours,
C. N. Ellinwood.

New York Academy of Medicine
20 February 1907

Dear Doctor Jacobi:
I enclose a draft of the letter (dated 20 February 1907) to be sent to Dr. Ellinwood regarding the sale of the Library. Please make any alterations or additions which seem wise to you, and return the draft to me and I will then communicate with Dr. Ellinwood.

Yours Sincerely,
Reginald H. Sayre, Treasurer

Notation:

Dear Doctor Sayre:
That letter is surely correct and in accordance with the resolutions of the Trustees.

Yours truly,
A. Jacobi

New York Academy of Medicine
20 February 1907
C. N. Ellinwood, M. D., L. L. D., President,
Cooper Medical College, San Francisco, Cal.

My dear Sir:
At the last meeting of the Board of Trustees, Dr. Jacobi made the suggestion of which he spoke to you in his letter of 23 July 1906, viz., that the Trustees should pay the expense of forwarding the Library to the Cooper Medical College, and of insuring it in transit.

The Trustees do not feel that they are empowered to accept the suggestion made by Dr. Jacobi as the proposal laid before the Academy last Spring, and accepted by them, was that the library would be sold to the Cooper Medical College for $6000, the expense of packing ready for shipment to be borne by the Academy. The Trustees feel that it is beyond their province to alter the conditions of agreement, and as the cost of

freight - $819. 25
Insurance 45. 00
carting - 168. 00

making a total of $1032.25, I would be much obliged if you would oblige me a draft for this amount.

Yours very truly,

Reginald H. Sayre,

Treasurer

San Francisco
3 March 1907
Dr. A. Jacobi, Chairman of Trustees
New York Academy of Medicine

My dear Doctor and Sir:
May I ask if you are cognizant of and approve the letter of your Treasurer to me of February 20th, expressing disapproval of your negotiations and sale of the books and refusal of the Trustees to confirm your action.

When you opened correspondence with me in this matter you informed me that you had been authorized by the Academy to act for it.

I remitted to you my check for the amount which you stated as the purchase price of the books and I so stated in my letter of transmittal with the check.

The Treasurer by his endorsement acknowledges the receipt of the money and for the purpose expressed. If now your authority has been abrogated and the Academy refuses to confirm the sale, then ethics and fair dealing would have demanded a return of the money and further negotiations.

But no, after months have elapsed without a word of dissatisfaction your Treasurer makes a new price for me to pay for which I had not agreed to.

You shipped the books to us 9 July 1906 and told me what to pay. I paid it and hold the Treasurer's receipt.

Hoping that you and your confreres may approve our course.

I am sincerely yours,
C. N. Ellinwood.

New York Academy of Medicine
29 March 1907
Dr. C. N. Ellinwood

Dear Sir:
I requested you to send me a copy of my letter in order to convince myself and my Colleagues that I had not exceeded my authority. You were good enough to transmit it. I never could determine the policy of the Trustees, and was not authorized to "act for them." You were sarcastic enough to ask me if I am cognizant of and approve of the action of the Treasurer, Dr. Sayre, who received his order from the Trustees, that is self-understood, as I am only one of the Trustees.

Let me ask a question, if the Treasurer would have returned your check, would you have returned the Library?

I apologize for sending this reply to yours of March 3rd, so late. The cause of my delay is my wish to read your letter to the meeting of the Trustees, which took place night before last.

Very truly yours,
A. Jacobi.

San Francisco
8 April 1907
Dr. A. Jacobi
New York Academy of Medicine

My dear Sir:
I am surprised and pained that you should regard my letter as "sarcastic" when I had no idea of making it so.

It was to me inexplicable that Dr. Sayre whom I had no knowledge of as an officer of the Academy, should address me such a letter after the negotiations had been concluded with you and full payment made and the transaction closed. Kindly disabuse your mind of any sarcasm in my question.

Sincerely yours,
C. N. Ellinwood.

This letter of 8 April 1907 concluded the correspondence between an uncompromising Ellinwood and the New York Academy. The state of affairs at this point was about as follows. Ellinwood was now legally in possession of the collection. His intransigence he attributed in part to the offensive tone of the letter of Treasurer Sayre who without prior introduction preempted the business relationship between Drs. Jacobi and Ellinwood.

As far as the embittered Dr. Jacobi was concerned his generous effort to respond to the needs of a promising western medical school, and his trustful informality in the contractual relationship with Ellinwood, left him technically in debt to the New York Academy of Medicine for a sum of $1032.25.

Unaccountably, Ellinwood did not see fit, when the issue of shipping costs was raised, at once to inform Drs. Jacobi and Sayre that, as a condition of the gift of the collection to Cooper Medical College, he had obligated the College to pay the shipping charges (of $864.25). Prompt arrangement by Ellinwood for the College to pay this amount to the Academy would have left a relatively minor and negotiable residual expense of only $168 for carting the shipment from the New York Academy to the dock in South Brooklyn. However, Dr. Ellinwood was not interested in conciliation and in protecting the good name of Cooper Medical College for after February 1907 he was, as we shall later see, no longer a member of the College.

After the removal of Ellinwood from the Faculty of Cooper Medical College, the unresolved status of the New York Academy of Medicine collection of duplicates did not come to the attention of the Board of Directors of the College until about the first of July 1907 when Dr. Barkan returned from abroad via New York. While in New York, Dr. Barkan saw Dr. Jacobi who gave him the Ellinwood correspondence. At a special meeting of the Board of Directors on 16 July 1907 the correspondence was read to the Board who took action forthwith: [20]

Whereas, Dr. Charles N. Ellinwood while President had purchased the Collection of Duplicates from the New York Academy of Medicine in the name of Cooper Medical College, as is evident from the aforesaid correspondence, and presented the Collection to the College as his personal gift on condition that the College pay the freight charges which amounted to $864.25. The College having accepted the gift on these conditions, paid the freight charges, and

Whereas, at this time Dr. Ellinwood understood that the said freight charges were to be paid by the New York Academy of Medicine and in his payment had deducted the amount of said freight charges from the sum agreed upon by the Trustees of the Academy, and

Whereas, Dr. Ellinwood also refused to pay the charges for cartage in New York amounting to $168.00.

Therefore be it resolved that the College pay the total amount of the purchase price agreed upon by the Trustees of the New York Academy of Medicine to wit: $ 6000 and in addition thereto $ 168, the amount of cartage charges, and request the Trustees to return to Dr. Ellinwood the money paid by him for said books, and be it further

Resolved that the Treasurer be and he hereby is authorized to draw from the Lane Medical Library Fund the sum of $6168 for the purpose of this resolution.

The resolution was adopted unanimously and a check for $6168 forwarded to Dr. Sayre, Treasurer of the New York Academy of Medicine, on 22 July 1907 in the following letter: [21]

San Francisco
22 July 1907
Dr. Reginald. H. Sayre, Treasurer
New York Academy of Medicine

Dear. Doctor Sayre:
I have the honor to inform you that at a meeting held 16 July 1907, the Directors of Cooper Medical College unanimously resolved to tender to the Trustees of the New York Academy of Medicine the sum of six thousand one hundred and sixty-eight dollars ($6,168) being the amount, which according to the correspondence copy of which was kindly furnished by Dr. Jacobi, the Trustees agreed to accept for the Collection of duplicates sent last year to Cooper College together with the amount paid for the insurance and cartage, and I enclose Treasurer's draft for that amount.

The Directors of Cooper Medical College reluctantly accepted these books as the personal gift of Dr. Ellinwood on condition prescribed by him that the College pay the freight, but because of a number of acts of Dr. Ellinwood in this matter for which the College cannot stand its sponsor notably the attitude taken by him in this aforesaid

correspondence together with his having retained the amount of the freight bill after he had understood from Dr. Jacobi's letter of 23 July 1906, that the Academy would remit the amount of the freight - and the fact that the Directors were compelled to depose him from the Presidency of the College in February last, desire to have returned to Dr. Ellinwood the money paid by him for these books and the sale made to Cooper College in fact as it was understood by the Academy to be.

The Directors therefore request the Trustees of the Academy to return to Dr. Ellinwood the amount paid by him and would suggest that this action be put upon the ground (which is indeed the proper one) that the Academy and Dr. Ellinwood having failed to come to an agreement as to the total amount owing to the Academy for the books and Cooper College now having remitted the whole amount of the purchasing price including cost of insurance and cartage no recourse is left the Academy except that of returning to Dr. Ellinwood the amount paid by him as requested by him in his letter to Dr. Jacoby of 3 March 1907.

The Directors of Cooper College have instructed me to express to the Trustees of the Academy their grateful appreciation of the fact that the Trustees have made great concession in price for this collection of books to the College and to the medical profession of San Francisco.

I have also written Dr. Jacobi of this action of the Directors of Cooper College.

Very truly yours,
Emmet Rixford, M. D., Secretary
Cooper Medical College

The letter to Dr. Jacobi follows: [22]

San Francisco
22 July 1907
Dr. A. Jacobi
New York Academy of Medicine

Dear Doctor Jacobi:
I have the honor and I may add the great pleasure to inform you that the Board of Directors of Cooper Medical College met 16 July 1907, and after hearing the correspondence in the matter of the collection of duplicates of the New York Academy Library which you were good enough to send by Dr. Barkan, unanimously resolved to tender to the Academy the sum of six thousand one hundred and sixty eight dollars ($6,168) being the amount which the Trustees agreed to accept for the books plus the amount paid for insurance and cartage with the understanding that the Trustees will on receipt of draft return to Dr. Ellinwood the money paid by him as requested by him in his letter of 3 March 1907.

I have written as above to Dr. Sayre, Treasurer of the Academy, enclosing Treasurer's draft for the stated amount.

In grateful appreciation of your interest and favors in behalf of our Medical Library,

I am,
Sincerely yours,
Emmet Rixford, M. D. Secretary
Cooper Medical College.

The following letter from Dr. Sayre, Treasurer of the New York Academy of Medicine, brought an historic transaction for Lane Medical Library to a favorable conclusion in spite of C. N. Ellinwood's prior involvement. [23]

New York Academy of Medicine
30 September 1907
Dr. Emmet Rixford, Secretary
Cooper Medical College

Dear Dr. Rixford
From Dr. Stillman who called upon me the other day I learn that my letter of August the 15th has not reached you. I received yours of July 22nd enclosing a check for $6168.00 in payment for the Library sent last year, including the cartage. I have returned Dr. Ellinwood the money advanced by him, $5135.75, with a letter informing him that as he had not completed the contract the Trustees desire to return his money, and complete the arrangement originally entered into with the Cooper Medical College.

I need hardly tell you that the Trustees of the Academy feel the directors of Cooper Medical College have been most honorable in this entire transaction and are not in the least to blame for any misunderstanding which may have arisen on account of Dr. Ellinwood's conduct. Regretting that my previous letter informing you of the action of the Trustees has failed to reach you, I am

Very truly yours,
Reginald H. Sayre
Treasurer

The discredited name of Dr. Ellinwood as a donor of the most extensive single collection ever acquired by Lane Medical Library was thus erased.

At the dedication of the Lane Medical Library building in 1912, Dr. Rixford referred briefly to this episode: [24]

In 1906, through the goodness of Dr. Abraham Jacobi of New York, we were enabled to purchase at a most advantageous price the great collection of duplicates of the New York Academy of Medicine - the bulk of which was the former Library of the New York Hospital - which added some 28,000 volumes to our stacks, exclusive of duplicates, and made the Lane Medical Library the largest west of Chicago and the seventh in size in the United States.

San Francisco Earthquake, 18 April 1906

The devastating earthquake of 18 April, followed by a great fire that destroyed most of San Francisco, caused city-wide property loss estimated at over $500,000,000. It also resulted in temporary paralysis of business and prolonged impairment of public confidence. From such calamities all enterprises, pecuniary and beneficent as well as educational and social must necessarily suffer.

After the catastrophe the College Buildings were still largely functional and the American National Red Cross was provided the use of Lane Hall for its activities. On the other hand, the effect on Lane Hospital was severe. Hospital services were interrupted by earthquake damage to the hospital building which cut off water supply and power, heat and light. This together with the general consternation which prevailed caused the removal of nearly all the patients from Lane Hospital, most of them being admitted to the U. S. Hospital at the Presidio and Harbor View where they were well cared for by the officers in charge there, aided by the efficient and self-sacrificing services of Lane Medical Staff and the Nurses from Lane Hospital Training School.

The net result was marked temporary loss of patient income which, in addition to costly building repairs, put a serious strain on the budget of the College. It was of special significance that the disaster occurred at a time when income from student fees was declining and annual budget shortfalls were beginning to occur. These circumstances heightened the interest of the Directors in a liaison with Stanford. [25] [26] [27] [28]

Fortunately, Lane Hospital was repaired and its occupancy rate revived during the year following the disaster so that Dr. Taylor, the Acting President of the College, was able to report at the Annual Meeting for the year ending 30 June 1907 that receipts of $ 90,000 during the year had exceeded expenditures of $79,000 by $11,000. [29]

President Ellinwood Opposes the Lane Medical Lectures

John C. McVail, M. D., D. P. H. , of Glasgow, Scotland, had been invited to give the annual Lane Medical Lectures on 20 August 1906. Upon hearing of the great earthquake and fire, Dr. McVail. wrote to President Ellinwood expressing sympathy for the great loss suffered by San Francisco, and enquiring whether local conditions were such as to warrant giving the course of Lane Lectures this year.

At the meeting of the Directors on 9 May 1906 President Ellinwood read Dr. McVail's letter to the Directors and seriously questioned the advisability of giving the lectures: [30]

In view of the conditions which obtain here and must obtain necessarily during the next three months, I am convinced it would be wise to suspend the Lane Course of Medical Lectures one year because of these conditions. I see the failure of the course to produce the effect we normally hope for and I believe it would be better to suspend the course than to have only a partial success. I am simply one of this Board. If the Board decides to give this course I shall do all in my power to make it a success.

Dr. Rixford reported that the Directors strongly opposed having an hiatus in the lectures, claiming that even if the audience should be small the lectures would probably be enough of a success to warrant their being given. The lectures were given and though the audience was not more than half the usual size, the lectures were appreciated and in the opinions of several whom he consulted they could not be called a failure. [31]

In his Annual Report for the year ending 30 June 1906 President Ellinwood made the following reassuring statement regarding the future of the Lane Medical Lectures: [32]

The Lane Course of Medical Lectures was inaugurated by Dr. Lane in 1895 and the honorarium of the lecturer was paid by Dr. Lane during the several years prior to his death. Apparently from his announcements he intended to provide in his will for the continued payment of the honorarium of the Lane Lecturer but he omitted to do so.

For the past several years (including the lectures by Dr. McVail to begin on 20 August 1906) it has been my pleasure to meet this expense and I hope that in the near future I may be able to make a permanent endowment for this course in honor of Dr. Lane for the advancement of the Science and Art of Medicine and the welfare of Cooper Medical College.

Chronology of Lane Course of Medical Lectures [33]

Year	Lecturer	Topic	Expenses Paid By
1896	MacEwen	Brain	Dr. Lane
1897	Heath	Aneurism	Dr. Lane
1898	Allbutt	Heart	Dr. Lane
1899	Senn	Gen. Surgery	Dr. Lane
1900	Foster	Physiology	Dr. Lane
1901	Morris	Dermatology	Dr. Lane
1902	Ball	Rectal Dis	Lane Estate
1903	Allis	Joints	Ellinwood
1904	Welch	Infection	Ellinwood
1905	Manson	Trop Dis	Ellinwood
1906	McVail	Prev Med	Ellinwood

(Note: The Lane Lectures were not held during the years 1907 through 1909, but were resumed in 1910 with the support of an endowment, the Lane Lecture Fund, under which they have continued to the present day.)

In spite of President Ellinwood's encouraging remark in his Annual Report for 1905-1906 about a "permanent endowment" for the Lane Medical Lectures, the other Directors were increasingly impatient with his failure to make a specific commitment of funds from his Lane bequest to endow the Lectures. A crucial meeting of the Board of Directors was convened on 20 October 1906 to address the issue. Those present were President Ellinwood, and Drs. Taylor, Gibbons and Stillman. Drs.. Barkan and Rixford were absent. [34]

The President brought up for discussion the subject of a summer course for Post Graduate Instruction in Cooper Medical College, urging the advisability of the same and offering to pay the expenses for a lecturer on Tropical Diseases and another in Anatomy if the plan met with approval.

The matter was discussed but no actions were taken, it being the general opinion that the matter should first be laid before the Faculty.

The President then brought up the subject of the Lane Medical Lectures. He stated that in his opinion the course was a failure and that instead of being an advantage to the school, he regarded it as a positive disadvantage; and that he felt discouraged in attempting the course in 1907; that he had protested against the course being

given in the present year, but that in deference to the wishes of the balance of the directors he had consented to it and had done what he could to make a success of it and had given the money to pay for it, but that he did not feel disposed to do so any more.

Director Gibbons stated that it was not a matter of options with the President, that Dr. Lane had founded the Course and had caused to be placed on a slab in the lecture hall the statement that the course had been endowed by him, and had imposed upon the Directors the duty of selecting the lecturers and that furthermore the President had himself stated that it was the intention of Mrs. Lane that the endowment should be provided out of the sale of the Broadway property.

The President stated that whatever Dr. Lane may have intended, he had failed to provide for the endowment as he had stated in his Annual Report and he said "furthermore I will do in this matter exactly as I please, so you might as well understand it right now. If it is the wish of the Directors to provide such a course they must provide the means to pay for it, there was no money given to me for that purpose."

Dr. Rixford's Personal Notes 26 December 1906 [35]

Subsequent to the Directors' Meeting of 20 October 1906, a private meeting was held at Dr. Taylor's home. Those present were Taylor, Gibbons, Stillman and myself (Rixford). Dr. Barkan was absent in Europe. Our purpose was to determine whether the present unsatisfactory state of things could longer be endured. Dr. Taylor called attention to the fact that Dr. E's attitude as expressed by him toward the use of the Lane money for College purposes had materially changed during the last three years - that at first he had promised to endow the Lane Lectures out of the proceeds of sale of the Broadway and Scott street lot - and that the remainder of the 2/3 should go to the Library. Little by little as we (the Directors) had let him slip by, he had retracted one promise after another and now had refused point blank to continue to provide for the Lane Medical Lectures or to carry out their endowment.

Dr. Gibbons was of the opinion that the present state of uncertainty could not continue - he read a statement of the various incidents that have happened in this matter - accusing Dr. E. of hoodwinking his associates with one pretext and another to the end that he might keep all the 2/3 of the Lane estate. Dr. Stillman said he was unwilling to continue longer to put himself in so humiliating a position as he was forced to as a member of the Directors of Cooper College.

It was therefore agreed that Dr. Taylor should at the next meeting ask Dr. E. to once and for all make clear his intentions in regard to the Lane Money, Dr. Ellinwood refusing, Dr. Gibbons to read his paper which was in the nature of a personal arraignment.

I am greatly troubled as to what is right to do. Dr. Barkan is away - and an unwarrantedly large responsibility rests on me. I pointed out at this meeting that if we carry out this plan and refuse longer to cooperate with Dr. Ellinwood - to put him out of the Presidency - we would play into his hands if he desired to keep the money and would make it practically impossible for him to give any of Dr. Lane's fortune to the purposes which we all know were dear to him. Dr. Stillman said: "Of course we know that but the School without Ellinwood is better off than if it had all of Lane's money with Ellinwood as President." It seems to me now that we ought to have a clear statement from Dr. E. and that it would be right to ask for it. I certainly shall insist that no demand be sprung without his being given time to answer. I think we ought to demand the continuance of the Lane Medical Lectures till it is definitely evident that they are a failure whereupon the money ought to go to some other perhaps similar purpose for the benefit of the College, and I shall act accordingly.

It has been said by many men in the Directorate and Faculty that the College is suffering because of the retention of Dr. E. in the Presidency. Dr. William Fitch Cheney (Professor of Medicine and Secretary of the Faculty) said to me he would have resigned long ago had he not felt it his duty to remain because of his honor and obligation to Dr. Lane. Dr. Hirschfelder (Professor of Clinical Medicine) whom I consulted said he desired to bolster up my hands in bringing the matter of the moneys to a focus - that he was convinced that Dr. E. intended to keep the money. Dr. George B. Somers (Professor of Gynecology) said to me that he thought we as Directors ought to demand a full statement of his intentions and in event of its not being satisfactory to discontinue Dr. E. as President.

Directors' Meeting, 9 January 1907

The now urgent subject of Dr. Ellinwood's stewardship of the Lane bequest was next addressed at this meeting of the Directors. Those present were President Ellinwood, and Drs. Taylor, Gibbons, Stillman and Rixford. Dr. Barkan was still in Europe. [36]

Director Taylor asked Dr. Ellinwood whether he intended to endow the Lane Medical Lectures and also whether he intended to make such contribution to the Lane Medical Library as would enable the Corporation to erect and maintain such a library as would be of a memorial character in honor of Doctor and Mrs. Lane.

Dr. Ellinwood in reply as to the Lane Medical Lectures referred the members of the Board to his last annual report as President and asked that that be read, which was done.

Dr. Taylor then drew Dr. Ellinwood's attention to his statements in regard to the Lane Medical Lectures as disclosed by the minutes of the meeting of 20 October 1906. Dr. Ellinwood then stated that the minutes did not correctly state what he had said and that he wished the minutes to be corrected so as to show that his statements in regard to the Lane Medical Lectures were limited entirely to the year 1907. The Board thereupon having refused to change the minutes of October 20th deeming the minutes to be a correct statement of what took place at said meeting, Dr. Ellinwood was given permission to make such statement of what took place at the meeting above mentioned according to his own recollection and to have said statement spread upon the minutes.

Dr. Rixford's Personal Notes 15 January 1907

The following are Dr. Rixford's recollections of the Directors' meeting held six days previously on 9 January: [37]

At the meeting of the Directors held January 9th, Dr. E. R. Taylor, after stating the unsatisfactory condition of affairs in the College with reference to the Lane Lectures and Library, demanded of Dr. Ellinwood on behalf of the Directors a clear and unequivocal statement of his position and his intentions in the matter of the Lane Lectures and Library.

Dr. Ellinwood replied that he had stated in his Annual Report that he hoped to endow the Lane Medical Lectures. He denied having made the statement read from the minutes to the effect that the Lane Lectures were a failure. He said that his statement referred only to the lectures of 1906, and that he had not refused to furnish money for the lectures of 1907. He demanded that the minutes be corrected, and he finally asked each one present in turn whether he felt competent to interpret the wishes of Mrs. Lane - to which Dr. Gibbons said "no." Dr. Taylor said "yes;" that he had talked with her enough about them. I said I did not feel called upon to answer such a question and Dr. Stillman said he knew she wanted a library to be built - a memorial library. "For which she gave the College 1/3 of her estate" interjected Dr. Ellinwood, "and which" said Dr. Stillman "the one-third will not pay for janitor service, light and heat after the building is built."

A day or two later Dr. Gibbons asked that we write out a statement of the facts that have transpired in this matter in the form of resolutions. This I have done tonight. It fills four letter pages of typewriting.

Impeachment of President Ellinwood Directors' Meeting, 5 February 1907

The following were present at the meeting of the Directors on 5 February 1907: President Ellinwood and Drs. Taylor, Gibbons, Stillman and Rixford. Dr. Barkan was absent in Europe. [38]

The meeting was called to order by President Ellinwood who assumed the chair.

Dr. Stillman moved, seconded by Dr. Taylor, that President Ellinwood be requested to resign his office of President of Cooper College in the best interest of the College.

President Ellinwood thereupon refused to resign.

Director Taylor then offered the following resolution which was seconded by Director Gibbons:

Whereas, there has arisen great disharmony between Dr. C. N. Ellinwood, the President of this College, and the members of this Board and of the Faculty;

And whereas, the members of this Board and of the Faculty do not any longer possess that confidence in Dr. Ellinwood as such President which is conducive to the best interests of this College;

And whereas, said Ellinwood has declined to resign such Presidency:

Now therefore, be it resolved that said Ellinwood be and he hereby is removed from the office of President of this College.

President Ellinwood ruled the resolution out of order.

Director Taylor thereupon appealed from the decision of the chair. The President refusing to submit the appeal to the Board, Vice President Taylor was called upon to put the motion.

Vice President Taylor thereupon put the motion "Shall the decision of the chair be sustained?"

The Board having voted in the negative the resolution offered by Dr. Taylor was then submitted to the Board.

The Resolution to remove Dr. Ellinwood from the office of President of Cooper Medical College was adopted - all the Directors voting for it with the exception of Dr. Ellinwood. The Vice President thereupon declared the motion carried.

Dr. Ellinwood thereupon presented the following protest against this action of the Board:

"Director Ellinwood files his protest against this action of the Board as not authorized by the Bylaws and Articles of Corporation" - and the same was ordered spread upon the minutes.

Directors' Meeting, 11 February 1907

Those present were: Vice President Taylor in the chair, Directors Gibbons and Stillman, and Secretary Rixford. Directors Ellinwood and Barkan were absent. [39]

On motions of Director Stillman, the Secretary was directed to communicate to the Faculty at its next meeting the proceedings of the Board of Directors at the meeting held 5 February 1907 as disclosed by the minutes.

On motion by Director Stillman, seconded by Director Gibbons, the committee appointed at the meetings of February 6th 1906 and October 12th 1906 in the matter of the proposed consolidation of Stanford University and Cooper Medical College was discharged and the following committee appointed instead: Vice President Taylor, Directors Gibbons and Stillman, and Drs. Ophüls and Rixford.

Faculty Meeting, 18 February 1907

A Regular Faculty Meeting was convened on 18 February 1907. Those present were Professors Ellinwood (President of the Faculty), Cheney (Secretary of the Faculty), Ophüls, Gibbons, Gardner, Hirschfelder, Rixford, Garrey, Somers, Stillman and Hanson. [40]

A communication was presented by Professor Rixford, Secretary of the Board of Directors, informing the Faculty that Professor Ellinwood was no longer President of the Board of Directors. Professor Ellinwood then read the following communication and asked that it be spread upon the minutes:

"This communication from the Board of Directors of Cooper Medical College just read informed you of my summary removal from the office of President during the term for which I was elected, thus ignoring and in defiance of the Bylaws under which Cooper Medical College is governed.

"The Bylaws provide that the President shall be elected for one year from the time of his election and until his successor shall have been chosen and qualified; thus establishing a definite term of office which cannot be abrogated by the Board, and I am advised that I am now and will remain legally, the President of Cooper Medical College during the remainder of the term for which I was elected; and that Courts of Law, if appealed to, would sustain my position and invalidate the action of the Board in removing me.

"I filed my protest and refused to acquiesce in the unwarranted proceedings of the Board.

"I accept the notice from my confreres in the Board of Directors that my usefulness is at an end, with the best grace I can, considering the way of its presentation.

"My long service and perhaps over zealous devotion to what I thought best for the College, ever remembering the views of Dr. Lane as to his policy and management, have brought me many disappointments and some enemies which I sincerely regret.

"When Dr. Lane asked me to succeed him as President of the College, he expressed his apprehensions that the developing characteristics of the men he has raised and reared in the institution, would divert it from his hopes and aspirations.

"He said, speaking of himself, 'If I live long enough they will put me out of the College and the same fate is in reserve for you.'

"Time, the wisest of things, will reveal to us the wrongs and the rights in the administration of Cooper College.

"My abiding hopes and best of wishes are for the success of our loved Institution.

"Now, asking that this my response to the communication from the Board of Directors be spread upon the Minutes of the Faculty, I respectfully withdraw leaving the matter entirely at your disposition."

Upon the withdrawal of President Ellinwood, Professor Hirschfelder assumed the chair. On motion, it was decided to spread the communication of President Ellinwood upon the Minutes as requested by him.

On motion of Professor Cheney, the action of the Board of Directors in removing Professor C. N. Ellinwood from the Presidency of the Corporation of Cooper Medical College was approved by the Faculty unanimously.

The following resolution was then presented by Professor Stillman and was adopted unanimously.

"Whereas, the Board of Directors of this College has removed Dr. C. N. Ellinwood from the Presidency thereof, and whereas, this Faculty no longer reposes that confidence in said Ellinwood which is conducive to the best interest of said College; and whereas great disharmony has for some time existed and still exists between said Ellinwood and this Faculty; now therefore, be it resolved, that the office of President of this Faculty, now filled by said Ellinwood be, and the same hereby is, declared to be vacant."

On motion of Professor Somers, the following was unanimously adopted: that the Board of Directors of Cooper Medical College be requested to declare vacant the Chair of Physiology at present held by Professor C. N. Ellinwood.

On motion duly made and seconded Professor Gibbons was elected President of the Faculty for the remainder of the College year.

There being no further business, the meeting adjourned.

Directors' Meeting, 20 February 1907

The recommendation by the Faculty at its meeting on 18 February 1907 that Dr. Ellinwood be removed from his position as Professor of Physiology was approved by action of the Directors on 20 February 1907 as follows: [41]

To the Directors of Cooper Medical College from the Faculty of the College:

Gentlemen: At a meeting of the Faculty of Cooper Medical College held February 18th, 1907, the following motion was unanimously adopted: That the Board of Directors of Cooper Medical College be requested to declare vacant the Chair of Physiology , at present held by Dr. C. N. Ellinwood.

Signed by the Faculty

Whereupon Director Stillman offered the following resolution which was seconded by Dr. Gibbons and was unanimously adopted:

Resolved that in pursuance of the request of the Faculty, the Chair of Physiology now held by Dr. C.N. Ellinwood be and the same hereby is declared to be vacant.

Summary

By the above actions the Board of Directors and the Faculty of Cooper Medical College removed Dr. Charles. N. Ellinwood from the following positions:

- 5 February 1907: removed as President of Cooper Medical College
- 18 February 1907: removed as President of the Faculty
- 20 February 1907: removed as Member of the Faculty.

Dr. Ellinwood continued to hold his position as a Director of Cooper Medical College until the Annual Meeting of the Board of Directors on 12 August 1907 when he was not reelected to the directorate which was reorganized on that date as follows: [42]

Board of Directors

Effective 12 August 1907

- Edward R. Taylor President
- Adolph Barkan Vice President
- Henry Gibbons, Jr. Treasurer
- Emmet Rixford Secretary
- Stanley Stillman

San Francisco Newspapers Feature the Ellinwood Affair 20-24 February 1907

The ousting of Ellinwood from the Presidency and Faculty of Cooper Medical College in February 1907 at once became public knowledge, sparking a lengthy and acrimonious exchange of views in the San Francisco newspapers.

One of the first reports of Ellinwood's dismissal was published in The San Francisco Call for 20 February 1907 under the following page-wide headline: [43]

Dr. Ellinwood Charged with Retaining College Funds

Charged with withholding more than $500, 000 in cash and property said to have been intended for the benefit of Cooper Medical College and the Lane Hospital, Dr. C. N. Ellinwood has been deposed as president of the two institutions. The money was left Ellinwood in cash and real estate by Mrs. Lane, widow of the founder of the school and sanatorium, four years ago, the residue of her estate after she had willed one-third of her property, then valued at $600,000, to the twin institutions. The probate laws precluded a larger endowment, and it is claimed that Ellinwood was to be the medium for the transmission of the entire property. This, it is claimed, he has failed to do, and at a stormy meeting of the faculty and trustees, held Monday night, he was deposed and Dr. E. R. Taylor was chosen to fill the place.

Dr. Ellinwood says that his removal was inspired by jealousy on the part of his associates and denies any understanding that the money was left him by Mrs. Lane for the college.

Dr. Henry W. Gibbons, dean of the college, made a reluctant affirmation of the truth of the report last night. "Yes," he said, when seen at his home on Washington street, "the differences over the withholding of the fund received by Dr. Ellinwood from Mrs. Lane's estate had some influence in bringing about his removal. But relations had been strained for some time and the faculty had lost confidence in the doctor. The matters were brought to a climax when he failed to advance funds for the continuance of the Lane Lectures, which he had pronounced failures."

Dr. Rixford, another faculty man, was equally reticent in discussing the case.

It is believed by the faculty of the college that Dr. Lane had intended that his entire estate should go to Cooper College and the hospital which bears his name and which stands on the block bounded by Sacrament, Clay, Webster and Buchanan streets. When Lane retired from the active practice of medicine he had money in the bank and property on Broadway which was unimproved and consequently produced no income. It was his intention to sell the Broadway property and endow the college, but he died before his hope was realized. The estate was bequeathed to his wife, who understood the plans and was devoted to the objects of her husband's benevolence.

Mrs. Lane died suddenly four years ago, leaving the property still unsold. Under the probate laws of California but one-third of an estate can go to charity, so Mrs. Lane left that fraction to the hospital and college and the balance to Dr. C. N. Ellinwood, old-time friend of her husband, who for years had been head of the two institutions. At that time the estate was worth $600,000 and the two-thirds which Ellinwood received in the will as residuary legatee was valued at $400,000. That residue has increased in value to approximately $550, 000, of which sum between $ 90, 000 and $ 100, 000 is money in the bank.

For two years after the death of Mrs. Lane there was harmony in the faculty, Ellinwood, as president, promising continually, it is said, to deliver his share of the endowment to the college. The matter had to be but tacitly understood, for an open avowal of the purpose of the Lane bequest would have meant a violation of the probate law. Two years ago the feeling became dominant among the faculty that their president was too leisurely in fulfilling the implied conditions of his legacy. The welfare of the college was a vivid thing with the physicians and others who had given the best part of their lives to it, and they grew fearful of Ellinwood's procrastination.

The corporation of the college and hospital cannot recover the money said to have been intended for them through any process of law. While the Broadway property had not been sold, it was known that Ellinwood had nearly $180,000 in cash which he could have used in aiding the two institutions. So the storm broke.

Dr. Ellinwood denied positively last night that the bequest he received had been left him with any understanding, direct or implied, that it would afterward be turned over to the college and hospital, but asserted, on the contrary, that Dr. Lane had expressed a fear before his death that he was to be deposed from his position in the college.

"The action in removing me was directly due to my unwillingness to continue the Lane Lecture Course this year." Dr. Ellinwood said, "I have paid $10,000 out of my own personal funds for the keeping up of the Lane Lecture Course since Dr. Lane's death and spent $2,000 on it last year, but owing to the scant and discourteous attention given the course by the faculty and the general lack of interest in it, I determined to omit it during 1907. Nobody had been selected for the course and in my annual report to the college I advised the omission and stated that I intended to endow it permanently to the extent of about $60,000.

Dr. Ellinwood stated that he had also contributed a medical library of 25, 000 volumes to the college and declared that there was at present strife and jealousy among the men who had removed him from the presidency of the two institutions and that they were trying to remove him from the Board of Trustees. According to Ellinwood's assertions, Lane would have endowed the college before his death if he had wished the money to go to it, but instead of this, Ellinwood declares, Dr. Lane told him that the men he had reared and trained in the institution had "developed characteristics which would divert the institution from the purpose for which he had intended it," and who would, if he lived long enough, put Dr. Lane out of the college. Ellinwood explained this, he said, at the meeting at which he was removed from the head of the faculty.

When asked how much the estate was worth, Dr. Ellinwood studied a moment and said he thought it would amount to about $200,000.

The San Francisco Bulletin, also of 20 February 1907, received from Dr. Ellinwood a different version of his removal from the Presidency of Cooper Medical College and its Faculty. [44]

Effort to Form Combine of Cooper and Stanford Leads to Bitter Strife

The effort of Dr. Charles N. Ellinwood to secure the affiliation of Cooper Medical College and the Lane Hospital with Stanford University has led to bitter dissension among the Directors, the withdrawal under pressure of Dr. Ellinwood from the presidency, and the utterance of charges against him by others of the Directors that he kept to his own use certain moneys left by the widow of Dr. Lane, and intended by her for the use of the institution. It was all because Dr. Lane, Founder of Cooper College and Lane Hospital, was dissatisfied with the way these institutions were being conducted and sought to effect an affiliation with Stanford that the trouble has arisen. E. R. Taylor, who was vice-president, is now acting president, and has announced that he will forever be a stumbling block in the way of affiliation.

That arrangements were being made for the coalition of the medical school with the University has for some time past been known to those intimate with college affairs, although denied by both Dr. Ellinwood and by Dr. David Starr Jordan at the time. Now, Dr. Ellinwood makes a statement reflecting upon the ability of the Directors , in return for the charge made against him that he failed to deliver the property valued at over $ 300, 000 left him by Mrs. Lane. He denies that he was willed the property on condition that he turn the same over to the college.

"At a stormy meeting of the Directors," Dr. Ellinwood said today, "I told them that Dr. Lane was dissatisfied with their lack of interest, and that he had said that their conduct had made it manifest that the college would not be perpetuated as an independent medical college. Therefore, Dr. Lane began negotiations for a combination with Stanford, asking for my cooperation. Since that time such arrangements have been under way, leading to dissension among the Directors and causing them to put in my place E. R. Taylor - poet, doctor, lawyer, dean of Hasting's Law College, and vice-president of the Cooper Medical College. Taylor promised the Directors that he would be a stumbling block in the way of such a combination."

Dr. Ellinwood states that he had given $10,000 out of his own pocket for the Lane Lectures which were discontinued because of the lack of interest and the lack of courtesy shown to the famous physicians brought from abroad. He adds that he had intended to give $50,000 more. The college library now contains 25,000 volumes presented by him.

Dr. Levi Cooper Lane, founder of the hospital and patron of the college, left his entire fortune to his widow, who in turn left one-third of her estate to these institutions. The remaining amount was left to Dr. Ellinwood in consideration of lifelong friendship without any conditions of any kind, says the doctor, in spite of the charges of the trustees.

The San Francisco Chronicle of 21 February 1907 carried the Faculty's response to Dr. Ellinwood's allegations: [45]

Say Ellinwood Betrayed Trust
Statement of Cooper Faculty
20 February 1907

Dr. Ellinwood, having stated his excuse for his having dealt with the Lane moneys in the manner in which he has and having declared that there was at present strife and jealousy existing among the men who had removed him from the presidency of Cooper Medical College and from the presidency of the faculty of that college, and having perpetrated the libel upon the memory of Dr. Lane, that he, Dr. Lane, had stated to him that the men connected with the college were beginning to develop characteristics which would divert the institution from the purposes for which he had intended it, and that he himself had some fear of being removed, it becomes our duty to state in as brief a form as possible the facts of the case.

Dr. and Mrs. Lane had long intended that all the property they could leave at their death should go to Cooper Medical College, mainly for the endowment of the Lane Course of Medical Lectures and for the building and maintenance of a memorial medical library. To that end they made wills giving all of their property to the college. After these wills were made they were legally advised that only one-third of their estate could be disposed of by will for the purpose intended and that some other disposition for the benefit of Cooper Medical College must be made if possible.

Finally they deemed it best to make mutual and concurrent wills under which each left all of his property to the other. It being understood between them that the survivor would carry out the wishes of both.

Dr. Lane, having predeceased his wife, all of his property became Mrs. Lane's by virtue of his will, made in the manner before mentioned. Mrs. Lane thereupon made a new will wherein for the purposes of carrying out the wishes of the doctor and herself, and so that if possible the moral obligation of seeing to it that all of her property, not only that which she had in her own right, but that which she had derived from Dr. Lane by his will, should be received by the college, she provided in her will that one-third of her property should go to the college for the purpose of a library and the remaining two-thirds to a cousin of Dr. Lane's which cousin at this time was fully informed of the wishes of both Dr. Lane and his wife.

Subsequently by reason of occurrences not necessary to be stated, Mrs. Lane thought well to make another will wherein she substituted as to the two-thirds of the property, "Dr. C. N. Ellinwood, president of Cooper Medical College," in place of the cousin of Dr. Lane, leaving the one-third as before to Cooper Medical College for the purpose of the library. The will last mentioned was probated as the last will and testament of Mrs. Lane and under it Dr. Ellinwood received in money bout $ 90, 000 and in addition other properties worth at least $ 200, 000. More than a year after the reception by Dr. Ellinwood of these moneys and properties left by Mrs. Lane, Dr. Ellinwood was asked by the board of directors as to what he intended to do about the endowment of the Lane Medical Lecture Course - nearly the dearest thing to Dr. Lane's heart at the time of his death.

Dr. Ellinwood replied that Mrs. Lane intended that the lecture course should be endowed out of the proceeds of the Broadway block and declined at that time to make any endowment, although he had at that time in cash nearly $100,000 received from Mrs. Lane's estate; and quite recently he has declared to the directors that the lecture course was a failure (he alone of everybody connected with the college being of that opinion), and that he did not now at least intend to endow that course.

Out of all these great properties received by Dr. Ellinwood he has paid $6000 for the purchase of 25,000 volumes of medical books.

Calls It Imagination

Dr. Ellinwood made the following statement in reply:

The conclusions arrived at in the signed article on the Cooper College controversy are matters of opinion and imagination. Mrs. Lane's will speaks for itself with more force and exactness than any one can do with their imagination. The courts have settled the question years ago and I am not reviewing the case today. The Lane Medical Lectures I have always advocated and maintained since Dr. Lane's death. The course of 1906 did not command the attention of the profession or the interest of the faculty which it ought to have done, and this is probably accounted for by the catastrophe of last April and the conditions following. Over three thousand invitations were extended to the profession to attend this course and only eighty-four answers were received, and of these thirty-four were acceptances.

No Legal Action Likely

There is no possibility that the trustees of Cooper Medical College will take any legal steps to force Dr. Ellinwood to give up any portion of the legacy he received from Mrs. Lane. Dr. Taylor admits that there is no ground for any legal action if Dr. Ellinwood maintains his present position in the controversy. It is claimed by Dr. Taylor that Cooper Medical College and Lane Hospital are in flourishing financial condition and can get along very nicely without any financial assistance from Dr. Ellinwood or any one else.

In the San Francisco Bulletin of 21 February 1907 Dr. Taylor refutes Ellinwood's claim that there was strife in the Cooper Faculty over an affiliation with Stanford: [46]

Taylor Favors Union with Stanford
Replies to Attack of Deposed President of Cooper College

To prevent affiliation of Stanford University with Cooper Medical College was not the reason Dr. C. N. Ellinwood was removed from the presidency of the latter institution, according to Dr. Taylor, now acting president of Cooper College. In an interview given to The Bulletin this morning Dr. Taylor flatly contradicts the statement made yesterday by Dr. Ellinwood and says that such a combination is possible. Dr. Taylor' statement follows:

I want to say in reply to some statements therein of Dr. Ellinwood, which are personal to myself, and as to what is said by him in regard to the alleged proposed combination of Cooper Medical College with Stanford University:

That Dr. Lane's wishes for such combination were prompted by an dissatisfaction of his with his confreres in the service of Cooper Medical College is untrue. The fact is that Dr. Lane had come to realize that medical education had taken on such a wide range and required the constant personal labors of certain of the professors which could only be met by the payment of salaries, that without a large endowment in addition to the fees of students, or without the combination with some university which could afford to pay the needed salaries, an independent medical college, no matter though the one be of as high a rank as Cooper, might possibly not be able to endure. He naturally, therefore, looked to Stanford, which, with its law and other great departments, needed only a medical department of high rank to become a university in the widest sense. He, however, died before anything was done beyond his having a conversation or two with Dr. Jordan.

That I "promised the trustees that I would be a stumbling block in the way of such a combination" is untrue. So far from my being now, or having ever been, or having announced myself as intending to be a stumbling block in the way of any combination of Cooper College with Stanford University, it is owing to me perhaps almost entirely that such a combination can now be made. When Dr. Lane talked the matter over with me (I having been for many years an intimate friend of his and his legal adviser) it was pointed out to him that it would be entirely feasible to release the corporation's property from the strict conditions he had imposed upon it when he first conveyed it to Cooper Medical College; for with those conditions existing the college would have been compelled to maintain an independent existence, in default of which the property would be lost to it and to medicine. These measures advised by me were adopted by him and by reason thereof all of the college property remains in the corporation free and clear of every condition whatsoever. As my wife was the daughter of Governor Stanford's eldest brother, and as one of my sons is a graduate of Stanford, it is hardly likely that I would stand in the way of anything likely to enure to the benefit of Stanford. The fact is I am not opposed and have never been opposed to a combination with Stanford, provided the combination can be made on terms which are just to Cooper Medical College and to the name and memory of Dr. Lane.

Dr. Ellinwood's dismissal from the presidency of the Board of Directors and of the Faculty had no more to do with any "dissension" arising out of the proposed combination with Stanford than last year's violets. There has been no "dissension" much less "bitter dissension." in regard to the combination, but there has been objection to Dr. Ellinwood's assuming to act therein individually when a committee had been especially appointed for the purpose (of which he was one), the members of the committee having been instructed by the board to do nothing in the way of negotiation, individually, with Stanford, and only as a committee.

The plain truth is that Dr. Ellinwood, having been tried for more than five years as president of Cooper Medical College, has been found wanting in the qualifications necessary to such a position. He had, for a considerable time before his dismissal, lost the confidence of his associates, and it was no longer possible to continue him in office with due regard to the interests of the institution. I have not been put in the place of Dr. Ellinwood, but by virtue of my office of vice-president (which I have held ever since the foundation of the college twenty-six hears ago) I became the acting president on Dr. Ellinwood ceasing to hold the office of president. I have not been elected president of the college, nor do I expect to be, nor do I wish to be. My main work in life lies in the teaching of the law and my paramount duty is to Hasting's College of the Law; but as long as

I live I shall do what is possible for me to do to subserve the best interests of Cooper Medical College and to keep bright the name and memory of Dr. Lane. As to Dr. Ellinwood, having received the Lane moneys in consideration of "lifelong friendship," it is tolerably evident that as only one-third could be given to the college under the law, two thirds were given to Dr. Ellinwood by reason of the fact that at the time of the bequest he was president of the college, and it was deemed that a sufficient moral obligation was thereby imposed as would induce Dr. Ellinwood to combine the two-thirds with the one-third in the erection and maintenance of a medical library in honor of Dr. and Mrs. Lane and in the endowment of the Lane Course of Medical Lectures.

Edward R. Taylor

The San Francisco Chronicle of 22 February 1907 carried a lengthy interview with Dr. Ellinwood that was in part an offer to support Cooper Medical College on his own terms, but chiefly a caustic response to Dr. Taylor's disparaging remarks about him on the previous day [47]

Ellinwood Offers to Endow Cooper College
He Denounces Taylor

The Cooper Medical College controversy has resulted in an extraordinary situation, which is not without its humorous features. It has crystallized into a personal issue between Dr. Charles N. Ellinwood and Dr. Edward. R. Taylor, and the bitter personal strife between these men, it is claimed by some friends of the medical college is likely to injure an educational institution of great importance.

Yesterday Dr. Ellinwood, the deposed president of the institution announced that, far from desiring to withhold funds left to him by Mrs. Lane from the College, he was anxious to permanently endow a costly post-graduate course which would make Cooper College the Mecca for medical learning in the West, but that he could not conscientiously make this endowment while the affairs of the institution were conducted by Dr. Taylor as they have been in the past.

Dr. Ellinwood declared flatly that if Dr. Taylor would get down and out he would do more for Cooper College in the way of endowment than the directors of that institution ever expected even in their most sanguine moments.

When Dr. Edward R. Taylor was informed of the declaration of Dr. Ellinwood he laughed scornfully.

"It has taken Dr. Ellinwood a very long time to come to the point, and even yet I have my doubts; but, so far as I am concerned , I wish to have no further dealing with him. I am through with Dr. Ellinwood.

"I cannot say whether the directors would accept an endowment from Dr. Ellinwood upon the terms he mentions or not, but, as far as I am concerned, I would not entertain his proposition."

Dr. Taylor also denies that he tried to prevent the affiliation of Cooper College and Stanford University: but Dr. Ellinwood retaliates with the statement that, while Dr. Taylor has not openly tried to block the negotiations, his position as a member of the board of directors and the faculty of the medical college was of itself sufficient to prevent the successful conclusion of the negotiations.

Ellinwood Accuses Taylor

He says that the trustees of Stanford University would object to have any dealings with Dr. Taylor looking toward affiliation, as he was dismissed from the board of trustees of Stanford several years ago at the command of Mrs. Stanford because he brought suit for his wife, a niece of the late Governor Stanford, and others against her to enforce the payment of certain legacies. Mrs. Stanford, according to Dr. Ellinwood, placed a ban on Dr. Taylor which makes the affiliation of the two institutions impossible while he is interested in one of them.

"Dr. Taylor's imagination has often led him astray," declared Dr. Ellinwood yesterday. "He has made other mistakes which may be attributed to excessive imagination, such as the writing of poetry. I think that he also imagined that he was going to receive a considerable portion of the estate of Mrs. Lane. His actions and expressions have showed that he had such expectations and that he was grievously disappointed when they were not fulfilled. I do not know the precise reason why Mrs. Lane did not leave Dr. Taylor any of her property, neither do I know why she left it to me, but I do know that before her death Dr. Taylor read her a great many of his poems. Whether Dr. Taylor's poetry had any effect upon the making of her will to his exclusion or not, I cannot say"

Says Nature is Low

Dr. Taylor does not deny that he read his poems to Mrs. Lane, but he refuses to meet Dr. Ellinwood in a discussion of this phase of the controversy.

"It is just like Ellinwood's low nature to say such things," declared Dr. Taylor angrily when asked about the matter.

In addition to being the acting president of Cooper Medical College, Dr. Taylor is dean of the Hasting's College of Law, which is affiliated with the University of California, of which Dr. Ellinwood is a regent. Yesterday Dr. Ellinwood declared that he thought the connection between Hastings and the State University should be severed. He said:

"Dr. Taylor is no more popular as dean of the Hasting's College of Law than he is as president of Cooper. He does not command the confidence of either the medical or legal profession, and for this reason, if for no other, he should retire. My reasons for thinking that the Hasting's College and the State University should sever connection is because I think the State University should build up its own law school, which is now getting along very nicely."

Dr. Ellinwood's Retort

Concerning the causes of the present controversy in Cooper Medical College Dr. Ellinwood said:

"For many years every proposal and suggestion that I have made for the betterment of the institution, the improvement of the course of instruction and the management of the financial affairs of the college has been persistently opposed by Dr. Edward R. Taylor. I have always had the interests of the institution at heart. I have felt the same duty and the same affection toward it that my friend, Dr. Lane, did, and knowing his wishes intimately, I planned to carry them all out. But I was always hampered and opposed by Dr. Taylor at every turn. The mere fact that I made a suggestion was sufficient reason for Dr. Taylor to turn it down. I was able to carry out none of my ideas, and naturally, I became disgusted.

"I do not think that anyone realizes better than I do the needs of the institution today. To make Cooper College what Dr. Lane wished it to be there should be a comprehensive postgraduate course, which would enable graduates to specialize in any subject without having to go East to study. I would engage the most eminent anatomist and one of the greatest workers and teachers in tropical medicine as special instructors in this course. Such a course would attract medical men from all over the West. I am ready to endow this course permanently any time but Dr. Taylor and the directors must come to me before I will take another step in the matter.

"This controversy is not over yet. My interest in Cooper College has not been killed by actions which are dictated by mere foolish personal jealously, and I still have hopes that it will come out all right."

There will probably be a meeting of the directors of Cooper Medical College within the next few days to consider a communication from Dr. Ellinwood.

The case against Ellinwood, as viewed by various local and Cooper physicians, was reported in the San Francisco Call for 22 February 1907: [48]

Prominent Men Argue Against Dr. Ellinwood

The Cooper College controversy, in which directors of the institution have accused Dr. Charles N. Ellinwood of withholding funds intended for endowment purposes, has brought to the support of the trustees a large number of men of high rank in the local medical fraternity. The impression appears to be general among them that the bequest made to Dr. Ellinwood by Mrs. Lane was intended eventually for the benefit of the college.

"Why else, " they ask, "would Mrs. Lane have ignored all of her relatives to leave two-thirds of her fortune to Dr. Ellinwood?"

The friends of the accused physician answer, "Because Dr. Ellinwood was a lifelong friend of Dr. Lane."

The directors of the college assert that Dr. Ellinwood's position is undermined by his own words. They claim that at a meeting of the authorities not long after the death of Mrs. Lane, Dr. Barkan made a motion that a committee be appointed to wait upon Dr. Ellinwood to learn what disposition he intended to make of the money. Dr. Ellinwood, who was present at the meeting according to the other directors, arose and indignantly exclaimed, "There is no need of a committee to wait upon me. I intend to use the money to carry out the wishes of Dr. and Mrs. Lane. If you desire, I will put this in writing." The directors thought no such step necessary and the matter was dropped for a time.

Ellinwood's Promises

At another time, in conversation with Dr. Henry Gibbons, Dr. Ellinwood, according to the former, gave full assurance that he intended to devote the bequest to a memorial library.

As Dr. Ellinwood showed no disposition to devote the funds to the college, notwithstanding his statement to the directors, he was reminded at a subsequent meeting of his promise and called upon to make good. Thereupon, it is asserted Dr. Ellinwood in heated terms denied that he had ever promised to use the Lane bequest in the interests of the college.

The matter dragged along, occasional reference being made to the subject at meetings of the directors, but Dr. Ellinwood was never ready to act. There was talk of selling the valuable block at Broadway and Divisidero Streets, in which the college has a one-third interest, and Dr. Ellinwood a two-thirds interest, but, although good offers were made for the property, Dr. Ellinwood always opposed the sale. Finally the directors became convinced that Dr. Ellinwood did not intend to use the bequest for the benefit of the college. He was asked for a final answer. It was not satisfactory and he was dismissed from the presidency. The last vestige of his authority was removed yesterday, when the sign bearing his name was taken from the building.

Defended by Lloyd

Dr. Henry Gibbons, dean and president of the faculty, said yesterday that the incident was closed so far as the college directors were concerned. He said that Dr. Ellinwood's connection with the institution had been severed, that no legal steps could be taken in the matter and that nothing more was to be done.

Dr. Ellinwood is not without supporters. Reuben Lloyd, who, with Thomas I. Bergin, was an executor of Mrs. Lane's will, said yesterday that Dr. Ellinwood was being maliciously assailed. Lloyd asserted that both he and Bergin were convinced that the bequest was intended purely as a gift to Dr. Ellinwood.

"The will of Mrs. Lane was as plain and concise a document as I have seen," said Lloyd. "There can be no doubt as to the intention of Mrs. Lane. She intended the bequest as a pure gift to Dr. Ellinwood. The truth is that Dr. Ellinwood has given liberally from his own pocket for the college, and now the men whom he has aided have turned against him."

The Cooper directors expressed deep regret yesterday that the situation had come to such an unpleasant conclusion. They are men who have grown gray in the service of the college. They have given their time and they have given from their abundant knowledge for the advancement of medical science. They have not derived financial profit from their connection with the institution or from their friendship with Dr. Lane.

For a trustworthy view of Ellinwood and the circumstances leading to his removal from the Cooper Faculty, we turn now to an article in the San Francisco Call for 23 February 1907 quoting the respected Professor Henry Gibbons, Jr., Dean since 1870 of Cooper and antecedent colleges: [49]

The faculty of Cooper Medical College did not wait for a communication from the institution's board of directors to point its

action in propelling Dr. Ellinwood along the road of "down and out." As Dr. Ellinwood had been removed from his office as president of the directors of the college, it followed naturally that he should be removed from his presidency of the faculty.

The Cooper teachers - a dozen or more, in addition to several assistant professors - met on Monday and, without discussion unanimously declared Dr. Ellinwood's office vacant. The vacancy was at once filled by the election of Dr. Henry Gibbons, Jr., to act as president of the faculty for the unexpired term of Ellinwood, ending next July. Dr. Gibbons is dean of the Cooper faculty and has held that position in this college and its predecessor, the Medical College of the Pacific, since 1870. Dr. Gibbons' new position has given him an opportunity to appear in the light of adjudicator in the present "irrepressible conflict" of the Cooper institution.

"Dr. Ellinwood's personality became very disagreeable," said Dr. Gibbons yesterday. "His assumption of authority was unbearable. He might have had a most enviable position in the city and in the college - in fact, all of us were ready to hold up his hands and help him forward until we learned to know him. There was not a single dissension in the faculty, the board or the college, or among its friends. "

Bequest of $300,000

"The difference of opinion involving Ellinwood and based upon his attitude in regard to the bequest in Mrs. Lane's will developed two years ago," said Dr. Gibbons. "The preceding two years, following the death of Mrs. Lane, were years of accord in the college and the faculty. Then it became apparent that Dr. Ellinwood and the others in the college management had different views as to the purpose of Mrs. Lane's bequest of $300,000 to Ellinwood.

"Dr. Ellinwood was very careful to be noncommittal," continued Dr. Gibbons. "Never once did he take the board or the faculty into his confidence on the matter of the bequest. He was always exceedingly careful not to commit himself in writing. The nearest approach to a written committal was in his July report, when he said he "hoped to be able to endow the Lane lecture course."

"The controversy will never reach a legal stage - an airing in the courts. If Ellinwood claims the $300,000 he may keep it insofar as the provisions of the will are concerned - and the probate thereof. It is only a question of honor."

Doctor Did Not Teach

It appears that though Ellinwood was president of the teachers he had not taught for many years and his chair of physiology had lately been filled by Professor Garrey. The members of the faculty are Dr. Barkan (now in Europe), Drs. Cheney, Hirschfelder, Ophüls, Hanson, Stillman, Rixford, Gardner and Somers, with assistant professors Dr. Rigdon, Blaisdell, Grey and Hewlett.

Dr. Ellinwood's published strictures upon Dr. Taylor as a probably preventive of the negotiations to merge Cooper Medical College with Stanford University are not taken seriously by the Cooper directorate or faculty. Dr. Taylor, as vice president of the college, will remain in charge of the college until the July election. As a member of the board he will participate in the negotiations for affiliating Cooper with Stanford. He is a brilliant and active man, and the fact of his having written poetry of high merit is held, among his associates, as a matter of personal ability rather than the subject for an ill-advised fling. What bearing his personality may have upon the Stanford negotiations is held as immaterial, according to Dr. Gibbons, who said:

"If Dr. Taylor is persona non grata with any interest at Stanford it cannot affect our tendering as a gift an institution with property worth three-quarters of a million dollars. And besides Cooper College the tender includes Lane Hospital and much outside property."

The Stanford negotiations were in the hands of a committee consisting of Drs. Ellinwood, Ophüls and Stillman. Ellinwood, says the dean of the faculty, never made a report as to how the negotiations were progressing. Since the present controversy arose, the Stanford matter has been delegated to the whole board of directors and it expects to accomplish results.

The following announcement headlined an article in the San Francisco Call on Sunday, 24 February 1907: [50]

Incident Is Closed Medicos Will Have Nothing Further to Say About Lane Bequest

As far as the directors of Cooper Medical College are concerned, the retirement of Dr. Charles N. Ellinwood as president of the institution is a closed incident. His connection with the college has been terminated for good and all, they say. The only regret that they express is that they did not take action sooner, instead of relying on shadowy promises of future financial aid. The directors have come to the conclusion that Dr. Ellinwood intends to retain personal control of the Lane bequest. That he has the legal right to do this they do not deny.

For the present Cooper College will get along without a president. The duties of the office will be performed by Dr. E. R. Taylor, the vice president, until July, when at the regular annual meeting a successor to Dr. Ellinwood will be elected.

In the meantime nothing further will be done looking to affiliation with Stanford University. When the affairs of the college have settled down negotiations with the Stanford trustees will be reopened. Before the end of the year, it is expected, consolidation will have been effected. The proposal is regarded favorably by the authorities of both institutions. Stanford would at one stroke acquire a medical college and hospital not surpassed in the West, while to Cooper would come the guarantee of permanency.

It is not the intention of the Cooper directors to carry on a campaign of vilification They have received no communication from Dr. Ellinwood bearing on reported promises of endowments, nor do they expect any.

"Dr. Ellinwood has been saying these same things for two years," said one of the directors yesterday, "but when it came to the point of putting up the money and making good he was never there."

Elias Cooper had his Judas in the person of David Wooster who betrayed and maligned him but who did not escape the scathing contempt and public rebuke that Cooper meted out - and the episode was without long range significance.

Ellinwood's betrayal of the Lanes' wishes was of a different order. His deceptions and financial exploitations with respect to the Lane bequest, though within legal bounds, were dishonorable and placed him outside the pale of trust and respect. One searches for the personal merits which gained for Ellinwood the confidence of Dr. and Mrs. Lane who, as we have seen, chose him for their physician. Certainly he thoroughly ingratiated himself to them, but his claim that Mrs. Lane meant to leave two-thirds of the Lane estate as a personal gift to him appears to have been an outrageous fiction.

We should return briefly to the visit of Dr. Lane's Uncle Jacob Cooper to Mrs. Lane during the last sad weeks of her life. It was during this stressful period that she was required to revise her existing will which consigned two-thirds of the Lane estate to William Cooper, son of Uncle Jacob and cousin to Dr. Lane. When William quite unexpectedly refused to accept the bequest Mrs. Lane, disappointed and distraught by this turn of events, substituted for him the President of Cooper Medical College as beneficiary - reasonably expecting that honor and loyalty would lead him to devote the funds to the College and the Lanes' designated projects. It must have been reassuring to Mrs. Lane that Uncle Jacob was greatly impressed with President Ellinwood who had been particularly attentive to him during the visit. Thus, with faith in the integrity of the President, the fatal misstep was taken.

Ellinwood's maneuvers during his transition to pious claimant of the Lane bequest as morally his, are easily traced through the reports in the Directors' minutes and the daily press cited here. With the leverage of the Lane bequest in hand, Ellinwood sought greater executive control of the College, becoming dictatorial and even blatantly usurping the Board's collective responsibility for negotiating with Stanford. He bought time on the library issue by personally arranging for the purchase of the New York Academy of Medicine duplicates, meanwhile being ever more vague in his commitment to fund the Lane Lectures and the Lane library, the two explicit purposes for which Dr. Lane had intended his estate.

But when Ellinwood, in his bid for power, tried to substitute a postgraduate course on tropical medicine for the Lane Lectures, and demanded personal control of the library project, his disloyalty proved intolerable. Subsequent events were well covered in the San Francisco press.

As painful as the miscarriage of his plans would have been to Dr. Lane, he would have been consoled and gratified by the unanimity and vision with which his loyal faculty disposed of Ellinwood, provided for the memorials to Dr. Lane's life of service, and secured the future of his school by uniting with Stanford.

Endnotes

1. Minutes of Meetings of Directors of Cooper Medical College on 8 and 22 August 1904, pp. 158-175, Minutes of Directors of Cooper Medical College, Vol. 2 - Box 5.2, Cooper Medical College Collection of publications, Lane Medical Archives, Stanford. Lane Library Catalog Record
2. Minutes of Meeting of Directors of Cooper Medical College on 6 September 1905, pp. 204-215, Minutes of Directors of Cooper Medical College, Vol. 2 - Box 5.2, Cooper Medical College Collection of publications, Lane Medical Archives, Stanford. Lane Library Catalog Record
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Chapter 30. Consolidation with Stanford University 1906 - 1912

As early as 1901 Dr. Lane and President Jordan met several times on terms of mutual respect to discuss the feasibility of consolidation of Cooper Medical College with Stanford University. These discussions were followed by Dr. Lane's decision in 1902, just prior to his death, to remove all legal impediments to such a course. Indeed, during the last few years of his life Dr. Lane saw that there was no acceptable alternative to union with Stanford. He became convinced that the survival of free-standing propriety American medical schools such as his depended upon merging with a university. Since union with the University of California was, in view of his past experience, unthinkable, the availability of Stanford as an alternative was a godsend.

During Dr. Ellinwood's stormy tenure from 1902 to 1907 in the presidency of Cooper Medical College, growing interest in joining Stanford culminated in a strong consensus among the faculty in its favor. President Jordan was also favorably disposed to a merger of the institutions but before serious negotiations could begin he was obliged to resolve two major issues - the nature of the educational program to be adopted and the source of funds to support it.

February 1906: A Graduate School of Medical Research

On 20 February 1906 Dr. Jordan wrote to Professor Ophüls commenting on Stanford's financial dilemma and asking his advice on establishing a graduate school of medical research in the Cooper premises.[1]

> 20 February 1906
>
> Dear Dr. Ophüls:
>
> The great difficulty with us - and it tends to grow larger as we get nearer to it - is the question as to whether the University will be able to maintain the Medical School as it ought to be maintained without cramping the Engineering School and the Library, and other departments already established…
>
> Would the proposition to devote the property (of Cooper Medical College) to the establishment of a graduate school of medical research, beginning with a few departments and extending them as gifts were received or as funds were acquired, be favorably considered by the Trustees of the Cooper Medical College?

Dr. Ophüls responded on 22 February to President Jordan's letter of the 20th.[2]

> 22 February 1906
>
> Dear President Jordan:
>
> I received your kind letter of February the 20th today. We understand your misgivings about the financial outlook of the undertaking, still we believe that by proper management any undue expense to the University can be avoided. If you will permit us we should like to submit more detailed plans as to the way in which the change might be best effected, and about the expenses which we would consider necessary to make a creditable beginning. We do not believe that it would be advisable to start on too large a scale but to begin with a working nucleus of good men who would be willing to spend the necessary time and energy without immediate large recompensation in gradually building up a Department which by the prestige given to it by its connection with the University and by its own efforts would soon develop successfully and if necessary attract endowment.
>
> As the only competing Medical College on the Pacific Coast has already raised its entrance requirements to very nearly the desired level we could hope to attract a sufficient number of students to make such a Medical Department self-supporting.
>
> In regard to your question we feel that the graduate research school should be looked upon as the highest development to be reached eventually. A substratum of several successive student generations of academic culture is necessary to evolve the desire and the capacity for research work of a higher order. From my own experience I know that at present very few men are available who are at all fitted to undertake such work in Medicine and who could successfully support by their work an institution of the kind that you suggest.
>
> We feel that we have to make certain provisions for the coming semester, several important positions should be filled within a reasonable time in justice to our students, still our hands are tied as long as we are uncertain about the future development of our School. On this account it would be desirable from our standpoint to arrive at least at a general understanding within the near future.
>
> Very sincerely yours,
>
> W. Ophüls

Dr. Ophüls advised against establishment of a graduate school of medical research and outlined a process whereby Cooper Medical College's traditional program could be upgraded to university standards at modest cost - an eminently practical approach, but not sufficiently "scholarly" for Dr. Jordan who, in a letter on 24 February, again asked Dr. Ophüls to give his opinion of the graduate school proposal[3]

> 24 February 1906
>
> Dear Dr. Ophüls:
>
> I have received your kind letter of the 22nd… The question as to whether we should engage in elementary medical education is a very large one…It would seem to me desirable, if it were possible, that the two medical colleges in the city should be united, either in the name of Stanford or of the University of California (now under the presidency of Benjamin Ide Wheeler). My idea of the research school would be, not to make it dependent at all on the fees or the men who might work in it…
>
> My own feeling at present is in favor of the research idea - of beginning the work without granting the medical degree or any degree other than those now granted by the University. This would mean the development in Stanford University of certain research professorships to be located in the building of the Cooper Medical College and in connection with the Lane Hospital. This college would then become the Department of Medical Research of the University.
>
> I do not wish to put forward this opinion as one which cannot be changed, but at present I am inclined toward it as the most available way of managing the matter on our part. I feel more drawn to the development of a great school of medical research than to the development of a great medical college granting the degree of M. D.

Obviously Dr. Ophüls' letter of February 22nd had not persuaded Dr. Jordan of the advisability of building on the existing program of Cooper Medical College. On the contrary Dr. Jordan had countered by making two proposals that would have been anathema to Dr. Lane and to most, if not all, of his faculty - union with the rival Medical Department of the University of California, and abandonment of the M. D. program in which they had invested their careers.

On 5 March 1906, Dr. Jordan pressed Dr. Ophüls further for an opinion on establishing a graduate school of medical research.[4]

> 5 March 1906
>
> Dear Dr. Ophüls:
>
> Referring to the possibility of developing a school of medical research on the Cooper College Foundation, I would like to know personally what you think of it; and, if you are in favor of it, I would like to know if you could suggest a workable plan by which such an institution could begin in a small way and rise to an expenditure of fifty or sixty thousand dollars or more a year. I see a good many difficulties in the way, even if the people of the Cooper Medical College were willing to have the property used in that way.

To Dr. Jordan's second appeal for his advice on a graduate school of medical research, Dr. Ophüls again firmly advised against it, this time in considerable detail: [5]

> 7 March 1906
>
> Dear President Jordan:
>
> …Although in many ways it may seem desirable to have only one large Medical School in San Francisco, the practical difficulties in the way of accomplishing this end seem to me insurmountable. On the other hand, comparatively small classes are rather an advantage in a technical school because the instruction can then be a more personal one. This is for instance one of the greatest attractions in the small German Universities. It would also seem probable that two rival schools would advance more rapidly and would do better work on account of the competition between them.
>
> Possibly on account of my education in Germany I cannot even well imagine a Medical Educational Institution which does not embrace undergraduate and graduate instruction and research. A school without research cannot survive, but I also feel that it will hardly do to separate certain features of the research work from the rest. From the research worker the students get their best inspiration and the teaching of the fundamentals of his science may be troublesome to the advanced worker, still it is very good mental exercise which constantly drives him back to essentials…. .
>
> I am afraid also that an attempt of developing a great School of purely Medical Research on the Pacific Coast now might be a little premature. We have no unusual opportunities in Medicine here that would attract workers from other parts of the world, such as we have them in Biology, for example. We would have to start with our own men largely and they are hardly ready. We will have to develop them from our undergraduate students. This seems to me a strong reason why the beginning could be made more advantageous with undergraduate instruction.
>
> Another difficulty which I see is this, that if an attempt is made to start with too few departments the research faculty might suffer seriously through their isolation. The most important results can only be expected through cooperation.
>
> If the College should stop undergraduate instruction it will almost surely lose the most valuable part of its clinical and pathological material at the City and County Hospital, because the material is offered for the express purpose of instructing students.
>
> The Johns Hopkins Hospital Medical School was started somewhat in the same way as you suggest.-.as a Research Institution. In that case the plan was feasible on account of the large endowment which was sufficient to cover the expenses for clinical material, excellent teachers and workers in the Clinical Departments. Apart from that there was enough left to run a first class Pathological Department. In our case the means would hardly suffice for such an undertaking.
>
> Very respectfully,
> Wm. Ophüls

Dr. Jordan's attraction to the concept of "a graduate school of medical research" is traceable to the advice he received from Dr. Clarence J. Blake, Professor of Otology at Harvard. Dr. Jordan had consulted Dr. Blake as early as 1902 regarding the program to be developed on the premises of Cooper Medical College, should they be ceded to the University. In a letter to President Jordan dated 17 September 1902, Dr. Blake commented enthusiastically on the news that Stanford might fall heir to Cooper Medical College. He cited all the good reasons why proprietary schools like Cooper should be absorbed by universities like Stanford for the betterment of American medicine. He did not then propose establishing a graduate school of medical research in the Cooper facilities. That advice came later and was then, as we have seen, supported by President Jordan.[6]

Dr. Blake attended the Lawrence Scientific School at Harvard and then the Harvard Medical School where he received an M. D. degree in 1865. He was interested in diseases of the ear. Finding no place in the United States to take advanced training in this field, he studied under Dr. Politzer at the Vienna Krankenhaus. Although a busy clinician in Boston he was also active in research in his specialty.[7]

Dr. Blake cited no American graduate schools devoted exclusively medical research which could serve as successful examples of the type of program he strongly recommended for Cooper Medical College, nor did he take account of the state of development of medicine on

the Pacific Coast, as did Dr. Ophüls. On the whole, Dr. Blake's advice seemed more theoretical than practical .In a letter to President Jordan on 18 March 1906, he summarized his visionary plan as follows:[8]

> The plan I have in mind, and for the success of which there are, I believe, reasonable grounds, begins with the establishment, by your University, of a medical department, not of undergraduate instruction, but one devoted exclusively to the teaching of graduates in medicine and to medical research, and continues, by subsequent collaboration with the University of California, in the formation of a joint medical school, or department, insuring the command of medical education upon the Pacific Coast under university control.
>
> The time for duplication of medical schools in this country has passed, and the demand for concentration, and for unification and advance, of educational standards, as part of the general University system, is imperative because of the rapid progress of medical education, along strictly scientific lines, and the correspondingly larger sociological opportunities of the medical profession.

In spite of Dr. Ophüls' championing of enhancement of the existing program at Cooper Medical College as the course to be followed after merger with Stanford, a position shared by Dr. Ray Lyman Wilbur, President Jordan continued to favor the plan outlined by Dr. Blake. On 2 May 1906, two weeks after the great earthquake and fire, the President made a report to the Stanford Trustees advising union with the Cooper Medical College on the basis of the Blake plan.[9] [10]

Later in the month (20 May 1906) Dr. Jordan wrote to Dr. Ophüls saying that he had advised the Trustees to adopt the (Blake) plan for a graduate school of medical research, but that the Directors of Cooper Medical College did not approve of the proposal:[11]

> 20 May 1906
>
> Dear Dr. Ophüls:
>
> I have recommended to our Board of Trustees the acceptance of the Cooper Medical College property on condition that we could use it, at least for the present, as a school of medical research.... Mr. Horace Davis, President of the Stanford Board of Trustees, tells me that the authorities of the Cooper Medical College do not approve.... The case then remains a matter of financial ability.... If it would result in crippling the instruction at Palo Alto, then it would be something we could not afford to undertake.... The action of the Board will probably depend upon the reports made by the Finance Committee when the matter is ready for final decision…

On 29 May 1906 Dr. Ophüls, who was vacationing in Brooklyn, New York at the time, responded as follows to President Jordan's letter of 20 May:[12]

> Brooklyn , N. Y. , 29 May 1906
>
> Dear President Jordan:
>
> I received your kind letter of May 20th yesterday. I was glad to hear that you favor so strongly the proposed union of Cooper College with Stanford University. I still believe that even without any large endowment the University could develop a first class Medical School and an institution for Medical Research from the present assets of Cooper Medical College. As long as the spirit is the right one from the beginning, the scope of the work can easily be enlarged in the future as means become available…

Prophetic words

For practical purposes, the character of the educational program to be developed under Stanford auspices in the Cooper Medical College facilities was now decided. That is, Dr. Jordan's advice to establish a graduate school of medical research had been firmly rejected by the Cooper Directors. In retrospect we can recognize in this decision their loyalty to the goals of Dr. Lane, and their historic prescience as to the best path for the College in the future. It should be noted, however, that this insistence by the Cooper College faculty on maintaining the M. D. program did not deter Dr. Jordan from continuing to explore for some months to come the possibility of establishing a graduate school of medical research.

In any case, serious consideration of consolidation of Cooper Medical College and Stanford could now begin with a view to creating a university-level M. D. program of teaching, research and patient care within the existing framework of the College, as advised by Drs. Ophüls and Wilbur - keeping in mind, of course, that financing the consolidation remained as a complex and controversial problem yet to be solved.

Committees Consider Consolidation

On 1 August 1906 the Stanford Trustees took an important step toward deciding the issue of eventual union with Cooper Medical College. They appointed a Special Committee of the Trustees to meet with a Special Committee of Cooper Directors to discuss consolidation. The Minutes of the Stanford Board of Trustees for 1 August 1906 include the following relevant entry:[13]

> Upon motion of the Board and recommendation of the University Committee, it was resolved that the matter of the proposed consolidation of Cooper Medical College with Stanford University be referred by the Board to a Special Committee for further consideration, and to confer with the authorities of Cooper Medial College to ascertain what arrangements can be made with them concerning the consolidation of the institutions in case that should be found to be desirable.

After adjournment of the meeting, Trustee Horace Davis (President of the Board) appointed Trustees Crothers and Eells and Professor John M. Stillman as the Special Committee called-for in the foregoing resolution. Trustee Crothers (who was also Secretary of the Board of Trustees) was appointed Chairman of the Special Committee.

Consolidation was also discussed by the Board of Directors of Cooper Medical College at the Annual Meeting on 13 August 1906 where President Ellinwood delivered the following preamble to his Annual Report[14]

> The trend of events in Medical Education continues to associate Medical Colleges more and more intimately with University Organizations.
>
> The maintenance of expensive laboratories with a corps of salaried professors and instructors together with modern facilities to meet the requirements of first class instruction.... requires an expenditure of money by the Medical College which cannot be met, as formerly, by the tuition fees from students.
>
> It naturally follows that a College independent of University affiliation as Cooper College is, without the University influence of perpetuity of organization....and also its pecuniary aid and scholastic economies, must be crowded into inferior place, and finally out of existence, as unfit to survive.
>
> This view of the situation was taken by Dr. Lane, the founder and builder of Cooper Medical College, in the latter years of his life…
>
> I feel hopeful that with patience, wisdom and discretion on our part, this institution will establish such University relations as to command first rank and high achievements in Medical Education on the Pacific Coast.

Dr. Ellinwood also called it to the attention of the Cooper Directors that the Stanford Trustees had on August 1st 1906 appointed a Special Committee: (a) to consider the desirability of consolidating Cooper Medical College with Stanford University, and (b) to confer with the Cooper Directors on the subject. In response to this initiative of the Stanford Trustees, the Directors appointed a Special Committee of their own to meet with the Special Committee of the Trustees. Members of the Cooper Special Committee were Drs. Ellinwood, Barkan and Ophüls, with Dr. Rixford as an alternate.

On 23 October 1906 the Special Committees from Stanford and Cooper met in the Cooper College Building. They reached conclusions which were the basis for a Report to the Board of Trustees on 2 November 1906 to which we will shortly refer.

Meanwhile we should mention that Dr. Jordan on 17 October 1906 again approached President Wheeler of the University of California on the factious issue that simply would not rest in peace - the possibility of some form of union between the medical branches of Stanford and the University of California. On this occasion Dr. Jordan inquired of President Wheeler whether it might be possible for the two universities, while each gave preliminary medical courses on its own campus, to unite their programs in San Francisco for clinical instruction and research. President Wheeler rejected the proposal. Had he not demurred, the Cooper Directors certainly would have done so. We should also report that Dr. Jordan at this time, in his search for funded research programs, sought unsuccessfully to interest the financier, John D. Rockefeller, in the establishment of a Research School of Tropical Medicine as a branch of Stanford University.[15]

November 1906: Trustees Committee Reports

On 2 November 1906 the Trustees Special Committee on Consolidation made the following report to the Board, this being the first comprehensive exposition of the issues and assets involved in consolidation of Cooper Medical College with Stanford University:[16]

> 1 November 1906
>
> To the Board of Trustees of the Leland Stanford Junior University,
>
> Gentlemen:
>
> Your Special Committee appointed by the President of the Board pursuant to a resolution adopted on the 1st day of August, 1906, for further consideration of the proposal to consolidate Cooper Medical College with the Leland Stanford Junior University …has conferred with the authorities of Cooper Medical College… and now reports as follows:
>
> Your Special Committee met with a similar committee representing the Cooper Medical College Corporation in the Faculty room in the Cooper Medical College Building … on the 23rd day of October. There were present Doctors Ellinwood and Ophüls representing Cooper Medical College, neither Dr. Barkan, the third member of the Cooper committee, nor his substitute, (Dr. Rixford), being in town at the time. All of the members of your Special Committee were present and President Davis was also present during the latter part of the conference.
>
> Dr. Ellinwood presented a copy of the Articles of Incorporation of Cooper Medical College and a copy of a deed from Dr. Levi C. Lane to the Cooper Medical College Corporation covering the real estate belonging to the College prior to Dr. Lane's death. The deed contains no restrictions. It was explained by Dr. Ellinwood that this deed was made after the Corporation had re-conveyed the property referred to therein to Dr. Lane with a view to the extinguishment of a clause in the former conveyance whereby it was provided that the College should maintain its independence.
>
> Dr. Ellinwood made the following statements on behalf of his committee and of Cooper Medical College:
>
> "That the Cooper Medical College properties including the special library endowment provided for by the will of Mrs. Lane, are of a value in excess of one million dollars, and consist of the following:
>
> The site of the College consisting of four fifty vara lots
>
> Lane Hospital and equipment,
>
> Cooper College Building and equipment,
>
> Nurses Home,
>
> Lane Medical Library and Endowment,
>
> About $75,000 cash in bank, belonging to hospital.
>
> "That the Medical Library, consisting of about 25,000 volumes, including the acquisition of an important medical library recently secured from New York, which supplemented the former library where it was weakest, is now one of the three or four best Medical Libraries in America, and the special library endowment, now represented by a library site and a third interest in various pieces of real estate, will probably amount to two hundred thousand dollars - probably the largest medical library endowment in America; but that the Board of Trustees of Cooper Medical College are not at present unanimous in their view as to the desirability of turning over the Library and its endowment to this Board of Trustees, though both of the representatives of Cooper Medical College present were favorable to keeping the library and its endowment and the medical college under the same management".

Dr. Ellinwood was asked to state the terms upon which the Cooper Medical College would transfer all the properties to the Leland Stanford Junior University. In reply he stated, on behalf of his committee and college, in substance as follows:

That he was not sure that he could now state positively all of the conditions of the proposed consolidation as others might occur to the management, but that, reserving the right to add any such terms, it is proposed:

That the Cooper Medical College, hospital, equipment and grounds, including the cash funds, be conveyed to Stanford University for purposes of Medical Education along the lines of teaching and preparing practitioners of medicine. That the work of the college, with a view to preparing men and women for the practice of Medicine, be continued with such research as may incidentally grow out of the same. That some equitable agreement be arrived at relative to the naming of the Medical School and its laboratories, hospital, library etc. That in case the Board of Trustees of the Leland Stanford Junior University should fail for any cause to maintain a Medical Department for the purposes expressed, the property shall revert to the State of California for the maintenance of Medical Education.

It was agreed by your Special Committee that in case the Board of Trustees of the Leland Stanford Junior University accepts the Cooper Medical School Property upon conditions, there will be no objection to any such forfeiture which the Cooper trustees may desire to impose in the event of the violation of such conditions, also that due credit should be given to the founders of Cooper Medical College in the matter of names.

Dr. Ellinwood also stated that fifty beds in the Lane Hospital can be maintained for clinical purposes without making the hospital a source of expense and that these and the wards of the County Hospital under the control of the school furnish rich and ample clinical material for purposes of instruction, also that if clinical and pay beds be hereafter added in equal number the Lane Hospital should continue to be self-supporting. The college now has funds derived in part from the net earnings of the Hospital, which could probably be used to add to the number of beds in the hospital in case that should be considered desirable.

In the light of all available information as to the sources and amounts of the income and expenses of the best Medical Schools in the country, their clinical facilities, and their standards and methods of instruction, your Committee make the following recommendations:

That the Board of Trustees of the Leland Stanford Junior University accept the Cooper Medical College properties for the maintenance of a professional medical school upon the terms of the offer as made, provided,

First. That the Lane Library and library endowment be offered with the balance of the plant.

Second. That the Legislature of the State of California, by special act, permit the charging of fees for tuition to students in the medical courses regardless of their residences.

Third. That the Board of Trustees desires to maintain a department of medicine on a basis of scholarship and efficiency equal to that of the very best medical schools of this country.

Fourth. That the Board of Trustees considers itself financially able without unduly retarding the development of equally important departments already established to expend upon the Medical Department at the expiration of ten years, in addition to receipts, between thirty-five and forty thousand dollars per year.,

Fifth. That the classes registered in the Cooper Medical School at the time when the same is taken over shall be taught by the present Faculty under the control of the present Corporation, and be given the degree of M. D. by Cooper Medical College upon their graduation, the University agreeing to make good any deficit which may arise owing to the reduction in the number of classes and students in San Francisco while the classes in the pre-medical courses provided for under new regulations are being prepared at the University.

Sixth. That no new classes be accepted by the Cooper Medical College after the transfer and that the University do not accept any new class for instruction in medicine in San Francisco until the fourth year after the proposed consolidation shall have been effected

Seventh. That some equitable agreement be arrived at for perpetuating the names of Dr. Cooper and Dr. Lane in connection with the Medical School and its laboratories, hospital, library, etc., but that the main title of the medical school shall be "The Medical Department of the Leland Stanford Junior University."

The Committee believes, with the President of the University, that Medical Education is within the scope and purpose of the University and that the field will be sooner or later entered upon by it.

The Cooper Medical College plant is the best and most complete plant for medical education within a radius of nearly two thousand miles, its reputation for good work is widespread and its faculty has now among its number, as always, many practitioners of the highest order. It is therefore not likely that the University will ever have a better opportunity to undertake this department of its work.

In determining this question, as in determining all other questions affecting society generally, the public interest and not merely the interest and reputation of the University as such, must be the controlling factor. Numerically there is a surplus of doctors of medicine in this country, but there is an urgent need of more thoroughly trained physicians and surgeons. There are few medical schools in the country which are of the first class in both scholarship and equipment and there are none such in the Western half of the country. There is therefore a large field for more of them. If Stanford University should undertake the control of Cooper Medical College it should do so, not so much to increase the number of practitioners, as to raise the standards of scholarship and efficiency in Medical Education. There is, however, room for one or more large medical schools in California, as about forty-five percent of the medical practitioners annually admitted in California are prepared for practice in Eastern States. A number of Western States, which would be tributary to a first rate medical school in San Francisco, have no medical schools.

The clinical material offered by San Francisco is exceptionally rich in variety and ample in quantity.

The San Francisco climate is better adapted to instruction and study throughout the year than that of any other large city in the country.

Respectfully submitted,

(Signed)

Geo. E. Crothers

Charles P. Eells

J. M. Stillman

Special Committee

November 1st, 1906

Action on Report of Special Committee Deferred

After the reading of the Special Committee's Report to the Board of Trustees on 2 November 1906, it was resolved that a copy of the Report be sent to each Trustee, and that consideration of the Report be postponed to a future meeting of the Board. Consideration of the Report was then postponed from meeting to meeting until ten months had passed without action on it. Meanwhile, President Ellinwood was deposed and the Trustees were duly notified of the change in composition of the Directors Special Committee on Consolidation:[17]

San Francisco, 16 February 1907
The Hon. Horace Davis, President,
Board of Trustees, Stanford University

Dear Sir:
I have the honor to inform you that on the 5th of this month, Dr. Charles N. Ellinwood ceased to be President of Cooper Medical College, and that at the last meeting of the Directors of the College held February 11th, 1907, the Committee formerly representing Cooper College in the matter of the proposed amalgamation of the College with Stanford University was discharged and the following committee appointed in its stead: - to wit: Vice President Edward Taylor, and Drs. Henry Gibbons, Jr., Stanley Stillman, W. Ophüls and Emmet Rixford. . . .

Emmet Rixford, Secretary

September 1907: President Jordan Recommends Consolidation

In an effort to spur action on consolidation, which had been postponed for the past 10 months, President Jordan wrote to the Stanford Trustees on 14 September 1907 recommending approval of the recommendations of the Trustees Special Committee:[18]

Stanford University, Ca.
September 14, 1907
To the Honorable Board of Trustees
Leland Stanford Junior University
San Francisco, California

Gentlemen:

I am asked by a member of the faculty of the Cooper Medical College to say that an early decision in the matter of the future of that institution in relation to Stanford University would be very acceptable.

After long consideration of the various phases of the case, I have reached the conclusion that it is wise for Stanford University to accept the offer recently made by the Cooper Medical College, to take effect as soon as the present classes of the Cooper Medical College can be graduated.

My reasons for this view, briefly, are: (a) that it will be sooner or later a part of the duty of Stanford University to give medical instruction; (b) that the present good name and good property of the Cooper Medical College are worthy of serious consideration in this regard; and (c) it will be in a general way to the advantage of Stanford University to have a representation in the city of San Francisco.

I believe, also, that in time the Stanford University Medical Department and the hospitals would become objects of large donations from citizens of San Francisco.

It is understood, of course, that the present faculty and Board of Trustees of the Cooper Medical College would all tender their resignations, that the autonomy of the Cooper Medical College would be given up, that all trusts now assumed by the Cooper Medical College would be taken by Stanford University, and that the Medical College would become a department of Stanford University, the method of establishment being shown in published documents by reference to Dr. L. C. Lane and to the Cooper Medical College foundation.

In the reorganization of the proposed medical college it seems to me very desirable that it should begin from the first with the highest ideals of organization and of instruction. The degree of M. D. should not be granted in less than seven years from the date of matriculation in the freshman class, and the title of professor should be restricted to men giving their time to University work as is the case in other departments.

Very truly yours,
David S. Jordan, President

October 1907: Trustees Ponder Cost

The Report of the Trustees' Special Committee favoring consolidation with Cooper Medical College was submitted to the University Trustees on 2 November 1906; but formal consideration of the Report was deferred for eleven months - that is until the Trustees' meeting of 4 October 1907 at which President Jordan's letter of September 14th was submitted to the Board. The stumbling block causing delay in deciding on consolidation was uncertainty regarding availability of sufficient funds in the University budget to support a medical department without depriving other departments of needed resources favorable.

Some of the Trustees were convinced that the offer of Cooper Medical College was too valuable to be rejected. President Jordan's letter of September 14th made a strong impression on Horace Davis, Chairman of the Board, who said, "I am glad, very glad, to see that you have concluded in favor the Cooper Medical College. I am so sure that

we have got to have a medical institution in connection with our professional teaching that it seems to me an exceedingly favorable opportunity to get what we want." [19]

Other Trustees were not so sanguine and the President's letter had the overall effect of forcing the Board finally to come to grips with the unsettled question of financing the venture. They delayed their decision by referring the matter to the Finance Committee to investigate and report. Independently, Trustee Timothy Hopkins expressed his personal opinion in the following thoughtful letter dated 13 November 1907. He doubted the financial advisability of the consolidation:[20]

> To the President and Board of Trustees,
> Leland Stanford Junior University
> 13 November 1907
>
> Gentlemen:
> A plan for the amalgamation of Cooper Medical College with Stanford University is awaiting our consideration and decision.
>
> It is admitted that Cooper College and its adjuncts, the Lane Hospital and the Lane Library, are valuable property which, with the impetus given them by an association with Stanford, would do much to raise the standard of medical education on the Pacific Coast; also that the high ideals of Dr. Lane, their founder, would be furthered and fulfilled, in part at least, by the generous and disinterested gift to Stanford of those institutions by the Trustees of Cooper College.
>
> It is likewise conceded that the best medical education is the result of University training, and that the acceptance of the gift would strengthen and enlarge the usefulness of Stanford.
>
> It is questionable, however, whether we, in face of the financial obligations already assumed for the development of the University, can afford to accept even so desirable an institution as is Cooper College.
>
> It is the aim of all of our Trustees that whatever is associated with Stanford shall be of the best. It is not expected that the proposed medical department will be self supporting, and the amount of its annual deficiency is limited only by the degree of its development and the measure of our financial capacity. It is therefore vital, before we undertake that which may be an additional financial burden, that we should not mislead ourselves either by underestimating possible deficiencies or by an overestimation of our resources to carry them. It is stated that we could maintain a moderately effective medical department for the first few years on a deficiency of $25,000 per annum, but that its ultimate expense would be $100,000 or more reduced in part by student fees - or about one eighth of our present income.
>
> Our remoteness from the centers of population, and the existence of a rival medical school in the State University to divide the students in our somewhat limited field of influence, makes the matter of fees an uncertainty, if indeed it does not go farther, and raise the issue of the ability of the community to adequately support more than one strong school of medicine for a long time to come.
>
> The expense of conducting a school of high standing is not proportionately reduced by the ratio of attendance, and unless we have financial leeway to meet a yearly deficit greater than $25,000, it is manifestly unwise to undertake the work; since a professional department in a state of arrested development would do us more harm than the possible loss of prestige due to its absence from the university curriculum. . . .
>
> (Trustee Hopkins included here an estimate of University income and expenditures for the year ending 31 July 1908 showing a surplus of only $25,000.)
>
> The problem, therefore, of conserving our income and reserve, and the curtailing of our expenses so as to permit the development of such of our present departments as we may select, would appear to have a claim upon our serious attention as a condition precedent to our assuming the further responsibilities of a Medical School.
>
> Respectfully submitted,
>
> Timothy Hopkins

From this time forward, and even to the present day, the cost of medical education to the University has been an ever-present and contentious issue in intramural financial circles. It has been the view from the outset, as expressed in Trustee Hopkins' letter, that the medical school has the potential for draining resources from departments more central to the mission of the University - an apprehension by no means unjustified. Hence the basic principle that the medical school at Stanford shall be essentially self-supporting has its earliest manifestations in the original articles of consolidation, the complex evolution of which we are now about to relate.

Trustees Endorse Consolidation 31 January 1908

After four months delay since the meeting on 4 October 1907 to allow for further deliberation on the issue of financing, the Trustees were at last ready on 31 January 1908 to put consolidation to the vote. The following enabling resolutions were adopted:[21]

> Resolved that it is the sense of the Board of Trustees that the proposed transfer of Cooper Medical College properties be accepted by the Board of Trustees upon the terms recommended by the Special Committee (see Report of 1 November 1906) and approved by the President of the University.(See letter of 14 September 1907).
>
> The foregoing resolution was adopted by the following vote: the following 9 Trustees voted aye: Horace Davis, Samuel F. Leib, Joseph D. Grant, Leon Sloss, Whitelaw Reid, William Babcock, Charles P. Eells, Vanderlynn Stow and George E. Crothers. The following 2 Trustees voted no: Timothy Hopkins and Charles G. Lathrop (Treasurer of the University).
>
> Resolved that the secretary be instructed to communicate the foregoing action to the Directors of the Cooper Medical College, and that the President of this Board be instructed to confer with the attorneys for the Board with regard to such legal steps as may be necessary to effect the proposed transfer.
>
> Resolved that in case the needs of the proposed Medical Department, over and above its own separate income from medical students and other sources, should exceed Twenty-five Thousand Dollars per annum, the wants of other now existing departments of equal importance shall have preference over such needs.

These significant decisions may be summarized as follows: On 31 January 1908 the Stanford Board of Trustees agreed by a vote of 9 to 2 to endorse the transfer of the properties of Cooper Medical College to Stanford University on terms previously recommended by its Trustees Special Committee and by President Jordan. Furthermore, the Board instructed the President of the Board to take all legal steps necessary to effect the proposed transfer.

27 February 1908: Preconditions for Consolidation

Seeking to expedite the process of union with Stanford, the Cooper Directors authorized Secretary Rixford to inform the University of the conditions under which the Directors would relinquish the property. Accordingly, Secretary Rixford dispatched the following letter to Secretary Crothers of the Stanford Board of Trustees on 27 February 1908.[22]

> Cooper Medical College, 27 February 1908
> Mr. George E. Crothers, Secretary, Board of Trustees, Leland Stanford Junior University
>
> Dear Mr. Crothers:
>
> I have the honor to inform you that at a meeting of the Board of Directors of Cooper Medical College held this day the 27th of February 1908 in the Board Room of the College, all the Directors being present, the following resolutions were unanimously adopted:
>
> Resolved that it is the sense of the Board of Directors of Cooper Medical College that all the property of said College be transferred to the Leland Stanford Junior University upon the following conditions:
>
> That the property so transferred shall be devoted to the purposes of medical education along the lines of teaching and preparing young men and women to be practitioners of medicine and surgery.
>
> That the transition in curriculum be gradual.
>
> That a class be admitted to Cooper Medical College in 1908.
>
> That the diplomas of the Medical Department of the Leland Stanford Junior University bear the words "founded as Cooper Medical College in 1882 by Levi Cooper Lane."
>
> That the Lane Medical Lectures be continued.
>
> That the Lane Popular Lectures be continued.
>
> That the name "Lane Hospital" be preserved as applied to the hospital building.
>
> That the name "Lane Hall" be preserved as applied to the College Building.
>
> That the various trusts undertaken by the College be carried out.
>
> That the will of Mrs. L. C. Lane be carried out.
>
> That a suitable library building be erected in San Francisco and named as provided in said will "The Levi Cooper Lane Library of Medicine and Surgery."
>
> That the library be maintained and conducted on broad lines for the benefit of the general medical profession.
>
> That in event of the breech of any of the above conditions the said property shall go to the State of California for the purposes of medical education.
>
> Resolved that the Secretary be instructed to communicate the above action to the Board of Trustees of the Leland Stanford Junior University.
>
> Very respectfully,
>
> Emmet Rixford, Secretary
>
> Directors of Cooper Medical College

10 March 1908: President Jordan Modifies the Preconditions

President Jordan responded as follows to Dr. Rixford's letter of 27 February:[23]

> Office of the President, Leland Stanford Junior University
> Stanford University, Cal., 10 March 1908
> Dr. Emmet Rixford,
> Cooper Medical College
> San Francisco, California
>
> Dear Dr. Rixford:
> The memorandum sent by you to the Board of Trustees of Stanford University (on 27 February 1908) was placed in my hands. In the form in which it was put, it was impossible for our Board to take action upon it.
>
> As I understand the matter, our Board has formally agreed to receive the property of the Cooper Medical College, and the Lane Library, and to conduct regular instruction in the theory and practice of medicine, using these buildings as the seat of the University Department of Medicine. The work of instruction will begin at the University in Palo Alto at such time that our first class may occupy the buildings in San Francisco as soon as the class to enter Cooper Medical College in 1908 shall graduate. Meanwhile the authorities of the Cooper Medical College will be granted free use of these buildings for medical instruction until 1912, and a fund will be awarded from the present accumulation adequate to make good the necessary deficits, which will arise after elementary instruction ceases. It will also carry out the various trusts of the will of Mrs. Lane. It will also accept the names of the buildings suggested in your letter, and will use the phrase Cooper Medical College Foundation, or some similar phrase you may suggest, in all suitable places where the name of the Medical Department may be printed.
>
> It will also continue the Lane Lectures and the Lane Popular Lectures, after 1912.
>
> All matters of curriculum and personnel of the staff of the Medical Department must be left for the authorities of the University to settle in their own way.
>
> It seems to me that there is no need of a forfeiture clause in the

deeds of transfer from your Board to ours. Should such a clause exist, it could be applicable only to (1) our failure to teach medicine, and (2) our failure to carry out the Lane trusts. For both of these, I should think that the public pledge of the Trustees of the University should be sufficient. If a forfeiture clause is adopted, it must be very carefully drawn, and to include only such matters as pertain to the trusts executed by the Lanes, that of training practitioners in medicine being one of these.

In referring to the will of Mrs. Lane, its exact contents should be specified.

After talking with Dr. Barkan and Mr. Davis (President of the Stanford Board of Trustees), it was agreed to withdraw your former letter (of 27 February 1908), leaving the way open for a new statement. On the acceptance of the deed of gift, I am sure that our Board will pass the other matters, pledging itself as to the trusts, the names of the buildings and the Lane Lectures.

Very truly yours,

David S. Jordan

14 March 1908: Cooper Directors Accept President Jordan's Modifications

On 11 March 1908 a special meeting of the Cooper Directors was called to consider the letter from President Jordan to Secretary. Rixford of 10 March 1908 containing information of importance relative to the proposed amalgamation of Cooper Medical College and Stanford University. The Directors instructed Dr. Rixford to reply as follows to President Jordans' letter: [24][25]

San Francisco, 14 March 1908

Dear President Jordan:

Your letter of March 10th was duly presented to the Directors of Cooper College at a meeting called for the purpose of considering the same. The Directors felt that the differences between their desires and your understanding of the arrangement to be made were in reality very slight and easily to be adjusted. To this end they instructed me to arrange for a meeting with you and Mr. Davis at your convenience in Cooper College building say on Tuesday or Thursday afternoon next. May I ask you to let me know by telegraph or telephone whether one of these days would be convenient for you?

Very respectfully,

Emmet Rixford, Secretary

Directors of Cooper Medical College

27 March 1908: Trustees Endorse President Jordan's Version of Preconditions

Pursuant to the further consultation between Cooper Directors and Stanford Trustees called for in Secretary Rixford's letter of 14 March, the Stanford Trustees adopted the following resolution at their meeting on 27 March 1908:[26]

Resolved that the Board approve the statement prepared by the President of the University relative to the impending transfer of the Cooper Medical College properties to the University, which has been informally agreed to by the respective boards of trustees, as amended by the President of the Board, and that the substance of the statement worded in the same tentative manner be inserted in the Annual Register now in press.

The "substance of the statement" referred to above represented, in effect, a public announcement of the pending consolidation of Cooper Medical College with Stanford University. It was printed in May 1908 in the Annual Register of Stanford University for 1907-1908 as follows:[27]

Medicine

Arrangements are virtually completed by which the property of Cooper Medical College, founded by Dr. Levi Cooper Lane, will be turned over to Stanford University to serve as the clinical branch of the Department of Stanford University.

The property thus transferred includes the Medical College Building, the landed and other endowment, the Lane Medical Library, Lane Hospital, Lane Hall, and other properties and endowments.

The present classes at Cooper Medical College will continue their work and receive their degrees from Cooper Medical College.

It is anticipated that the University will require for admission to its Department of Medicine three years of premedical work, or the present first three years required of students having Physiology as a major subject. The first part of the course in Medicine will be given at the University. The concluding years will be given at the present buildings of Cooper Medical College in San Francisco, these being devoted chiefly to clinical studies. Formal medical instruction is expected to begin at the University not later than 1910 (later changed to 1909).

26 June 1908: President of Stanford Trustees Authorized to Proceed with Consolidation

As a result of further exchanges between the Cooper Directors and Stanford Trustees, the Trustees adopted the following resolution at their meeting on 26 June 1908: [28]

Upon motion of Trustee Crothers, seconded by Trustee Eells, it was resolved that the President of the Board of Trustees be authorized and directed to take all necessary steps toward the acceptance of, and to accept any conveyances of Cooper Medical College properties; to execute all instruments in the premises on behalf of the Board of Trustees and to carry out in detail the resolution of the Board of Trustees heretofore adopted in the premises.

10 August 1908: Cooper Directors Facilitate Consolidation

Although the President of the Stanford Trustees was now "authorized and directed to take all necessary steps" to effect consolidation, implementation continued to lag. Still lacking was a precise and mutually agreed statement of the specific commitments and responsibilities to be undertaken by each of the parties.

To complete this essential stage of the consolidation process, Dr. E. R. Taylor, now President of Cooper Medical College, who was also an attorney, drafted the following two resolutions:

Resolution A: A statement detailing the commitments to be fulfilled by the University upon transfer to it of the property and other assets of Cooper Medical College.

Resolution B: A statement by the Directors of Cooper Medical College of the rationale for transfer of the College property to the University, and of their agreement to transfer the property to the University pursuant to the commitments detailed in Resolution A.

On 10 August 1908 a special meeting of the Directors of Cooper Medical College was convened to consider these resolutions:[29]

Those present were President Taylor in the Chair and Directors Gibbons, Stillman and Rixford, absent Director Barkan who was out of the State.

Resolutions A and B, previously prepared by President Taylor, were adopted. and Secretary Rixford was directed to communicate the same to the Trustees of the Leland Stanford Junior University informing them that upon their adoption of Resolution A the Directors of Cooper Medical College would adopt Resolution B.

In accordance with the above decision by the Directors, Resolutions A and B were forwarded to Mr. George E Crothers, Secretary of the Stanford Trustees, on 13 August 1908:

San Francisco, August 13th 1908
Mr. George E. Crothers, Secretary
Board of Trustees, Leland Stanford Junior University.

Dear Secretary Crothers:
I have the honor to inform you that at a meeting of the Directors of Cooper Medical College on August 10th 1908 it was unanimously resolved that the Secretary be instructed to transmit to the Trustees of the Leland Stanford Junior University the attached Resolution A and Resolution B with the statement that:

On the adoption by the Stanford Trustees of Resolution A, the Directors of Cooper Medical College will adopt Resolution B.

I would say in addition that the Directors after mature consideration deem it best that the deeds of transfer of said properties be absolute on their face and bear no conditions.

Very respectfully,
Emmet Rixford, Secretary
Cooper Medical College

31 October 1908: Stanford Trustees Adopt Resolution A

At a meeting of the Board of Directors of Cooper Medical College on 5 November 1908, the following communication from Mr. Crothers, Secretary of the Board of Trustees of Stanford University, was received and spread on the minutes: [30][31]

San Francisco, California, 31 October 1908

Dr. Emmet Rixford, Secretary
Cooper Medical College

Dear Secretary Rixford:
I have the honor to inform you that at the regular monthly meeting of the Board of Trustees of the Leland Stanford Junior University, … .the thirtieth day of October 1908,… .it was unanimously resolved that the following resolution be adopted in response to and in compliance with the Resolutions adopted by Cooper Medical College on August tenth 1908 as set forth in your communications as Secretary of Cooper Medical College dated August 13th 1908:

Resolution A

Whereas, Cooper Medical College, a corporation created and organized for the purpose of medical education under the laws of the State of California, and having its college buildings in the City and County of San Francisco in said State is about to convey and transfer to the Trustees of Leland Stanford Junior University all the properties, both real and personal, wheresoever the same may be situated now belonging to said college to the end that all the said properties may be used by the medical department of said university for the purposes of medical education;

Now, therefore, be it resolved that we as such Trustees do accept all and singular said properties, to be used as aforesaid, including the erection and maintenance by us of a library building and library in said City and County of San Francisco said library building to be named the Levi Cooper Lane Library of Medicine and Surgery, as provided for by the will of Pauline C. Lane, and to the extent of the properties and their proceeds bequeathed to Cooper Medical College by said will for the said purpose and that all the diplomas issued by said university to those who have taken the course in said medical department shall bear upon their face the words "founded as Cooper Medical College by Levi Cooper Lane."

And it is further resolved that in the event any of the said buildings together with the lands on which they stand are sold by said Trustees then and in such event other buildings shall be erected out of the proceeds of such sale (said buildings to be used for the purpose of medical education), and on their walls shall be placed such tablets as shall in appropriate language perpetuate the name of Levi Cooper Lane;

And it is resolved, that said Trustees will maintain a perpetual fund for the maintenance of the Lane Medical Lectures, not to exceed $50,000 out of the moneys which may be transferred to said Trustees for said purpose.

Very respectfully,
George E. Crothers, Secretary
Board of Trustees of
Leland Stanford Junior University

23 November 1908: Cooper Directors Adopt Resolution B

In response to the adoption of Resolution A by the Stanford Trustees, the Directors of Cooper Medical College adopted Resolution B.[32]

San Francisco, November 23, 1908

Mr. Geo. E. Crothers, Secretary,
Trustees of the Leland Stanford Junior University.

Dear Secretary Crothers:
. . . .At a special meeting of the Board of Directors of Cooper Medical College your communication of October 31, 1908 announcing adoption of Resolution A by the Stanford Trustees was presented to the Directors.. . . .

On motion duly seconded and put to vote and unanimously adopted the said communication was ordered spread upon the minutes.

On motion of Director Gibbons, seconded by Director Stillman, the following resolution was put to vote and was unanimously adopted:

Resolution B

Whereas, Levi Cooper Lane, founder of Cooper Medical College, erected, pursuant to said foundation, college and hospital buildings which have for a number of years been used by Cooper Medical College, for purposes of medical education; and

Whereas, pursuant to said foundation, said Levi Cooper Lane, conveyed to said Cooper Medical College all of said buildings together with the land on which said buildings were erected; and

Whereas, after the expiration of a number of years after said properties had been conveyed as aforesaid, said Levi Cooper Lane departed this life leaving a last will and testament wherein and whereby all of his property he had not conveyed as aforesaid was left to his widow, Pauline Cook Lane; and

Whereas, within six months after the death of said Levi Cooper Lane, his said widow departed this life leaving a last will and testament, wherein and whereby she bequeathed to said Cooper Medical College a third part of all her property, both real and personal, to said Cooper Medical College for the purpose of erecting and maintaining a library, said Library Building to be named the Levi Cooper Lane Library of Medicine and Surgery; and

Whereas, ever since the foundation of said Medical College, and up to the present time the aforesaid properties conveyed to said College have been used and are now being used for the purpose of medical education; and

Whereas, before the death of said Levi Cooper Lane as aforesaid, said Lane came to the realization that by reason of said College having no endowment fund, and the further fact that medical education had reached such a high state of development that many of the members of the faculty would be required to devote their whole time to their professional duties, and by reason thereof would require salaries to be paid them and by reason of the further fact that the fees derived from the students would be wholly inadequate to pay such salaries and meet the other expenses of the College; and

Whereas, by reason of these facts said Lane fearing that the aforesaid foundation would at no distant time be brought to an end and the main object of his life frustrated, deemed it prudent and necessary to have some University of approved high standing and of great financial resources to take over said College as the medical department of said University, to the end that said College might be perpetuated as a great instrument in the cause of medical education and to that end had various interviews with David Starr Jordan, President of the Leland Stanford Junior University, with the view of having the aforesaid College become the Medical Department of said University; and

Whereas, said Lane died before the said object could be accomplished; and

Whereas, since his death and pursuant to his wishes, aforesaid in that regard, and the wishes of said Pauline Cook Lane, and realizing that the perpetuity of said College as an instrumentality of medical education depended for such perpetuity upon the consolidation of said College with said University, the Directors and Members of said College have promoted such consolidation; and

Whereas, the Directors and Members of said College fully realize that the highest development of medical education requires that the medical school be an integral part of a university; and

Whereas, the Trustees of the Leland Stanford Junior University have manifested their desire to take over the said properties and use the same as they have heretofore been used and are now being used, to maintain said College in perpetuity as a medical institution and carry out all the wishes of the aforesaid Levi Cooper Lane and said Pauline Cook Lane including the erection and maintenance of the aforesaid Library and to maintain and perpetuate the name of said Lane in connection with the said College, and have passed a resolution to that effect; and

Whereas, said Leland Stanford Junior University is an institution of the highest standing and of such financial resources as to enable it to bring and to keep said College up to the front rank of medical colleges;

Now therefore be it resolved that the President and Secretary of this College be and they are hereby authorized and directed to convey and transfer in the name of said College to the Trustees of said Leland Stanford Junior University all the properties both real and personal now belonging to said College wheresoever the same may be situated and to do all that may be necessary to put said Trustees in possession of the whole of said properties.

Very respectfully,
Emmet Rixford, Secretary
Cooper Medical College

25 November 1908: Stanford Trustees Affirm Adoption of Resolutions A and B

In effect, the following letter from Secretary Crothers asserts that both Resolutions A and B have been duly adopted by both parties, thus clearing the way for the final step in the process of consolidation - that is, actual delivery by the Cooper Directors to the Stanford Board of Trustees of a deed of conveyance of the entire holdings of the Cooper Medical College Corporation. [33]

Office of Secretary, Stanford Board of Trustees
San Francisco, 25 November 1908
Dr. Emmet Rixford, Secretary
Cooper Medical College

Dear Secretary Rixford:
I beg to acknowledge receipt of your letter of 23 November 1908 in which you inform the Stanford Trustees that my communication of 31 October 1908, advising your Board of Directors of the adoption by the Stanford Trustees of (Resolution A), was presented to your Board of Directors and was unanimously adopted.

I also acknowledge receiving the information in your communication of 23 November 1908 that the Board of Directors of Cooper Medical College have unanimously adopted (Resolution B), of which a copy is set forth in your communication.

George E. Crothers, Secretary
Board of Trustees,
Leland Stanford Junior University

December 1908: Stanford Trustees Grant Free Use of Cooper Facilities to Cooper Faculty until 1 July 1912

Cooper Directors and Stanford Trustees had decided much earlier that the last class of students would be admitted to Cooper Medical College in 1908 and would graduate in June 1912. In order to accommodate this final class, the Stanford Trustees agreed for the College Faculty to use the College and Hospital facilities without charge until 1 July 1912. It was further agreed that on that date all Cooper properties would become part of the Medical Department of Stanford University. The following resolution providing for this prior arrangement was finally adopted by the Stanford Trustees on 18 December 1908 as confirmed in the following letter: [34]

Board of Trustees
Leland Stanford Junior University
18 December 1908

Dear Secretary Rixford:
I have the honor to inform you that, at the regular monthly meeting of the Board of Trustees of the Leland Stanford University… it was unanimously resolved that the following resolution be adopted:

Whereas, Cooper Medical College, pursuant to agreement with the Trustees of Leland Stanford Junior University, is about to convey to said Trustees all of the property, real and personal, and whereas, as one of the considerations of said transfer it has been agreed by said Trustees that said College should remain in possession of all its said property until the first day of July 1912, and shall until said time manage all of said property and retain the income thereof; and shall, at said time, and not before, turn over to said Trustees all of the property of said College then in the hands of said College;

Now therefore be it resolved by the Trustees of Leland Stanford Junior University that said Cooper Medical College shall have the right to remain in possession of the whole of the aforesaid property until the first day of July 1912, and shall, until said time, manage all of said property and retain the income thereof, and shall at said time, and not before, turn over to said Trustees all of the property of said College then in the hands of said College including all accumulated and unexpended income; and shall in the meantime from such income or funds applicable to current expenses pay all taxes, salaries, improvements, maintenance charges, insurance and all other current or extraordinary expenses of said college.

Yours Respectfully,
George Crothers, Secretary of the Board

17 December 1909: Cooper Property Legally Transferred to Stanford University

For a period of over one year (November 1908 to December 1909), no action was taken by the Cooper Directors or the Stanford Trustees on the projected consolidation of Cooper Medical College and Stanford University. This delay in effecting the actual transfer of the Cooper property to the University was the result of a law suit filed by Dr. Ellinwood against the Cooper Medical College Corporation seeking to enforce partition on his terms of the real estate awarded jointly to him and the Corporation in the will of Pauline Lane. After the parties agreed to settle by arbitration, the Cooper Directors could finally meet on 17 December 1909 to adopt the following resolution conveying the properties of Cooper Medical College Corporation to Stanford University:[35]

Meeting of Directors, Cooper Medical College, 17 December 1909

The following resolution was unanimously adopted:

Resolved that the President and Secretary of this Corporation, Cooper Medical College, …are hereby authorized… …to deliver to the Board of Trustees of the Leland Stanford Junior University the instrument in writing already prepared, and now submitted to and approved by this Board, being in form a deed of conveyance bearing date December 17th 1909, of all the lands once owned by this Corporation in the City and County of San Francisco, State of California, and in the Counties of Fresno and Los Angeles, in said State and wheresoever else situated: A copy of said instrument, including a complete inventory of the Cooper properties, is spread upon the following 16 pages of these minutes.)

The attorneys for Stanford University, having reviewed and validated the above deed of conveyance, then reported to the Stanford Board of Trustees that Cooper Medical College had duly transferred to the Board all of the real and personal properties of the College in a Deed and Bill of Sale dated 17 December 1909. Whereupon all the properties of Cooper Medical College were, on motion, formally accepted by the Stanford Board of Trustees, and became the property of Stanford University.

The attorneys for the Board were instructed to have the deed surveying the real estate duly recorded in the Offices of the County Recorders of the City and County of San Francisco and the Counties of Los Angeles and Fresno. Said Deed and Bill of Sale were ordered spread in full upon the minutes of the Board of Trustees and may be found there for reference.

In accordance with the prior agreement to loan the Cooper facilities to Cooper Faculty for continuation of their College program through June 1912, full physical possession by the University of that portion of the Cooper properties was delayed until 1 July 1912. On that date the

succession of memorable institutions that celebrated the ideals and efforts of Elias Samuel Cooper and Levi Cooper Lane - second to none in the annals of medical education in the West - merged with Stanford University and became the historical antecedents of its School of Medicine.

And the consolidation of Cooper Medical College and Stanford united two institutions, each dedicated to the memory of a dearly beloved and to the service of mankind.

In the beginning, medical education in the West was born of the aspirations of a few remarkable men - Cooper, Gibbons, Sr., and Lane - Toland and Cole. May this account of their labors revive the memory of their achievements and crucial roles in the founding of the first and still thriving medical schools on the Pacific rim.

Endnotes

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4. Letter, President Jordan to Dr. Ophüls, 5 March 1906, Cooper Medical College Correspondence, Miscellaneous, Feb 1908-July 1909, Folder Q-Z, Lane Medical Archives, Stanford.
5. Letter, William Ophüls to David Starr Jordan, 7 March 1906 - Box 48, Folder 484, Series I-A General Correspondence, 1872-1931, David Starr Jordan Papers - SC 58, Stanford University Archives, Stanford University Libraries, Stanford.
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8. Letter, Clarence J. Blake to David Starr Jordan, 18 March 1906 - Box 48, Folder 486, Series I-A General Correspondence, 1872-1931, David Starr Jordan Papers - SC 58, Stanford University Archives, Stanford University Libraries, Stanford.
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17. Letter, Emmet Rixford to President Horace Davis, 16 February 1907, Cooper Medical College Correspondence, Miscellaneous, Feb 1908-July 1909 Folder Q-Z. Lane Medical Library Lane Medical Archives MSS H747H C7C81.
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22. Minutes of Meeting of Directors of Cooper Medical College on 27 February 1908, pp. 8-9, Minutes of Directors of Cooper Medical College, Vol. 3 - Box 5, Cooper Medical College Collection of publications, Lane Medical Archives, Stanford. Lane Library Catalog Record
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31. Cooper Medical College Consolidation, Minutes of the Board of Trustees of Stanford University 1908 30 Oct; vol. 4: pp. 85-87, Records, 1884-2000 - SC 282, Department of Special Collections, Stanford University Libraries.
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Part V.
The Stanford Era
1909-

Chapter 31.Transition to University Department 1908-1912

The Planning Process

As soon as the transfer of Cooper Medical College properties to Stanford was decided upon in 1908, but before the actual transfer was completed in 1909, President Jordan began to pursue intensively the important work of converting Cooper Medical College to a University Medical Department. As the first step in the process he appointed a Committee of Three to consider the organization and entrance requirements of the Medical Department, and adaptation of the medical course to related work in the existing departments of the University.

This original committee, consisting of Stanford Professors O. P. Jenkins, C. D. Marx and John Maxson Stillman (Chairman), after consulting many individuals within and without the University, recommended entrance requirements later adopted by the Academic Council, and a plan for organization of the Medical Faculty which was approved by the President and Advisory Board and adopted by the Trustees. Details of these entrance requirements for students and plan of organization of the Faculty are included in the text at a later stage of this discussion. [1] [2]

The Academic Council referred to above is the chief governing body of the Faculty and is composed entirely of members of the University Faculty. It was established by the Board of Trustees in 1904 when the Board first adopted a formal plan of organization of the University Faculty. The Advisory Board is a subcommittee of the Academic Council. [3]

The Committee of Three also recommended appointment by the President of a larger committee composed of those members of the Cooper Medical College Faculty and the Stanford Faculty who would doubtless be engaged in the future work of the Medical Department. This committee had no official authority, but was to serve as a Provisional Medical Faculty and advisory committee to the President with special reference to instruction in the Medical Department at the University and in San Francisco.

It was decided that the first year of medical instruction would begin in August 1909, students entering then to receive their M. D. degree in 1913. To this end, on 30 October 1908 the President appointed the following twelve professors and three associate professors to serve as the Provisional Medical Faculty. Those not already members of the University Faculty were later elected to the Stanford Medical Department: [4] [5]

Provisional Medical Faculty

Adolph Barkan, Professor of Structure and Diseases of the Eye, Ear, and Larynx.

Henry Gibbons, Jr., Professor of Obstetrics.

Joseph O. Hirschfelder, Professor of Clinical Medicine.

Stanley Stillman, Professor of Surgery.

Emmet Rixford, Professor of Surgery.

William Ophüls, Professor of Pathology.

Ray Lyman Wilbur, Professor of Clinical Medicine (on leave of absence in 1909-1910)

William F. Cheney, Clinical Professor of Diseases of the Digestive System.

Arthur W. Meyer, Professor of Human Anatomy.

The following members of the then current Stanford Faculty were to be associated with the above in medical instruction and were therefore included in the Provisional Medical Faculty:

John M. Stillman, Professor of Chemistry (Chairman)

Oliver P. Jenkins, Professor of Physiology.

Frank M. MacFarland, Professor of Histology.

George C. Price, Associate Professor of Embryology.

Robert I. Swain, Associate Professor of Physiological Chemistry and Bacteriology.

During the year ending 31 July 1909 the Provisional Medical Faculty held regular sessions to consider the problems and immediate needs of the Medical Department. They elected a special committee, consisting of Professors Barkan, Ophüls, Rixford, Snow and Wilbur (Chairman), whose specific task it was to develop the plan for internal organization of the Medical Department. This plan, as approved by the President and eventually adopted by the Board of Trustees, was as follows: [6] [7]

Plan for the Organization of the Medical Department

The teaching body of the Medical Department of Leland Stanford Junior University shall consist of:

a

Professors
Clinical Professors
Associate Professors
Associate Clinical Professors

b

Assistant Professors
Assistant Clinical Professors

c

Lecturers
Instructors
Assistants

"Professors and Associate Professors" are to be those members of the Medical Faculty who are under full salary and who give the main part of their time to the work in their respective departments.

"Clinical Professors and Associate Clinical Professors," are to be of equal rank with Professors and Associate Professors, respectively, in the Medical Faculty, but to be men engaged in practice.

The following shall be the Officers of the Medical Department Faculty:

(Note: The Officers and Standing Committee members named below are those holding appointment in 1912-13 as listed in the Annual Announcement of the Medical Department for the Year 1912-

13) :

1. The Executive Head of the Department, appointed annually by the President, shall act as presiding officer (Ray Lyman Wilbur).

2. A Secretary, who shall also act as Assistant Registrar for the work in San Francisco, under the Registrar of the University (William Ophüls).

3. Standing Committees of the Faculty (among others):

An Executive Committee of five members, appointed by the President of the University, to have general administrative functions for the Medical Faculty and to perform such other duties as may be assigned to it by the Medical Faculty. (Ray Lyman Wilbur, Chairman, John Maxson Stillman, William Ophüls, Emmet Rixford, Hans Zinsser.

A Committee on Academic Matters , of three members, to be elected by the Medical Faculty from those members of the Medical Faculty belonging to the Academic Council. (Oliver Peebles Jenkins, Chairman, Frank Mace McFarland, Arthur William Meyer).

A Clinical Committee, of five members, to take the initiative in arranging clinical material for purposes of instruction and to control the Lane Hospital, to be appointed by the President of the University. (Ray Lyman Wilbur, Chairman, Stanley Stillman, William Ophüls, Alfred Baker Spalding, Adolph Barkan)

The term of service of all officers and of all committees shall be one year, or until their successors are chosen.

The Medical Faculty shall meet monthly in term-time and otherwise at the call of the presiding officer or of five members.

Administrative Divisions. For purposes of administration the Medical Department shall be divided into the following divisions with Divisional Executives:

(Note: The Divisional Executives named below are those holding appointment in 1912-13 as listed in the Annual Announcement of the Medical Department for the Year 1912-13)

1. Anatomy (Arthur William Meyer)
2. Physiology (Oliver Peebles Jenkins)
3. Chemistry (John Maxson Stillman)
4. Pharmacology (to be appointed)
5. Pathology, including Bacteriology, Legal Medicine (William Ophüls)
6. Medicine - Subdivisions: Pediatrics; Neurology, Psychiatry and Psychotherapy; Electrotherapy; Dietetics; Tropical Medicine (Ray Lyman Wilbur)
7. Surgery - Subdivisions: Ophthalmology, Otology, Laryngology; Genito-Urinary Surgery; Gynecology; Dermatology; X-Ray (Stanley Stillman)
8. Obstetrics (Henry Gibbons, Jr.)
9. Hygiene and Public Health (William Freeman Snow)

Requirements for Admission

In 1908 the original Committee of Three, consisting of Professors O. P. Jenkins, C. D. Marx and J. M. Stillman (Chairman), proposed the following requirements for admission to the Medical Department which were later adopted by the Academic Council of the University: and published in the Announcements for 1909 and 1910-1911. [8] [9]

> Requirements for Admission. Three years of collegiate work in Stanford University (approximately ninety unit-hours), or its equivalent as accepted by the Committee on Advanced Standing, will be required for admission to the Department of Medicine. This preparatory training must include one year of Physics with laboratory work, one year of Chemistry with laboratory work including Qualitative Analysis, one year of Physiology or Biology with laboratory work, and French or German (such a reading knowledge as shall be acceptable to the Department of Medicine)… .
>
> The State law governing the practice of Medicine in California requires that every person before practicing medicine or surgery must produce satisfactory testimonials of good moral character and a diploma, issued by some legally chartered medical school, the requirements of which shall have been at the time of granting such diploma in no particular less than those prescribed by the Association of American Medical Colleges for the year. For the year 1908 the Association of American Medical Colleges prescribed that every medical student must be registered in a medical college or department for four years and that his preparatory course shall have included two years of Latin, two years of Mathematics, two years of English, one year of History, two years of laboratory science, and six years of further credits in languages, literature, history, or science.
>
> Men and women are admitted to the Department of Medicine on equal terms.

Clearly the AAMC, in cooperation with state licensing boards, was now moving decisively to enforce higher standards for admission to American medical schools.

Dean Wilbur later observed that "Our unusually high admission standards for those days aided in attracting students of exceptional quality. Setting the bars so high meant a considerable loss of students, which at first caused some unfavorable criticism, but by 1912-13 the general attitude was one of 'pointing with pride'." [10]

The Curriculum in Medicine

The original period of study required for the degree of Doctor of Medicine as announced in 1909 was four years (eight semesters). The duration of each semester was approximately 4 months, and there were two semesters in each academic year: September to December and January to May.

> The work of the first three semesters is given in Palo Alto and is devoted mainly to laboratory studies, with lectures and demonstrations in anatomy, physiology, histology, neurology, embryology, chemistry, pharmacology, and bacteriology. The work of the last five semesters will be given in San Francisco and will be devoted mainly to work in the pathological and clinical laboratories and in the hospital wards and dispensary. [11]

A Thesis based as much as feasible upon research work will be required of each student, as originally announced in 1911. Four curriculum hours of the seventh and eighth semesters shall be devoted to its preparation under the supervision of one of the Divisions. (The thesis requirement was discontinued in 1931.) [12] [13]

Required Hours Reduced

The year 1912-13 was the first in which the complete curriculum leading to the degree of Doctor of Medicine was given by the Medical Department. Seven men were granted that degree in May 1913.

During the year the medical faculty modified the curriculum for the four years in Medicine, reducing the number of required hours and increasing the number of optional subjects, particularly in the senior year. [14]

The Combined Seven Years' Curriculum at Stanford, announced in 1913, consisted of three years of college work (the premedical program) and four years in medicine; and it led to the degrees of Bachelor of Arts and Doctor of Medicine. [15]

Required Intern Year

Beginning with the class entering the Medical Department in September 1914, all students were required to take a fifth practical year in Medicine before receiving the degree of Doctor of Medicine. Arrangements were made so that the fifth year may be spent as intern in a hospital or in part as worker in a laboratory. [16]

The Combined Eight Years' Curriculum, announced in 1915, consisted of three years of college work (the premedical program) and five years of medicine (including the internship); and it led to the degrees of Bachelor of Arts and Doctor of Medicine. [17]

Fee Schedule

The tuition fees of the Medical Department, as announced in 1910, were $150 per annum (being the same as currently charged in Cooper Medical College and in the Medical Department of the University of California). Tuition fees were payable in installments of $75 each semester; $5 per semester for the first four semesters, covering charges for anatomical material; and such other deposits to cover breakage or loss of apparatus or materials as may be required in any department or division, these deposits being returnable, less charges for breakage, loss, or wear and tear of apparatus or materials used. The total deposits for this purpose might vary from $10 to $20 per annum. [18]

Requirements for Graduation

The candidate for the degree of Doctor of Medicine must have attained the age of twenty-one years, must be of good moral character and have shown exemplary conduct while a student in this department. He must have been enrolled in a medical college of recognized standing for four years, the last of which must have been in this department. He must have satisfactorily completed the required curriculum, passed all examinations, and paid in full the required fees.

The above Faculty organization and requirements for premedical and medical studies show that the Stanford program was significantly greater in duration and depth than the Cooper Medical College course that it replaced - and therefore inherently more expensive. Nevertheless the Stanford schedule of tuition and student fees was little changed from that of the Cooper School. As a result, the Department of Medicine, in contrast to Cooper Medical College which was essentially self-supporting, would need a substantial infusion of University funds from the outset. Under these circumstances, it is not surprising that the need of the Medical Department for considerable financial support from the University was destined to be a controversial issue. Especially so since President Jordan insisted on an early investment in additional medical faculty and facilities.

Early Additions to the Faculty

The following report in 1909-10 of President Jordan's additions to the basic science faculty, and construction of laboratory facilities for support of their work, is evidence of his determined effort to strengthen the medical faculty. [19]

> The teaching staff has been augmented by the appointment of Dr. Hans Zinsser as Associate Professor of Bacteriology, Dr. Albert C. Crawford as Professor of Pharmacology, Dr. Frank T. Blaisdell as Assistant Professor of Applied Anatomy, Dr. Ernest C. Dickson as Assistant Professor of Pathology, and Mr. R. M. Lhamon as Instructor in Anatomy. The duties of Professor Zinsser, Professor Crawford and Instructor Llamon began with the opening of the current year, 1910-11, while the duties of Professor Blaisdell and Professor Dickson will begin with the second semester of the year.
>
> The equipment for the work in Anatomy, Pharmacology and Bacteriology has been provided for by continuation of the reconstruction of the rear line of the old museum buildings on the Stanford campus. This work is not yet quite completed, but when finished will furnish efficient and convenient laboratories and equipment for those divisions of the work.
>
> In May, 1910, Bacteriology was, by action of the Board of Trustees, made a separate division, and Professor Zinsser was appointed executive while Professor Ophüls remained as executive of the Pathology and Legal Medicine.

Inauguration of Stanford Department of Medicine

During the consolidation negotiations it was decided that the last class of Cooper Medical College would be admitted on 17 August 1908 and would graduate on 9 May 1912; and that the first class of Stanford University's Department of Medicine would begin on 8 September 1909 and graduate on 19 May 1913. [20]

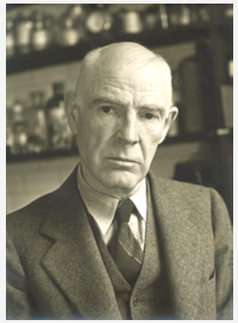
In accordance with this schedule, the Department of Medicine was formally inaugurated on 8 September 1909 by a University Assembly on campus at which an introductory address was delivered by President Jordan. Dr. Henry Gibbons, Jr., Dean of Cooper Medical College and Professor of Obstetrics in the Stanford Department of Medicine, spoke on the history of medical education on the Pacific coast and the development of Cooper College. The principal address was delivered by Dr. Henry Christian, Dean of the Harvard Medical School.

Enrollment

Professor John Maxson Stillman served as Acting Executive of the Department of Medicine during 1909-10, the first year of its operation. In his "Annual Report on the Medical Department to President Jordan" for the year ending 31 July 1910, Professor Stillman reported that 15 students were enrolled in the first-year class of the Department in 1909 The first year class in 1910 numbered only 10, but by 1912 the first year class had reached 21. [21] [22]

The first to receive the M. D. degree from the Stanford Medical Department were the 7 students in the Class of 1913 who graduated on 13 May 1913. Among them was George De Forest Barnett, the first Stanford medical graduate to receive an appointment to the medical faculty.

Dr. Barnett was appointed as an Instructor in Medicine in 1915, and retired as a highly respected Professor of Medicine Emeritus in 1949. [23]



Dr. George De Forest Barnett, one of the first graduates from Stanford Department of Medicine. He received an immediate appointment to the faculty

As mentioned above, the Medical Department's more stringent admission and performance standards initially resulted in fewer applicants for admission than Cooper Medical College normally received Nevertheless, within six years there were so many applicants that it was necessary to adopt the following policy: [24]

Limitation of the Number of Students

> The accommodations of the Medical School at San Francisco render it inadvisable to admit more than 25 students to each class. It will therefore be necessary, beginning in 1915, to restrict the number of students to 25 in each class, commencing with the fourth semester. There are no restrictions in regard to entrance to the first three semesters in medicine at Stanford University, but all students entering the medical classes at Stanford University cannot be assured that they will be able to continue their medical studies at the University for more than three semesters.

The fifth class, graduating on 21 May 1917, numbered 26. One month earlier, on 6 April 1917, President Woodrow Wilson had declared war against the German Empire, and the United States entered World War I. So many students joined the armed services that the graduating class of 1918 was reduced to 5. The Faculty was also severely depleted. Fortunately, the war ended on 11 November 1918 and the full program was rapidly restored by returning students and Faculty. [25] [26]

Financial Concerns

Returning to Professor Stillman's "Annual Report on the Medical Department" to President Jordan for the year ending 31 July 1910, we note that Professor Stillman saw fit to comment as follows in that report on the financial uncertainties still facing the Medical Department. He was correct in anticipating that the high cost of bringing up the medical program to University standards would soon become a serious problem. [27]

> I may be permitted to recall that, as a member of a special committee appointed by the Board of Trustees in 1906 to consider the cost of a medical program, I commented as follows in a letter to the chairman of the committee on 17 October 1906:
>
> "I do not at present have an adequate idea of the cost of maintenance of a first-class medical department, but from what I know thus far I should consider that the President's estimate of $100,000 per annum within a few years is conservative. . . .
>
> "It is a matter of the utmost importance to the future of the Medical School, therefore, that endowments should be secured which shall materially increase the present income of the Medical Department…"

Dr. Wilbur, Executive Head, Department of Medicine

On 1 January 1911, in accordance with prior arrangement, Dr. Wilbur returned from leave of absence abroad to replace Professor John Maxson Stillman as Executive Head of the Department of Medicine. Except for some consultations Dr. Wilbur gave up his medical practice and devoted his time to building up the medical school as rapidly as possible. [28]

Dr. Wilbur's first "Annual Report to President Jordan" as Executive Head of the Department of Medicine was for the year ending 31 July 1911. In his report Dr. Wilbur referred both to the impending termination of Cooper Medical College on 1 July 1912 and to the challenges facing its successor, the Department of Medicine of Stanford University: [29]

"Next year on 9 May 1912," he said, "Cooper Medical College will graduate its last class and, on 1 July 1912, Stanford will come into complete control of Cooper Medical School buildings and Lane Hospital. In September of 1912 Stanford's Department of Medicine will for the first time have a full quota of four medical school classes and will, on 19 May 1913, award M. D. degrees to its first class of medical graduates." He then added:

> A good foundation for sound medical instruction upon a true University basis has been laid. The aim of the future should be to create conditions for the clinical years similar to those now prevailing for the first two years of the medical course. This will mean additional expense for laboratories and professorships. As soon as possible after the Lane Hospital comes under the control of Stanford, it should be converted into a University hospital. The proposed construction of the new Lane Library building upon the lot across the street from the Medical Building in San Francisco, assured by an additional gift of $20,000 from the directors of Cooper Medical College, will add greatly to the efficiency of the institution. With the hospital, library, laboratories, clinics and lecture rooms all so well concentrated and arranged, the appropriation of an adequate amount for salaries and running expenses will permit of the best grade of medical work for the moderately sized classes that are to be expected for some years.

This prospectus, so confidently outlined by the new Executive of the still controversial Department of Medicine, was alarming to those in the University professorate who had predicted exorbitant demands upon the University budget by a medical department if ever established. Now the camel's nose was under the tent and further intrusion certain, but we must leave this subject temporarily while we attend to:

The Final Years of Cooper Medical College

During the period from 1908, when Cooper Medical College and Stanford reached general agreement to consolidate, to 1 July 1912 when the two institutions were completely integrated, President Jordan continued to be uncertain of the advisability of the union. His doubts on this score were encouraged by Henry S. Pritchett, President of the Carnegie Foundation for the Advancement of Teaching. Before publication of the Flexner Report by the Foundation in 1910, President Pritchett had written to Dr. Jordan and President Wheeler of the University of California remonstrating against the action of Stanford in taking over Cooper Medical College and that of the State University in adopting the moribund clinical department of the Los Angeles branch of the University of California. President Pritchett concluded: "These actions seem to me to make the existence of a first class modern medical school in San Francisco practically impossible unless one or the other of these institutions is prepared to spend millions on a medical school and hospital." [30]

When, in 1911, the University of California received an unexpected gift of $750,000 for medical education, President Wheeler asked President Pritchett for suggestions on the planning of their Medical Department in San Francisco. Dr. Pritchett immediately took up with Presidents Wheeler and Jordan the question of a union between the clinical departments of the two schools. An interchange of letters between Presidents Wheeler and Jordan led to the suggestion by President Wheeler that a conference be held between Dr. Jordan and two Stanford Trustees with himself and two Regents of the State University.

Following this conference, and seeking to close the issue of union between Stanford and UC Medical Departments, Dr. Jordan wrote as follows to President. Pritchett on 26 July 1911: "We had a joint meeting with the Regents the other day. It appeared in brief from this that the University of California virtually had two alternatives - one, to leave the clinical work in our hands on some terms of mutual agreement, the other, to withdraw to Berkeley and to develop a clinic there… The only hope I see for medical education on this Coast is for us to go straight ahead with or without the cooperation of the University of California." [31]

The minutes of the California Board of Regents dated August 8, 1911, contain the following statement on union with Stanford: "President Wheeler presented, as the result of a recent conference with Stanford University in reference to the merging of the medical schools of each institution, the following letter from President David Starr Jordan as representing President Jordan's suggestion … It was the sense of the Board that the suggested arrangements referred to in President Jordan's letter are not deemed wise. Such was the order of the Board." One might think that this definitive ruling of the University of California Board of Regents against merging their medical school with Stanford's would permanently settle the question. But, as we shall see, it did not. The publication of the Flexner Report in 1910 served to reopen the tiresome issue. [32]

The Flexner Report of 1910

We have referred previously to the national survey of medical schools by Dr. Abraham Flexner under the auspices of the Carnegie Foundation for the Advancement of Teaching. Dr. Flexner and associates visited the 10 medical schools in California in May of 1909 and published the following general information about them in the Flexner Report of 1910: [33]

> California
>
> Population, 1,729, 543. Number of physicians (exclusive of osteopaths), 4313. Ratio of physicians to population, 1:401(optimum ratio: 1:1500). Number of medical schools, 10.
>
> Los Angeles
>
> (1) College of Physicians an Surgeons.. Established 1903.
>
> Entrance Requirement: High School. Attendance 32.
>
> (2) University of California: Clinical Department.
>
> Reorganization in Progress. Affiliated with UCSF.
>
> (3) California Medical College. Eclectic. Established 1879.
>
> Entrance Requirement: Nominal. Attendance 9.
>
> (4) Los Angeles College of Osteopathy. Stock Company Emigrated from Iowa, 1905. Entrance Requirement: Less than Grammar School. Attendance: "more than 250."
>
> (5) Pacific College of Osteopathy. Stock Company. Established 1896. Entrance Requirement: High School or Less. Attendance: 85
>
> Oakland
>
> (6) College of Medicine and Surgery. Stock Company. Established 1902. Entrance Requirement: High School. Attendance: 17
>
> San Francisco
>
> (7) University of California Medical Department. Established 1872
>
> Entrance Requirement: 2 Years College. Attendance: 86.
>
> (8) Leland Stanford Junior University School of Medicine, on the Cooper Medical College Foundation. Until 1908, the Cooper Medical College offered a four-year course based on high school graduation. Its property has now been deeded to Stanford University, its buildings being the seat of the clinical department of Stanford University School of Medicine, the instruction of the last five

semesters being given in Cooper Hall and Lane Hospital. That of the first three semesters is given in Palo Alto. As its present classes graduate, the Cooper Medical College passes out of existence and its faculty disbands.

Entrance Requirement: Three years college work. Attendance: 16 in first year (fourth collegiate year). No other year's work has yet been given.

Clinical Facilities: Clinical work on the part of Stanford University is not yet begun. The university now owns the Lane Hospital of 125 beds, which has hitherto been conducted as a pay institution. Patients paying $10 a week are used for clinical teaching; seventy-odd beds are thus available, part of these being temporarily supported by the city. The hospital is now under temporary control of Cooper Medical College until needed by the university. Its organization at present, from the teaching point of view, is seriously defective. Records are meager; no surgical rounds are made in the wards; obstetrical work exists only in the form of an outpatient department; post-mortems are scarce. No hospital report is obtainable. The catalogue statement that the hospital is a teaching hospital is hardly sustained by the facts.

The dispensary in the college building adjoining had in 1907 an attendance of 20,000, including both old and new cases. But the material, though adequate in amount, was not thoroughly used by the Cooper Medical College.

(9) College of Physicians and Surgeons. Established 1896. An independent school. Entrance Requirement: High School. Attendance: 70.

(10).Hahnemann Medical College of the Pacific. Homeopathic. Established: 1881. Entrance Requirement: High School. Attendance: 23

General Considerations

Consideration of medical education in California may well start from the fact that, without taking into account the osteopaths - who abound - the state has now one physician to every 401 inhabitants, that is, in round numbers, about four times as many doctors as it needs or can properly support. Such an enormous disproportion can hardly be rectified within less than a generation; it makes radical measures in the interest of sound medical education not only immediately feasible, but urgently necessary.

Legal enactment fixing a sound basis for future practitioners, of whatever school, the grant of authority to the state board to close schools flagrantly defective in either laboratory or clinical facilities, or the institution of practical examinations for license, - any one of these measures would at once wipe out at least seven of the ten existing schools, with distinct advantage to the public health of the state. As none of these schools has the resources indispensable to meet the rising tide in medical education, this outcome is in any case inevitable; legal regulation of the type indicated would merely hasten the day… .

(The University of California in Berkeley has undertaken to dominate two detached clinical departments, manned by local practitioners - one in San Francisco and one in Los Angeles.) There is nothing in the present status of detached clinical departments of this type to encourage confidence in the outcome. Before too far committing itself to this policy, it is at least worth inquiring into the advisability of concentrating its medical instruction across the bay (in San Francisco), where a population of over two hundred thousand affords sufficient clinical material, and where a compact, effective, and organically whole university department of medicine, with a faculty, laboratory and clinical, selected on educational principles, could be readily developed.

These considerations apply in some respects with equal force to the action of Stanford University in taking over the Cooper Medical College at San Francisco. It was well enough to offer the laboratory sciences at Palo Alto, where the resources and ideals of the university insure high-grade instruction; but the entrance of the university into the San Francisco field in all probability portends the division and restriction of whatever opportunities the city may hereafter create. Lane Hospital can be developed into a teaching hospital of adequate size only if very large sums are available for the purpose; its organization and conduct have been in the past pedagogically very defective; and the clinical professors so far appointed have been taken with one exception from the former Cooper faculty. With one university medical school already on the ground, a second - and a divided school at that - is therefore a decidedly questionable undertaking. There is no need of it from the standpoint of the public; it must, if adequately developed, become a serious burden upon the finances of Stanford University. If the experience of other schools and cities is to be heeded, the question arises whether Stanford would not do well to content itself with the work of the first two years in Palo Alto, and to cooperate with the state university in all that pertains to the clinical end.

The situation just presented deserves to be studied carefully by all interested in medical education. What has happened in California is likely to happen elsewhere. Scores of schools are beginning a desperate struggle for existence. Their first impulse is to throw themselves into the lap of some prosperous university. The universities, not as yet themselves realizing that medical education is no longer either profitable or self-supporting, are prone to complete themselves by accepting a medical department as an apparent gift. From the standpoint of the university this blunder will soon prove a serious drain, as increased expenditure on instruction and reduced income from fees reveal the actual state of affairs. From the standpoint of medical education and practice, the tendency in question is still more deplorable. The curse of medical education is the excessive number of schools. The situation can improve only as weaker and superfluous schools are extinguished.

Findings of Flexner Report Contested

In May 1909 when Flexner surveyed the Leland Stanford Junior University School of Medicine, Cooper Medical College was being phased out and the Stanford program had not begun. Thus the weight of the Flexner Report's stern criticism of the medical program fell on the Cooper College Faculty. The Report was brought to the attention of the Faculty on 20 June 1910 and Dr. Ophüls was appointed to prepare a statement for President Pritchett of the Carnegie Foundation to be submitted to him by the Dean.

In a firm but courteous letter to President Pritchett Dean Henry Gibbons, on behalf of the Faculty, took exception to certain of the Report's findings. President Pritchett then tartly defended the Report, and concluded with familiar advice on the future of medical education in San Francisco. First the letter from Dean Gibbons to President Pritchett: [34] [35]

Henry Gibbons, Jr., M D. , Dean
Cooper Medical College
San Francisco
25 July 1910
Henry Pritchett, President
Carnegie Foundation for the Advancement of Teaching
New York, NY

Gentlemen:
We are in receipt of your Report on Medical Education in the United States and Canada. While in a general way we fully agree with your conclusions and while we expect that your report will accomplish much towards improving Medical Instruction in our country, still we feel bound in justice to ourselves to correct a few errors which have crept into the report so far as our College is concerned. We are aware of the fact that such mistakes may occur taking into account the vast territory covered but we presume that you will gladly receive such corrections as are necessary for your own information.

Your statement in regard to Lane Hospital, that "it has hitherto been conducted as a pay institution" conveys an erroneous idea. It is true that the larger number of patients at the Hospital so far have been private patients, but whatever surplus the Hospital has received from them has always been used for necessary improvements of the Hospital or Medical College, with the particular view of improving the teaching and scientific work in both. Since the establishment of the College no money has every been distributed in the form of dividends to anyone connected with the institution.

We acknowledge that the organization of the Lane Hospital from the teaching point of view is seriously defective. This is easily accounted for in a Hospital where much private work must be done to keep the Institution going. Your report says "The catalogue statement that the Hospital is a teaching Hospital, is hardly sustained by the facts." What this catalogue really says is this (Page 17) "Lane Hospital was designed as a teaching Hospital. It has seventy-five teaching beds which number it is hoped to increase in the near future." We have never claimed it to be a teaching Hospital but have always relied upon the City & County Hospital which was not even mentioned in the Report, as our chief source of clinical instruction.

The statement "records are meager" is not borne out by the facts. There are several teaching services from the College represented in the clinical wards of Lane Hospital. The histories naturally vary a little with the different men, but they are all quite full and complete, stenographers being employed by some clinicians. There is no foundation for the assertion that no surgical rounds are made in the wards.

It is also said that obstetrical work exists only in the form of an out patient department, whereas a small but fully equipped obstetrical ward of six beds for teaching purposes was opened at Lane Hospital on 2 July 1908. In addition there are two free obstetrical beds in Lane Hospital which were given to the Fruit & Flower Mission with the understanding that the patients could be used for teaching purposes. In parts of 1907 and 1908, 194 cases were confined in Lane Hospital. In 1909 there were 167 clinical confinements, in 1910 to July 1, 83. The out patient obstetrical clinic was somewhat small (67 cases in 1909) but well organized. Students are always accompanied by a competent instructor and have ample instruction in external clinic examination. None of our students sees less than six confinements and some many times that number.

You go on to say: "Post mortems are scarce" and in another part of your volume you refer to the inadequacy of the autopsy material at Cooper Medical College. It is true that the number of autopsies at Lane Hospital is comparatively small, but it should have been stated that the College controls good autopsy material at the City and County Hospital. Our Pathological Department has averaged from 199 to 150 autopsies a year for many years and the material has been supplemented from other services at the City & County Hospital and by material obtained at the German and St Luke's Hospitals. We believe that our Pathological Department is especially well equipped for teaching and research.

It should also have been stated in your Report that the Medical Colleges in San Francisco are in an exceptionally fortunate position in controlling the clinical material at the City and County Hospital almost absolutely. The service at this Institution averaging annually over 500 cases, is divided between the Medical Teaching Institutions of San Francisco; and the various colleges appoint the physicians in charge. The main clinical autopsy service of our College has always been at the City & County Hospital where conditions were very satisfactory from a teaching point of view, until it became necessary to remove the old Hospital buildings. While the new $2,000,000 Hospital is being constructed the patients are partly kept in the Hospitals in the City where medical teaching is carried on, and partly in Ingleside Camp Hospital where we now control 100 beds and use them for teaching purposes although with some difficulty on account of the distance and lack of facilities. In the same catalogue that your informant refers to it is stated on page 10: "At the City and County Hospital in San Francisco the College controls 100 beds, averaging about one thousand patients per year. The Hospital facilities will be greatly improved with the erection of the new City and County Hospital which the City of San Francisco is building at an expense of two million dollars."

Referring to our Dispensary, upon which the College has always looked as one of its best assets, you say, "but the material, though adequate in amount, was not thoroughly used by Cooper Medical College" and underneath, "Date of visit, May 1909." The latter seems to explain the former and also why it is said, "no surgical rounds are made in the wards of the Hospital." Instruction to the students in the Dispensary stops at the end of April, our commencement being in the beginning of May. It was impossible therefore for our visitor by personal inspection to ascertain how the clinical material

in the dispensary was used for teaching purposes. We do not wish to imply that improvement could not be made in our dispensary service, we are far from assuming such an attitude, but we are positive that good scientific records are kept in all departments of the dispensary, that the heads and assistants are competent teachers, and that the students have been given full opportunity to avail themselves of the clinical material as well by didactic clinics as by work in small sections in actual contact with the patients as is shown by the enclosed schedule which was rigorously adhered to.

Thus not only has our chief source of clinical material and post mortems been ignored, and the fact that the College was not in session when the visit was made been overlooked, but Cooper Medical College with its Faculty numbering fifty-six of whom twelve were full Professors; its eighty students; its many well supplied laboratories whose apparatus is inventoried at $15,000 although worth more; its several salaried Professors and Instructors who receive $10,000 per annum; and its yearly expenditure of $25,000 for educational purposes is scarcely given credit in the Report for existence.

Copies of this letter have been sent to the Board of Trustees of Leland Stanford, Jr. University; to Pres. D. S. Jordan; to the California State Medical Society; to the American Medical Association; to the Association of American Medical Colleges; and to Mr. Abraham Flexner of Carnegie Foundation for the Advancement of Teaching.

By order of the Faculty of
COOPER MEDICAL COLLEGE
Henry Gibbons, Jr., Dean

President Pritchett's response:

Henry Pritchett
Teignmouth, England
29 August, 1910
Henry Gibbons, Jr., Dean
Cooper Medical College
San Francisco.

My dear Sir:
Let me acknowledge your courteous letter of the twenty-fifth of July written on behalf of the faculty of the Cooper Medical College, in which you object to certain expressions in the description of that school as it appeared in the recent Report on Medical Education in the United States and Canada, issued by the Carnegie Foundation. The Foundation is desirous of securing in its reports as great accuracy as possible and welcomes any such courteous statement as that which you and your colleagues have sent. Let me endeavor in the same spirit to point out a little more clearly the standpoint from which the Report was prepared and to give the reasons which make us feel that the report represented the essential facts concerning the school.

Your letter seems to me to some extent to be founded upon a misconception; for the Report does not profess to deal with the Cooper Medical College now passing out of existence, but only to deal with it in so far as it is taken over by Leland Stanford Junior University. This is made clear on page 193 where the institution is described not as "Cooper Medical College" but as "Leland Stanford Junior University School of Medicine on the Cooper Medical College Foundation."

The account of the school which had been prepared was therefore sent to President Jordan some months before its publication for such criticism as he and the officers of the medical department of the university desired to make. He returned it with a few suggestions, all of which were incorporated in the Report as published. After sending the Report in advance to the authorities of the university, we were justified in feeling that they concurred in the statements which were made.

With regard to the detailed statements with which you deal, I venture to make the following replies:

You contend that in describing the Lane Hospital as a pay hospital the report conveys an erroneous impression. I think you have again misunderstood the meaning of the report. It was intended to show that Lane Hospital, just taken over as the main reliance of a university clinical department, could not support that role because, being without adequate endowment, it had to earn its way. Educationally it is immaterial where the profits go; in describing it as a "pay hospital" it was not intended to imply that the profits went into anyone's pockets, but it was simply meant to indicate that the patients could not be used for teaching purposes as they paid for their care. This situation is, as I understood from your letter, the situation as it stands today: and the term "pay hospital" meant nothing more than this.

You object in the second place to our statement: "The catalogue statement that the Lane Hospital is a teaching hospital is hardly sustained by the facts" because, as you say, the catalogue does not say that it is a teaching hospital but only that it was designed as a teaching hospital. I am not clear that I entirely understand this argument. The language of the catalogue would unquestionably create in the mind of a prospective student, as it did in ours, the impression that Cooper Medical College had in Lane Hospital a hospital that was the best sort of teaching hospital because it had been designed as such. To argue now that the catalogue description meant only that the school is connected with the Lane Hospital, designed but not used as a teaching hospital, is an argument that I do not entirely understand; and I am inclined to feel that the argument is not exactly that which you had in mind. Certainly the men employed in the Cooper school emphasized strongly the fact that the Lane Hospital belonged to the school, implying at once its teaching value.

With regard to your objection to the statement that the hospital records are meager and uneven, one can only say that this is a question of individual judgment and standards. It still seems to us, from our knowledge of the best institutions in this country, that our description was quite fair; and the information which we had in respect to the school did not depend upon a single visit nor upon the observation of one person alone.

The statement made in the report with regard to post mortems is correct, as it seems to us, so far as present conditions are concerned; and it was only with these that the report undertook to deal, as was made clear in the introduction, page xvi. The same remark applies also to clinical facilities. No reference is made to the old City and County Hospital, for it no longer exists, nor to the new hospital now building, for it is not yet a factor in the situation. The report mentions Lane Hospital only for that is practically all the school now has. The best evidence of the correctness of these statements is furnished by the schedule which you kindly enclosed since this shows that all the clinical and pathological work offered outside amounts to three hours a week, one hour in medicine, one hour in surgery, and one hour in pathology.,

The opinion expressed in the Report concerning the dispensary was based on an examination of the records, equipment, and so forth, and upon inquiries as to how it was used in teaching. The conclusions expressed were endorsed by at least one or two men connected with the school.

With regard to the facilities in obstetrics, I am unable at a distance from the office to make a definite reply. The information was procured from those in the Lane Hospital itself.

Let me say again in conclusion that I appreciate the kindly spirit in which your letter is written; but I am still persuaded, in view of the care which was taken in the preparation of the Report, that the differences to which you call attention are differences rather in point of view than differences in the actual facts. The financial statement which you made at the end of your letter is itself quite full proof that the Cooper Medical College is being maintained on a scale entirely inadequate to the demands of modern medicine. I am quite aware that in this institution and in many similar ones a large measure of devotion has been given which cannot be represented in the income account of the school. Such devotion is sometimes wise, sometimes unwise. But in any case, it is clear that a university school of medicine cannot be sustained upon any such basis as that which you describe.

In view of the kindly letter which you and your colleagues have sent, I cannot close this reply without reference to one other matter which seems to me of supreme importance to medical education in San Francisco, and that is to the regrettable competition brought about by the effort to conduct two medical schools in that city. It will be difficult enough to build up in San Francisco a single school, maintained and conducted upon modern ideals. The effort to conduct two makes the whole future doubtful. Is it not possible for those interested in medical education in San Francisco to come together in one effort worthy of modern medicine and of your great city?

Very sincerely yours,

(Signed: Henry Pritchett.)

We find no reference to President Pritchett's letter in the minutes of the Directors or those of the Faculty of Cooper Medical College, or in the Annual Reports of the President of the University. No doubt, from their viewpoint, there was little more to be said on the subject for, by that time, consolidation was assured. Years later, in his Memoirs, Dr. Ray Lyman Wilbur recalled the correspondence between Dean Gibbons and President Pritchett: [36]

The survey of medical education in the Unites States, inaugurated by Dr. George H. Simmons of the American Medical Association and its Council on Medical Education, and carried out by Abraham Flexner through the backing of the Carnegie Foundation for the Advancement of Teaching, began the revolution in medical education which is still going on. The report by Flexner on the Cooper Medical College was harsh and in part unjust, but it served to stimulate changes and to further the efforts of those who held that medicine should be a part of the work of a university.

A letter of protest which Dr. Henry Gibbons, Jr., sent to the Carnegie Foundation at the time gives a picture of how the medical education looked to a fine, sympathetic, and honorable dean who was a leader in medical service and in medical education throughout most of his career.

President Pritchett's letter mainly served to expose the wide gulf then existing between the standards of an above-average proprietary institution such as Cooper Medical College, and those required of a modern medical school. President Pritchett also took the opportunity in his letter to reinforce what he considered the "supreme importance" of his agenda for medical education in San Francisco. That is, Stanford should "content itself with the work of the first two years in Palo Alto and cooperate with the state university in all that pertains to the clinical end."

Flexner's Master Plan for American Medical Education

Based on studies of the physician/population ratio in Germany, to which we have previously referred, Flexner estimated that one doctor for every 1500 persons was an appropriate ratio to be used in determining the number of physicians actually required to provide medical care for the population of the United States. (This would be equivalent to a ratio of 67 physicians to every 100,000 population,)

He further decided that "we may in general figure on one more physician for every gain of 1500 in total population. We are not arguing that a ratio of 1:1500 is correct; we are under no necessity of proving that. Our contention is simply that, starting with our present overcrowded condition, production henceforth at the ratio of one physician to every increase of 1500 in population will prevent a shortage for the next generation at least." [37]

Having adopted the above premise, Flexner's analysis of the information acquired by his survey of American medical schools, and by his study of population density and trends in the various regions of the country, led him to the following conclusion: [38]

(The 155 American medical schools now existing should be reduced to) 31 medical schools with a present annual output of about 2000 physicians, i.e., an average class of about 70 each. (The 31 schools being recommended for retention are capable of producing 3500 graduates annually should that become necessary.). All schools to be retained are university departments, busy in advancing knowledge as well as in training doctors. Nineteen are situated in large cities with the universities of which they are organic parts; four are in small towns with their universities; eight are located in large

towns always close by the partner institution. Divided and far distant departments are altogether avoided… .

Reduction of our 155 medical schools to 31 (with the elimination of 124 schools) would deprive of a medical school no section of the country that is now capable of maintaining one. It would threaten no scarcity of physicians until the country's development actually required more that 3500 physicians annually, that is to say, for a generation or two, at least. Meanwhile , the outline proposed involves no artificial standardization; it concedes a different standard to the south as long as local needs require; it concedes the small town university type where it is clearly of advantage to adhere to it; it varies the general ratio in thinly settled regions; and, finally, it provides a system capable without overstraining of producing twice as many doctors as we suppose the country now to need. In other words, we may be wholly mistaken in our figures without in the least impairing the feasibility of the kind of renovation that has been outlined; and every institution arranged for can be expected to make some useful contribution to knowledge and progress.

The Flexner Report includes two maps of the United States on one of which is shown the location of each of the 155 existing American medical schools. On the other map the site of each of the 31 medical schools to be preserved or established is indicated. [39]

The Western Medical Schools

The following Table lists the 8 Mountain and 3 Pacific States that constitute the Western Region of the country in which we are primarily interested.

The Table also gives the location of each of the 15 medical schools then existing in the Region, and each of the 4 1/2 schools to be retained or established there under the terms of the Flexner plan. To be specific, Flexner recommended that the number of medical schools in the Western Region be reduced from 15 to the following 4 1/2: 1 in Colorado; 1 in Utah; 1 in Washington; and 1 1/2 in San Francisco. In his Report, Flexner has few kind words and many severe criticisms for the Region's 15 medical schools. He found not one of them to be up to modern standards, Johns Hopkins being the model of a modern school.

The physician/population ratios in the Western Region, calculated for each of the eleven States in the Region and included in the Table, show there to be two to six times as many physicians per State as required under the Flexner plan which called for only one physician for every 1500 population. The Region as a whole, with a population of 4.2 million, had 10, 210 doctors (407 persons per physician), approximately 4 times as many physicians as required by the Flexnerian norm of 1500 persons per physician.

These data support Flexner's conclusion that there were too many doctors in the Western Region in 1909, and that the plethora of physicians justified his plan for allocating only 4 1/2 medical schools to the entire Region. .In brief, the issues facing medical education in the West were the same as those affecting the nation at large - too many inferior medical schools and a gross oversupply of poorly trained physicians - with the sovereign remedy being elimination of surplus schools.

The Western Medical Schools 1909 [40]

Census Division	Number of Physicians	Population per Physician	Total Population	Medical Current	Schools Plan
Mountain States					
Montana	417	584	243,528	-	-
Idaho	343	472	161,896	-	-
Wyoming	202	458	92,516	-	-
Colorado	1,600	319	510,400	3	1
New Mexico	367	532	195,244	-	-
Arizona	246	500	123,000	-	-
Utah	359	771	276,789	½	1
Nevada	177	239	136,467	-	-
Pacific States					
Washington	1,404	369	518,076	-	1
Oregon	782	529	413,678	2	-
California	4,313	344	1,483,672	9 ½	1 ½
Regional Total	10,210	407	4,155,266	15	4 ½
MD's Required @ 1:1500 Population	2,770	1,500	4,155,266		
National Total	133,487	569*	75,954,103		

*176 MD/100,000 population.

The Flexner master plan envisaged a total of 2 1/2 medical schools for the entire Pacific tier of Western States - Washington, Oregon and California - one school to be developed by the University of Washington and 1 1/2 medical schools to be maintained in the San Francisco area as follows:

- One full four-year medical program conducted by the Medical Department of the University of California in San Francisco.
- A "1/2 program" conducted by Stanford consisting of two preclinical years at the University in Palo Alto.
- Upon completion of the two preclinical years, the Stanford students would transfer to the Medical Department of the University of California in San Francisco for completion of two clinical years and receipt of the M. D. degree from the University of California.

Both Pritchett and Flexner insisted upon this arrangement on the grounds that conduct of clinical teaching programs by two medical schools in San Francisco would have dire consequences for medical education in California. In vigorous support of this idea, Pritchett lobbied the administration of both universities with near success, advancing the dubious concept of hegemony over medical education in California by the State University as a desirable goal.

It goes without saying that the Flexner proposal was entirely unacceptable to Stanford which had just completed a consolidation agreement with Cooper Medical College based on the commitment by Stanford to conduct a full four-year medical program leading to the granting of the M. D. degree.

There is no indication that either Pritchett or Flexner gave serious consideration to the historic implications for medical education and science of a commitment to these fields by Stanford, the leading private University in the West. Their vision was clouded by devotion to their mission. They were on a crusade to extinguish the nations' weaker and superfluous medical schools. Their error was to overlook the potential of a Department of Medicine at Stanford University and to reckon such a Department as inevitably weak and superfluous. Now, in the mid 90's of the twentieth century, with the perspective of eighty years, we can see what an incalculable loss it would have been had their views prevailed.

We recognize the general validity of Flexner's reservations about "divided and far distant departments" Stanford was establishing a "divided department" and therefore did not meet the strict Flexnerian standard. Over the next fifty years the inexorable logic of the Flexner position had its effect. In 1959 the clinical branch of Stanford Medical School, located in San Francisco, was united with the basic science departments in a new Academic Medical Center on the campus of the University. No longer "divided," the school entered a new era of growth and creativity.

On the whole, the Flexner Report of 1910 was of immense benefit. It provided the most thorough documentation and analysis of the malaise of American medical education yet available. It laid out and effectively advocated a rigorous national plan for its reconstruction by extinction of weak and superfluous schools, and establishment in the remaining schools of academic programs in accordance with high standards such as those prevailing at Johns Hopkins. In effect, the Flexner Report served as an aggressive adjunct to the continuing work of the AMA's Council on Medical Education, the Association of American Medical Colleges, and the various state medical examining boards. The standards of these agencies lagged behind those considered optimal by Flexner and the Carnegie Foundation because of resistance by inferior schools.

The combined effect of these agencies and the Flexner Report is registered on the accompanying chart which shows the number of medical graduates each year during the fifty-year period from 1880 to 1930. The peak output of physicians from American medical schools during that period was in 1904 when there were 5750 graduates from some 155 medical schools. As the graph shows, there was a 50 % drop in the annual number of medical graduates between 1904 and 1922 when there were 2500 graduates from 81 medical schools. The rate of physicians per 100,000 population nationally fell to about 130 - equivalent to 769 persons per physician. [41] [42]

Flexner's goal of only 31 medical schools nationwide was never achieved and he doubtless did not expected such an outcome. Nevertheless, reduction of American medical schools and medical graduates annually by about one half over the 18 year period from 1904 to 1922 was a remarkable achievement. Thereafter, the number of American medical schools reached the low point of 76 in 1929. The number of schools then lingered around 77 until 1950 when it began a steady climb to a peak of 124 in 1990. At that point, annual physician output leveled off at around 15,000. [43] [44] [45]

After the Flexner Report in 1910, oversupply of physicians in the United States did not threaten again until the 1970's when data began to indicate that the supply of doctors was outpacing the growth of the population. Barring drastic changes this trend is expected to continue for another 20 years (that is, into the second decade of the 21st century).

In 1992 there were 15, 243 graduates from 120 medical schools. At that time the supply of physicians (about 200 physicians per 100,000 population , or 1 for every 500 persons) was generally agreed to be excessive.

Coincident with the progressive increase in the supply of physicians since the 1970's there has been a significant change in medical practice from mainly fee-for-service medical care to systems increasingly dominated by managed care and HMO's (Health Maintenance Organizations). Under these types of practice, staffing requirements are only about 150 physicians per 100,000 population (667 persons per M. D.). There is also a reduced requirement for specialists who in 1992 represented 65% of practicing physicians whereas the need is probably best met by a combination of 50 % generalists and 50% specialists. In view of these developments, most analysts of the medical work force believe that "the underemployment or unemployment of specialist physicians in the early 21st century is a distinct possibility in the United States, as is already the case in several European countries." [46]

Thus, for American medical education, the twentieth century will close as it began - face to face with the complex problem of too many medical schools and too many doctors.

Henry Gibbons, Jr. (1840-1911)

Dr. Gibbons, Jr., was confined to his bed with "rapidly advancing arteriosclerosis" in the late summer of 1911, and died on 27 September. He had continued his active work in teaching and practice until a few weeks before he passed away. At the time of his death he held the academic titles of Professor of Obstetrics and Diseases of Women and Children and Dean in Cooper Medical College. He had also been appointed Professor of Obstetrics Emeritus in the Medical Department of Stanford University.

Dr. Gibbons was born in Wilmington, Delaware, on 24 December 1840. He came to California in 1851 when his father, Dr. Henry Gibbons, Sr., brought the family to San Francisco. He graduated from San Francisco High School in 1856 at the age of sixteen years. He then taught school for a time before entering the Medical Department of the University of the Pacific where he graduated on 12 March 1863. While a medical student he was closely associated with Dr. E. S. Cooper, receiving in consequence an exceptional training in surgery. This training stood him in good stead when, immediately upon graduation, he went east to join the United States Army in Washington D. C. as an assistant surgeon. This was followed by the Civil War experience to which we have previously referred.

When he returned to San Francisco he was associated with his father

in medical practice, in the editorship of the Pacific Medical Journal, and in the revival of the Medical Department of the University of the Pacific of which he was named the Dean in 1871 - a position he held continuously in the successor schools for the next forty years. [47]

It was to celebrate these forty years of devoted service, which we have amply described in the foregoing chapters, that special exercises were held at Lane Hall of Cooper Medical College on the eighth day of December, 1911. A large assemblage of persons gathered in the Hall for doing honor to his memory, Dr. Edward R. Taylor, President of the College, presiding.

Doctor William Fitch Cheney, Secretary of the Faculty, spoke of Dean Gibbons' compassionate character: [48]

> He was loved by all this Faculty as one of its officers; he was loved by all the young students who had known him as their teacher; he was loved by thousands of people whom he served as their physician, and by all into whose lives he came he was loved as a man… His attitude was ever that of trustfulness, and he gave every man credit for the same high sense of honor as his own. Therefore one of the greatest sorrows that ever came into his life was the discovery some few years ago that a man (C. N. Ellinwood), given every confidence by him and by others in authority, could be guilty of what seemed to him a deliberate violation of a moral trust. To Dr. Gibbons honesty was all his life a sacred thing, and in all the years of his stewardship not one word or question ever arose about the moneys entrusted to his care, any more than about the performance of any other duty he had assumed, either inside or outside the college.

Doctor Gibbons was also highly regarded by the officers of Stanford University. During the negotiations leading to consolidation, he dealt with them as Treasurer of Cooper Medical College as well as its Dean. Professor Orrin Elliott, Registrar of the University, recalled their relationship: [49]

> During these last years, indeed, Doctor Gibbons has been a member of the Stanford Faculty, and a colleague. His work, however, remained in the city and his connection with those of us at the University was naturally slight. But though slight, it was not nominal. He made it real by his identification with us, by the pains he took to respond to those formal occasions when the Faculty stands together in its relation to the whole university and the larger community outside. His confidence in us and his fellow-feeling won recognition and respect. And in behalf of the Faculty of Stanford University I may be permitted to voice our appreciation of the perfect modesty and courtesy with which he entered into this new relation and took his place among us.

The Honorable Horace Davis, a member of the Board of Trustees of the Leland Stanford Junior University, then spoke as follows: [50]

> We are gathered today to honor the memory of a man whose whole life was a benediction. Born of old-fashioned Quaker stock, he carried out in his daily life their best traditions, "Peace on earth, good will to men."….He was a man of high principle, even stern in his integrity, but with a large, open heart…Such men are the salt of the earth. Quiet, retiring, indifferent to fame, realizing the golden rule: "Do unto others as you would they would do unto you". The world rarely appraises such a man at his true value until he is gone. Then we wonder how great a place he filled and so quietly. Thus we shall think of Dr. Gibbons as the years roll by. As for me, personally, so long as I live I shall hold him in tender, affectionate memory.

Then, Doctor Edward Robeson Taylor, President of Cooper College, rendered the final words of eulogy: [51]

> A noble soul, a model of all the virtues has fallen; a friend of humanity, a helper of the suffering, a resolute, indomitable soul.… His was a life of service from the time of his early years when, during the Civil War, he labored day and night in the hospitals at Washington among the mangled human creatures coming in day by day, in hundreds and thousands from the awful fields of war
>
> It is indeed a wonder that his life went beyond the psalmist's three-score and ten, his labors were so great and incessant. For consider, that in addition to his large and strenuous medical practice and his pedagogical labors, he has always been Dean of Cooper Medical College, and of late years President of its Faculty, and a member of its directorate, while he was also its treasurer, through whose hands passed all of its moneys and by whom its accounts and books were personally kept. Yet he never once complained; he never dreamed of flagging but willingly and cheerfully bore every burden put upon his shoulders. His religion was that of service - the one true religion that all can subscribe to of whatsoever creed or race.
>
> Where he was but yesterday, as it were, there remains a great void, not to be filled in this life of ours. Yet, he is not dead, he lives. He lives to us in soul-enriching memories that time can never take away; his example blazes as an oriflamme to lead us to a life as greatly honorable as was his; he lives in his deeds that are imperishable. And so we leave him now to time and memory, with wreath of unfading laurel on his brow, and with countless affections hallowing his name.

Something further remains to be said in praise of the worthy Henry Gibbons, Jr. He was the last of the honorable triumvir - Henry Gibbons Senior and Junior and the indomitable Levi Cooper Lane - who traced their inspiration for medical education on the Pacific slope directly to Elias Samuel Cooper. The unselfish and lifelong commitment of these three was responsible for assuring the survival of Cooper's vision of a medical school until its long-range future could finally be secured through union with Stanford University. In a more fundamental sense, we can attribute the ultimately favorable outcome of Cooper's venture to the ideals of loyalty, learning and humanitarian service imparted to Cooper and his partisans by the Quaker faith during their formative years.

Last Days of Cooper Medical College

Anticipating the final transfer of all properties and programs of Cooper Medical College to Stanford University on 1 July 1912, the Directors and Faculty took various steps to complete the business of the College and effect the merger.

Transfer of Medical Clinic to Stanford

The first class of Stanford students having now advanced to the clinical stage of their studies, the Directors voted on 11 May 1911 to turn over the Medical Clinic to Stanford. on 1 July. [52]

Bust of Doctor Lane Cast in Bronze

In memory of the benefactor, the Directors voted on 2 June 1911 to have the marble bust of Dr. Lane cast in bronze. The original elegant sculpture itself remains in the Lane Library building in San Francisco, and the bronze replica now graces the entryway to the Lane Library at Stanford University Medical Center. [53]

Contribution to Construction of Lane Medical Library

As we shall later discuss, the Trustees of Stanford University agreed to construct a Lane Medical Library building. When the cost of construction was found to exceed the funds available, the Trustees requested the Board of Directors of Cooper Medical College to contribute $20,000. The Directors responded as follows to Timothy Hopkins, President of the Stanford Board of Trustees: [54]

> 2 June 1911
>
> Dear Sir:
>
> We, the Directors of Cooper Medical College, understand that your Board is unwilling by reason of the extra expense necessarily to be incurred therein, to erect the contemplated Lane Medical Library Building at the corner of the lot which was purchased for that purpose; and that in order to erect a suitable library building at said corner you will need twenty thousand dollars in addition to the amount which your Board has set aside for the purpose of erecting the library building.
>
> Cooper Medical College is prepared to turn over to you at once the needed twenty thousand dollars … on the assurance that no demand will be made on Cooper Medical College for a specific amount for the maintenance of free beds.…(Upon receiving such an assurance) the College will turn over to you on demand, twenty thousand dollars, said sum to be used in a Library Building to be erected at the corner of said library lot so as to make it a corner building.

The decisive action of the Cooper Directors in thus making funds available for construction of the library assured that the vital project designed to memorialize Dr. Lane could proceed without further delay.

The last recorded meeting of the Directors of Cooper Medical College was held on 16 August 1911, and their last recorded action as governors of the College was to authorize payment to the Stanford Trustees of the last installment on the $20,000 they had agreed to provide. for the Lane Library building.

Election of a New Dean and Other Officers

In the interval between the death of Dr. Gibbons on 27 September 1911 and the memorial service on 8 December 1911, the College Faculty convened on 16 October and elected George B. Somers, Professor of Gynecology, as Dean. Professor Adolph Barkan was elected as President and Professor Ophüls as Vice President of the Faculty. Their terms of service were to end on 1 July 1912 when the last of Cooper properties came under Stanford control.

Final Commencement of Cooper Medical College

On Thursday evening at eight o'clock, May ninth 1912, the thirty-first and final Commencement Exercises of Cooper Medical College were held in the College Auditorium. President Edward R. Taylor conferred degrees on 31 graduates. He also gave an address of which we have no record. This is unfortunate for the occasion called for such oratorical heights as only President Taylor could have attained. . Appropriately, the orchestra concluded the Exercises with a spirited rendition of the march entitled "Flag of Victory."

Final Transfer of Cooper Properties to Stanford

President Jordan, in his Annual Report to the Stanford Trustees for the year ending July 31, 1913, described the final stage of transfer of the Cooper properties: [55]

> The final transfer of the Cooper Medical College and Lane Hospital properties, which constituted then the Medical Department of the University, was accomplished and reported to the Board of Trustees on August 1, 1912. In recognition of the admirable spirit in which the directors and faculty of the College have conducted the negotiations leading to this transfer, and in recognition of their efforts to raise and maintain the standards of medical education on the Pacific Coast, the following resolutions were adopted by the Board, which should be here recorded:
>
> Whereas, On the first day of July, 1912, Cooper Medical College and Lane Hospital, did, by agreements previously made, pass from the control of the Directors of Cooper Medical College to the Trustees of Stanford University; and
>
> Whereas, All the negotiations between the Trustees and the Directors attending the transfer of the properties and the assumption by the Trustees of the obligations belonging thereto have been most harmonious and satisfactory; and
>
> Whereas, The Directors have shown the utmost reliance on the good faith of the Trustees;
>
> Now, therefore, be it resolved, that this Board desires to express to the former Directors of Cooper Medical College its appreciation of their broad-minded action in all the transactions between the two bodies; and
>
> Be it further resolved, that the Secretary of the Board be instructed to transmit to the Directors a copy of this minute and resolution.

In the same Annual Report, President Jordan followed the above resolution with an important announcement: "At a special meeting of the Board of Trustees, on November 29, 1912, Mr. Herbert Clark Hoover, an alumnus of the University , Class of 1895, was elected to fill the vacancy in the Board created by the death of Hon. Whitelaw Reid."

Supplement to Chapter 31
Medical Graduates of the Predecessor Schools

The number of medical graduates annually from each of the Predecessor Schools is provided below:

Medical Department University of the Pacific

Year	Graduates
1859	2
1860	1
1861	5
1862	5
1863	8
1864	7
1865 - 1869 : Suspension	
1870	8
1871	8
Total	44

Medical College of the Pacific

Year	Graduates
1872	10
1873	14
1874	8
1875	13
1876	22
1877	13
1878	26
1879	15
1880	7
1881	9
Total	137

Cooper Medical College

Year	Graduates
1882	12
1883	13
1884	16
1885	19
1886	11
1887	28
1888	14
1889	41
1890	18
1891	29
1892	38
1893	42
1894	73
1895	64
1896	37
1897	45
1898	47

Year	Graduates
1899	44
1900	38
1901	27
1902	25
1903	45
1904	44
1905	38
1906	31
1907	29
1908	27
1909	19
1910	17
1911	23
1912	36
Total	990

Total Graduates of the Predecessor Schools: 1,171

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49. Exercises Held at Lane Hall of Cooper Medical College in Memory of Doctor Henry Gibbons, Junior, on Sunday the Eighth Day of December 1911 (Printed by Order of the Directors and Faculty of Cooper Medical College, 1911), pp.10-11. Lane Library catalog record
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Chapter 32: Trustees Defend the Medical Department, 1912-1914

During the crucial period from 1912 through 1914 the rapid advance and promising outlook of the Department of Medicine so impressed the Trustees that one of them remarked to President Pritchett (who continued to advocate union with the University of California) that "the medical school was the only thing that had put any life into the University." The Department had so completely won its way into the affections of the Trustees that the plans announced by the Board at the May 1913 meeting included the following support for the medical program: [1]

> In recognition of the leading position and progress of the Medical Department, and in order to at least partially provide for the increased expansion to the teaching as well as to the hospital facilities, it is intended to entirely renovate the present large hospital building, to add a substantial wing for private patients, and to start the erection of a new woman's hospital.

Lane Medical Library

As an earlier evidence of their favorable disposition toward the Medical Department, the Trustees moved promptly to honor their commitment in the articles of consolidation to erect and maintain a library to be named for Dr. Levi Cooper Lane and located on land already purchased.

Before their deaths, as previously noted, Dr. and Mrs. Lane had architectural drawings prepared for a truly monumental library building to be known as the "Hall of Aesculapius." However, Dr. Ellinwood's appropriation of two thirds of the Lane endowment for his personal use so reduced the funds available for a library that construction of the "Hall" was no longer feasible. Instead the Stanford Trustees advanced funds to the amount of $80,000 against the real property in that portion of the Lane estate deeded to Stanford in the consolidation agreement. With the addition of the $20,000 contributed by the Cooper Directors, the Board of Trustees under the presidency of Trustee Timothy Hopkins constructed a spacious library building on the corner of Sacramento and Webster Streets across from the original buildings of Cooper Medical College.

On November 3, 1912, this substantial edifice intended to house the Lane Medical Library of Leland Stanford Jr. University was formally dedicated at San Francisco. Addresses were given on that occasion by Dr. Emmet Rixford, Professor of Surgery; Mr. Timothy Hopkins, President of the Board of Trustees; and David Starr Jordan, President of the University. [2]

The first address was delivered by Professor Rixford who was from the beginning the driving force behind the founding and development of the Library of Cooper Medical College. From before his formal appointment as Librarian in 1895 to this Dedication of the Lane Medical Library in 1912, Dr. Rixford gave as much of his time to library affairs as he could spare from his busy surgical practice. His address was a tribute to the careers and contributions of Cooper and Lane, and included the history of Lane library which he referred to as his "most beloved hobby."

He spoke of Dr. Adolph Barkan, Professor of Ophthalmology, Laryngology and Otology as the "angel of the library" and told how Dr. Barkan, when he retired from practice, gave his entire library in the specialties to form the nucleus of a library on ophthalmology, laryngology and otology. Earlier Dr. Barkan had given Cooper College $5000 to create a so-called Teacher's Fund designed to assist teachers in the school to travel for study and instruction. When the College properties had been given to Stanford there was no longer need for the Teacher's Fund. The $5000 was therefore turned into an endowment for the Barkan Library of Ophthalmology, Otology and Laryngology within the Lane Library. To this endowment Dr. Barkan contributed another $5000. Later he gave $10,000 as the beginning of an endowment fund for a library on the History of Medicine. Today, the generosity of Dr. Barkan is still gratefully acknowledged by the designation in 1996 of a spacious room in the Department of Ophthalmology as: The Barkan Library in memory of Drs. Adolph and Hans Barkan for their contribution to the advancement of ophthalmologic teaching, research and treatment.

Dr. Rixford traced the growth of the Cooper College Library which, after the death of Dr. Lane in 1902, inherited Dr. Lane's personal library of 2000 volumes. Also included was much valuable historical material as well as many important monographs and bound periodicals.

By 1905 the College Library had grown to 10,000 volumes. At about this time Cooper College purchased the New York Hospital Library from the New York Academy of Medicine as we have already mentioned. This acquisition increased the College Library to some 40,000 volumes. In addition Dr. Rixford, by assiduous cultivation of other sources, acquired numerous and sundry gifts of books and periodicals. It now became clear that Cooper College had a great library - certainly the greatest in the West and among the best nationally.

Small wonder then that President Jordan, when negotiating the consolidation of Cooper Medical College with Stanford University, made it a sine qua non that the Cooper College Library (to be known as the Levi Cooper Lane Library of Medicine and Surgery) should go into Stanford's possession along with the other properties of the College. To this the Directors of the College readily agreed but stipulated that the Library remain in San Francisco and with the other properties be used for "Medical Education in the sense of teaching young men and young women to be practitioners of Medicine." The Directors would not agree to Dr. Jordan's suggestion at the time that the College properties be used merely as a research institution. [3]

Trustee Hopkins's remarks at the Dedication were, as behooved a man of wealth and business interests, concerned with the broader community implications of the Lane Library which he viewed as a capacious reservoir of learning destined to enhance the cultural life of San Francisco: [4]

> We meet to dedicate this handsome library building to the cause of education and to humanity, and in behalf of the Board of Trustees of Stanford University, I welcome you.

It is no severe strain upon the imagination to believe that, as time rolls on, the three great metropolitan cities of the United States will be Chicago, in its center, and New York and San Francisco upon its two seaboards. A city becomes a metropolis, in the broad acceptance of the term, at that stage in its development when, the commercial and financial resources being firmly established, it can turn attention to the Arts and Sciences and adorn itself with libraries, museums, art galleries, opera houses, and other evidences of the cultural side of life.

Today, in opening this Medical Library to the public, our city by the Golden Gate has met one more requirement for entrance into the metropolitan sisterhood, she is one step nearer the brilliant destiny awaiting her.

The cities of the Unites States in which special buildings are devoted to medical libraries are few in number, and this building, in addition to marking an epoch in our metropolitan progress, has the distinction of being the first structure of a strictly non-utilitarian character (other than churches) to be completed in the rebuilding of our municipality. The collection of books it contains may also well be a subject of civic pride, since it ranks among the greatest in size and importance of the medical libraries in America.

President Jordan's lengthy and wide-ranging closing address called attention to the role of the private university in the challenging years ahead: [5]

We have met today to mark a milestone in the history of Stanford University on the one hand, and in the history of medical education on the other. It is a milestone that we mark, not an epoch, for epoch-making events do not often appear more than once in a life time. But a milestone marks progress even though after it is set up all shall go on as before.

Stanford University is now twenty-one years old. Its days were opened on a hopeful morning of October in California, where all days are hopeful, just twenty-one years ago. It has come of age. It is old enough to be doing the work of a grown university.

And there is no work of the University more worthy or more needed than medical instruction and medical research, the training of men who shall help their fellows in all their bodily ills, on the basis of the best and fullest knowledge, while themselves adding day by day to the world's stock of wisdom. In these days medical research stands on the firing line of the advance of science. There is no branch of knowledge which is moving more rapidly and there is none which contributes equally to the aggregate of human welfare.

We dedicate today the home of the Lane Medical Library of Stanford University to medical practice and medical research. It is the gift of the will of Mrs. Levi Cooper Lane. It begins its existence with a handsome building adequate for its needs for years to come. When it must be extended we hope that the grateful people of San Francisco will be here to see that all its needs are met.

It has already on this initial day a library of nearly forty-thousand volumes, all relating to medical practice and medical research, a good number of books as you will see when you compare it with other libraries devoted elsewhere to the same subject.

The importance to San Francisco of such a collection of medical books kept up-to-date by a steady inflow of the best journals and monographs is obvious. The library is the natural center for creative effort hence for all research, since there is no loss of energy so needless as in the doing again that which has been well done before. All new work must be based upon knowledge that has gone before. The breath of life of all research is the joy of seeking for the unknown. Chance discoveries of great moment in medicine are no longer to be made at random. Piece by piece must new truths be found and correlated. Each investigator must rest his work upon that of others. He must stand on the shoulders of the past if he is to look into the future. . . .

Dean Ray Lyman Wilbur, who was deeply involved in the planning of the library building, was not one of the speakers at the Dedication Ceremony but was invited to contribute the following appendix to the published proceedings. He used this opportunity to describe the library facilities and to make a progress report on the academic development of the Medical Department: [6]

The new Lane Medical Library Building, in which the volumes of the University's Department of Medicine are now shelved and at the service of the students of the Department and of the medical profession, is not only thoroughly modern and convenient, but beautiful as well. Constructed on a steel frame, the exterior is of smooth Colusa sandstone of a soft gray color, while the interior gives an impression of spacious substantiality and quiet. [7] [8]

The general reading room, with its open shelves of reference volumes, its broad reading tables and its quiet green walls, is particularly fortunate … The forty-thousand volumes which at present constitute the library and make it the largest of any of the university medical libraries in America, are easily accommodated on the shelves, which can hold half as many more, without further addition. [9] [10]

The dedication of the Lane Medical Library Building marks the completion of the first stage in the development of the Stanford University Medical Department. In fact its possession is a great asset in the development of proper medical teaching and makes the new Medical Department unique in this country.

Lane Medical Library, San Francisco

The high standard that Stanford set in medical education, requiring three years of University work for admission into medicine, placed the Medical Department at once in the front rank of such institutions. The requirements are equal to those of Cornell and Western Reserve University and not unlike those of Harvard, Columbia and Pennsylvania. Johns Hopkins requires an A. B. degree for admission; Harvard admits upon an A. B. degree but permits students who have covered certain special subjects to enter after two years of University work.

It has been a source of gratification that, in spite of these high requirements, forty-six students have registered in Medicine even before a single class has been graduated. The class of five, sent up to San Francisco in January, 1910, has now been increased to ten, two students having joined it from the University of California last year, and one each from Johns Hopkins, the University of Chicago and Cooper Medical College this year. It is anticipated that there will be a slow but steady growth in the number of students but that the number admitted will always be small.

The space made available in the Clinical and Laboratory Building by the removal of the Library, together with a portion of the former auditorium, is being remodeled and within a month the Medical Department will have the best equipped outpatient clinics west of Chicago. On 1 July 1912, the control of Lane Hospital passed into the hands of the Clinical Committee of the Medical Department so that the University Hospital is now under the direct supervision of the instructing staff, a most important advantage in proper medical teaching and one possessed by but few American medical schools. Furthermore, arrangements have been made by the Board of Trustees to facilitate the business management of the Hospital and Medical Department in San Francisco and to improve the service for the private rooms. It is of sentimental interest that the home formerly occupied by Dr. and Mrs. Lane, which is in the block opposite the hospital, is now being used as a temporary nurses' home.

As at present organized - with the Lane Medical Library, Lane Hospital; the outpatient clinics and the laboratories in San Francisco; the excellent services at the San Francisco Hospital; and with the laboratories of Chemistry, Physiology, Anatomy, Bacteriology, Pharmacology, Physics, Zoology and Botany on the campus - there is no better Medical Department for a limited number of students in this country.

Like all growing things, the Medical Department has many pressing needs. Among them are the construction of a new nurses' home and women's clinic, for which land is likewise available, and the construction of a new children's hospital. The further endowment of Lane Hospital and the endowment of certain professorships is very much needed in order that the institution may grow in the best way. A number of alumni and others have contributed books and money to the Library and money to the Hospital, both for the upkeep of beds and for special expenses…

In general, it can be said that for the short time that Stanford has been engaged in medical education, she has made a good record. Future development has been planned for in such a way that advantage can be taken of any help, great or small, that comes to the Medical Department.

The advent of Stanford into San Francisco is of much significance. The number of people concerned is alone worthy of mention. Besides the Faculty and students, there is a metropolitan hospital with an average of 150 patients, changing from day to day, a Training School of 80 nurses, and employees of like number and from 50,000 to 60,000 visits per year in the out-patient clinical departments.

Medical Department entitled School of Medicine and Executive Head, the Dean

As chairman of President Jordan's Committee of Three on Organization of the Department of Medicine, Professor John M. Stillman wrote the following letter to Dr. Emmet Rixford, Secretary of Cooper Medical College: [11]

20 November 1908:

Dear Dr. Rixford:

It has been suggested that the designation of the medical organization as "Department" or "School" may have some influence on the prestige of the school or department in the future development, and the members of the Medical Committee might consider that question.

I enclose for reference a list of the official titles of the medical organizations of a number of the prominent universities of this country.

If there occur to you any reasons for believing that there would be a gain in adopting the designation of "School" instead of the name "Department" which is at present the only unit recognized in the University, I should be pleased to hear from you. Also I should be pleased to hear your individual preference as to the name which would be most advantageous and dignified.

Very truly yours,
J. M. Stillman

Professor Stillman listed 15 universities of which only three (Harvard, Columbia and Indiana) used the title "medical school." The remaining 12 universities (including Johns Hopkins, Yale, Pennsylvania, Cornell, Chicago, California, etc.,) used the title "department" or "college."

Stanford retained the titles "Stanford University Department of Medicine" and "Executive Head of the Department of Medicine" until the Board of Trustees adopted the following resolutions at its meeting in May 1913: [12]

Resolved, That the recommendation of the President of the University that the use of the term "Medical School" be authorized to designate the professional work within the Department, the relation of the Department of Medicine and its students to the University at large to be in no wise changed by the use of this phrase, be approved;

And, That the title of Executive Head of the Department shall be "Dean."

President Jordan appointed Chancellor

When Herbert Hoover became a member of the Board of Trustees in the fall of 1912 he took part in its activities with such characteristic

energy, enthusiasm, and idealistic vision that the president of the Board, Timothy Hopkins, said: "we have got more ideas from Hoover in a week than we have had before in a year." It was at Hoover's suggestion that the Board honored President Jordan with appointment to the newly created position of Chancellor, effective Commencement Day, 23 May 1913. This appointment freed Dr. Jordan from the burdens of University administration so that in the coming three years (up to 1916 when he would reach the retirement age of 65) he might divide his time as he saw fit between work for the cause of international peace and educational studies outside or inside the University itself.

Professor John Casper Branner appointed President

It was again at Hoover's instance that the Board appointed Dr. John Casper Branner to succeed Dr. Jordan as President of the University, also effective 23 May 1913. Dr. Branner, Professor of Geology since the founding of the University in 1891, had been Vice President of the University since 1898, and Dr. John Maxson Stillman succeeded him in the vice presidency. Dr. Branner specified that he would serve as President for a period of only two years (that is until he reached the retirement age of 65), and Hoover proposed to the Trustees that Dr. Ray Lyman Wilbur should be Branner's successor as President of the University. [13] [14]

Herbert Hoover and Professor Branner were no strangers. During Hoover's student days they had developed a close and lasting relationship. The young Hoover entered Stanford with the first class of students in 1891, majoring in Geology under Professor Branner who held him in high regard and employed him as his office assistant. The Professor was much impressed with the young student's ability and never forgot how Hoover, when assigned a task, accomplished it quickly and efficiently. Initiative and dependability were qualities the Professor greatly admired.

On 29 May 1895 Hoover received his A. B. degree in Geology from Stanford University. Early in his senior year, a freshman named Lou Henry enrolled in the geology program at Stanford. She was a fellow native of Iowa which at once gave them some common ground and the more they were together in the classroom, on field trips and at social gatherings, the closer their friendship. Three years later, on 25 May 1898, Lou Henry also graduated from Stanford with an A. B. degree in Geology. She and Bert had by then a tacit agreement that after her graduation and his establishment as an engineer they would be married.

On 11 February 1899, in the living room of her family home in Monterey, Lou Henry and Herbert Hoover were married by Father Mestres the local parish priest with whom Lou had collaborated in community programs. Father Mestres at first demurred at performing the ceremony explaining that, since the couple were not Catholics, he could not do so without a special dispensation from the bishop of the diocese - who graciously gave his consent in response to the earnest appeal of Bert and Lou. [15] [16]

Hoover and Lou Henry regarded Professor Branner as their mentor and enjoyed a cordial relationship with him. Under the circumstances Hoover probably expected President Branner to be cooperative and support such policies as he and the other Trustees might adopt.

Such was decidedly not the case. The issue over which President Branner and the Trustees promptly clashed was the funding of the Department of Medicine. Dr. Branner had not favored acquiring Cooper Medical College and said that only one member of the faculty besides Dr. Jordan had supported the consolidation. When Dr. Jordan asked for Branner's opinion on the subject he said, "Let it alone; it is nothing but a lot of junk." Branner's appointment as President of the University did not change his negative view of the Medical Department, and it increased his concern for the welfare of the other departments.

At the time of the merger with Cooper Medical College, the trustees agreed that the new Medical Department should be assured of no more than $25,000 a year (such expenditure not to begin until after the end of five years) and that, beyond this amount, the already established departments of the University should have priority on funds. Dr. Jordan soon recognized that this restriction on funding the Medical Department was going to cause trouble but he was determined to get a strong academic program firmly established in the Department as soon as possible. To achieve this goal Dr. Jordan obtained approval from the Trustees, who were generally supportive of his aims, to allocate the statutory $25,000 to that portion of the work of the Department carried out in San Francisco, and to charge the salaries in anatomy, bacteriology and pharmacology (which were located on campus) to the University budget. In this and various other creative ways Dr. Jordan was able during his presidency, with the tacit approval of a compliant Board of Trustees, to obtain extra funds for the Medical Faculty whose stellar performance in San Francisco convinced the Trustees that their support was justified.

At the same time, however, the Trustees considered the University budget to be badly strained and, although President Jordan suggested various means of increasing income such as charging higher tuition and various special fees to the students, the Trustees decided that programmatic retrenchment was essential to balancing the budget. Hoover was in England at the time and the Board did not seek his advice but proceeded in his absence to adopt the following Resolution on 29 August 1913. [17]

> Resolved, that in the opinion of this Board, the University funds and income will be insufficient to adequately extend and develop all departments of the University, and that it will therefore be necessary to select such courses of education as may be so developed to the highest point, abandoning or reducing other courses; and that the President is requested to submit to the University Committee of this Board his recommendations relative to such action by the Board.

The policy announced in this Resolution was not new. From the time when they took over the administration of the University from Mrs. Stanford in 1903 the Trustees had been seeking an opportunity to review the University Departments and reform or eliminate those considered weak or irrelevant. In the past, efforts by the Trustees along these lines had been successfully frustrated, sometimes by the President but more often by the Academic Council. Now the requirements of the new Medical Department had precipitated a financial crisis including a review of all Departments as a result of which the Medical Department would probably survive while some established Departments would be reduced or eliminated.

Incoming President Branner was confronted with the Trustees' unexpected and alarming resolution of August 29th. Furthermore, when he examined the books, he discovered that the Medical Department was already absorbing far more than the $ 25,000 annually agreed upon in the consolidation contract, and that its requirements were steadily growing. His immediate reaction was to attribute the critical state of the University's financial affairs to the Medical Department. He informed Hoover, upon the latter's return from England, that the University was rapidly approaching a collapse as a university, and that the Medical Department must either be endowed or its enormous and spiraling cost would swamp the institution. [18]

Before responding to the Board regarding the resolution of August 29th, Dr. Branner made the following appeal for advice to President Pritchett of the Carnegie Foundation to whom he wrote on November 17 and December 6, 1913: [19]

> The Trustees, realizing that our funds are not equal to the task that the medical school imposes, are looking for a way out of the dilemma. They think it possible for me to so overhaul things here at the University that a lot of what they regard as purely ornamental departments can be done away with and that this will release funds enough to keep the medical school going. It is unnecessary to tell you that it cannot be done. Only very small economies are possible in the University. The medical school wants at least $100,000 a year, in addition to hospitals and equipment in an expensive city… Can you not give some encouragement to abandon this medical school? How can it be done? I'm ready enough to do anything that human effort can do. It will make an awful row, I know, but if I can save the University I don't mind either the row or the personal roasting I shall get. Some of the Trustees will stand by me, others will fight me to the finish, as will all the members of the medical faculty and their friends. I fancy that most of the faculty outside of the medical school will support me, but I am not sure about it at all.
>
> Dr. Jordan looks on the medical school as the child of his old age, and the finest one in the family, but I am at liberty to disregard his personal views.

On 20 December 1913 President Branner finally replied formally to the University Committee of the Board of Trustees in response to the economy resolution of 29 August 1913. He insisted that no considerable economies were possible through departmental reforms such as proposed in the resolution. Most of the departments, he said, are "half-starved," with the exception of the Department of Medicine, and therein lies the problem. Not only is the Medical Department the most expensive but it is also the newest and the least essential. He then made the following recommendations: [20]

> That the Medical Department, including anatomy and bacteriology, receive no further financial support from Stanford University after July 31, 1914.
>
> That the entire equipment (of the Medical Department) be turned over to the University of California upon such terms as the Trustees may be able to arrange with the Regents of the University of California through a committee of experts suggested below. Or, if for any reason, such a disposal is impossible, that some such disposition be made of the Department and its appurtenances as will entirely relieve Stanford University from all expense in connection with it.
>
> That a committee of three disinterested men, whose knowledge of medical education and administration will entitle their views to the highest respect and consideration, and who are not likely to be influenced by local interests, be appointed to settle the conditions of the transfer upon terms honorable and satisfactory to both units.

President Branner's blunt and uncompromising response to the Board's resolution of August 29th was unsettling to the Trustees. And they were further disconcerted by the action of the Advisory Board of the Academic Council whose members met on 26 December 1913 and promptly let it be known that they "approved unreservedly" of President Branner's report to the Board of 20 December 1913 and of the "recommendations contained therein for readjustment of the Medical Department."

In an effort to persuade Dr. Branner to moderate his position, the Trustees took steps to dispel the impression that cuts in departmental budgets were imminent. As President, Dr. Branner had requested an increase of about $ 62,000 in the budget for 1914-15 to meet the immediate needs of the University. After some deliberation, and swayed by the insistence of Trustee Hoover that the finances of the University were in much better condition than alleged in the Board's resolution of 29 August 1913, the Board met on 30 January 1914 and voted that the President's request for an increase of $ 62,000 could be granted.

However discomfited they may have been, the Trustees at their meeting on 30 January 1914 also acceded promptly to some of Dr. Branner's other wishes by taking the following actions: [21] [22]

> 1. Appointed a special committee of the Board consisting of Trustees Eels, Hopkins and Hoover to confer with a similar committee of the Regents of the University of California. (Of the three members of this committee one, in Dr. Branner's opinion, was amenable to reason (Eels); one was strongly in favor of Stanford's keeping its Medical Department (Hopkins);the third was Hoover, a close friend of Dean Wilbur, and therefore also likely to favor retaining the Department.)
>
> 2. Approved an attempt of the two medical deans to arrive at a possible basis of union.
>
> 3. Acquiesced in Dr. Branner's proposal to bring President Pritchett of the Carnegie Foundation and Dr. Welch of the Johns Hopkins Medical School to the Coast for a survey of the situation and conference with the Trustees and Regents.

There ensued over the next six month a confusing flurry of communications and consultations. Trustee Hoover was now taking an increasingly active role in defense of the Medical Department, and

in settling the conflict provoked by the Board's resolution of August 29th. In a confidential letter to Branner on 16 February 1914, Hoover urged him to reconsider his position on the grounds of his having reacted under a "misapprehension" that the University budget was in a precarious state - an impression which should have been dispelled by the Board's granting of Branner's request for a budget increase of $62,000. In consideration of this latter action by the Board, Hoover strongly urged Brannan to withdraw his recommendations of 20 December 1913 so that the matter could be reconsidered at a later date under less difficult conditions.

In spite of Hoover's appeal, President Branner was adamant. On 19 February 1914 he informed Hoover that he would not withdraw his recommendations of 20 December 1913 which he had made in response to the explicit statement in the Trustees' resolution of 29 August 1913 that the University budget was overdrawn and that departmental retrenchments were required. He resented Hoover's suggestion that he had misinterpreted the Trustees' resolution and on that account should now back down. "If the problem was not properly stated by the Board,' Branner asserted, "then it lies with the Board , and not with me, to set the matter right."

If President Branner was in no mood either to withdraw or modify his recommendations of December 20th for termination and disposal of the Medical Department, Hoover was equally unyielding in his determination to fend off Branner's assault on the Department. In a lengthy letter to fellow-Trustee and friend Timothy Hopkins on 23 February 1914, just four days after the uncompromising letter from Brannan, Hoover declared that the situation was an "emergency" and listed a number of arguments for retaining the medical school. Among other things, Hoover insisted that "our institution can meet all present outlays out of its income."

Just four days later, on 27 February 1914 at their monthly meeting, the Board of Trustees adopted the following sharply worded resolution, prepared by Hoover, specifically rejecting Branner's recommendations of 20 December 1913 and essentially retracting the Board's ill-conceived economy resolution of 29 August 1913: [23] [24] [25]

> Whereas, the President of the University, evidently acting under a misapprehension of the University's resources arising from the terms of the Trustees' resolution of August 29th, 1913, submitted on December 20, 1913 to the Board of Trustees recommendations that the Medical School of Stanford University, including the Departments of Anatomy and Bacteriology, receive no further financial support from the University after July 31, 1914; and that its entire equipment be turned over to the University of California upon such terms as the Trustees may be able to arrange with the Regents; and that, for that purpose, a committee of three disinterested men be appointed to settle the conditions of the transfer upon terms honorable and satisfactory to both universities.
>
> And Whereas, the University Committee has considered these recommendations and is unable to agree that such course is now necessary
>
> Now Resolved: That the University Committee reports to the Board of Trustees:
>
> 1. That in its opinion the financial condition of Stanford University does not now require, and may never require, such drastic action as the abandonment of medical education; and that for the abandonment of any important department the dignity and reputation of the University demand much longer preparation and notice than one semester.
>
> 2. That the University Committee is prepared to recommend some system of joint action with the University of California in the conduct of the two medical schools, if such a system can be suitably formulated and agreed upon; but that it does not approve turning over the entire equipment of the medical school to the University of California; and that, if the Medical School is ever to be abandoned, the only course open to the Trustees, in the opinion of this Committee, is to return the School and its property to the Cooper Medical College, from which we obtained it under pledge that we could carry it on.

Early in March 1914 Hoover returned to England, but the medical school controversy was far from over. Branner considered the Trustees' favorable action on his request for a budget increase of $62,000 to be merely temporizing. With respect to the Board's resolution of 27 February 1914, he wrote: [26]

> The claim is made … .that we have money enough to care for all departments, medicine included. I am unable to speak confidently on the subject for it has been the policy of the Board hitherto not to allow the President to know about these financial details… One unfortunate feature of the situation is that the Medical Department is in San Francisco, thirty miles away from the University, that it is not in vital touch with the University, that it has the ear of the Trustees and that they agree about new buildings, and about equipment and construction and other matters concerning which the President is not consulted. The result is that large sums of our general funds are spent without the President knowing about it until after it is done, and even then by accident or courtesy.… .
>
> (Later, on 12 March 1914, he wrote:) Now that the budget has been increased by $62,000 the Trustees seem to think I am silenced. But at least $10,000 of that increase is for the Medical Department, and it also has backdoor access to the treasury. It will cost next year $110,000 to $150,000.

During the spring of 1914 efforts to resolve the future status of the Medical School were proceeding along several lines. In response to the urging of Dr. Branner, President Pritchett came to California as a consultant to the Trustees on the future status of the Medical Department..

When President Pritchett arrived in March and met with the Trustee's Committee of Three, minus Hoover, he found that the Trustees had in their resolution of 27 February 1914 firmly decided to retain the Medical Department, and that they were not amenable to Pritchett's now-familiar advice to merge the clinical program of the Department with the University of California.

Pritchett's effort to influence the Trustees having failed, Dr. Branner suggested calling an outside expert on medical education to advise not merely upon the question of union with the University of California, but also upon the question of Stanford carrying on a separate medical school in case the union did not take place.

At the meeting of the Board of Trustees on 27 March 1914, President Branner was authorized to invite Dr. William Welch, first Dean and Professor of Pathology at Johns Hopkins, to come to San Francisco and make recommendations to Stanford University as to the best plan for it to pursue in regard to Union of the two Medical Schools.

Dr. Welch was called but, after some delay and upon talking with Drs. Rixford and Stillman in New York, decided there was nothing he could do, and declined the invitation.

Next to be invited to visit Stanford as a consultant to President Branner and the Trustees was Victor C. Vaughan, Dean of the Medical School of the University of Michigan. Dr. Vaughan accepted the invitation but was not able to reach California until 29 May 1914.

Meanwhile, Dean Wilbur made the following lengthy and perceptive Report to the Trustees, and engaged in Critical Correspondence with Dean Moffitt of the UC Medical School and President Timothy Hopkins of the Stanford Board of Trustees.

Dean Wilbur's Report to the Trustees on Union with UC [27]

In 1910 there was considerable discussion between the authorities of the two universities as to a possible union of the Medical Departments. A conference was held between the Trustees, the Regents and the University Presidents at which the problem was discussed. Following this conference, a tentative proposition was presented by Stanford to the University of California for consideration. It apparently did not meet favorable reception on the part of the University of California and nothing further was heard of it officially until recently.

The Carnegie Foundation and others interested in Medical Education have urged, at various times, the apparent desirability of the two Universities combining their Medical Schools into one. In October, 1913, the wisdom of such a plan was orally suggested by the Dean of the University of California to the Dean of the Stanford Medical School. Following this conversation, a proposition was presented by me for discussion and consideration. No answer was made to these suggestions until March, 1914. The President of Stanford University had urged in December that an effort be made to bring the Medical Schools together. Committees were appointed by the Board of Trustees and by the Regents of the University of California These committees have the general principles of the subject still under discussion. The points, which are up for decision at present, can best be indicated by quoting from a letter written to the Dean of the University of California Medical School on March 11 1914 as follows: (Emphasis added.)

> It would, I think, facilitate definite action of some sort in regard to the possible union of the Medical Schools of our two Universities to ask for prompt consideration by the authorities of both institutions of the following points:
>
> 1. Is it desirable that the Universities should unite their resources in Medicine into one large Medical School under common management rather than continue the support and development of two good schools?
>
> 2. If the first is settled in the affirmative, would the following be an acceptable plan for the management and control of the one School?
>
> A.. -- The administration to be in the hands of a Board of Managers of nine members constituted as follows:
>
> Two regents
> Two trustees
> The Presidents of the two Universities
> Three members chosen by the above
>
> B. -- A Dean, the best available man regardless of locality, to be selected by the Board of Managers.
>
> C. -- A Faculty administration committee to be selected by the Board of Managers.
>
> The Universities to continue their present financial support until endowments make the School independent financially.
>
> All funds to be administered by the Board of Managers.
>
> 3. Is it desirable, if one school is decided upon, that all departments of this school be gotten together and that the courses given in Palo Alto and Berkeley which form part of the curriculum of Medicine be concentrated in San Francisco.
>
> It would be more feasible at the present time for both Universities to give instruction leading to the degree of A. B. and covering the first year in Medicine, but an ultimate plan could include the combination of all work together in San Francisco.
>
> If the University authorities agree to the above premises, then I think that the detailed plan submitted by me to you at a previous time should be at once carefully considered. Until the above principles are decided upon, the less time spent upon details, the better. I do not agree with you that it is necessary to call in an outside man or men to settle upon a plan provided the Universities decide that it is desirable to unite their forces in Medicine. Certainly we should not call in anyone until we have exhausted all reasonable means of bringing about a mutually satisfactory arrangement.
>
> I will send a copy of this letter to the President of the University and to the Committee of the Trustees in the hope that it will bring about prompt and conclusive action as far as the above enumerated items are concerned.
>
> The position taken by Stanford has been to thoroughly analyze the question of a union and to favor it, should it prove to be the proper solution financially and educationally of the Medical situation in San Francisco. The following extracts from letters written to the President, I think, illustrate the point of view of the Medical Faculty: (Emphasis added.)
>
> The ambition of the Medical Faculty has been to develop a small medical school of high quality to do the character of work done previously by the Johns Hopkins Medical School without falling into their error of overcrowding their facilities by large classes.
>
> Convinced that the small teaching unit is the best particularly under

the Stanford scheme and of the desirability of "setting standards" so often insisted upon by Chancellor Jordan when the buildings of Cooper Medical College were remodeled, provision was made for classes of only twenty-five students each. We assume that since the State University has begun medical education that it will continue to develop it, but that it can never limit the numbers or be independent of certain political and community influences that will necessarily hamper the real progress of medical education.

It is striking in this connection that the Rockefeller Foundation, in its efforts to set certain medical standards that seem to it desirable, has recently made gifts to the medical schools of two private institutions, Johns Hopkins of Baltimore, Maryland, and Washington University of St. Louis, Missouri, instead of to the State Universities of the State in which these schools are located or the more prominent State Universities elsewhere.

I think that I express the feeling of the Medical Faculty in regard to the proposed union with the University of California in the following:

We have been willing and have proposed an association provided it would maintain our present standards and permit of growth enough to handle the necessarily enlarged classes. This would in no way reduce the responsibilities or present expenses of Stanford and would, we feel, not really advance medical education unless someone came promptly forward with four or five million dollars to endow the new medical school founded on the resources of the two now in existence. To merely crowd in more students, introduce politics and divide management would be no real advance. We wish to be convinced that we will do a real service to Medical education by giving up our present strong position and ideals. It would be far better for us to handle small classes in true Stanford fashion than to be immersed into a large institution struggling to care for large numbers of students with a meager budget.

If, with increasing endowment and hospital facilities, it becomes feasible and desirable to educate larger classes, arrangements for such purpose can readily be made without handicapping existing work or crowding existing buildings and hospitals. Stanford is at present in good position for growth, first into a complete unit for small classes and then later into additional units of like strength and size. The day of large medical classes taught for the most part by lectures is gone, and with its disappearance there has been an abrupt increase in the expense of medical education.

If the plan limiting the upper classes of Medicine to twenty-five students each is continued, Stanford can estimate about what the expenses are to be including the number of hospital beds required.

In case of a union, there are three possible plans.

1. The present Stanford site to be chosen and made the basis for the new and greatly enlarged school.

2. The Parnassus Avenue site of the University of California to serve as the nucleus.

3. Both present sites to be abandoned and land to be purchased near the new San Francisco Hospital and a complete plant to be erected there.

Plan No. 1 is the most economical as far as new construction is concerned and the best one also for the care of all classes of patients. Assuming then its selection as the site for the combined schools and that only the strictly clinical years are to be taught there, the problem is about as follows:

Stanford now has 18 students in the Sophomore class in Medicine and the University of California has 45 students. In 1914-15, the Junior class of the combined school would probably total at least 65 students. Our present facilities could be made to do double work and be used for two sections of 25 each. We would have to expect classes of 75 within a very few years. Naturally while there might be some saving of expense from the larger classes, Stanford would inevitably have to pay the half of the education of all students so that its expense would be greater than with its own classes of 25 each. No limit could readily be set to the number of medical students by the University of California while Stanford could do as Johns Hopkins has done and refuse admission beyond a certain maximum. In other words, there would be no saving to Stanford in a union but only increased responsibility and increased expense. The question then should be, is one large medical unit so desirable that Stanford should increase its responsibility and its expense along medical lines to bring it about? As indicated previously, unless a gift of $3,000,000, or more is given to the combined school it would, to maintain Stanford standards, be placed in a precarious financial position.

The principal objection to a union from the standpoint of Stanford University is based upon the financial side of the question. It is not necessary to discuss the details of the expense required for additional buildings, for the duplication of work, the increase in hospital facilities and the increase in the Instructing Staff to take care of the teaching of numerous small sections, to show that without considerable endowment, a union of the Medical Schools would be a larger burden upon Stanford University. If Stanford desired only to put in a limited amount of money, it could not demand equal representation in the management. If it did not care to go beyond a certain amount and had equal representation, it might interfere greatly with the combined Medical School.

Both Universities are so established that they could not make the sacrifice of their present sites and facilities and disturb the work given at Berkeley and on the Stanford campus without having independent funds bringing in at least $ 100,.000 to $150,000 per year available for the united schools. It is unfortunate that while the Hooper endowment may be of great service to Medicine on this Coast eventually, at present the speculative features of the endowment make it more of a liability than an asset in making financial plans for a united school.

That there would be some advantages in uniting the schools provided funds were available is apparent. Without such funds, there is certainly great advantage to Stanford remaining in its present independent position. It is probable that this question will soon be permanently settled and that some recognized expert will be asked by the University authorities to review the situation and give Stanford an opinion as to the wisest and most economical course to pursue.

Critical Correspondence in Regard to Union of the Medical Schools of Stanford University and University of California [28]

On 19 April 1914, the Dean of the University of California Medical School, Dr. Herbert Moffitt, asked your Dean (Dr. R. L. Wilbur) for a prompt answer upon certain phases of the proposed union of the Schools and the following correspondence ensued:

20 April 1914

Dear Dr. Moffitt:
Following your verbal request of today, I presented to the Special Committee on Medicine the proposition outlined by you. The Committee did not feel that it could give a definite answer by ten o'clock tomorrow morning, since a meeting of the Trustees had been called for Friday of this week and they would have to wait until that meeting to come to a decision. I am enclosing herewith a copy of a letter written to Mr. Hopkins, President of the Trustees, in which I am presenting your statement. If this does not meet with your approval in any particular, please communicate with me at once as I wish to have it authoritatively brought before the Trustees at this coming meeting.

Very truly Yours,
(Signed) R. L. Wilbur

20 April 1914
Mr. Timothy Hopkins, President
Board of Trustees, Stanford University
510 Nevada Bank Bldg. San Francisco

Dear Sir:
The Dean of the University of California Medical Department, Dr. Herbert C. Moffitt, asked me this morning to obtain if possible from the Medical Committee or the Special Committee of the Stanford Board of Trustees, a definite answer on the union of the Medical Schools before ten o'clock Tuesday morning, 21 April 1914. Dr. Moffitt wished to make at that time a report to the Committee of the Regents of the University of California. He wished to obtain a statement as to the attitude of the authorities of Stanford University on certain propositions concerning medical education which have been up for discussion. This was in order to bring about prompt and final action through a joint meeting of the Board of Trustees and the Regents should it seem likely that a union of the Medical Schools could be brought about.

When I informed him that Stanford was waiting until Professor Welch of Johns Hopkins could come west before making a decision, he stated that he did not see how they could keep their building and other plans in abeyance so long nor did he see how Professor Welch could contribute materially to the decision on the essential points upon which decision must be reached.

The proposition advanced, as I understand it, by the Regents through Dr. Moffitt is as follows: They consider it desirable for the two Universities to unite their interests in Medicine either upon the Parnassus Avenue site - the present site of the University of California Medical School - or in the Mission near the new San Francisco Hospital on the adjoining land now owned by the Catholic Church. This land the Archbishop is willing to sell at a reasonable figure, considerably less than $ 200,000. It is part of the plan of the University of California to construct a private pavilion, since they see the opportunity in this way of producing income for the care of teaching patients. The present site of the Stanford University Medical School will not be an acceptable site for a joint school.

If Stanford goes into a union, it will not be asked to contribute more than the amount now being spent for medical education including Physiology, Anatomy, Embryology, etc. The Regents of the University of California realize that there will have to be an increasing amount put into medical education with an increasing number of medical students, but will not ask Stanford to share it with them. The Board of Managers is to be constituted of five regents and three Trustees or upon some similar basis. Future representation will depend upon the amounts actually put in by the two institutions. With the majority of Regents upon the Board, it apparently will not be necessary to have a constitutional amendment in order to permit joint control of funds by the Regents and the Stanford Trustees. The University of California states that its present budget for Medicine is about $200,000. This includes apparently the hospital expenses and the Hooper Foundation.

I trust that you will be able to get a definite answer to this proposition at the earliest possible date. I judge though that it cannot come up before the meeting of the Board of Trustees on Friday. If I can give you any further information, please command me.

Very truly yours,
(Signed) R. L. Wilbur

San Francisco, 24 April 1914
Doctor R. L. Wilbur, Dean
Stanford Medical School
Sacramento & Webster Streets
San Francisco

Dear Doctor Wilbur:
Following your suggestion in your note of April 20th, it has seemed to me wise to amplify certain paragraphs of your communication to Mr. Hopkins. It is the earnest wish of the Committee of the Regents to bring about a union of the medical departments of the two Universities. Members of the Committee feel that such a concentration of forces would be of tremendous importance to the cause of medical education on the entire Pacific Coast and they stand willing to make all reasonable concessions to effect it. They would not wish to seem hasty and to urge an immediate decision on the ground of the necessity of developing at once the plans of the University Hospital. They would be perfectly willing to await the arrival of Doctor Welch provided certain fundamental propositions can be accepted.

The Committee feels that the authority of the State is invested in the Board of Regents and cannot be transferred to others and that the State will be called upon in future to put more money into Medicine and that the majority control of the Board of Management

of the united school must rest with the Board of Regents. As you say in your note "The Board of Managers is to be constituted of five Regents and three Trustees or upon some similar plan."

The availability of different sites seems of secondary importance and will be discussed later. The Committee feels, however, that the present site of Lane Hospital does not admit of suitable future expansion. Certain minor corrections of your note may here be in order. It is part of the future plan of the University of California to build a private pavilion in connection with the (County) Hospital, but the chief aim of this private department will not be to provide funds for the maintenance of the teaching hospital. The budget for the support of medicine this coming year is $ 157,000. This does not include the hospital earnings or the income of the Hooper foundation.

Trusting that this note may be transmitted with your communication to Mr. Hopkins and to the Trustees of Stanford University, I remain,

Very truly yours,
Herbert C. Moffitt, Dean
Medical School , University of California

24 April 1914
Dr. R. L. Wilbur, Dean
Stanford Medical School
Sacramento & Webster Streets
San Francisco

Dear Sir:
The Board of Trustees has considered the correspondence which has recently passed between yourself and Dr. Herbert C. Moffitt, Dean of the University of California Medical School, relative to a proposed consolidation of the medical schools of the respective universities.

The Board has requested me as President to transmit to you the following resolution so as to enable you to reply to Dr. Moffitt's letter:

Resolved: that in the opinion of the Board of Trustees of Stanford University the trusts which they are administering do not permit their turning over either property or income to be managed and disbursed by any institution in which they do not have at least an equal voice, and that they consider it impossible to formulate any plan for the union of the medical schools of the two universities on any other basis.

Yours truly,
(Signed) Timothy Hopkins
President

P. S. The letters referred to above are those of yourself of the 20th to me as President and Dean Moffitt's letter to you of April 24th.

25 April 1914
Dr. Herbert C. Moffitt, Dean
Medical Department, University of California
2d & Parnassus Avenues, San Francisco

Dear Dr. Moffitt:
Please find enclosed copy of a letter received this day from Mr. Timothy Hopkins, President of the Board of Trustees of Stanford University, in reference to the proposed union of the Medical Schools of the two Universities. You will note by it that the Board does not see its way clear to enter into a union upon the basis which you have stated in your letter of April 24th is considered by the University of California authorities as fundamental. I refer to the majority control of the Board of Management of a united school resting with the Board of Regents of the University of California.

I judge therefore that this permanently settles the question of uniting the two Medical Schools. The trusts of the two institutions apparently do not permit a satisfactory arrangement to be made. I wish to express my appreciation of the spirit in which you personally have considered this whole question and to congratulate you upon the forward steps which you have made in medical education. I trust that there will be no difficulty in securing close cooperation of the two Medical Schools in the advancement of higher medical standards upon the Pacific Coast and wish to assure you of my willingness to assist you in all efforts along those lines.

Very sincerely yours,
(Signed) R. L. Wilbur

On 12 May 1914 the California Regents addressed the following conciliatory response to the Stanford Trustees: [29]

After careful consideration of all that has hitherto transpired (the California Regents) voted to express officially to the Stanford Trustees their deep desire that an amalgamation be consummated of the work in medicine of the two schools. They are convinced that the welfare of medical education will be so much advanced by such a merger that the opportunity of united effort in this field by the two universities ought not to be lost. The Regents, therefore, in earnest hope of the realization of a plan of so much moment to the community, would request your Board to suggest a basis on which in your opinion such a merger in medical education may be brought about.

This proposal by the Regents, so consistent with the Pritchett stratagem which called for making every effort to absorb the Stanford school within the State system, forced the Stanford Trustees to at last put to rest the persistent notion of a truncated and subordinate medical school for Stanford. At their regular meeting held on 29 May 1914 the Trustees were firm and final in their decision: [30]

Resolved, that this Board of Trustees, after full deliberation, is reluctantly convinced that no basis of merger of the said two medical schools can be formulated, or exists, which is compatible with the legal powers and duties of either university; and further that, if such merger could be formed, it would cause no material saving in expense to either university, and that the interests of each university and of the public will be best served by the maintenance of the two separate schools, each pursuing its own methods and standards and so far as possible supplementing each other.

This resolution signaled the end of the medical school controversy - and by this action the Trustees preserved a full program of medical education as an integral part of Stanford University.

The Vaughan Report

The definitive Board Resolution of 29 May 1914 was adopted on the very day that President Branner's chosen expert, Dean Victor C. Vaughan of University of Michigan School of Medicine, reached California. The resolution had eliminated the purpose of his visit before he could begin his investigation. Nevertheless the Michigan Dean stayed on for a few days and studied the Medical Department while Branner and the Trustees anxiously stood by, each hoping to be vindicated by the consultant's report. Since the question of union with UC had been settled before Dr. Vaughan reached Stanford, the following report became one of advice upon the maintenance and development by Stanford University of a separate and complete medical school: [31]

Ann Arbor, Michigan, June 9, 1914
President J. C. Branner
Leland Stanford Junior University,
Palo Alto, California.

Dear Doctor:
In compliance with your telegraphic request I have visited Palo Alto and San Francisco and inspected the libraries, laboratories and hospitals of Stanford University. The laboratories of chemistry (general, physical, inorganic, organic and physiological), biology, histology, neurology and physiology are well housed, adequately equipped and exceptionally well manned. In all these, high grade work is being done. The laboratories of bacteriology and anatomy need better housing and I understand that this is to be provided in the near future. But in the buildings now occupied, most excellent work is being done. In fact, each of the scientific departments at Stanford is under the direction of an eminent man supplied with able and enthusiastic assistants and with necessary equipment. There is abundant evidence even in a hasty inspection that the appropriations have been economically and wisely expended and that good work is being done both in instruction and in research. I wish to compliment the trustees and president upon the evident wisdom which they have displayed in the development of these departments of the university.

What I have said of the scientific branches is equally true of the other departments of Stanford University. Although one of the youngest of the higher institutions of learning in this country, Stanford ranks as one of the best in all departments, both scientific and humanistic. In all branches it represents the highest aims and ideals. While I am not fitted to express anything more than a general opinion as to other than scientific education, I wish to emphasize the fact that all learning is one and the same spirit should pervade the whole. This I believe to be true at Stanford. It furnishes a wholesome atmosphere in which the student can grow whatever special line of training he may follow later. The greatest need of our country is the man whose fundamental knowledge is broad and comprehensive and whose special training is exact. No man can have useful knowledge of a part unless he has general knowledge of the whole. The working of the part must be in harmony with the movements of the whole, otherwise disaster is the result. While I am especially interested in medical education, I recognize the fact that it is futile to try to develop a good medical man out of one whose fundamental training has not been sound. The young man who has learned to work with the right spirit whether it be in Greek or biology, in philosophy or chemistry, will enter medicine, law or any profession in the right frame of mind and will be likely to prove an honor in his chosen profession.

In his preliminary college training the prospective medical student should not be confined to the physical or biological sciences. It is desirable that he know the classics, history and philosophy and it is most desirable that the training that he gets along these lines should be of the highest grade. I believe that Stanford University furnishes suitable conditions for the development of the young man who is going into medicine. Therefore, I hope that the medical work done at Palo Alto may continue. If the medical school should be closed, this would relieve Stanford of only one of the laboratories at Palo Alto. Physics, chemistry, biology, physiology, histology, embryology, neurology and bacteriology must be taught and research work in these branches must be done in a university of the high rank Stanford holds. Closing the medical school would give only trifling financial relief to the university. I therefore recommend that the premedical and medical work now done at Palo Alto be not only continued but be developed as fast as the finances of the university permit.

I make this recommendation not only for the good of the medical school, but, as I believe, in the interest of the university as a whole. If the medical department should be discontinued, anatomy is the only subject which could be dropped at Palo Alto and even then this should not be done. Anatomy is one of the great and fundamental biological sciences and even human anatomy should be taught in a great scientific university. Anatomy is no longer taught as a mere foundation for medicine and surgery. It includes the development of structure from the lowest to the highest forms of life.

I went to San Francisco and made an inspection of the library, hospital and laboratories of the medical school.

The Lane Library is one of the best medical libraries in the country. It is supplied with practically all the best medical journals so arranged as to be most available to members of the faculty and students. Its location in regard to the hospital and laboratories is quite ideal. It is worth much to both the clinical and the research man to have at his hand the best contributions of the world. When a problem comes up for solution the first thing to learn is to ascertain what has already been done along this line. A medical school without a library is like a boat without a pilot, and much time is likely to be lost in drifting. The medical department of Stanford is fortunate in the possession of its library.

While the present hospital building is somewhat out of date it is, so far as I can see, admirably managed both in caring for the sick and in the instruction of students. The out-patient department, systematized as it is, is both a great, broad and needful charity and at the same time a source of varied and comprehensive instruction to students. The addition soon to be made to the hospital will

modernize the institution. It will bring more pay patients to the institution and thus furnish funds with which the less fortunate can be cared for. I was greatly pleased with the management of the hospital. The laboratories in the hospital are ably conducted and fairly well equipped. Some of them will probably have enlarged and improved quarters when the addition is made to the hospital.

As I understand, the total cost of the medical department is now about one hundred thousand dollars per year. This cost will slowly increase. Notwithstanding this fact, I strongly urge that the medical school be not only continued but be developed. In its development the quality of its work should be constantly held in mind. The number of medical students should be kept small. Quality and not quantity should be the aim.

I believe that in the near future the medical department will be a source of strength to the university in many ways. First, in the importance of the research done and the benefits that such research will confer on the race. Within the past thirty years the average human life has been increased nearly fifteen years and the whole of life has been made more comfortable. This is a work to which a great university should contribute. The opening of the Panama Canal will bring to the Pacific Coast many health problems which can be best solved in such a school of instruction and research as I believe Stanford will develop. Second, I am firm in the belief that the medical school will attract large donations, both for research and the clinical work. Philanthropists will see that the best service they can render lies in the direction of improved health conditions. Third, medicine is now attracting to its ranks many of the best of our young men and this will be a source of strength to the university.

Lastly, I come to the matter on account of which I was called to visit you. The time may come when it may be wise to consolidate the two university medical schools in San Francisco, but I do not believe that this would be wise at present. Stanford, from what I can learn, can afford to develop its medical school without material hindrance in the growth of other branches and I believe that this is the wise thing to do.

I am aware of the fact that a hasty visit, such as I have made, may give erroneous impressions and I would not have you attach any great importance to this report, but I have tried to look at matters from a broad viewpoint, and to hold constantly in mind the good of Stanford University as a whole. I have considered it unnecessary to go into financial or other details with which you are much more familiar than I am.

In conclusion I wish to thank you, … .and Dr. Wilbur and other members of your faculty for the many courtesies shown me and to express the hope that the growth of Stanford University during the past quarter of a century, phenomenal as it has been, may be surpassed in its future developments.

With great respect, I am,

Yours most respectfully,
V. C. Vaughan.

The Board of Trustees considered Dean Vaughan's complimentary report to be supportive of their decision to maintain and develop the Medical School in its current form. Under the strong and partisan presidency of Timothy Hopkins, and the persuasive advocacy of Herbert Hoover, the Board had rescued the School from major internal and external threats to its survival.

President Branner conceded that "Vaughan's report has some good things in it, and some that time alone can characterize. The trustees naturally feel that they have won out, feeling so they were the more ready to follow my recommendations (on other matters)… The medical skeleton is now put away in its closet, and in my day it is not likely to be seen again.…In view of Dr. Vaughan's report and the difficulties standing in the way of a union of the two schools it only remains for us to go forward with the medical school as it is." [32] [33]

Regarding the propriety of San Francisco as the site of two competing medical schools, Dean Vaughan and the Stanford Board of Trustees were better prophets than President Pritchett and Abraham Flexner. Also notable is the contrast between Flexner's harsh assessment of the Cooper/Stanford medical program in 1909.and the Vaughan report of 1914. Because of their doctrinaire mind-set, Flexner and Pritchett failed to appreciate the significance of the transition already clearly in progress from proprietary medical college to university medical school at Stanford - the most academically promising university in the West.

In his Memoirs, Dr. Wilbur had this to say on the subject: [34]

> If President Pritchett were alive today he would be surprised to see how far off was his estimate on the medical needs of the Pacific Coast. No one could foresee the great expansion in population and in medical practice. It now seems clear that the medical profession of any community of a half million or so inhabitants can best serve that community by developing a medical institution of some sort where students are accepted either for the medical course or for training in their postgraduate work.

Endnotes

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7. Christina Man-wei Li , "The History of the Lane Medical Library, 1912 - 1967" (Thesis Presented to the Faculty of the Department of Librarianship, San Jose College in Partial Fulfillment of the Requirements for the Degree Master of Arts), Fig. 2, Lane Medical Library, San Francisco. Photograph of the building, p. 39. Lane Library Catalog Record
8. Christina Man-wei Li , "The History of the Lane Medical Library, 1912 - 1967" (Thesis Presented to the Faculty of the Department of Librarianship, San Jose College in Partial Fulfillment of the Requirements for the Degree Master of Arts), p. 39, Fig. 2, Lane Medical Library, San Francisco. Photograph of library. Lane Library Catalog Record
9. Christina Man-wei Li , "The History of Lane Medical Library, 1912 - 1967" (Thesis Presented to the Faculty of the Department of Librarianship, San Jose College in Partial Fulfillment of the Requirements for the Degree Master of Arts), p. 44, Fig. 3, General Reading Room of Lane Medical Library, San Francisco. Photograph. Lane Library Catalog Record
10. Christina Man-wei Li , "The History of Lane Medical Library, 1912 - 1967" (Thesis Presented to the Faculty of the Department of Librarianship, San Jose College in Partial Fulfillment of the Requirements for the Degree Master of Arts), p. 44, Fig. 3, General Reading Room of Lane Medical Library, San Francisco. Photograph. Lane Library Catalog Record
11. Letter, John M. Stillman to Emmet Rixford re change of name of Stanford University Department of Medicine, 20 November 1908, Emmet Rixford Papers - Mss 8, Box 5.1, Lane Medical Archives, Stanford. Lane Library Catalog Record
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31. John C. Branner , Annual Report of the President of the University for the Twenty-third Academic Year ending July 31, 1914 (Stanford University, California: Published by the University, 1914), pp. 17-20.
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Chapter 33: The Clinical Full-Time System

It was the work of the 19th century to place medical education on a scientific basis, and of the twentieth century to put clinical departments on a full-time or "university" basis. The clinical full-time system of faculty organization played such an important role in raising clinical departments to the university level of scholarship and productivity that a history of its evolution is in order.

Origin of the Full-Time Concept

Before further consideration of the organization and development of the medical faculty at Stanford during the deanship of Dr. Wilbur and after, we should recall that Johns Hopkins, to which Stanford looked as its model, installed the clinical full-time system in 1914.

We have already described briefly (in Chapter 3) how Hopkins adopted the system of full-time faculty appointments for the clinical departments of Medicine, Pediatrics and Surgery. Full-time appointments were already the norm for the basic science departments in the few American medical schools with advanced programs, but there was no medical school in the country in which the clinical departments were on the full-time or "university" basis. Hopkins was the first. [1]

It was argued that teaching and particularly clinical research would be greatly enhanced if faculty of the clinical departments were also employed full-time by the university as in German medical schools. Under such a full-time system, clinical faculty would not be permitted to hold outside paid positions, or to engage in private medical practice for personal gain, lest their attention to teaching and research be diverted by external commitments and the prospect of additional income. Any income from private practice incidental to teaching and research would be collected and retained by the medical school.

The conversion of the clinical departments of Medicine, Pediatrics and Surgery at Hopkins to a full-time or "university" basis in 1914 was one of the century's most significant and invigorating innovations with respect to the organization of American medical faculties. It was also one of the most controversial because of (1): its prohibition of private practice for personal gain and (2): its possible undesirable side-effects. "I take it," Osler told Johns Hopkins president Remsen, "the special advantage claimed for the whole-time system is that the Professors will be better able to promote research." But Osler initially feared that the plan might foster "the evolution throughout the country of a set of clinical prigs, the boundary of whose horizon would be the laboratory, and whose only human interest was research." Years later Osler changed his opinion and endorsed the full-time concept. [2]

The fact that Stanford eventually adopted the clinical full-time system in 1959 makes it relevant at this point to provide additional information on the origin and evolution of the system.

In 1884, while studying at Leipzig in the laboratory of Carl Ludwig, noted German physiologist, William Welch met another visiting American trainee, Frederick Mall. Welch and Mall were so impressed by the success of the German model of full-time clinical appointments in fostering scholarly work that they later played critical roles in introducing the full-time plan into this country.

Circumstances brought Welch and Mall together again in 1893. Welch had by that time become the first Professor of Pathology and Dean at Johns Hopkins Medical School, and Mall was Professor of Anatomy at the University of Chicago. On the invitation of Dean Welch, Mall resigned his post at Chicago and in 1893 became the first Professor of Anatomy at Hopkins. There he and Welch joined in a continuing effort to persuade the Hopkins' faculty to install the full-time system in the clinical departments. [3] [4]

Dr. Barker Acclaims the Clinical Full-Time System

Their cause was significantly advanced by one of their trainees, Dr. Llewellys F. Barker, who left Hopkins in the summer of 1900 to become Professor of Anatomy at Chicago. As a result of his prior association with Professors Welch and Mall, particularly Mall, Barker was convinced of the merits of the clinical full-time concept. When invited to address a Chicago meeting of the Western Alumni of Johns Hopkins University on 28 February 1902, Barker seized the opportunity to discuss the concept in detail. The title of his address was "Medicine and the Universities." [5]

In his comprehensive discourse, published in the journal American Medicine of 5 July 1902, Barker urged extension of the "university" or "full-time" system to the organization and conduct of the main clinical departments of medical schools connected with universities. He declared that a university school of medicine must place emphasis on research as well as on teaching. This could best be accomplished, he argued, by expanding the full-time system of appointment from the preclinical to include the clinical departments. To eliminate the financial incentive for practice, the professors' medical fees should go to the institution. [6]

The following perceptive contemporary critique of Dr. Barker's address is from an editorial in the Journal of the American Medical Association for 18 October 1902: [7]

> In a recent and widely noticed address on "Medicine and the Universities" Dr. Lewellys F. Barker, of the University of Chicago, reviews the general progress of medical instruction in this country, and gives his ideas as to its needs. A special weakness of the methods of the present day, in his opinion, is in the fact that the teaching of medicine is not an exclusive life-work of those who are engaged in it, and in this he would include not only instructors in the especially scientific branches, but also those who have the chair of general internal medicine and of surgery as well as of the specialties. The university medical school, he holds, should be like the other departments of the university, with its professors devoting themselves solely to instruction and original work, and in no way dependent on other work or tempted to seek income from outside sources…
>
> Daily experience in the practice of medicine has certain advantages and the teacher thus trained is, in our opinion, other things being equal, better qualified, more practical and less purely theoretical than one whose professional duties are confined within medical college and hospital walls.…
>
> Dr. Barker's ideal, therefore, seems impracticable in this particular, however admirable it may be in other respects…The great expense of carrying out all of Barker's suggestions would be an obstacle to their realization - except it may be in one or two favored places - but that alone would not be the greatest obstacle. The impossibility of isolating the highest medical ability which it should command would be a greater one.

Clearly the idea of full-time appointment of essential faculty in the clinical departments of American medical schools was not original with Barker. He gave credit to Dr. Mall for being the first to advance the idea in this country. He assumed that Mall got the idea from the German system as it operated under his old master, Carl Ludwig. Regardless of how the idea originated, Barker was the first to comprehensively articulate and effectively advocate adoption of the full-time system in the clinical departments of American university medical schools.

Reverend Gates and the Rockefeller Institute

Barker introduced the clinical full-time system to the medical profession at large. Fortunately, he also brought it to the attention of Reverend Frederick Gates, one of the few men who had access to the funds essential to support such a system. Reverend Gates was a Baptist minister and trusted senior adviser on philanthropic programs to the oil magnate, John D. Rockefeller, Sr. Convinced that humanity would benefit if medicine became more scientific, Gates played a crucial role in Mr. Rockefeller's decision to endow the Rockefeller Institute for Medical Research, incorporated in New York City on 14 June 1901.

Dr. Welch was Chairman of the first Board of Directors of the Institute, and his influence with Gates and the Rockefeller organization grew even further when his protégé, Simon Flexner, was appointed first Director of Laboratories at the Institute: [8]

> Simon Flexner (1863-1946), an older brother of Abraham Flexner, was born (25 March 1863) in Louisville, Kentucky, and graduated in medicine from the University of Louisville in 1889. One year later he came to Baltimore and entered Dr. Welch's laboratory as a graduate student in pathology. At the end of that year (1891) he was appointed Fellow in Pathology. From that time until 1899 he was connected with both Hopkins Medical School and Hospital, and when Dr. Councilman left in June 1892 to become Shattuck Professor of Pathology at Harvard, Flexner became the right hand man of Dr. Welch in the Hopkins Pathology Department.
>
> In 1895 Flexner was made Associate Professor of Pathology at Hopkins and in 1898 Professor of Pathological Anatomy, a post which he held for one year only, resigning to accept the professorship of Pathology at the University of Pennsylvania. From there he was called in 1903 to organize the Rockefeller Institute for Medical Research in New York City, and he served as Director of that institution until his retirement in 1935.
>
> While at the Institute he guided the work of numerous investigators while he himself continued to contribute to the study of infectious diseases and helped to develop a serum for spinal meningitis in 1907. After that he and his coworkers did fundamental research on the nature, transmission and viral origin of poliomyelitis.
>
> However, it is perhaps not amiss to say that the solid foundations for his success in these endeavors were unquestionably laid during the years when he served under Dr. Welch in Baltimore. [9] [10]

The General Education Board

The Rockefeller Institute, with Simon Flexner at its head, created an environment and prototype for medical research on a scale unprecedented in America, and it served to strengthen the ongoing relationship between the Gates - Rockefeller and Welch - Hopkins alliances. This relationship soon found its further expression in another Rockefeller philanthropy, the General Education Board.

The GEB was established in 1902 (incorporated by an Act of Congress on 12 January 1903) for the broad general purpose of promoting "education within the United States without distinction of race, sex or creed." This foundation, liberally endowed by John D. Rockefeller, Sr., seems to have been primarily the brainchild of his son, John D. Rockefeller, Jr., with Gates contributing to the planning. Gates was a Trustee of the GEB from 1902 to 1928 and Chairman from 1907 to 1917. He was doubtless responsible for directing the Board's program into a primary concern with the problems of medical education in America. As a result of this orientation, it was logical that he and the Board looked increasingly to Welch for advice and to the Hopkins school as a model. The Board ultimately became the source of many generous grants in support of clinical full-time programs. [11] [12]

Barker's essay on the clinical full-time system coincided with the founding of the GEB. Gates was greatly impressed by Barker's formulation of the concept as the most effective means of encouraging research and teaching in the clinical departments of medical schools. In a letter to Barker written years later, Gates told him how deeply he had been affected by his discourse on the clinical full-time system and added: "To your ideals as there and elsewhere presented we owe, I suppose, more than to any other factor, our present progress (in medical education)." [13]

Mr. Gates's interest in medical education and his strong advocacy within the GEB for the funding of programs designed to improve medical research and teaching, were also stirred by a chance introduction to Osler's classical Principles and Practice of Medicine, the best text-book in English on the subject at the time. A young medical student whom he had baptized urged Gates to read Osler's book. While reading the book Gates told the president of the University of Chicago that he had "scarcely ever read anything more intensely interesting." In 1902 he told Osler that while studying his book, "the vast possibilities for good lying in this field of research opened up before my imagination and fired my enthusiasm." [14]

Barker Succeeds Osler in 1905

William Osler, Professor of Medicine at Hopkins and the country's most celebrated internist, departed for England in 1905 to become the Regius Professor of Medicine at Oxford. Among the honors announced

during the Coronation of King George in June 1911 was a baronetcy for Dr. Osler which carried with it the title of "Sir William." [15]

When Barker left Hopkins in 1900 to become Professor of Anatomy at the University of Chicago it could not have occurred to him, with his limited clinical background, that he would be recalled in 1905 to succeed Professor Osler as Professor of Medicine and Physician-in-Chief to the Hopkins Hospital. One cannot escape the thought that Barker's prominence as advocate of the clinical full-time system was in part responsible for his choice as Osler's successor. [16]

The Carnegie Bulletins

In 1910, while the issue of full-time appointment of clinical faculty continued to be of theoretical interest but impractical of adoption at Johns Hopkins, the Carnegie Foundation published its Bulletin Number Four, Medical Education in the United Sates and Canada, better known as the Flexner Report. This report was based on visits to American and Canadian schools by Abraham Flexner and associates during 1909 and the winter of 1909-10. As we previously pointed out (in Chapter 31), the picture Flexner drew of these schools was dismal indeed except for a few institutions, chief among them being Johns Hopkins, Flexner's shining model, "the one bright spot, despite meager endowment and missing clinics." Bulletin Number Four caused a profound sensation nationally by its pitiless exposures. Many of the medical schools which Flexner had so unsparingly condemned collapsed and by 1927 only eighty of the former 155 schools were operating. The following is a brief resumé. [17]

Abraham Flexner (1866-1959), a younger brother of Simon Flexner, was the sixth of nine children, seven boys and two girls. He was born in Louisville, Kentucky. A graduate of Johns Hopkins University, he taught Latin and Greek in the high school at Louisville, for four years; and for fifteen years in the same city he ran a highly successful preparatory school of his own. Thereafter he studied at Harvard and Berlin.

He then completed the following two medical surveys for the Carnegie Foundation which established his reputation as the foremost American authority on medical education: [18]

1910, "Medical Education in the United States and Canada." Carnegie Foundation Bulletin No. 4 ("The Flexner Report") [19]

1912, "Medical Education in Europe." Carnegie Foundation Bulletin No. 6 [20]

Mr. Gates Consults Abraham Flexner

When Mr. Gates read Bulletin Number Four, he was greatly impressed by Flexner's findings and recommendations and was eager to consult him on matters of immediate concern to the GEB. As a result he was looking forward with some anticipation to Flexner's return late in 1910 from his survey of Medical Education in Europe. We turn now to Flexner's autobiography for his account of the consultation with Mr. Gates. Flexner wrote: [21] [22] [23]

> Early in 1911, while I was writing Bulletin Number Six in a rear office of the Carnegie Foundation, Frederick T. Gates, who had been for many years confidentially associated with John D. Rockefeller, invited me to lunch. I recall the occasion with great distinctness. Mr. Gates was a positive and incisive thinker and speaker. He was perhaps the greatest of American philanthropists, for he had imagination, daring, and an intuitive sense of educational strategy. He had no patience with small things. Unless he could foresee an important and large outcome he would dismiss them with the words "retail business." On the other hand, he was never deterred by the magnitude of an enterprise provided he was convinced that it was good in itself and was likely to be productive of good throughout the country. . . .
>
> The luncheon was simple and soon finished. Mr. Gates wasted no time on preliminaries. He said:
>
> "I have read your Bulletin Number Four from beginning to end. It is not only a criticism but a program"
>
> I replied, "it was intended, Mr. Gates, to be both, for you will remember that it contains two maps, one showing the location and number of medical schools in America today; the other showing what, in my judgment, would suffice if medical schools were properly endowed and conducted by a well-trained personnel."
>
> "What would you do," asked Mr. Gates, "if you had a million dollars with which to make a start in the work of reorganizing medical education?"
>
> Without a moment's hesitation, I replied, "I should give it to Dr. Welch."
>
> "Why?"
>
> "With an endowment of four hundred thousand dollars," I answered, "Dr. Welch has created, in so far as it goes, the one ideal medical school in America. Think what he might do if he had a million more. Already the work Dr. Welch and his associates have done in Baltimore is having its effect in reorganizing the personnel of medical schools elsewhere, and we must not forget that but for the Johns Hopkins Medical School there would probably be no Rockefeller Institute for Medical Research in New York today."
>
> "Would President Pritchett of the Carnegie Foundation release you long enough to go to Baltimore to make a detailed study of the situation and report to me?"
>
> "I think he would," I replied.
>
> "Ask him, and if he agrees, go."
>
> Thereupon the luncheon terminated, Dr. Pritchett was extremely happy to realize that Bulletin Number Four might have some practical consequences of importance, and he made it possible for me to spend a period of about three weeks in Baltimore.
>
> Reaching Baltimore, I sought out Dr. Welch and explained to him that there was a possibility of obtaining a million dollars which might go in a lump to the John Hopkins Medical School for additional endowment, and that I wished therefore to make a careful survey of the school and hospital and to get the judgment of the faculty as to the uses to which the income on this sum could be put. Dr. Welch was not excited at the prospect. He never became excited over possibilities, but he had been thinking, though without any hope or expectation, that this particular day might dawn. He said, "I should like to talk with you and Mall and Halsted at dinner tonight. Can you come to the Maryland Club?" After dinner - an excellent dinner, for Dr. Welch knew as much about food as he did about pathology - he explained to his associates the hypothetical question which I had put to him. There was silence for a little while, then Dr. Mall spoke out:
>
> "If," he said, "the school could get a sum of approximately a million dollars, in my judgment, there is only one thing that we ought to do with it - use every penny of its income for the purpose of placing upon a salary basis the heads and assistants in the leading clinical departments, doing for them what the school did for the underlying medical sciences when it was started. That is the great reform which needs now to be carried through."
>
> It must be remembered that at that time prominent men like Osler, Halsted, and Kelly received nominal salaries - a few thousand dollars annually - from the university. They had to make their living by practice. From the demands of practice they snatched what time they could to devote to clinical research and teaching - and they snatched much time, for they all cherished ideals "made in Germany." Despite the handicap under which they worked, they had started a brilliant development in scientific clinical medicine in the United States, but their success was menacing. The Johns Hopkins Hospital was a Mecca to the sick in all sections of the country. Persons who came there had to be looked after, and they sought and expected the services of the heads. The strain upon these men was therefore terrific. Nevertheless, "Halsted had established himself as the greatest surgical thinker America had yet produced," to quote the words of Dr. Carrel. Dr. Osler, by this time Regius Professor at Oxford, had greatly simplified the practice of clinical medicine by showing the uselessness of most drugs and the importance of rest, fresh air, and diet; and Dr. Kelly had, by his skill and knowledge, introduced a new era in the practice of gynecology.
>
> "If," argued Mall, "these men have such achievements to their credit and at the same time teach and practice, what might not ultimately be expected if they could devote themselves to their hospital wards precisely as the physiologist and anatomist devote themselves to the laboratory?"
>
> Mall's suggestion was not new to Dr. Welch and Dr. Halsted. It had first been made some years earlier in a speech, entitled "Medicine and the Universities," by Dr. Lewellys F. Barker. . . Mall had convinced Dr. Barker of the importance of academic medicine and, in (his) quiet way, (Barker) had continued his campaign of education during the years which had passed since he came to Baltimore in 1905 (as the replacement for Dr. Osler). The ground was therefore quite ready. (Welch) found that all those engaged in teaching the underlying medical sciences wished to devote every penny of additional income that could be procured to the installation of full-time academic teaching and research in the main clinical branches. Dr. Halsted and some of the younger clinicians were of the same mind. There was a good deal of hesitation among the others, partly because they feared a loss of experience; partly, I suspect, because through the prosperous practice of medicine they had adjusted their lives to a standard which would have to be greatly changed in the event of a thoroughgoing reform.
>
> I have myself often been credited with the authorship of what is called the "full-time scheme," but I am entitled to no credit whatsoever. It did not originate with me and it is not mentioned in either Bulletin Number Four or Number Six. It did not even originate with Mall, but was attributed by him to his old teacher, the great Leipzig physiologist, Ludwig, who one day, so Mall said, remarked to him that sooner or later teaching and research in clinical medicine and surgery would have to be organized on the same basis as teaching and research in anatomy and pathology; both of these had once been in the hands of practicing physicians, and neither had prospered as they should until they commanded the full time and strength of the men engaged in their teaching and cultivation.
>
> I spent three weeks in Baltimore and finally wrote for Mr. Gates a confidential report, in which I pointed out, first, that a thoroughgoing reform could not be accomplished even in one medical school with $1,000,000. The sum required would be hardly less than $1,500,000. I contrasted the conditions that had come about in the laboratories under full-time men and the conditions that existed in the clinics, where part-time men were driven in various directions. I pointed out further that as a matter of fact it was more important for a clinician to enjoy a full-time opportunity to carry on teaching and research, because, simplify his situation as one would, his task was infinitely harder than that of a laboratory man, for the laboratory man could concentrate upon his research and his teaching and command his entire time, dividing it as he pleased. The clinician had to organize a clinic, had to teach students, had often for his research to attend patients, and had in addition to carry on laboratory investigations aiming at the solution of the problems that arose in the clinic. I urged therefore that a sum of approximately $1,500,000 should be given to the Johns Hopkins Medical School for the purpose of reorganizing upon the full-time basis, or, as Dr. Welch preferred to call it "the university basis," the medical, surgical, obstetrical, and pediatric clinics.

Flexner's report to Mr. Gates concerning the visit to Baltimore was enthusiastically received and approved in principle by Mr. Gates and the General Education Board. As the next step in deciding on a joint course of action to be taken by the GEB and Hopkins University, Flexner was requested to return to Baltimore for the purpose of submitting the report to Dr. Welch and his associates. He was authorized to convey to them the "intimation" that money would be available provided that, after due reflection and discussion, the Hopkins faculty and trustees actually wished to undertake the experiment of establishing full-time clinical appointments.

Late in March 1911 Flexner returned to Baltimore and met with Dr. Welch and the University trustees on the evening of his arrival in the city. After a detailed discussion of the issues, Flexner received from them an assurance of their solid support for the reorganization of the clinical faculty on a full-time basis. In the course of the conversation Flexner urged that, if a change to full-time teaching were made, the attendance of the school should be cut down to two hundred fifty students.

Flexner returned to New York by train that night and on the following day prepared a report of the meeting for Mr. Gates. On 2 April 1911 Mr.

Gates called Flexner to say: "I have just finished reading your report. I can hardly find words to express my satisfaction and delight. I am more than satisfied. It is a model. I have occasion to read many reports, but when I have read anything like that I cannot recall."

On the basis of Flexner's report, Mr. Gates and the GEB were under the impression as early as April 1911 that Welch and the Hopkins trustees supported the plan to appoint the heads of certain clinical departments on a full-time basis. They further assumed that a request for a grant to fund the experiment would be soon forthcoming from Dr. Welch. Such was not to be the case. Since adoption of the plan was subject to ratification by the faculty, more than a year and a half dragged by before a consensus was reached.

Within the medical faculty the laboratory men unanimously endorsed the plan, but there was a rift among the clinicians over the assignment of income from private practice to the school rather than to the physician. Welch made no effort whatever to push the idea. He saw that every member of the faculty had a copy of the report, and bided his time. He was determined not to alienate those members of the faculty who remained unconverted. As a result, Welch deferred submitting a grant application to the GEB until, as we shall later recount, Flexner prodded him to do so in October of 1913.

Flexner Joins the General Education Board

As to the fortunes of Abraham Flexner, he had by the fall of 1911 completed his commission to evaluate European medical education for the Carnegie Foundation and had prepared a report on the subject. (His report was published by the Foundation in 1912 as Bulletin Number Six.) Also, by this time, his services were no longer needed by the General Education Board as an emissary to Hopkins. He was thus free of commitments (that is, he was unemployed) when, late in 1911, he was approached urgently by John D. Rockefeller, Jr., to undertake an investigation of prostitution in Europe on behalf of the New York Bureau of Social Hygiene.

During Flexner's temporary association with the General Education Board in connection with the Hopkins negotiations he had enjoyed a cordial relationship of mutual respect with the junior Rockefeller who was an important member of the Board. Under the circumstances Flexner felt obliged to accept the difficult assignment that Rockefeller pressed upon him. Early in 1912 he went to Europe and began the study of prostitution in major cities.

In March of 1913, near the completion of the study, Flexner received word in London that Mr. Rockefeller had arranged for him to become a member of the General Education Board.

The news of an invitation to join the GEB was a godsend to Flexner who had been in grave doubt as to what his future employment might be upon completion of the European assignment. Now, upon his return to New York in the spring of 1913, Abraham Flexner embarked upon a new career as a member of the GEB where he served as Assistant Secretary of the Board from 1913 to 1917, as Secretary from 1917 to 1925, and as a Trustee of the Board from 1914 to 1928. [24] [25]

Harvard and Hopkins Apply to the GEB

Upon joining the GEB Flexner renewed his special interest in the Hopkins experiment with the clinical full-time system. In early October 1913 he learned that the Board would take final action later that month on the grant applications it had received thus far.

He also learned that Welch at Hopkins had not submitted an application, but that an application had been submitted by the following prestigious Harvard committee appointed by Harvard President Lowell: Henry Christian, former Dean and full-time Professor of Medicine located at the Peter Bent Brigham Hospital, chairman; Harvey Cushing, full-time Professor of Surgery also at the Brigham; and Dean Edsall of Harvard Medical School. The Harvard application requested a grant of $ 1. 5 million for the purpose of placing "all of its clinical departments…on a satisfactory university basis." The professors were to "devote the major part of their time to school and hospital work, "but they were not to be barred from receiving fees from private patients." [26] [27]

In fact, Flexner had visited Harvard in June 1913 to advise Christian on the Harvard application. Harvard Medical School was no stranger to Flexner. Four years earlier, during his survey of medical education in the United States and Canada, he had measured Harvard against the standard of medical education set by Johns Hopkins and found it wanting, particularly because it had no teaching hospital of its own but relied on private hospitals such as the Peter Bent Brigham and Massachusetts General for teaching beds. He also knew that the provision in the application which allowed senior professors to conduct a limited consultative practice in the hospitals and to keep the fees, was unacceptable. It did not eliminate the profit motive in clinical teaching, an objective central to the effectiveness of the full-time system, according to the standards set by Flexner and the GEB. Instead of advising Christian specifically regarding these important items of concern, Flexner limited his comments to requests for further data about the medical faculty and student body, and promised on leaving that he would discuss matters more fully in the fall. [28] [29]

Following that meeting with Christian, Flexner sent a number of suggestions to Welch and his associates at Hopkins about what they should include in the application they were preparing for submission to the Board. Furthermore, early in October, when Flexner learned that the GEB would take final action later that month on the grant applications it had received, he alerted Welch to the necessity of submitting the Hopkins proposal before that meeting. [30]

In contrast, at no time did Flexner, following his visit with Christian in June 1913, make an effort to communicate about the Harvard application either with Christian or any of his colleagues. It was not until Christian wrote Flexner in late September requesting an opportunity to discuss the Harvard proposal with him again that Flexner finally agreed to meet with Christian at Harvard Medical School in mid-October. [31]

The meeting proved a shock to Dr. Christian. Flexner told him plainly that the Harvard application was not acceptable and that it would have to be totally revised if it was to be seriously considered by the Board. But Flexner did not inform Christian that the Board would make its final decision in the next week on the applications before it, which consisted of the applications from Hopkins and Harvard. Unaware of the deadline, Christian began immediately to revise the Harvard application and was still in the process when the General Education Board met on 23 October 1913 and made its decisions. [32]

Approval of the Hopkins Application by the GEB

The Hopkins application received a quite different treatment from that of Harvard. Thanks to the patience of Dr. Welch and the coaching of Flexner, the entire Hopkins faculty was at last supportive of the clinical full-time plan and, on 21 October 1913, Welch submitted a formal application to the General Education Board for a grant of $1.5 million to support establishment of three clinical full-time appointments. His application included the following succinct description of the objective of the Hopkins full-time plan: [33]

> The faculty of the Medical School are fully convinced of the wisdom and necessity of commanding the entire time and devotion of a staff of teachers in the main clinical branches precisely as the school has since its beginning commanded the entire time and devotion of the teachers of the underlying sciences; we are persuaded that the time is ripe for the step in question and we are desirous of undertaking the innovation. Should the General Education Board provide the funds, the departments of medicine, surgery, and pediatrics would be organized on the full-time basis - that is, the professor and his staff consisting of associate professors, associates, assistants, etc. - would hold their posts on the condition that while engaged in the service of the university and hospital they accept no fees for professional services. They would be free to render such service required by humanity or science, but from it they would be expected to derive no pecuniary benefit. Fees charged by the hospital for professional services to private patients, whether within or without the hospital, by members of the full-time staff, such as at present are paid directly to the physician, would be used to promote the objects for the attainment of which this request is made.

The General Education Board acted swiftly. On 23 October 1913, two days after the date of Dr. Welch's application, the Board passed the necessary resolutions making available to Hopkins the sum of $1.5 million to be used to carry out the full-time proposal as set forth in Welch's application of 21 October 1913. [34] [35]

The outcome was predictable. According to the minutes of the Board, the Hopkins application met every criterion that had been set up and was unanimously approved.

Harvard Grant Applications Rejected by the GEB

At its meeting on 23 October 1913 the General Education Board rejected the Harvard application because the improvements it recommended in clinical teaching were not "sufficiently fundamental." Even more irritating to the Harvard grant committee was the added comment that "although a member of the Board had conferred with the committee at Harvard Medical School and indicated that the Board would be interested in a more comprehensive proposal for reorganization, no such proposition had been received." [36]

Once Flexner had embraced the vision of the full-time system as described by Mall he insisted on a literal application of the concept, with the Hopkins program being the model. This doubtless accounted for his negative reaction to Harvard's application to the General Education Board. From Flexner's viewpoint there were several major deficiencies in the Harvard application.

First, it did not convince Flexner, upon whose judgment the GEB relied implicitly, that Drs. Christian and Cushing were already functioning as "full-time clinical faculty devoted primarily to research and teaching, " which was Christian's presumption. Second, the Peter Bent Brigham Hospital was a private hospital and did not, strictly speaking, fulfill the criterion of being a "university hospital," owned and operated by the medical school.

Like Flexner, Christian's goal was to establish all clinical departments on a full-time basis, but they differed on the method to achieve this result. Flexner wished primarily to establish full-time chairs in the major clinical departments; Christian proposed that young assistants in the various clinical departments be placed on a full-time basis with an adequate yearly salary and that the salaries of the professors of pediatrics, gynecology, obstetrics, and psychiatry be increased so that they too could afford to devote themselves full-time to their academic and hospital duties. However, Christian said nothing specifically about clinical full-time appointments in the departments of medicine and surgery. He apparently believed it to be obvious that he and Cushing were already working on such a basis at the Brigham.

Finally, there was an issue that on its face disqualified the Harvard proposal. This was the continuing insistence by the Harvard committee that full-time clinical faculty be permitted, in accordance with Harvard tradition, to see patients and collect fees. Although Christian's proposal forbade members of the clinical departments (professors as well as assistants) to engage in general private practice, it did insist that senior professors have the privilege of seeing a limited number of private patients in the hospital on a consultative basis and of keeping the fees. To the uncompromising Flexner, this policy alone made the Harvard program inconsistent with his conception of the strict clinical full-time system which GEB grants were designed to install. [37]

Christian and the Harvard administration were incensed by the manner in which their application had been handled. They concluded that, given the prior negotiations by the GEB with Welch and the Hopkins school, this first competition sponsored by the Board to advance clinical education by installation of the clinical full-time system was little more than a charade organized by Gates and deftly carried to fruition by Abraham Flexner. [38] [39]

There followed a period of soul searching and despair at Harvard. Two more grant applications were submitted to the GEB during the next two years, both unsuccessful. Finally in 1916 ex-President Eliot of Harvard, a trustee of the GEB since 1908, came forward with a third proposal that was denied on the grounds that the "proposition continues the old order… It is questionable whether in this form the full-time scheme could achieve its purpose." [40]

Internal negotiations at Harvard during the immediately ensuing years

failed to result in an application acceptable to the General Education Board. The chief deterrent was insistence by Christian and Cushing on the privilege of senior full-time clinical faculty to consult and retain the fees. It was inevitable that applications from Harvard retaining that privilege would be vetoed on arrival by Flexner, who was pointedly excoriated by Dr. Cushing and others of the Harvard faculty for his bureaucratic rigidity and cavalier disregard for their sensibilities. [41]

For an opinion of the Flexnerian doctrine and the Hopkins model from the Harvard viewpoint, and a reminder that Harvard has also made substantial contributions to American medical education, one may consult Medicine at Harvard (1977) by Professors Beecher and Altschule. They concluded, somewhat peevishly: [42]

> In the end, it matters very little who achieved leadership in the reform of medical education in this country - Eliot (President of Harvard University), the American Medical Association, or Flexner. The fact is that essential reform did come, and with far-ranging benefit to the medical establishment in this country and in other countries. There is honor enough for many. What is important is that the Eliot reform strengthened medicine and the Flexner reform deformed it. Today's criticism of the shortsightedness of government agencies that spend billions to support research at medical schools and zero to support clinical teaching is not warranted. The blame lies not with these agencies but with the Flexnerian educators who told them what to do. Today's medicine, which many find irrelevant to patients' needs, is the fruit of Flexner's report. This was not the first time, nor will it be the last, that medical educational policy has come under the influence of a well-informed but short-sighted reformer supported by an enthusiastic but deluded lay press.

The Harvard Geographic Full-time System

To this day, the clinical departments of most American medical schools are organized, in part at least, in accordance with the Harvard plan which failed to qualify for GEB support. Under this very practical system, also referred to as "geographic full-time," the school or hospital provides the faculty member with rent-free office and laboratory space for conduct of medical practice, teaching and research. In addition, the member usually receives from the institution a pre-determined salary, ranging from full-time to nominal, and is permitted to retain the fees from his or her medical practice. [43]

There are many variations of the geographic plan. It has the advantage of flexibility and cost control. In contrast the strict clinical full-time system requires payment of full salaries from school resources often insufficient for the purpose. Hence the installation of the strict clinical full-time plan generally requires external sources of funds such as gifts and grants. In practice, the faculty of most schools consists of a combination of geographic and full-time clinical appointments.

Installation of the Clinical Full-Time System at Hopkins

The following letter ushered in the clinical full-time system and opened a new era in the organization of American medical faculties: [44]

> October 29, 1913
> Dr. William H. Welch
> Chairman of the Administrative Committee
> Johns Hopkins University, Baltimore
>
> Dear Dr. Welch:
> At a meeting of the General Education Board, held October 23, 1913, your application on behalf of the Johns Hopkins Medical School was presented for consideration. After full discussion the following resolutions were unanimously passed:
>
> 'Resolved, That the General Education Board hereby agrees to appropriate the funds ($1.5 million) necessary to carry out the full-time scheme described in Dr. Welch's letter under date of October 21, 1913, and empowers the Finance Committee to take the necessary steps looking to the execution of this agreement.
>
> 'Resolved, That, in view of Dr. Welch's great services to the cause of medical education in America, the fund appropriated as above be called 'The William H. Welch Endowment for Clinical Education and Research.'
>
> With great respect, I am,
>
> Faithfully yours,
> (signed) Wallace Buttrick
> (Secretary, General Education Board)

At the first meeting of the Advisory Board of the Hopkins Medical Faculty held after the announcement of the gift from the General Education Board, it was recommended to the Hopkins Trustees that the existing heads of the departments of Medicine, Surgery and Pediatrics, namely Drs. Barker, Halsted and Howland, be offered the posts of Professor of Medicine, Surgery and Pediatrics respectively. They were to hold these positions on the new full-time or "university" basis made possible by the gift from the GEB.

The Trustees promptly approved the recommendation and requested Dr. Welch to invite Drs. Barker, Halsted and Howland to accept these professorships on a full-time basis. Drs. Halsted and Howland accepted the appointments, but Dr. Barker, who had so eloquently advocated the full-time system in 1902, regretfully declined the invitation. His personal situation had changed considerably since he replaced Dr. Osler in 1905 and now, at the age of forty-six, he felt the necessity to continue his lucrative medical practice in order to make provision for his family. [45]

Thus from the very outset, the financial deterrent to acceptance of strict clinical full-time appointments was manifest. Mall had foreseen the problem when he applauded Dr. Barker's speech on the full-time system in 1902 but had also warned his friend: "The clinicians will be at you in full force for you are meddling with their pocket book." Anticipating the emergence of a new generation of dedicated clinical scientists who would accept and dignify the full-time clinical role, Mall added, "I am sure we want an entirely different breed of men to fill our practical chairs before the reform can be made." [46]

Filling the position of the first Professor of Medicine at Hopkins to be appointed on a full-time or university basis proved more difficult than expected. Following Dr. Barker's inability to accept the position, it was offered to Dr. William S. Thayer, the next ranking member of the medical department. It turned out, however, that Dr. Thayer also did not wish to accept the position. Finally, Dr. Theodore C. Janeway, Bard Professor of the Practice of Medicine at Columbia University, New York City, was appointed Professor of Medicine at Hopkins, being the first to serve in that position on a university basis. His appointment, which took effect on 1 July 1914, marks the inception of the Hopkins experiment with the clinical full-time plan. [47]

Reorganization of the Hopkins Medical Staff

The Hopkins faculty could now reorganize to incorporate the clinical full-time concept in its operations. One issue which came up for consideration immediately as a result of the adoption of the full-time program, was that of faculty titles in the School of Medicine.

A committee under the chairmanship of Dean J. Whitridge Williams recommended that the Faculty be divided into two Parts: 1, University Staff; 2, Clinical Staff."

The so-called University Staff was "to include all faculty members who give their entire time to the work of their respective departments;" that is, the clinical full-time appointees.

The so-called Clinical Staff was "to consist of such faculty members as are engaged in private practice," and "in order to distinguish them from those on the full university basis the word 'clinical,' unless unnecessary or clearly inappropriate, will be included in each title and precede the main subject, so that the titles will be Professor of Clinical Medicine, Associate in Clinical Surgery, Assistant in Clinical Gynecology, etc." Dr. Barker accepted the post of Professor of Clinical Medicine in the reorganized medical department. This new organizational pattern was approved by all the appropriate boards and was put into effect in the ensuing year (1914-1915). We have seen that the Stanford medical faculty had already adopted a similar plan of organization in 1909. [48]

Full-Time Plan Under Fire

Implementation of the full-time experiment had the effect of further exposing its flaws. Initially, Janeway was pleased with the plan because its generous support facilitated research and enabled him to increase his faculty. Later, money became an issue. He came to resent the restriction on private practice income and voiced a still-familiar theme: "I rebel more and more at earning money for the institution. I am convinced that, if the professor or anyone else sees a private patient, he should receive the fee." Anticipating an evolution to a less restrictive version of the full-time plan he suggested: "If the liberal support of research provided by the whole-time plan could be secured without its limitations, the ends of medical education would be best served." Thus, in spite of the progress he made at Hopkins, Janeway was not happy in his transformation from active New York consultant and teacher to full-time university professor. This was partly because his restriction from private practice created for him a financial hardship and partly because he was no longer entirely in sympathy with the full-time plan. [49] [50]

In 1917 Janeway informed Welch that he intended to resign. Welch knew that this defection would be cited as evidence of the system's failure by those many critics around the country who opposed the clinical full-time plan. After conferring with Abraham Flexner, Welch asked Janeway to delay announcing his resignation. While Welch and the other architects of the plan were formulating a strategy to minimize the adverse effect of his departure, Janeway died of pneumonia in December 1917. His tragic death at the age of 42 temporarily overshadowed the full-time issue. In his memorial address, Welch minimized Janeway's dissatisfaction with the plan and made no mention of his intention to resign. [51] [52]

In addition to the Janeway problem, there was during this period a truly major disruption of academic affairs. On 6 April 1917 the United States declared war on the German Empire and the Central Powers and entered World War I in support of Britain and the Allies. The war ended with the Armistice of 11 November 1918.

In 1914, when Barker declined to accept the clinical full-time professorship of medicine, Welch had offered Dr. William S. Thayer the position and he had refused it. Now, after Janeway's death, Welch again urged Thayer, still next in line in the medical department, to accept the professorship. This he reluctantly agreed to do after completion of his duties during World War 1 as chief medical consultant of the American Expeditionary Forces in France. During his absence on military duty the full-time plan was temporarily in abeyance and the medical department was ably directed by a part-time physician until Thayer could assume the duties of professor in 1919. [53]

Thayer received his M. D. Degree from Harvard in 1889, after which he served as house officer at the Massachusetts General Hospital, one of the Harvard teaching hospitals. He then spent some time in laboratory studies abroad before coming to Hopkins as an assistant resident physician in November 1890. In September 1891, he was appointed resident physician, a post which he held for seven years lengthy residencies being not unusual at Hopkins. Following the residency he joined the Hopkins faculty. [54]

In Professor Thayer's Department there was a number of talented younger scientists. Many of them later became professors of medicine at other institutions and had distinguished careers in academic medicine, a progression presumably attributable in part at least to the environment created by the clinical full-time system. [55]

Prominent among these Hopkins men who seeded other departments of medicine was Dr. Arthur L. Bloomfield who worked in the biological research division (bacteriology) of the Hopkins Department of Medicine. He received an A. B. from Johns Hopkins University in 1907 and M. D. degree in 1911. Also at Johns Hopkins he served as Assistant, Instructor, and Associate in Medicine, 1912-1922, and Associate Professor of Medicine, 1922-1926. Dr. Bloomfield was appointed Professor of Medicine at Stanford University School of Medicine in 1926. [56] [57]

Thayer remained in the full-time medical professorship for only two years and resigned in 1921. During that period, morale in the department eroded. Antagonisms developed that divided the younger men into the so-called research and clinical groups. The clinicians

were, for the most part, opposed to the full-time system and created a difficult environment for the research-oriented members who soon departed.

George Canby Robinson, scheduled to become dean and professor of medicine at Vanderbilt University, was asked to succeed Thayer during the year beginning July 1, 1921 as acting professor of medicine and physician-in-chief of the Johns Hopkins Hospital. Vanderbilt granted him a leave of absence; its administrators realized that the position would be an excellent preparation for his new duties in Nashville. Dr. Robinson made an outstanding contribution as acting professor for the year 1921-1922 during which he restored morale and recruited new full-time faculty to head the clinical research divisions. He effectively paved the way for the next full-time professor, Warfield Theobald Longcope, who was appointed professor in March 1922 and assumed office in July of that year. He had received his A. B. (1897) and his M. D. (1901) from Johns Hopkins. [58]

By 1921 the full-time plan at Hopkins had met with variable success. In surgery, implementation was no problem. Halsted was already on an essentially full-time basis when the plan was adopted, and because of his deep interest in clinical investigation he engaged in little private practice. In pediatrics, the plan was an outstanding success. The private patients in the hospital were taken care of exclusively by John F. Howland, the professor, with the able assistance of his perennial resident pediatrician, Kenneth Blackfan, who later had a distinguished career as professor of pediatrics at Harvard. [59] [60]

Thus, faculty dissatisfaction with the full-time plan at Hopkins centered in the department of medicine and mainly concerned two issues: the perceived neglect of teaching the art and science of patient care, and the denial of private practice income to the treating physician. As a demonstration project for replication in other institutions, the Hopkins program was closely watched nationally, and with some apprehension, by Frederick Gates and Abraham Flexner.

The General Education Board Supports Installation of the Hopkins Model in Selected Schools

In January 1914, three months after it awarded $ 1.5 million to Johns Hopkins, the General Education Board adopted a resolution which colored the Board's activities in medical education for the next 6 years. It was resolved that: [61]

> The Board does not consider it expedient at present to aid medical education except insofar as it concerns the installation of full-time clinical teaching.

By this time Flexner had been added to the staff of the GEB. It is certain that he played a part in drafting this resolution calling for a concentrated effort to improve medical education exclusively by installing clinical full-time faculties in additional schools. Indeed from this time forward the leadership of the Board's experimental "clinical full-time program" was largely in Flexner's hands.

Flexner thus became the chief proponent of the strict full-time system for clinical faculties in American medical schools. He was also essentially in command of the resources of the GEB to support the experiment., it being generally understood that no university could adopt the system without a source of funds to support the added cost. He argued that clinical professors should abandon private practice and devote themselves to teaching and research. He was convinced that private practitioners consistently placed more importance on financial income than on teaching and research and that commercialism and science were opposing goals. He was also of the opinion that a teaching hospital owned and operated by the university was a valuable, if not essential, facility. It was not long before his insistence on strict adherence to these principles gained for him and the GEB the reputation for inflexibility and undue interference in the academic programs of the recipient schools.

Between 1913 and 1919 the Board, always acting on Flexner's advice, awarded over 8 million dollars to schools agreeing to reorganize their clinical faculties on a full-time basis. As well as Johns Hopkins, Washington University (in St. Louis), Yale and the University of Chicago were among those which complied with Flexner's demands for strict adherence to a full-time policy. Harvard, on the other hand, resisted the idea and Flexner turned a deaf ear to its demand for flexibility - leading ex-President Eliot of Harvard, as a trustee of the GEB, to write as follows to the Board in 1917: [62]

> The authorities of the Harvard medical school regard the full-time policy as a great improvement in clinical teaching.…but they believe that in its most intelligent application it will permit the continued employment as teachers of men who accept private practice as well as hospital practice; and they observe that great improvements in medical treatment have in recent years proceeded from men who were in private practice (and kept their fees)…
>
> Specifically, the Board pledged itself not to interfere with the domestic management of an institution aided, except as regards its prudential financial management…Yet now the Board (is making one system of full-time teaching the condition of a grant.). This condition does not seem to me consistent with what I have always believed the wise and generally acceptable policy of the Board.

The Board, in general agreement with Eliot's critique, reviewed its policy with the following result.

Revised Goals of the General Education Board

The experience of the GEB with the clinical full-time plan during the six-year period from 1913 to 1919 had been a sobering one for the Board. While still strongly adhering to their belief in the adequate development of the clinical departments, they were now ready to concede, as they stated in their annual report for 1919-1920, that "it would be a serious mistake to leap to the conclusion that the full-time plan should be universally employed at this time. Its cost is very great, and while experience thus far sustains the presumption… that the system is worth the price, it still remains to be objectively proved that… (it is) so much better that universities generally should move to its adoption…. Educational, financial and social conditions are still so uneven that the same type of medical education cannot be realized in all sections of the country. Premature efforts to force the pace unduly might provoke a reaction which may in the end retard progress…"

Moreover, the officers conceded, in a far more conciliatory vein than had previously been employed, that "medical schools need many things before they are ready for full-time clinical departments… . Premature introduction of the full-time scheme into the clinical branches may therefore result in such unsymmetrical progress as may do more harm rather than good." For the future, said the officers, "the General Education Board can profitably employ its resources… in cooperating with progressive intention wherever found." [63]

This major broadening of the conditions under which the GEB would provide funding to a medical school was in sharp contrast with the Board's earlier determination to concern itself only with "the installation of full-time teaching." This new emphasis was due to the growing uneasiness on the part of some of the trustees of the Board, chief among them President Emeritus Eliot of Harvard, that the previous guidelines had been too inflexibly interpreted.

Abraham Flexner and the other Board members, now acknowledging that the impact of Rockefeller philanthropy would be unduly limited if they supported only those schools willing to adopt strict full-time plans, proceeded to approve grant requests from a broad spectrum of private, state and municipal medical schools, even though their professors kept their clinical fees - it being clearly understood, however, that installation of the strict clinical full-time system was favored by the Board wherever practicable. The approach ultimately sanctioned by the GEB, and fully supported by Flexner, wisely admitted of a combination of strict clinical full-time and geographic full-time faculty as a realistic solution to the funding of research-oriented programs - the Hopkins and Harvard models reconciled at last.

Implementation of this revised and eminently successful policy was made possible by generous additional grants from Rockefeller, Sr., to the GEB so that by 1928 it had appropriated over $ 61 million for medical schools, and when the work of the Board was terminated in 1960, the total figure of disbursements to a total of 25 schools stood at $ 94 million. It is interesting to note that during the period from 1928 to 1960 no new schools were added to the Board's list; the additional sums constituted supplementary grants to the institutions originally selected for assistance prior to 1928. [64]

See Table X, General Education's Board Appropriations for Medical Education, 1914-1960, for a list of the grants to the 25 institution involved) [65]

Table X. General Education's Board Appropriations for Medical Education 1914-1960

Albany Medical College	$70,000.00
Baylor University	120,000.00
Columbia University	1,519,666.66
Cornell University	8,151,113.01
Duke University	300,000.00
Emory University	180,000.00
Harvard University	1,393,268.64
Howard University	587,759.32
Johns Hopkins University	11,126,126.41
Meharry Medical College	8,673,706.12
State University of Iowa	1,231,003.40
Tulane University	3,421,155.87
University of Chicago (plus President Hospital)	14,505,721.83
University of Cincinnati	762,411.00
University of Colorado	1,113,000.00
University of Georgia	60,000.00
University of Oregon	691,679.34
University of Pennsylvania	309,675.55
University of Rochester	5,813,870.64
University of Virginia	956,000.00
University of Wisconsin	12,500.00
Vanderbilt University	17,560,378.45
Washington University	7,283,035.52
Western Reserve University	1,365,000.00
Yale University	6,876,300.98
Total	94,083,372.74

Raymond B. Fosdick, Chairman of the GEB from 1932-1936, remarked as follows on the cumulative effect of the Board's expenditures: [66]

> Most of the funds, appropriated over the years, particularly in the earlier period, represented a vast pump-priming operation; they were given on the condition that larger funds be raised from other sources, and it is estimated, with a reasonable degree of accuracy, that something like $600 million, including the Board's grants, were thus added to a purpose which swung the whole movement for improved medical training into top-flight effort. The Board's money, matched many times over by the generosity of scores of citizens like Eastman in Rochester, Rosenwald in Chicago, and Harkness in New York, took the teaching of medicine in the United States from the discreditable position it occupied in 1910 and gave it a status which it shares with only a few other countries in the world.

As is evident from the preceding, installation of strict clinical full-time systems requires a continuing source of large sums of money. It is equally certain that philanthropy alone cannot endow scientific medicine to the extent commensurate with the national need for research. Only the government can do so.

It is therefore highly significant that the success of collaborative research at the time of American involvement in World War I (6 April 1917 to 11 November 1918) increased governmental interest in the support of medical science, leading Congress in 1930 to pass an act establishing a National Institute of Health. Publication of the act was accompanied by the claim that "scientific research is the most important function of the Federal Government as relates to public health." Thereafter, government grants for medical research and related purposes were increasingly available. [67]

World War II (7 December 1941 to 2 September 1945) further catalyzed support of medical research by the government which has since then become a major source of the outside funds that sustain clinical full-

time systems in the nation's medical schools. Another major source of income is faculty practice fees, commonly collected by the school through the operation of a faculty practice plan, and used by the school in the payment of faculty salaries and other expenses - a subject to which we will return when we report on Stanford's adoption of the Hopkins model of the strict full-time system at the time of the school's move to the University campus in 1959.

Commentary

For an informed opinion on the significance of clinical full-time systems we turn to an authority on the subject, Dr. A. McGehee Harvey, Distinguished Service Professor of Medicine, Johns Hopkins University School of Medicine: [68]

> No single event has had a more profound effect on medical education and medical practice than the movement to establish full-time (salaried) positions in clinical departments. Out of this emerged the clinical scientist, versed in the bedside practice of medicine and capable of applying the knowledge and techniques of the basic sciences to the study of human disease. He occupied the position of middle man in the medical world - a complete clinician who served to bridge the gap between the practicing physician and the laboratory-based scientist.

Implementation of the Hopkins model of the strict clinical full-time system at a few other schools during the period from 1913 to 1919 revealed that it was an excellent method in so far as it freed faculty from the distractions of private practice so that they could concentrate on research and teaching.. On the other hand it was a very expensive approach. To maintain salaries in clinical departments at a sufficiently high level that faculty would forego the personal and financial rewards of private practice required endowments of a size beyond all but a few medical schools.

Furthermore, the system led initially to intradepartmental conflict at Hopkins between research-oriented and practice-disposed faculty. On a broader plane, the disparagement of medical practice and the collection of medical fees by institutions rather than the treating physicians, were vigorously debated, censured as "fee-splitting " by some, and in general disapproved by the medical profession at large. As a result, the Hopkins system, originally found limited application..

Indeed, so hallowed by the profession was the tradition of fee-for-service paid to the treating physician by the patient, and so great was the anathema attached to the "corporate practice of medicine" as institutional collection of fees was regarded, that the General Education Board's insistence on disallowing private practice for personal gain proved to be the most contentious of the various conditions under which the GEB provided funds for installment of strict full-time plans. This restriction on fee-for-service practice ultimately came to be construed by some of the GEB trustees as an unwarranted interference by private philanthropy in a school's academic prerogatives. It was at this juncture in 1920 that the GEB liberalized its grant requirements, made adoption of the strict clinical full-time system optional, and thereafter employed its funds for the general advancement of medical education rather than exclusively for the purpose of installing strict clinical full-time plans.

Meanwhile, Harvard's "geographic" full-time plan emerged nationally as an alternative to the Hopkins "strict clinical full-time system." The Harvard plan had the advantage of being generally affordable because private practice earnings retained by the faculty served to offset some or all of their salaries. On this account the Harvard version of clinical full-time was widely adopted in the years following World War I. The GEB eventually recognized its validity by awarding Harvard a grant of $1.4 million to strengthen its program.

With respect to the legacy of Welch , Gates and Flexner, their efforts to establish clinical full-time centers of excellence in American medical schools coincided with the drastic reorganization of these institutions then in progress under the impact of the Flexner Report. The most significant contribution of these men and the General Education Board during this revolution in American medicine was to establish research as a major and indispensable component of American medical education, with the strict clinical full-time system (Hopkins model) as the preferred means to this end. These two basic concepts were associated with the following Flexnerian principles which he espoused in the Flexner Report and during his tenure on the General Education Board:

(1) Each medical school should be an integral part of a parent university.

(2) The medical school should have a university teaching hospital.

(3) The university, medical school and teaching hospital should be in the same location (that is, no "divided schools."

(4) The medical staff of the teaching hospital should be members of the medical school faculty regarding which all power of appointment and promotion rests with the university.

(5) The primary faculty in the school should be salaried. (that is, on a strict full-time basis, including the clinical departments).

(6) Research and teaching should be inseparable because the approach of the investigator and the clinician should be the same.

(7) An implied principle, based on Flexner's concern for adjustment of physician output to societal need, is that medical schools should cooperate to that end.

These concepts and principles were largely incorporated into the design of the future academic health center, devoted to medical education, science and service, that was to evolve following World War II as the consummation of the Flexnerian reforms. [69] [70]

As Flexner et al predicted, the research output of American medical schools grew in proportion to the financial support and academic stimulus to scientific endeavors their faculties received After World War II there was a surge in spending by government and private foundations for research and research training in American medical schools. This resulted in a marked increase in the national number of full-time salaried faculty members, and in American institutions leading the world in contributions to medical science - undoubtedly an instance of cause and effect. [71] [72] [73]

Stanford Unites Its Medical School on the Campus in 1959

In accordance with the Flexnerian principle of "no divided schools" Stanford moved its clinical teaching and hospital facilities from San Francisco to join them with the basic sciences in a new medical center on the Stanford Campus in 1959. . Ground breaking ceremonies for the center were held on 11 September 1956, and construction began in June 1967. Dr. Robert Alway, appointed as Acting Dean on 9 March 1957, was installed as Dean on 15 May 1958.

Strict Clinical Full-time Faculty System Adopted

In accordance with another Flexnerian principle, upon the move to the campus the faculty was reorganized in accordance with the Hopkins version of the strict clinical full-time system as follows: [74]

> In contrast with previous patterns in the medical school, the faculty is now entirely full-time. After intensive discussion, a Medical Service Plan was developed by the faculty of the clinical departments, in consultation with the dean. This plan has now been in operation for two years. Fees for services rendered to the faculty's private patients (all of whom are also teaching patients) are pooled on a departmental and then on a schoolwide basis. These funds are used to augment faculty salaries to levels which are more nearly competitive with those of other major institutions and for other worthy purposes within the School of Medicine. Income of individual clinical faculty members is no longer directly dependent on volume of private practice; instead, it reflects their total contribution to teaching, research, and administration, as well as in patient care.

Some forty years and multiple revisions of the Medical Service Plan later, the principles of the strict clinical full-time plan (Hopkins version) are still observed at Stanford which is now (in 1997) arguably the foremost research oriented academic health center in the nation.

Abraham Flexner, much vilified for his stubborn insistence on the merits of strict clinical full-time and a salaried faculty, would have felt vindicated by the Stanford success, and by the strong national trend toward full-time salaried appointments in clinical departments as shown in Table X.

In 1958-1959 for the first time, the annual issue of the JAMA devoted to "medical education in the Unites States and Canada" published data on full-time salaried faculty appointments in American medical schools. Data on such appointments are shown in Table X for 1958-1959 and for the year 1995-1996 . During that 37-year period the number of full-time salaried appointments in the clinical departments of American medical schools increased from 6 505 to 74 479, representing an increase of total full-time salaried appointments in clinical departments from 63 % to 81 %. In 1995-1996, the number of full-time salaried faculty in clinical departments (74 479) exceeded the total number of medical students (66 906) in all the nation's medical schools.

Data are not available to determine how many of the full-time salaried appointees in these clinical departments functioned in the strict academic mode envisioned in the Hopkins model of strict clinical full-time. However, is reasonable to conclude, from the remarkable research productivity of American medical schools at the time, that many of them did..

In retrospect of Flexner's preoccupation with the excessive number of American doctors and medical schools in 1910, it is interesting to note that Table X indicates a similar trend in the period from Stanford Medical School's move to the Campus in 1959 to the present day. During that 37 year interval the number of American medical schools increased from 79 to 124, and the number of medical students more than doubled - with consequences calling for Flexnerian foresight and candor.

Table X. Full-time Salaried Faculty at American Medical Schools 1958-1959 and 1995-1996

Total	1958-1959	-	1959-1996	-
Medical Schools	79	-	124	-
Medical Students	28,977	-	66,906	-
Salaried Faculty		Percent		Percent
Basic Sciences	3,845	37%	16,972	19%
Clinical Sciences	6,505	63%	74,479	81%
Total Salaried Faculty	10,350	100%	91,451	100%

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Chapter 34: Dean Wilbur's Administration 1911 - 1915

Dr. Wilbur noted in his Memoirs that the first important decision he had to make when he assumed the deanship of the Stanford Medical Department on 1 January 1911 was whether to abandon the Cooper College buildings and move to the campus. The availability of patients for teaching and research was the crucial issue. San Francisco was at the time still recuperating and rebuilding from the great earthquake and fire of 1906 and Dr. Wilbur took many long walks through the neighborhoods between Cooper College and the downtown area in order to assess the emerging patterns of urban recovery. It was clear to him that, with the streetcar systems extending as they were, and with the wooden housing to the east, the College would be adjacent to deteriorating neighborhoods which would be a source of abundant "clinical material." Therefore, it seemed to me," he wrote, "that we could get ahead faster by developing the medical school on the Cooper Medical College site. If, in the course of years, San Francisco eliminated the slum areas, the medical school could be transferred to a new site, perhaps to the University campus." But now," he wisely concluded, "such a move would be premature."

He further observed that the campus seemed destined to be the ultimate home for any medical school connected with Stanford University - a prediction fulfilled 48 years later when, in 1959, the school moved to a new Medical Center on the Stanford Campus. [1]

In addition to the availability of teaching patients, Dean Wilbur could have mentioned two other prime assets of the San Francisco location - the substantial Cooper Medical College facilities, and the loyal private physicians willing and able to continue serving as clinical faculty at no cost to the University.

New and Improved Facilities

With these valuable resources in hand Dean Wilbur set about energetically upgrading the Medical Department to a university standard.

As we have seen, the process had already been initiated in 1909-10 by Professor John Maxson Stillman, Wilbur's predecessor as Executive of the Department. Professor Stillman appointed five basic scientists:

(1) Dr. Hans Zinsser, Associate Professor of Bacteriology

(2) Dr. Albert C. Crawford, Professor of Pharmacology

(3) Dr. Ernest C. Dickson, Assistant Professor of Pathology

(4) Dr. Frank T. Blaisdell, Assistant Professor of Applied Anatomy

(5) Mr. R. M. Llamon, Instructor in Anatomy

and began construction of lab space in the old Museum buildings on the campus [2]

Construction of laboratories for the work in Bacteriology, Pharmacology, and Anatomy in the old Museum buildings on the campus was completed in 1910-11 and the labs were well equipped. The pathology work in San Francisco was carried on with the apparatus and laboratory formerly used by Cooper Medical College. The physiology laboratory in the College building was arranged to serve as a laboratory for medical research. [3] [4]

In 1912-13 the Division of Pharmacology was transferred from the campus to the fifth floor of the Clinical and Laboratory Building in San Francisco, occupying a new laboratory in the rooms formerly used for topographical anatomy, which was moved to the campus. [5]

Also during 1912-13 the Lane Medical Library was opened. Books, journals and other holdings of the Lane collection were transferred to the new Library from the Clinical and Laboratory Building which was then extensively remodeled, the first two floors being devoted entirely to clinics and the upper three floors to laboratories. This rearrangement, together with the conversion of Lane Hall to an amphitheater, was very satisfactory and provided facilities for handling the rapidly growing clinic where there was a record 70,000 visits in the year ending 30 June 1913. [6]

The new faculty appointments and space allocations outlined above laid a firm foundation for preclinical instruction upon a true University basis. Dean Wilbur's further objective was to create academic and physical conditions in the clinical divisions similar to those evolving in the professorships and laboratories of the basic sciences.

San Francisco City and County Hospital

The teaching services at San Francisco City and County Hospital, shared to an equal extent with the Medical Department of the University of California, were a major component of the Stanford clinical program. However, the Hospital, hopelessly outmoded, was closed in 1910 and construction of its modern replacement begun. It was not until five years later that Dr. Wilbur, now President of the University, could issue the following announcement of its re-opening: [7] [8]

> The new City and County Hospital of San Francisco, erected at a cost of two million dollars, was occupied on 1 May 1915. It is one of the most beautiful and complete structures of its kind in America. The Medical School controls one hundred beds averaging about a thousand patients per year. Stanford University was assigned two excellent wards (Wards C and D on the upper floors of one of the ward buildings), and there has been an increase in the house staff on the Stanford service to five interns and one house officer appointed by the School. With increased interns, and with the splendid facilities offered by this large institution, a great advantage has been obtained for the medical faculty and students. [9]

Lane Hospital

During the year ending 31 July 1915 extensive structural and equipment improvements were completed that increased the efficiency and scope of service in Lane Hospital. For example, a new power plant and new circulating refrigeration system were installed; the entire fourth floor, on which was situated the kitchen and dining rooms, was reconstructed and the hospital was renovated throughout. As a result, Hospital admissions and Clinic visits were increased, and the Annual Report of the Hospital for the year ending July 31, 1915 portrayed Lane Hospital as a dynamic institution, intensively utilized and taking steps to maintain and improve services and standards. [10] [11]

Stanford University Hospital

With the change of Lane Hospital and the Medical School to a university basis, the teaching uses of Lane Hospital rapidly expanded. The increased number of clinic patients and the demands for space for student uses crowded the Lane accommodations to such a degree that other provisions had to be made for private patients.

In a resounding vote of confidence in Dean Wilbur and the Medical Department during the tense period of financial uncertainty to which we have already referred, the Board of Trustees of Stanford University approved planning and construction of the Stanford University Hospital. It was intended especially for the care and comfort of private patients, so that Lane Hospital could be conducted as a staff and clinic hospital for teaching purposes.

In the spring of 1914 the Clinical Committee began to work steadily with the architects in preparing plans for Stanford University Hospital. On 24 June 1916 excavation was started for the foundation of the new hospital to be located on Clay Street immediately adjacent to Lane Hospital. Plans called for about 45 private rooms and 125 ward beds. The appropriation of $ 500,000 for the new construction included funds for two clinical laboratories and a new power plant to serve all the Medical Department buildings. [12] [13]

On 22 December 1917 Stanford University Hospital was opened for inspection, and was ready for patients on 26 December 1917. The expectations of the Faculty as to the outcome of the plans for the institution were more than realized, as testified by its immediate popularity with both patients and physicians.

The Clinical Committee in charge of Planning the new hospital consisted of Dean Wilbur, Chairman; Dr. George B. Somers, Secretary; and Doctors William Ophüls, A. B. Spalding and Stanley Stillman. The features planned by the committee included operating rooms; hydrotherapeutic, electrotherapeutic and X-ray departments; numerous solaria and balconies connected with the private rooms; ample size and complete equipment of service kitchens, utility and supply rooms; and generous accommodations for special nurses in the line of dressing rooms, rest rooms, locker rooms, baths, etc. [14] [15]

During the year September 1 1918 to September 1, 1919 Stanford University Hospital was improved by the addition of 26 more rooms. Two floors of the new hospital had been left unfinished until such time as demands for accommodations should warrant their completion. The original plan was to use the uncompleted space for ward beds, but experience showed that private rooms were in much greater demand than wards, and the plans were changed accordingly. The new rooms filled up at once and proved very popular, as they were large and quiet. [16]

In the President's Report of 1917-18, Dr. Wilbur commented on the important programmatic contribution of Stanford University Hospital and the other facilities planned during his deanship: [17]

> The Stanford Hospital in San Francisco has been in operation since December 26, 1917. It is undoubtedly one of the best institutions of its kind. It is now possible for the members of the medical staff to have available under one roof practically everything needed for the care of patients, instruction of students and research work. The combination of the Lane Medical Library, the laboratories of the Medical School and hospital, the public clinics, the clinical wards of Lane Hospital, the private rooms and the consultation rooms of the Stanford Hospital, has met the problem of the medical teacher in a most satisfactory way. The arrangement is also most economical from the standpoint of time and the distribution of all overhead expenses between the Medical School, private rooms and clinical wards.

Stanford School of Nursing

We referred earlier to the important contribution of the Stanford Nursing School to the operation of Lane Hospital, and we specifically cited the recommendation in 1912 of Physician Superintendent George E. Somers that there was an urgent need for a building large enough to accommodate one hundred nurses. [18]

In the following year, 1913, the Board of Trustees decided to construct a nurses' home, a decision attributable to the influence of Dean Wilbur - and another example of his successful efforts to improve the facilities available to the Medical School. [19]

However, the promised new nurses' home was slow to materialize for financial reasons, and the following related events transpired during the long delay.

In 1915 the nurses' alumnae offered to raise five thousand dollars to support the construction of a nurses' home, provided that they be given the privileges of a hospital bed for sick alumnae. This offer was accepted by the Board of Trustees and put on hold. From another source, one thousand dollars was paid in, so that the nurses considered that a building fund was at least started. [20]

In 1916 the old nurses' home was wrecked in preparing for construction of Stanford University Hospital. No one regretted demolition of the old building, but it was then necessary to house the nurses in four residences immediately adjacent to the Hospital, in addition to the residence on Clay Street previously occupied by Dr. and Mrs. Lane. While the nurses were now very comfortable and enjoyed their new quarters, still the scattering of nurses in five different houses added considerably to the responsibility of the management and was attended by many inconveniences. [21]

By 1917 the nurses had increased in number and were housed in seven residences in the neighborhood, and soon an eighth would be necessary. The scattering of the nurses in these various locations was not only expensive, but rendered the problem of supervision and discipline very difficult. The construction of a suitable nurses' home was now an urgent necessity and some funds for that purpose were raised by subscriptions from several friends of the training school. [22]

In 1918 the number of residences in the neighborhood of Lane Hospital occupied by nurses had increased to nine. A tenth house was used

for the accommodation of male employees. Meanwhile the standards and methods of teaching nurses had increased remarkably since the decision in 1913 to build a new nurses home. The University in supporting the School for Nurses was now by this time merely extending the educational program of and providing the opportunity for its women graduates to supplement college training with practical work, not alone in nursing but in hospital teaching and administration, in social service and public health work. As courses along these and related lines gradually became incorporated into the training of nurses, the nursing school developed, almost without realization, into a separate institution with separate organization and demanding separate consideration.

In view of these facts, therefore, the Clinical Committee, which had jurisdiction over the nursing program, found itself dealing with the affairs of the School for Nurses as with a separate educational institution. One important consequence of this was that, in planning for the future housing of the school, it was necessary to provide classrooms, laboratories and such other accommodations as were needed for teaching purposes.

The decade of delay in construction of the nurses' home was fortunate in that, as a result, the final plans for it could and did include provision for the developing educational as well as the housing needs of the nurses. In keeping with this revised concept, instead of "Nurses Home" the new building was to be known as "The Stanford School of Nursing." Construction began in 1920, was completed in 1922, and the School was formally opened on March 31st of that year. [23] [24] [25]

On the afternoon of March 31, 1922, with impressive ceremony, the Trustees of Stanford University presented the new building to President Wilbur who, while serving as Dean in 1913, had been responsible for gaining approval for its construction. In his acceptance remarks, he graciously acknowledged his honor and satisfaction that Stanford University now possessed a suitable facility for the further development of this important professional school. Mrs. Helen Hoy Greeley of Washington D. C., through whose efforts "Rank for Nurses" had been enacted by Congress, gave the address of the afternoon, after which the School was open to the inspection of invited guests.

In the evening the graduates and students of the Stanford School of Nursing entertained with a reception and dance. On that day about 1,000 guests passed through the Home - all enthusiastic and admiring. [26]

The following description is from the Nursing School's Annual Announcement for 1925-26: [27] [28]

The School of Nursing was established in 1895 as the Lane Hospital Training School for Nurses. After Cooper Medical College became Stanford School of Medicine, the name was changed to Stanford School for Nurses, later to become the Stanford School of Nursing.

Five hundred and twenty-eight nurses had been graduated. by the 1925-26 school year.

The Stanford School of Nursing of the Stanford University School of Medicine was directed by the Clinical Committee of the Medical School Faculty (chaired by Dean Wilbur until 1916), which was also in charge of the University Hospitals.

The School's Combined Nursing Course consisted of a Pre-Nursing Course given at Stanford University. This covered a period of three years and was supplemented by a two years' Course in Nursing given at Stanford School of Nursing. At the end of the five years, the student received an A. B. degree from the University and a diploma in Nursing from the School of Nursing.

The Course was designed primarily for those who wished to prepare themselves for administrative and teaching positions, social service or public health work.

The Stanford School of Nursing was situated in an educational and residential building located at 2340 Clay Street, directly opposite the University Hospitals and connected with them by a tunnel under the street. It was erected by Stanford University at a cost of $ 425,000. It was built of reinforced concrete, seven stories high, and accommodated 200 nurses. Besides bedrooms, there were large and beautifully furnished reception rooms, a music room, a library of 1,000 books for general reading, and the current magazines. There was an auditorium with seating capacity for 450, which could be used for lectures, dancing, or private theatricals. Housemothers had charge of the home and carefully looked after the comfort of the nurses and acted as chaperones.

The educational department consisted of classrooms, a demonstration room, and laboratories for Chemistry, Bacteriology, and Dietetics.

On the seventh floor of the building was the Nurses' Infirmary, where student nurses, taken ill in the line of duty, were cared for and treated gratuitously. The Infirmary was equipped as a small hospital and was in charge of a woman physician as Medical Director. [29] [30]

Organization of the Medical Faculty and Attempt to Install the Clinical Full-time System

As noted in Chapter 31, a Plan for Organization of the Faculty of the Medical Department of Stanford University was adopted in 1909. At that time the titles and functions of the full-time faculty were broadly defined as follows: [31]

Professors and Associate Professors are to be those members of the Medical Faculty who are under full salary and who give the main part of their time to the work in their respective departments.

This ambiguous definition applied primarily to the Professors and Associate Professors in the basic science departments who were indeed employed and paid on a full-time basis, and received no outside income from medical practice. However, with the exception of Professor Ophüls of the Pathology Department who was paid a "full salary" and was denied the privilege of private practice for personal gain, other professorial faculty of clinical departments were paid a negotiated "full salary," which was often nominal, but were permitted to supplement their incomes by private medical practice.

This plan of organization, that is the paying of less than full-time salaries to professors in the clinical departments but allowing them to enhance their incomes by private practice, is referred to as the geographic full-time system. which we have discussed at some length in the previous Chapter.

The topic of faculty organization was further addressed at a meeting of the Executive Committee of the Medical Faculty on 29 December 1910. Those present were Doctors John Stillman, Henry Gibbons, Jr., Emmet Rixford, William Snow, William Ophüls and Ray L. Wilbur. The minutes of the meeting state: [32]

> it was moved and seconded that it was the sense of the Executive Committee that future appointments in the Medical (School) of heads of divisions and subdivisions should be on an academic basis, at least on the salary of an instructor - it being understood that this recommendation is not intended to interfere in any way with the appointment of such paid and unpaid clinical staff as may be required. Motion carried unanimously.

This resolution, in its reference to placing heads of divisions and subdivisions on an "academic basis" would seem to be committing the Medical Department, in principle, to the "clinical full-time system " as described by Dr. Lewellys Barker in 1902 and adopted by Johns Hopkins faculty in 1914. However, the statement that heads of divisions and subdivisions should be on an academic basis "at least on the salary of an instructor" is contradictory. It indicates that a strictly full-time salary would not be paid to professorial faculty as is required under the definition of the clinical full-time system, which also disallows private practice as a means of supplementing an inadequate university salary.

Grant Application to General Education Board Proposed

Obviously, the deterrent to adoption of the clinical full-time system at Stanford in 1910 was not lack of motivation but insufficient money. It was clear to Dean Wilbur that the system could not be implemented without a major increase in the endowment of the University to cover the added cost of paying actual full-time salaries to heads of clinical divisions and subdivisions. Therefore, as soon as the controversy with President Branner over the future of the medical school had been decided, the Dean addressed the following letter to him asking his help in raising the funds required to establish the true clinical full-time system. The Dean proposed applying for a grant to the General Education Board of the Rockefeller Foundation, an agency with which whose sponsorship of the clinical full-time system we are already familiar. [33]

> July 22, 1914
> President. J. C. Branner
> Stanford University
>
> Dear President Branner:
> Now that the position of the Medical School is assured and the lines of action proposed therefor have met with the approval of such an eminent authority as Dr. Vaughan, it would seem to me desirable to urge upon the General Education Board that they enlarge the field of their efforts to improve medical education in America by assisting Stanford to improve conditions on the Pacific Coast. With some assistance Stanford can readily set an example not only for the first-class schools of Medicine that will soon develop in Portland, Vancouver and Los Angeles and in association with the University of California but also for medical education in general. As Dr. Vaughan has pointed out the development of the Stanford Medical School will be both a stimulus and a protection to the University of California in their medical work. Just as the foundation of Stanford University led to the remarkable development of the University of California, so will proper growth of the Stanford Medical School lead to the State with its unsurpassed resources pushing forward rapidly its Medical School.
>
> The Dean outlined for President Branner Stanford's current "geographic full-time plan" of paying nominal salaries to professors in the clinical divisions and subdivisions and allowing them to make additions to their income through private practice.

He then pointed out to the President that if Stanford's investment in the School of Medicine could be increased by $750,000, that is to say $35,000 per year, Stanford's geographic plan could be converted to a clinical full-time plan by allocating the money as follows:

Division	Annual Allocation
Surgery	$7,500
Pediatrics	$6,000
Neurology	$5,000
Genito-Urinary Surgery	$4,000
Eye	$4,000
Ear, Nose and Throat	$4,000
Medicine at San Francisco Hospital, etc.	$4,500
Total	$35,000

The Dean omitted Medicine at Stanford from this budget because he considered that subdivision to be already operating on a clinical full-time basis.

The Dean concluded his letter to President Branner with the following remarks:

> In addition to the Basic Science Divisions, Stanford now has the Clinical Divisions of Medicine, part of Surgery, including the Subdivisions of Orthopedic Surgery, Obstetrics and Gynecology, on an academic (i. e., full-time salaried) basis Stanford is probably the first institution to put the various subspecialties on a full-time basis.
>
> Anything that can be done to bring the possibilities of our Medical School before those interested may prove helpful.
>
> Very truly yours,
> (Signed) R. L. Wilbur.

The following Inclusions to accompany the above letter are abstracts of the grants already approved by the General Education Board:

> JOHNS HOPKINS MEDICAL SCHOOL
>
> William H. Welch Foundation $1,500,000

To provide for full time clinical teachers with sufficient assistants in Medicine, Surgery, and Pediatrics. Salaries thought to be about $ 10, 000 each. The professors are allowed to practice Medicine as they please but all fees are to be collected and retained by the hospital. Since Johns Hopkins Hospital contains many private rooms the medical care of patients occupying these rooms will be something of a problem and will probably lead to the superintendent of the hospital urging the care of such patients upon the paid staff since thereby the earnings of the institution will be greatly increased. This will make it difficult for the teacher to refuse and also to control his own time. It will also prevent him from having that sense of responsibility to the individual and to the community that is most important in the development of the real physician.

YALE UNIVERSITY MEDICAL SCHOOL

Gift of $750,000.

Contingent upon obtaining full control over the New Haven Hospital and additional endowment between $ 1,000,000 and $1,500,000 to put Medicine, Surgery and Pediatrics on an academic basis. Yale has not yet obtained the full amount but seems likely to reach the amount required soon.

WASHINGTON UNIVERSITY MEDICAL SCHOOL, St. Louis

Gift of $750,000.

Contingent upon a similar amount being raised by the institution. Aimed to put at least Medicine, Surgery and Pediatrics on a basis similar to that of Johns Hopkins but not so restricted as to plan. Details not worked out yet.

Dean Wilbur consults Trustee Timothy Hopkins

Dr. Wilbur addressed the following letter to Mr. Timothy Hopkins and included in it a copy of the above letter to President Branner. [34]

San Francisco, July 22, 1914
Mr. Timothy Hopkins
President, Board of Trustees, Stanford University
510 Nevada Bank Building
San Francisco

Dear Mr. Hopkins:

Your efforts to increase the endowment of the Lane Medical Library and the Medical School lead me to call your attention to the very favorable opportunity open for the further development of the Stanford Medical School from additional endowment. From an endowment equal to about the amount spent by Stanford in remodeling the Clinical and Laboratory Building and to be spent on the new hospital an income sufficient to practically place the whole institution on an academic basis could be derived. Evidently the limitations of the income of the University necessitate that certain lines must await outside help before proper teaching arrangements can be made.

In short if Stanford could have an addition of $35,000 to its (annual) budget for the following specific purposes it could put the whole Medical School on an academic basis.

Surgery	$7,000
Pediatrics	6,000
Neurology	5,000
Genito-Urinary Surgery	4,000
Eye	4,000
Ear, Nose, and Throat	4,000
Medicine at San Francisco Hospital, etc	4,500
Total	$35,000

Very truly yours,
(Signed) R. L. Wilbur

Mr. Timothy Hopkins, President of the Stanford Board of Trustees responded as follows to the above letter from Dr. Wilbur dated July 22, 1914:

Holland House, New York City
November 16th, 1914
Doctor. Ray L. Wilbur
Palo Alto, California

Dear Doctor Wilbur:

I have had a long talk this morning with Doctor Flexner and Doctor Buttrick. Doctor Flexner is quite willing to take our proposition before the (General Education) Board at its meeting in the latter part of January (1915), providing it is modified to meet the purposes of the Board.

It appears that they wish to try an experiment in three or four different places, and this experiment they do not wish to modify. An application from Harvard, something like ours, was turned down.

The plan is to provide clinical professors who shall devote their whole time to the interests of the university, not taking any paid practice outside, although of course free to write and lecture and to do anything except to practice medicine. There are some cases where medical advice must be paid for, else it would appear that they were undercutting the regular practitioners. In case fees were received for such practice, they should be turned over to the Medical School, but it is not expected that they should try to make money for the Medical School by practice.

If we are to receive help, we shall have to modify our Stanford plans somewhat. We shall have to pay professors higher salaries than $4,000, but young men can be had who would rather have $4,000 or $5,000 and be free to study and teach, rather than to go into practice for the larger sums which might be obtained.

Knowing it must be on these terms that we get any help from the Education Board, we could, perhaps, with the $35,000, employ one less man than you suggest, and I certainly think the experiment is worth trying if we can get the $750,000 for which we have asked.

Thus far the three institutions chosen for these experiments are John Hopkins, Yale and Washington.

I have tried to show them that in the half of this old country which lies west of St. Louis there is no adequate Medical School excepting our own, and I think I convinced them that we were the ones on which they should try their experiment. They want you to write out quite fully what we are actually doing in medicine; what professors are already paid; and the amounts including assistant professorships; the salaries of each; a statement as to the ordinary charges and management of the institution; the reasons why we would like to enter into this experiment and to try it under the new conditions of this coast - quite different from those surrounding any of the three already chosen - also the reason why Stanford University is to be chosen.

My general impression is that if we will meet their requirements by cutting off all profit for these new professorships and letting the fee that they must charge go into the general fund, but neither expecting nor requiring any money in this way, they will look with a good deal of favor on us. I think it best to put all this in form and get Doctor Branner as President, and perhaps Mr. Newhall (who succeeded Mr. Hopkins as President of the Stanford Board of Trustees) to sign it.

The whole matter is practically in the hands of Doctor Flexner. I found both these men very friendly, and perhaps the omens are good for our success.

Some of the documents I had with me are available for your report, as I return them. Doctor Flexner implied that they would rather have a somewhat long report anyhow; we will try it.

I remain,
(Timothy Hopkins)

As advised by Mr. Hopkins, the following covering letter was dispatched on December 11, 1914 as a grant application to the General Education Board. This covering letter was accompanied by supportive documentation prepared by Dr. Wilbur.

December 11, 1914
The General Education Board
17 Battery Place

New York City

Gentlemen:

On behalf of the Leland Stanford Junior University we request the assistance of your honorable board to the extent of $750,000 as a special endowment for our medical school.

A detailed statement of the history, present condition, and future plans of the medical school, by the dean, Dr. R. L. Wilbur, together with copies of publications relative to it, accompany this application. The following conditions are suggested as applicable to the gift, if made:

1. That the income of the fund shall be used for payment of salaries of full-time clinical professors, preferably in the divisions of medicine, of obstetrics and gynecology, and in pediatrics; and for salaries of assistant and associate professors either in these same divisions or preferably, in the clinics devoted to genito-urinary surgery, neurology, ophthalmology, otology, rhinology, and laryngology.

2. That the holders of these professorships shall be expected to devote their time to teaching, to research, and to the care of patients; that they shall have the privilege of delivering lectures and of being of general public service, also to care for private patients, at their discretion, in the hospital or through consultation, all fees for such attendance to be collected by the medical school and to become a part of its funds.

Respectfully submitted,
(William Mayo Newhall)
President, Board of Trustees
(John C. Branner)
President of the University

Dean Wilbur discussed the grant application with officers of the General Education Board in New York in January 1915 and reported the discussion to President Branner in the following letter.

January 11, 1915

Dear President Branner:

I beg leave to report that I have returned from the East this morning. . . . In New York I took up with Mr. Flexner and Mr. Buttrick of the General Education Board the details of the desired endowment for the Medical School, and think that I was able to get the proposition concretely and definitely before them for discussion.

Their attitude was most friendly and favorable, as we had been led to expect by the way they had taken the problem up with Dr. Jordan. Mr. Flexner particularly desired information along certain lines and certain comparisons between our institution and the others already endowed by them, and I think that the way the proposition was presented by us will be in our favor. He was particularly impressed by the unanimous action of the Medical Faculty requesting that the endowment be sought along the lines adopted by the Board. In all the other medical schools there has been some more or less definite opposition to the plan of the General Education Board…

Very sincerely yours,
R. L. Wilbur

The General Education Board denies approval of Stanford's grant application President Branner received the following terse letter: [35]

New York City
Feb. 8, 1915
President John C. Branner
Leland Stanford Jr. University

Stanford University, California

Dear Dr. Branner:

The application that was made by you on behalf of Leland Stanford Jr. University for assistance toward a special endowment for your Medical School was submitted to our Board for its consideration at a meeting held on January 28, 1915. I am instructed to inform you that the Board did not find it practicable to grant the request which was made.

Very truly yours,
E. C. Sage

Reasons for the decision not to approve the Stanford application were not forthcoming from the GEB.. Immaturity of the school, which had been in existence for less than a decade at the time of the application

may have been a negative factor. when to a visionary this could have been seen as an asset. The criticism of the Stanford program published in the Flexner Report only a few years previously in 1910, and Stanford's refusal to merge with the University of California, may also have inclined Flexner and other members of the GEB to reject the application. The fact that Stanford was a "divided" school with the clinical departments and hospital at a distance from the University was contrary to one of the Flexnerian imperatives, and doubtless made Stanford Medical School sub optimal as a site for the GEB's experiment with the clinical full-time system.

Geographic Full-time System continues at Stanford

In view of Dean Wilbur's efforts to obtain funding to establish the clinical full-time system, and of the medical faculty's unanimous concurrence with these efforts, it is reasonable to conclude that only the lack of funds prevented early introduction at Stanford of the clinical full-time system (Hopkins model) and led ultimately, as in so many other medical schools, to continuation of the geographic system as a practical expedient. Years later the adoption of the clinical full-time system became a major issue at Stanford, a subject to which we will in due course return.

Dean Wilbur was highly effective in developing the faculty and promoting research during his five-year tenure as Dean from academic year 1910-11 to 1915-16. He presided over expansion of the medical faculty from 20 to 62 as shown by the following table based on Annual Announcements of the School of Medicine for those years: [36] [37]

Faculty of Stanford School of Medicine

Titles	1910-11	1915-16	Increase
Professor	11	14	3
Clinical Professor	2	8	6
Associate Professor	3	3	-
Associate Clinical Professor	-	2	2
Assistant Professor	4	9	5
Assistant Clinical Professor	-	5	5
Instructors	-	5	5
Clinical Instructors	-	16	16
Total	20	62	42

In 1915-16 32 "Assistants" were also listed with the Faculty.

With respect to faculty research during Dr. Wilbur's deanship and afterward, we refer to the Medical Bulletin of Stanford University School of Medicine. Volume 8 was the final issue of the Bulletin. It covers the three-year period from 1924 to 1927 and contains 93 reprints. In an Appendix are listed an additional 594 articles making an estimated total of approximately 700 articles published by the Faculty during that period.

These data suggest that the number of journal articles published by the Faculty increased 10-fold during the decade and a half from 1910-13 to 1924-27, and that Dr. Wilbur's early efforts to create On 4 May 1912 the Faculty of the Medical Department decided to collect and bind the reprints of all medical journal articles published by the Faculty. The objective was to document their research activities and make them more widely available for study. Since it was soon learned that it was not possible to obtain reprints of all articles, a list of those reprints not bound in the Bulletin was included as an Appendix in all except the first two volumes.

Volume 1 of the Bulletin covers the three-year period from the beginning of the Department in 1910 to 1913 and contains 35 reprints. Assuming that reprints of only half of the articles were submitted for binding, we can estimate that about 70 articles were published by the Faculty during that period.

Volume momentum for research in the new school was highly successful. [38]

In a previous Chapter we discussed President Branner's strong objection to funds being made available to the Medical Department by the Trustees in excess of prior agreement. These were the funds invested by Dean Wilbur in construction of the new and improved medical facilities we have described earlier in this Chapter, and in support of the additional faculty tabulated above. The Trustees' generous allocation of funds to the Medical School, so outrageous to President Branner, paid off handsomely by rapidly upgrading the School's facilities and faculty in both preclinical and clinical departments. These important initiatives by Wilbur no doubt contributed to Dr. Vaughan's favorable impression of the Stanford medical program in June 1914.

Dean Wilbur Elected President of Stanford University

In view of the considerable effort by President Branner to expel the Medical School from the University, it is of special interest to note that, on 13 October 1915, after many months of debate and negotiation, the Board of Trustees chose Dean Wilbur to replace him as President of Stanford University, effective 1 January 1916. On that date Professor Branner became President Emeritus.

Also on 1 January 1916 Professor Ophüls was named Acting Dean of the School of Medicine to replace Dr. Wilbur. Professor Ophüls was appointed as Dean on 1 August 1916.

When Professor Branner accepted the presidency of the University in 1913 he concluded his inaugural address by saying: [39]

> Here and now I beg to remind you that I shall be sixty-five years of age in July 1915, and I recommend that I be retired at the end of that academic year.

We also recall that Trustee Herbert Hoover, at the time of Dr. Branner's appointment as President, proposed to the Board of Trustees that Dr. Wilbur be Dr. Branner's successor as President of the University. In view of Hoover's confrontation with Branner over funding of the Medical School, it is not surprising that he looked forward to the termination of Branner's appointment as President.

Meanwhile, World War I began in Europe in August 1914 and Hoover, then residing with his family in London, soon became involved in humanitarian work - first the repatriation of Americans stranded in Europe. Soon afterward he organized and became head of the Commission on Relief in Belgium (CRB) devoted to the prevention of famine in that beleaguered country by importing food. In spite of this pressing commitment, Hoover continued to serve as a Stanford trustee and maintained a keen interest in university affairs. Hoover took particular notice that by late in 1914 President Branner's anticipated term of office would be more than half over, and he was increasingly anxious to find a proper successor for him.

On 25 October 1914, only three days after formally launching the CRB, Hoover took the time to write a four-page letter about the university presidency to his friend, Timothy Hopkins, who was still chairman of the Board of Trustees. It was a matter, Hoover said, "very near to my heart."

The appointment of a successor to Dr. Branner was also a matter of great consequence to the Medical School. It is for that reason that we include here a full account of the lengthy and involved appointment process as reported by George H. Nash, author of the definitive Hoover biography: [40]

> Hoover's opinion on (the presidency of Stanford) was emphatic. Stanford, he declared, was "essentially a Western institution, with ideals entirely different from those which obtain on the Atlantic seaboard." Its development policies of the previous two years (policies largely conceived by himself, he might have added) were "practically unique." Indeed, the university's "whole internal academic structure" was "essentially different from that of any other institution." To Hoover it was therefore evident that Stanford's next president should be "a Western man," and "a man from the present university body." He would also be pre-eminently an administrator. "The old-line President who was able to preside at Sunday School Conventions and make choicely classical orations on public occasions is not the type of man that Stanford needs," he argued. "Nothing would be more disastrous than to choose some classical Professor from the East." For Hoover only one man fit his criteria: the current dean of Stanford's medical school, Ray Lyman Wilbur.
>
> Hoover's reasoning was extremely revealing of his educational philosophy and self-image. He wanted Stanford to be led by a Westerner, not an Easterner; an executive, not an orator, a man of practical education, not a classically trained academic. A man, in short, like himself. If Wilbur was "deficient on the side of flowered and classical oratory," he remarked crisply, that deficiency could be supplied by Chancellor David Starr Jordan. Hoover also admired Wilbur's aggressiveness on behalf of his department. If Stanford had "another ten Wilburs" in its other departments, he argued, "they would have been much further forward than they are today."
>
> Hoover's choice was significant for another reason. Ray Lyman Wilbur was one of his oldest and closest friends.
>
> Having circulated his views to key trustees, Hoover now awaited developments. At the beginning of 1915 President Branner duly announced his intention to retire on August 1, and the search for his successor began in earnest. It quickly developed that opposition to Hoover's candidate was strong. During 1914 Wilbur had been embroiled in the bitter battle over the future status of his San Francisco-based department, a battle that he had won and Branner had lost. Apparently embittered by his defeat, Branner seemed determined not to let Wilbur succeed him. He was not alone in his opposition. Many members of the Stanford faculty feared that Wilbur, as president, would place the interests of the medical school ahead of those of other departments.
>
> Well aware of these sentiments, Hoover tried to neutralize them by proposing to his fellow trustees that his friend be appointed acting president for a trial period of one year. Hoover was certain that Wilbur would introduce so much administrative "steam and push" to the campus that he would "galvanize the whole place within twelve months." But if he should not meet expectations, he could then return "with dignity" to the medical school and another person could be chosen president. It would be far better to handle matters in this way, Hoover thought, than to embark on what he called the "experiment " of hiring an educator from the East.
>
> Hoover's suggestion went nowhere. It soon transpired that the faculty's apprehensions about Wilbur were shared by certain trustees, some of whom, including W. Mayo Newhall and J. Leroy Nickel, wished to look outside the faculty - to the East, in fact - for a successor. Hoover, in London, was angry at this turn of events. "I am …appalled at the idea of Nickel and Newhall dominating the appointment of a President for Stanford University," he told a friend. "Neither of these men has the university instinct, nor have they the remotest idea as to what constitutes such an institution."
>
> Meanwhile Stanford's newest trustee, Ralph Arnold, was pursuing an idea of his own. A petroleum geologist and businessman (as well as Ray Lyman Wilbur's second cousin), Arnold had known the Hoover brothers for years. In January 1915 he asked Hoover whether he would accept an offer of the Stanford presidency. Arnold was convinced that the university would be "making no mistake" if it installed Hoover as president for a long enough term to "thoroughly organize the faculty" and establish "a definite policy of administration."
>
> Hoover's reply was swift and clear: Ray Lyman Wilbur, he said, should be chosen. But then he added:
>
> "If it was not for the intervention of all these international troubles, I would have been quite prepared to take on the job for a couple of years, simply as acting president or acting trustee in charge of the University, in order to hold the position open for Ray. I have no intention to become a University President as a permanent occupation."
>
> Hoover pointed out he could not "desert the Belgians until peace has been signed" and that he would then need three or four months to arrange his "private affairs" before he could "take on the job."

How soon he might even be available was therefore impossible to determine. Nevertheless, he seemed willing, at least in principle, to accept the position if offered it.

Arnold was extremely pleased. He immediately replied that if certain circumstances materialized, he would nominate Hoover as a compromise candidate for acting president or acting trustee in charge of the university. Hoover, significantly, did not object.

Then, in the winter of 1915, an unexpected event threw the selection process into turmoil. David Starr Jordan, who as chancellor had been attending trustees' meetings, announced publicly that Wilbur would probably be selected as president. Not long afterward Jordan, a strong advocate of Wilbur, compounded his indiscretion by practically demanding that the board come to a decision in April (1915) - a move interpreted by some as an attempt to stampede the board toward Wilbur. Jordan's behavior incensed the trustees, fortified the anti-Wilbur faction among them, and obliged the rest to defer a choice for some time. As a result, the spring of 1915 passed without result, and Branner was induced to remain as president for as much as another year.

Reporting all this to London, Ralph Arnold again expressed his wish that Hoover could step in for two or three years as president and reorganize the entire university. Not only would the institution benefit, he argued; the interim period would enable Wilbur to solidify his credentials as Hoover's successor. Arnold yearned for Hoover's presence at the showdown meeting of the trustees; at such a meeting, he knew, Hoover's influence would be "dominant."

Far from the environs of Stanford, Hoover was disgusted at the course events were taking. He told Arnold that it was a source of "humour" to think that "a narrow-minded farmer like Newell (Newhall) or an extremely avricious (sic), egotistical banker like (trustee Frank B.) Anderson are either one or the other at all capable in choosing a President for Stanford." As for Branner, who was about to head east on a search for candidates:

"You and I have known for years that Branner is capable of the most violent and consistent prejudices and that with all his admirable qualities these prejudices absolutely blind him to the merits or demerits of individuals. I should consider that he above all men associated with Stanford University is the least qualified to nominate a new President, but when I think of Jordan's judgment I am equally appalled. As to myself, if it does not work out in the next six month that Ray is possible, until the above gentlemen have been completely removed from the scenery and their influence entirely excised, I might manage to take the job and hold it for two or three years, provided I had a clear six months to get prepared. Much depends upon how long this War lasts and a hundred other contingencies, but rather than see some loudmouthed Princetown (sic) professor put in the position, I would be willing to take three years out of my life and throw them away."

Hoover's worries about a "loudmouthed Princetown professor" proved apposite. After a trip east late in the spring to investigate presidential possibilities, Branner and Newhall returned with an enthusiastic endorsement of Edwin Capps, professor of classics at Princeton - the very epitome of all that Hoover found objectionable.

Thoroughly alarmed, Arnold cabled London that Wilbur's "only chance" depended on Hoover's attending the next trustees' meeting. Only Hoover, he said, could win over Trustee Anderson and sufficiently isolate the opposition to prevail. Once again Arnold held out the prospect of Hoover's becoming president if Wilbur's bid should fail, and he disclosed that two other trustees seemed amenable to this possibility.

Hoover's reaction to the Capps candidacy was scorching, The Princeton professor, he cabled, was a "social fop" and "sycophant to (the) Wall street bunch." He was the "absolute negation of (the) type required for president." but for all his vehemence, Hoover had to record that he had "no Hope" of visiting California until the war was over. Millions of people were dependent on his venture in humanitarian relief. The CRB, he said, would collapse into "absolute Chaos" without him.

By now (mid-1915) the Stanford Board of trustees was deeply divided between the Pro- and anti-Wilbur factions. Chancellor Jordan agreed with Arnold that only Hoover, appearing in person, could persuade the board to select his nominee. To Jordan, (Hoover wrote that) Leland Stanford would "turn over in his grave" if he knew that "a Professor of classics from the most reactionary university in America" were to become president. Alas, the one man who seemed capable of resolving the impasse in Wilbur's favor was thousands of miles away.

At its meeting (in August 1915) the Board of Trustees decided to interview several candidates; clearly a decision was some time away. Arnold immediately informed Hoover that he might yet be "the victim of circumstances" if Wilbur were blocked and the "(trustees) Hopkins and Eells are strong for you in case Wilbur cannot get it." Lou Henry Hoover, cabling to her husband from California, was more succinct. "Presidential campaign at deadlock, " she said. "May insist on you."

Immersed in Belgian relief problems six thousand miles away, Hoover could do little to influence the outcome. As it turned out, his personal presence was not required. During the autumn, a majority of the trustees voted for Wilbur, the minority acquiesced, and the board tendered its offer. Wilbur accepted - in order that (he later wrote) "medicine would not be destroyed as a part of the University." To Wilbur the time had arrived for Stanford to fulfill its early promise and become in full measure a university, not simply a small college with a large endowment. The acquisition of the medical school, in his view, was the first great step in this transition. In all these aspirations his friend Herbert Hoover agreed with him. Now thanks in considerable part to Hoover's own "steam and push," Wilbur was to have his opportunity.

Shortly after the board made its decision, Hoover sent the president-elect a seven-page letter of advice and felicitation. For "the first time in its history," he predicted, Stanford University under Wilbur would "take absolutely first rank." Hoover urged Wilbur to reorganize Stanford's system of "faculty control" in order that the "leaders of the University" might emerge instead of "secondary men." Specifically, Hoover suggested that Wilbur bring related faculty departments together into "groups," administered by committees of department heads, who in turn would elect representatives to a small "legislative body" to be known as the University Executive Committee or University Senate. In this way, he argued, the "best brains" could prevail in university governance, and the influence of assistant professors and instructors could be reduced. With such a body drawn from the "pre-eminent professors," Wilbur might even be able to abolish "the well-known Debating Society called the "Academic Council' " Returning to a theme he had expounded often before the war, Hoover also advocated that Stanford hire more "illustrious men." These select few were the key, he asserted, to the university's success and to its standing in the academic world.

Hoover offered his friend one other self-revealing suggestion:

"There is one bit of advice that I will hazard you on the whole question of administration of any institution and that is never to be afraid of the ability of one's lieutenants but to bear in mind that the more able the men with whom one surrounds oneself the more certainty one has of ultimate success."

Dean Wilbur's Recollections of the Deanship

For an overview of Dr. Wilbur's five productive years as Dean we turn now to excerpts from his Memoirs. [41]

As it was obvious that the Stanford Medical School which Dr. Jordan had asked me to head would develop slowly and the classes would be small, Marguerite (Mrs. Wilbur) and I decided that it would be better to live in Palo Alto than in San Francisco. We purchased a house in Palo Alto at 1201 Bryant Street. (The house was torn down and replaced in 1966.) We knew by experience that I could make five times my academic salary if I went back into medical practice. I still had my reputation as a teacher in medicine and my administrative way to make. Plenty of observers at Stanford and in San Francisco and Berkeley were in opposition to the medical school The whole idea of medicine taught by men on academic salaries was a subject of day-to-day discussion in medical and university circles. It was a period when Cooper Medical College was letting go and Stanford taking hold more each year. . .

The succeeding years until I was elected president of the University were used for the development of a program for the new medical school. My whole attention was centered on making it of as high quality as possible. . .

This was a period of considerable conflict. I found it not the easiest thing in the world to push overboard some of the members of the Cooper Medical Faculty who had given me training and to bring others forward in the new school. What I did was done in an atmosphere of opposition, not only from the University of California Medical School but also from members of the Stanford faculty, some of whom thought the University should not take on such a new responsibility. . .

The medical faculty of Cooper (Medical College) had been made up largely of volunteers who were leaders in the practice of medicine and who gave a portion of their time to the care of patients and to teaching students for the medical school. There had to be a reorganization of titles and new adjustment of departments, and many disappointments, so that my first years as dean were busy ones . . .

It is given to few men to see the beginnings of a great university, such as I had seen in my Stanford student days; fewer still have had, in addition to that, the unique opportunity that I now had to pioneer in the organization of a new medical institution. It was a stimulating experience. I was on my mettle, too, because the acceptance of the Cooper Medical College property by Stanford University was at first a subject of some debate. The agitation died down as the Stanford Medical School became renowned for its research in various fields of medicine and soon had as many medical students as it could accommodate with its existing facilities.

This was a time of revolutionary change in the medical schools of the United States. They were discontinuing their old lecture system with staffs made up of part-time clinical professors. Many of the schools were appointing academic professors to the various medical chairs on academic salaries, with the idea that they could engage in teaching and research, assist in the clinical work, and do a certain amount of consultation work if it could be done without harm to their teaching programs.

It all meant that medical education had become more expensive, requiring more men of long and expensive training to work in its departments, and that true university status should be maintained in all of its departments. It also meant two kinds of instructors in the medical schools: (1) those with clinical appointments on a nominal salary who, as a side line to their own medical practice, worked in the clinics doing a certain amount of teaching, and (2) the so-called full-time academic professors, some in clinical positions in addition to their regular teaching, on academic salaries. . . .

Our first Stanford class in San Francisco was small but our students were well trained. The courses by Professors A. W. Meyer in anatomy, Hans Zinsser in bacteriology, A. C. Crawford in pharmacology, and Robert E. Swain in chemistry were done as well as anywhere in the country. . .

Dr. William Ophüls was a constant source of scientific strength. Dr. George E. Somers took on the management of the hospitals and clinics. While we had insufficient funds to go on a full academic basis, we did appoint a few full-time younger men on academic salaries, such as Dr. Thomas Addis in medicine, Dr. James Eaves in surgery, and Dr. Harold K. Faber in pediatrics. We were fortunate, too, to get Dr. Albert B. Spalding (A. B. Stanford, 1896; M. D. Columbia, 1900), who had taken a thorough training in obstetrics and gynecology in New York, to head that department.

From the first we considered research as one of the most important functions of the medical school. In transmitting to the student the medical knowledge gathered in the past the work of the medical school is only half done. So long as there is even one disease left in the world for which we have no cure, research must go on. Students and faculty members must have thorough training in gathering facts first hand and in working out new procedures to meet new conditions. In doing so, full use must be made of the laboratories and clinical material in our medical schools and hospitals. Today, that is a generally accepted program; but when we organized our new Stanford Medical School with a definite provision for research

programs it was looked upon as something of an innovation…

I tried to stimulate the men who were working with me to take up special fields of medicine. For example, Bright's disease seemed to be one of the most promising fields and, as it was one in which the kind of mind that Dr. Thomas Addis had would be most apt to be useful, I encouraged him to take up the studies on the kidney which he subsequently carried out with great success. Addis came to us as a young doctor, in 1911, from the University of Edinburgh, highly recommended to me by Sir Clifford Allbutt, of Cambridge, as one of the most promising of the younger British trained men.

We had a series of botulism cases on the University campus that we were able to trace to their source, which turned out to be home-canned string beans. Dr. Thomas M. Williams who was practicing medicine in Palo Alto, was called in to see some of the girls who had become acutely ill after attending a dinner party at one of the sorority houses on the campus. He brought me into consultation. Botulism is now well known; but at that time it was a rare disease, not well understood and seldom diagnosed… That botulism outbreak led to a general public attack on the commercial canning of food, so that it was very important when we were able to show that only those who had eaten the home-canned string beans were affected.…Out of this experience grants of money were made to the Stanford Medical School for Assistant Professor Ernest Charles Dickson (who became professor of public health and preventive medicine in 1926) to make a careful study of the conditions which brought about the development of botulism and to work out methods of destroying the poison through boiling…(Dr. Dickson later took up the laboratory side of coccidioides and made important observations.).

We worked in an atmosphere of young men and enthusiasts, friendly critics and congenial associates. (Here Dr. Wilbur well describes the collegial atmosphere that characterized faculty relationships at Stanford Medical School in San Francisco from 1909 to 1959.)

Frankly, I took the Stanford presidency so that medicine would not be destroyed as a part of the University. [42]

President Branner saw the medical school as a menace to the future of Stanford University with its limited endowment, while I saw it as the first great gift for a Stanford that was to be one of the great universities of the world. It had started that way in the mind of Senator Stanford, as embodied in the

Founding Grant of Stanford University

"The Trustees shall have the power, and it shall be their duty:

"4. To establish and have given by the University, by its ablest professors, courses of lectures upon the Science of Government, and upon Law, Medicine, Mechanics, and the other Arts, and Sciences." [43]

Medicine, as a crown on biology and as of service to man seemed to me to have its natural home in the University. I agreed with the original statement of the Stanfords (in the Founding Grant) on having medicine as a part of the University and as I became more involved in medicine at Stanford and in the United States I found myself a part of the movement to advance the requirements for premedical and medical education and to bring medicine into the universities of the country… So much so that when the presidency of the University was offered to me, I decided to accept.

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Chapter 35. Dean Ophüls' Administration 1916 - 1933

Dean Wilbur was elected President of Stanford University effective 1 January 1916 and on that date Dr. William Ophüls was appointed Acting Dean of the School of Medicine to replace him. Dr. Ophüls was appointed Dean on 1 August 1916.

As Acting Dean of the School of Medicine Dr. Ophüls submitted the Annual Report of the Medical School to the President of the University for the Year Ending 31 July 1916. In that Report Dr. Ophüls included the following two items:[1]

> 1. The Medical School suffered a severe loss through the transfer of Dean Wilbur to the presidency of the University (on January 1, 1916). The rapid development of the Medical School in the past has been largely due to Dr. Wilbur's untiring efforts. All parts of the Medical School will miss his stimulating interest. They rejoice, however, in the knowledge that in his new position, although not so intimately connected with the work in San Francisco, he will still guide its larger policies as well as those of the rest of the University.
>
> 2. Dr. Albion W. Hewlett, of the University of Michigan, was appointed Professor of Medicine (effective August 1,1916) to fill the vacancy left by the appointment of Dr. Wilbur as President.

Dr. Albion Walter Hewlett (1874-1925)

Dr. Wilbur later made the following comment about his successor:[2]

> I was much pleased with Hewlett's appointment. I said at the time that "there is no better man of his age in clinical medicine in this country." He was a native Californian, had worked in the Stanford laboratories and on the faculty of Cooper Medical College before he went to Michigan, and was thoroughly familiar with conditions here on the Coast.

Albion Walter Hewlett (1874-1925)

On 1 August 1916 Dr. Hewlett succeeded Dr. Wilbur as Professor and Executive Head of the Department of Medicine and its Subdivisions. The appointment of Dr. Hewlett, Hopkins and Pioneer Clinical Physiologist, could not have been more timely and appropriate. It served to reinforce the policy already established by Dean Wilbur of making professorial appointments to clinical departments on a geographic full-time basis and only to candidates with strong credentials in research.

Dr. Hewlett was not only a trained physiologist but also a skillful practitioner. Throughout his career he was orderly, thorough, scientific and attentive to the needs of the patient. He was also a brilliant teacher, sound medical statesman and outstanding example of the contributions made by graduates of The Johns Hopkins School of Medicine to the growth and development of the Stanford program, and to the academic programs of numerous other medical schools nationwide. These and many of the subsequent references herein to Dr. Hewlett's career draw extensively on the definitive article on this subject published in the Johns Hopkins Medical Journal in 1979, and written by A. McGehee Harvey, Distinguished Service Professor of Medicine at Hopkins, and foremost authority on clinical research in American Medicine.[3]

B. S. at University of California, Berkeley (1895)

Albion Walter Hewlett, the son of Frederick and Cleora Melissa Whitney Hewlett, was born on 27 November 1874 in the small California town of Petaluma some 40 miles north of San Francisco. His early schooling included enrollment in the "classical" course at the San Francisco Boys High School (despite its name it was coeducational.). After two years in the High School he was admitted to the University of California at Berkeley where he graduated with a B. S. degree in 1895.

First year Student at Cooper Medical College (1895)

Determined then to become a physician, he matriculated in the first year class at Cooper Medical College which met from February 1st to December 5th, 1895.

Student at Johns Hopkins Medical School (1897-1900)

Upon completing the first-year class at Cooper, Hewlett applied for admission to the second-year class at Johns Hopkins. He offered his having had the highest grade average in his class at Cooper as evidence of his scholarship, and as the main justification for his admission to the second year at Hopkins. Hewlett's brash application incited considerable discussion among the Hopkins faculty with the following result:[4]

> A note in the Johns Hopkins records dated April 20, 1897 signed by William Henry Welch reads as follows: "Brought Mr. Hewlett's application… a second time before faculty at the meeting of April 1, 1897. A more encouraging view was taken, and it was noted that he may be allowed to try to enter second year. Answered his letter April 2 telling him of this decision and suggesting that he would have to pass examinations in normal histology and physiological chemistry and give evidence that his work in anatomy and physiology has been reasonably equivalent to that given here. Knowledge of normal histology especially emphasized. Said that if he takes the summer course at University of Chicago his chance of entering will be improved."

Hewlett followed Dr. Welch's advice and was admitted to the second year class at Johns Hopkins University School of Medicine on October 6, 1897.

Hewlett's first real research was conducted during his second year at Hopkins in collaboration with his California boyhood friend and future Nobel Laureate, Joseph Erlanger. This project resulted in a paper entitled "A Study of the Metabolism in Dogs with Shortened Intestines," published in the American Journal of Physiology in 1901. The dogs on which the study was carried out were those used by the noted Hopkins surgeon William Stewart Halsted and his collaborator Anatomist F. P. Mall in their search for reliable intestinal sutures. Hewlett graduated from Johns Hopkins with M. D. degree in 1900.[5]

Internship in New York and Postdoctoral Study in Germany (1901-1903)

After graduation from Hopkins in 1900, Hewlett interned for a year on the medical service at the New York Hospital. He then studied at Tubingen, Germany in 1902 and 1903 under the auspices of Ludolf Krehl who was one of the first to emphasize abnormal function (pathological physiology) as contrasted to pathological anatomy which was at that time in the ascendancy under the influence of Rudolph Virchow. Krehl's great monograph, Fundamentals of General Clinical Pathology was published in 1893. Five years later the title was changed to Pathological Physiology. This text went through many German editions and was translated into other languages, including the third edition which was translated into English in 1905 by Hewlett under the title of Clinical Physiology. This last volume went through three American editions.

Throughout his career Hewlett's primary research interest was in the emerging field of Clinical Physiology. Indeed his first major scholarly contribution in this area was the translation of Krehl's book into English in 1905. In so doing Hewlett rewrote the section in Krehl's book dealing with cardiac arrhythmia's based on his own observations and graphic records which were responsible for the correct explanation of the nature of auricular fibrillation. Sir William Osler, in his introduction to this work said: "In this book, disease is studied as a perversion of physiological function. The title, Clinical Physiology, expresses well the attempt which is made in it to fill the gap between empirical and scientific medicine. Every few years the laboratories seem to run ahead of the clinics and it takes time before the facts of one are fully appreciated by the other."

Faculty at Cooper Medical College, 1904-1908

Hewlett returned from Europe in 1904 and, at the age of thirty, joined the Cooper faculty where he held the following appointments.

Instructor in Clinical Medicine, 1904-1906 Assistant Professor of Principles and Practice of Medicine 1906-1908

Upon joining the Cooper faculty, Hewlett began at once to study pathophysiological problems. In this endeavor he was encouraged and assisted by Walter E. Garrey, Ph. D., Professor of Physiology at Cooper, under whom he conducted much of his early research.

Hewlett's work in Garrey's laboratory resulted in three papers based on Simon Flexner's observation that great quantities of lipase, a fat-splitting enzyme of the pancreas, occur as a result of experimental acute hemorrhagic pancreatitis. Hewlett demonstrated the presence of lipase in the urine and roughly estimated the quantity present in dogs in whom pancreatic disease had been experimentally produced. The lipase was found in the greatest amount as a result of experimental acute hemorrhagic pancreatitis. [6][7]

This paper was followed by two others on gastrointestinal enzymes after which Hewlett's interest shifted to the study of cardiovascular and respiratory physiology ad pathophysiology. In the coming years he pursued these studies with a diligence and success that gained for him national recognition as a scholar, teacher and clinical investigator. This led In 1908 to his election as a charter member of the American Society for Clinical Investigation, and as one of the three members of its original council.[8]

Faculty at University of Michigan Medical School. (1908-1916)

Such was Hewlett's research productivity and academic promise while still an Assistant Professor at Cooper Medical College that he was called to serve as Professor of Medicine at the University of Michigan Medical School, Ann Arbor, in 1908. There he replaced Dr. George Dock who had moved to Tulane.

At Michigan Hewlett maintained an incredible schedule. In addition to his voluminous research, writing, and other activities, including a modest private practice, he scrupulously maintained his schedule of class lectures, ward rounds and personal contact with his students and house staff. The latter believed him to possess to an extraordinary degree the gift of the great teacher to make complex subjects appear simple and understandable.

While Hewlett was at Michigan acquiring further national stature as a professor and clinical investigator, Cooper Medical College completed its orderly transition from proprietary medical college to the Stanford University Department of Medicine. Throughout this period Dr. Wilbur followed Hewlett's career with interest and admiration. He remembered him from as early as 1895 when Hewlett was a promising first-year medical student at Cooper and Wilbur, serving then as an Assistant in Physiology, was doubtless one of his instructors.

Since then Wilbur and Hewlett had become friends and professional colleagues as is indicated by the following revealing letter of 19 May 1911 on the subject of faculty affairs:[9]

> San Francisco
> May 10, 1911
> Dr. A. W. Hewlett
> Ann Arbor, Mich.
>
> My dear Dr. Hewlett:
>
> Your letter of May 6th just reached me. I am sorry to hear that Dr.

> Warren is not likely to consider the opening here but glad for your sake that he prefers to stay with you. I appreciate very much your calling him to our attention.
>
> Is there any possibility that you yourself would consider a professorship in Medicine here with charge of the work at the City and County Hospital? It does not fall into our hands until a year from next July. I merely ask you this for my own personal information in making plans and would prefer that you do not mention it.
>
> With very best wishes,
> Sincerely yours,
> Ray Lyman Wilbur
> Executive Head
> (Department of Medicine Stanford University)

Appointment to the Stanford Medical Faculty (1916)

After months of uncertainty, the Stanford Trustees voted in the fall of 1915 for Dr. Wilbur to become President of the University and for him to take office on 1 January 1916. At the meeting of the Medical Faculty on 15 December 1915, it was announced that Dr. Hewlett would succeed Dr. Wilbur as Professor and Executive Head of the Department of Medicine, effective 1 August 1916. The dispatch with which Hewlett was appointed to the Stanford Faculty suggests that he was an ideal and willing candidate for the position, as he proved to be.

Before leaving his post at Michigan to assume the Stanford position, Hewlett summarized in simple terms his conception of a clinical department in a medical school. He said, in essence, that the clinical department which is not adding to the sum total of medical knowledge is already falling behind; members of the department must devote a portion of their time to research; facilities for such research must be furnished by the hospital or by the university; and, finally, the problems confronting clinical medicine at the present day involve not only the usual clinical observations of patients, but also the study of these patients by the various methods that are increasingly available in biochemistry, physiology, bacteriology, immunology and other emerging scientific disciplines.[10]

By this time Hewlett was at the forefront of those who had assumed leadership in enlarging medicine's scientific base through clinical investigation. And it was just as he was leaving Michigan in 1916 that the first edition of his book, The Pathological Physiology of Internal Diseases, a volume of 700 pages, appeared. This monograph was based in large part on his own clinical observations and experimental work and was the definitive medical treatise of the day dealing with the pathophysiology of disease. As such, It went through several editions.[11]

Stanford Medical School during World War I

American involvement in World War I (April 6, 1917 - November 11, 1918) began only eight months after Hewlett's arrival at Stanford. As soon as the United States entered the war, the University placed the medical staff and clinical and hospital facilities in San Francisco at the disposal of the army and naval authorities for such use as may be required.

U. S. Navy Training Schools

During the summer of 1917 there was maintained at the Medical School in San Francisco under the direction of the medical staff a training school for medical officers of the United States Navy, the course covering six weeks beginning July 25th. A second course was scheduled to begin on September 10th.

The Medical School also conducted a training school under the direction of Dr. Stanley Stillman for the instruction of fifty naval hospital apprentices, the work consisting of lectures, recitation and laboratory work in anatomy and physiology, first aid, and minor surgery, materia medica, pharmacy and toxicology, elementary hygiene, and sanitation and bacteriology, with experience in practical nursing in the medical and surgical wards of Lane Hospital.[12][13]

During the academic year ending 31 July 1917 a course in emergency medicine and surgery was arranged for senior medical students, during the second semester, under the direction of the Chief Surgeon of the Emergency Hospital Service, the students spending about four hours a day for a month working in the various emergency hospitals of the city. Four of the graduates of the class of 1917 enrolled as assistant surgeons in the Navy.[14]

By the closing of the academic year ending 31 August 1918, a majority of the medical students had become members of the Medical Enlisted Reserve Corps, and were assigned by the War Department to the inactive list in order for them to continue their medical studies.[15]

In 1917 Red Cross Naval Base Hospital Unit No. 2 was organized in connection with the Medical School and included the following seven members of the faculty; Drs. G. D. Barnett, P. K. Gilman, A. W. Hewlett, T. G. Inman, Stanley Stillman, R. B. Tupper, and F. Wolfsohn; and about forty nurses. The Hospital was mobilized on 5 December 1917 and in February 1918 was safely transported across the U-boat infested North Atlantic to Strathpeffer in Scotland.[16]

Hewlett was a Lieutenant Commander during this period and came to know the University of Edinburgh well. There he learned of the legendary medical reasoning powers of Dr. Joseph Bell of that institution. It was Dr. Bell who gave rise in the mind of Sir Arthur Conan Doyle (physician and novelist) to that incomparable detective of fiction, Sherlock Holmes. This undoubtedly interested Hewlett greatly for he, himself, possessed extraordinary reasoning power. and applied it effectively in his medical teaching at Stanford.[17][18]

Hewlett continued to serve with Naval Base Hospital No. 2 after it moved to France. There, in the summer of 1918, an influenza epidemic occurred of which he and W. M. Alberty wrote an excellent description.[19][20]

Additional Faculty that Joined the Armed Forces

In addition to those who went with the Base Hospital No. 2, the following seventeen members of the staff of the Medical School also left for active service: Drs. Thomas Addis, Shadworth O. Beasley, Emmet J. Brady, Joseph K. Brown, Edmund Butler, William. R. P. Clark, Ernest C. Dickson, Harold K. Faber, Frank R. Girard, Harry L. Langnecker, Charles N. Leach, Harold S. Moore, Harry K. Oliver, Alfred C. Reed, Jay M. Read, George Rothganger, and Henry A. Stephenson.

The ranks of the teaching staff were at this point so depleted that any further losses through entrance of members into active service would have led to the disorganization of medical teaching and it was only the fortunate early end of the war that enabled the Medical School to return soon to full operation.[21][22]

The only member of the Medical Faculty to be killed during the war was Shadworth O. Beasley, M. D., '97, Assistant Clinical Professor of Obstetrics and Gynecology, who was among the first to be called into service when the United States entered the war in April of 1917. He died on October 14, 1918, while, as a major in the Medical Corps of the U. S. Army, he was rescuing the wounded under heavy fire on the Western Front. The Faculty memorialized his heroism and supreme sacrifice by mounting a bronze plaque, suitably inscribed, in the entrance to the Lane Library.[23]

Shadworth Oldham Beasley (1876-1918) with JL Cammell, RL Coe, AG Montgomery, DR Peacock and unidentified persons

Following the war, Hewlett continued his studies on the cardiovascular and respiratory systems, completing an extensive and noteworthy series of experiments and observations. These are discussed in detail by Professor McGehee Harvey and are beyond the scope of this commentary.[24]

During the summer of 1925 Dr. Hewlett was granted a leave of absence from April 29th to May 11th in order attend medical meetings in Washington, D. C. This leave being presumptive evidence of Dr. Hewlett's good health, it was a profound shock to the faculty to learn on 8 October 1925 that the Board of Trustees, because of Hewlett's rapidly failing health, had appointed a Committee to manage the Department of Medicine.[25][26]

The Illness of Dr. Hewlett[27]

> As soon as it was recognized that Dr. Hewlett was suffering from a serious disease of the brain, it was decided to take him to some expert in brain surgery in order to give him the best possible chance for recovery. Dr. Harvey Cushing, Harvard's Mosely Professor of Surgery at the Peter Bent Brigham Hospital in Boston, and founder of neurosurgery in America, was first approached. Since Dr. Cushing was leaving for Europe, Dr. Charles H. Frazier of the University of Pennsylvania Hospital in Philadelphia was asked to take charge of his case which he gladly consented to do. Dr. Hewlett's colleague and friend, Dr. Henry George Mehrtens, Associate Professor of Medicine (Neurology) on the Stanford faculty, accompanied him on the long trip east to Philadelphia. The transcontinental journey by train was thus accomplished relatively easily.
>
> Upon arrival in Philadelphia, Dr. Hewlett was promptly admitted to the University of Pennsylvania Hospital where Drs. Frazier and Weisenburg immediately took up the study of the case with the greatest interest They and their staffs vied with each other in attempting to establish the diagnosis and to give the patient what comfort they could.
>
> Shortly after his hospitalization, rapid rise in Dr. Hewlett's intracranial pressure made it necessary to perform an operation to decompress the brain. At the same time a limited exploration was carried out that revealed no sign of either tumor or abscess. In spite of these efforts and the indefinite findings, Dr. Hewlett's condition steadily worsened and he died on 10 November 1925.
>
> At the post mortem examination multiple subcortical gliomata, all of a very malignant type, were found in the brain. During the terminal stage of his illness, Dr. Hewlett was more or less unconscious and did not realize the gravity of his condition..

At the time of Dr. Hewlett's death a revision of his textbook on Pathological Physiology of Internal Diseases was in preparation. As an expression of their affection and respect, Hewlett's Stanford colleagues assumed the responsibility of finishing the final (1928) revision. Among those participating in the project were Drs. Thomas Addis, George DeForest Barnett, Walter Whitney Boardman, Ernest Charles Dickson, Henry George Mehrtens, William Ophüls, Jay Marion Read, Howard Frank West, and Harry Alphonso Wyckoff. The editorial supervision was under the direction of George DeForest Barnett and an appreciation was written by Ray Lyman Wilbur.[28]

Memorials to Dr. Hewlett

In the annals of Stanford and its predecessor medical schools, no member of the faculty has been in his own day at once more highly respected by his colleagues and students as an investigator and teacher, and more warmly remembered as an exemplary physician and man.

Eulogy by Dean Ophüls

The following eulogy by Dean Ophüls is recorded in the Minutes of the Medical Faculty for 14 December 1925:[29]

> Dr Hewlett was a great scholar in his chosen field and a successful and indefatigable investigator. He was thoroughly versed in both physiology and pathology and was the author of a most admirable book on Pathological Physiology of Internal Diseases. He was great as a clinician and an inspiring teacher to his students. With all this he combined a marvelous capacity for administration. He managed the affairs of the medical department very skillfully and successfully being ready at all times to do anything in his power to further the work of the younger men in his department. He held a very important position as a member of the Clinical Committee of our hospitals and of the training school of nurses. His associates in the Committee could always rely on his good judgment and on his willingness to devote time and energy to any serious questions that might arise. He was secretary of the medical faculty, and in

this capacity facilitated the work of the Dean's Office to a great extent. He was particularly interested in the medical curriculum and was a leading spirit in repeated revisions of the same, each of which brought new progress. At the time of his death, he was contemplating a reorganization in the teaching of internal medicine by which it would be possible to have the third-year students in the wards of the hospital and the fourth-year students in the out-patient department.

Dr. Hewlett also had created for himself a most enviable position in the medical profession of San Francisco and California. He was much sought after as a medical consultant and he was always ready and willing to give his advice freely and liberally, but at the same time he managed in some way to prevent that this work should interfere to any considerable extent with what he regarded as his higher duties, namely, the investigation of problems in his chosen specialty and the instruction of medical students.

With all these multifarious duties, Dr. Hewlett never seemed rushed and in his systematic manner accomplished a tremendous amount of work apparently very easily. In spite of the eminence which he had attained, he was the most modest person. He was dearly beloved by all those who came in close personal contact with him

In Dr. Hewlett's death, the Medical School has suffered a great loss and it seems improbable that we shall ever find again a man who is so thoroughly well qualified to serve as the head of the most important department in our Medical School.

Resolution by the American Society for Clinical Investigation

In 1925 Dr. Hewlett was president of the American Society for Clinical Investigation of which he had become a charter member in 1908. The following are excerpts from the formal resolution in memory of Dr. Hewlett adopted by the Society at its eighteenth annual meeting in New Jersey in 1926, a year after his death:[30]

During the past year we have lost by death one of the small group of men to whom the foundation of this society was due and one who later became its president, Dr. Albion Walter Hewlett.

Dr. Hewlett possessed not only unusual intellectual equipment and ability as an investigator, as teacher and physician, he was possessed of a most attractive personality. Quiet and thoughtful and giving the impression of much reserve power and force, yet he was a most interesting and agreeable companion. All the members of the early group comprising this society were his personal friends. He was always interested in the younger members of this society and many of them became greatly influenced in their later careers by his writings and by his personal influence.

The profession of medicine has lost in Dr. Hewlett one of its ablest and most valuable colleagues, this society has lost one of its wisest and most capable members.

But we have lost much more, we have all lost a sincere and true friend.

The Hewlett Club

After Hewlett's death a "Hewlett Club" was organized by former students to honor and perpetuate his memory.

One of Dr. Hewlett's students, Dr. Gunther Nagel (Stanford M. D. 1921), reported that chapters of the Hewlett Club continued active for a number of years in San Francisco, Oakland, and Los Angeles. The last meeting of which we have a good account was in Pasadena, California, on an evening in 1965 when, according to Dean Robert Glaser, he met with a group of local alumni members of the Club for a congenial and mutually informative discussion of Medical School affairs.

We were recently informed by alumnus Dr. Robert I Boyd (A. B. 1938, M. D. 1942) that he was himself President of the Hewlett Club in Southern California when its last meeting was held at Pasadena in April 1980. Prior to that meeting the attendance at periodic sessions of the Club had been decreasing so that no further meetings were called thereafter.[31][32]

The Hewlett Room

On May 31, 1968 a gift of $25,000 was made to the Department of Medicine by the W. R. Hewlett Foundation to establish an endowment fund "the income from this grant to be used for the continuing support of the Hewlett Room."[33]

In 1979 the Medical Department dedicated their spacious and intensively-used Conference Room and Library, located in the heart of the Department, to the memory of Dr. Hewlett. On the door to the room is mounted a bronze plaque bearing the inscription:

The Hewlett Room. Gift of Louise R. Hewlett in memory of her husband Albion Walter Hewlett, M. D. Professor and Executive Head. Department of Medicine. 1916-1925.

Through their use of the room, generations of medical students and faculty continue to be reminded of the distinguished life and legacy of Professor Hewlett, Pioneer Clinical Physiologist.

The Hewlett Award

In 1983, the Stanford Department of Medicine established and funded the Albion Walter Hewlett Award to recognize and honor living physicians who had some Stanford background and were well-known at Stanford as dynamic role-models for future academicians and practitioners of scientific medicine, as was the case with Dr. Hewlett.

Most importantly those nominated for the award should symbolize the physician of care and skill who, in the tradition of Dr. Albion Walter Hewlett, is committed to using wisdom, compassion and biological knowledge to return patients to productive lives.

Recipients of the award are chosen by an award committee charged to recommend an award not more than once a year.

The award, which includes no financial component, is presented in concert with a major event in the Department of Medicine such as a special session of Medical Grand Rounds, attended also by the Hewlett family, at which the recipient of the award delivers a lecture. To commemorate the occasion, the awardee receives a parchment seal and silver medallion depicting figures from the distinguished metal sculpture created by Artist Agnese Udinotti symbolizing the physician in the service of mankind. The recipient will also have the opportunity to select books or journals for the Hewlett Room Library in an amount to be determined each year. Each book will bear a bookplate with a picture of the sculpture, the recipient's name and the date of the award. Other observances may include a dinner in the evening at which the recipient is joined by the Hewlett Family and invited guests.

On March 3, 1992 a fund was established by a gift of $50,000 from William R. Hewlitt to provide future support for the Albion Walter Hewlett Award program.[34]

The first Hewlett award was in 1983, the recipient being Saul Rosenberg, M. D., Maureen Lyles D'Ambrogio Professor of Medicine (Oncology) and Radiology. The most recent award, the tenth, was presented on November 14 1996 to Stanley L. Schrier, M. D., Professor of Medicine (Hematology). These periodic observances refresh institutional awareness, and reward individual emulation, of Dr. Hewlett's memorable contributions to science and humanity.

Based on our considerable knowledge, not only of Dr. Hewlett's academic stature but also of his admirable personal qualities, we can fairly conclude that his presence on the faculty from 1916 to 1925 contributed significantly to development of the extraordinary esprit de corp which characterized the Stanford medical faculty during that fondly-recalled interlude between 1916 and 1959 when the clinical departments joined the basic sciences in successfully fostering the scientific aspects of their disciplines while, happily, preserving a steadfast devotion to the practice and teaching of exemplary patient care.

Other Critical Appointments

Arthur Bloomfield replaces Dr. Hewlett

Dr. Arthur L. Bloomfield, of Johns Hopkins Medical School, was selected to fill Dr. Hewlett's place as Professor and Executive Head of the Department of Medicine and its subdivisions on 1 September 1926.

Dr. Bloomfield received the degree of Doctor 0f Medicine from Johns Hopkins University in 1911. He was Assistant Resident Physician at the Johns Hopkins Hospital from 1911 to 1916 and Resident Physician from 1917 to 1920. He was Instructor in Medicine and Associate in Clinical Medicine from 1912 to 1922 and since then has been Associate Professor of Medicine at the Hopkins Medical School.[35]

Emile Holman replaces Dr. Stanley Stillman

On 1 September 1926 Dr. Stanley Stillman, Professor of Surgery, retired from active service on account of the age limit. Dr. Stillman was given the title of Professor of Surgery Emeritus, and Consultant at the Lane Hospital. In place of Dr. Stillman, Dr. Emile F. Holman was appointed Professor of Surgery and Executive Head of the Department of Surgery and its subdivisions effective 1 September 1926.

Dr. Holman received his A. B. degree at Stanford in 1911. He was a Rhodes Scholar at Oxford in 1916 and took his degree of Doctor of Medicine at Johns Hopkins University 1918. He was a research fellow at the Hunterian Laboratory of Experimental Surgery at Hopkins in 1918-19 and Resident Surgeon at Johns Hopkins Hospital from 1921 to 1923, and at the Peter Bent Brigham Hospital in 1923-24. In 1924 he went to Western Reserve University Medical School at Cleveland, Ohio, as Assistant Professor of Surgery. In December, 1925 he was called to Stanford as Associate Professor of Surgery. Dr. Holman was particularly interested in experimental surgery.[36]

By these two critical appointments the major Departments of Medicine and Surgery were placed in the capable hands of seasoned veterans of the rigorous Hopkins program. As we pointed out in Chapter 3, numerous other Hopkins graduates and trainees would ultimately join the Faculty to assure that Stanford would reflect the excellence of the Hopkins School.

Curriculum Changes

During 1921-22 the medical curriculum was revised so as to consolidate some of the classes and make the course more uniform. Prior to this time there had been two transfers a year of students from Palo Alto to San Francisco. . Now, this was limited to one transfer in April. The work taken in San Francisco was prescribed along the lines specified by the Association of American Medical Colleges, with a total of 4, 000 hours in the curriculum. As a result of this revision, comparatively little regular undergraduate work was offered during the summer quarter, and opportunity was given, at that time, to offer special and advanced courses, particularly for research students and for graduates in Medicine.[37]

Two years later, in 1923-24, the Medical Faculty appointed a committee to revise the medical curriculum. On the recommendation of this committee it was decided that all required work in the Medical School be reduced by eight per cent. This reduced the total number of hours of required work to something less than the 4, 000 hours which were required by state law. The students were, therefore, required to make up the difference by doing elective work. In this work they had the choice of any department in the Medical School, and the time could be used in research in preparation of their required thesis. The new schedule was a great improvement over the old one in that it did away with a good part of the overcrowding, and made it possible for the students to have an additional free afternoon a week.[38]

Class size was increased from 25 to 50 in the autumn of 1920. In order to accommodate the larger classes and to make the teaching at the Medical School in San Francisco more effective, the schedule of work for the medical students during the third and fourth medical years was completely revised in 1925-26. One of the objects of this revision was to give the students as much practical experience as possible. To accomplish this, the third-year medical students were assigned to practical ward work at the Lane and San Francisco Hospitals during the forenoons of the third year. During the fourth year the students would work in the mornings in the outpatient department where they would, in so far as possible, have full charge of the patients under the supervision of the attending physicians. During the fifth year they would return to the hospital as student interns. Under this arrangement, it was expected that the students, through their practical experience, would develop sufficient initiative to cover the theoretical work to a great extent by personal effort and intensive selective

reading.[39][40]

In 1926-27 it was decided to create a permanent Committee on Curriculum at San Francisco on which all departments located there were to be represented. An important step forward was then taken by the introduction of departmental examinations instead of course examinations.[41]

In summary, the number of graduates from the Medical School in 1916 was twenty-four, and the number of students per class was limited to twenty-five. By 1933, the annual graduates numbered forty-seven, and the student limit per class had been increased to fifty. In 1933-34 the size of the first year entering class was increased to 60 according to the Annual Announcement. As an indication of the growing reputation of the School, there were often as many as two to three-hundred applicants for the beginning class.[42]

Research in the Ophüls' Years

We have amply documented the commitment to research that characterized the Medical School from its inception. The momentum generated during Dr. Wilbur's tenure as Dean led to ever-increasing productivity by the faculty under the administration of his successors who modified the curriculum to encourage research efforts by the students.

In 1929, at the request of a government agency, a Survey of Research at Stanford University was conducted by a Research Survey Committee of the University. The Survey, published in the Annual Report of the President to the Trustees for the year ending August 31, 1929, included an impressive summary of the facilities available to and the research in progress by 24 members of the Medical Faculty.[43]

Also In 1929, the number of research publications of the Medical Faculty over the previous ten years was determined and proved to be 1300; that is an average of 130 per year. These data are indicative of the extent of research in the Medical School. The quality of the research is attested to by the sources of funding which included such sources as the Rockefeller Institute, the Carnegie Corporation of New York, the United States interdepartmental Social Hygiene Board, and others.

A large share of this research work was concerned with basic problems in anatomy, physiology, and allied sciences with the aim of laying the foundations on which practical advances in the prevention and alleviation of suffering might rest. For example, an extensive study of the anatomy and physiology of the kidney was undertaken for information of value in treating Bright's Disease. Stanford's Department of Bacteriology succeeded in measuring the infantile paralysis virus and sought more information about it. More knowledge was also being sought about the endocrine glands, particularly the pituitary.

The Department of Pharmacology rendered a wide service in developing methods of standardization. The United States Department of Agriculture stationed investigators in Pharmacology to make extended studies on the toxicity of metals, insecticides, preservatives, and other adulterants found in foods. The research experts of the Stanford School of Medicine working with those from the University of California helped the canning industry to control botulism, a virulent form of food poisoning.[44]

Library of the History of Medicine Established

In 1913 Miss Louise Ophüls, sister of Dr. William Ophüls, was appointed Librarian of the Lane Medical Library, a position which she held for the next thirty years. It was during these three decades, and through the generosity and foresight of Dr. Adolph Barkan, Emeritus Professor of Structure and Diseases of Eye, Ear, and Larynx, that a Library of the History of Medicine in Lane Medical Library was conceived and established.

During the year 1919-20 Dr. Barkan, advised by Dr. Karl Sudhoff, Director of the Institute for the History of Medicine at the University of Leipzig, decided to create a Library of the History of Medicine for Lane Library (instead of one limited to the history of ophthalmology and otolaryngology as he previously envisioned). Dr. Sudhoff recommended purchase of the valuable private library of Dr. Ernst Seidel, a collection strong in ancient medical authors. Dr. Barkan requested assistance from the Board of Trustees and the University Librarian in purchasing the Seidel collection with the following result as recorded by Miss Ophüls in the Annual Report of the President for the year ending August 31 1921.[45]

> Of noteworthy importance is the start which has been made on a collection of material on the history of medicine through the generous interest and efforts of Dr. Adolph Barkan. The sum of $4,500 has been set aside by the Trustees from the L. C. Lane funds and to this Dr. Barkan has added $3, 000 to establish a fund for the purchase of books in this field. During his recent travels in Italy and Germany Dr. Barkan made a number of small purchases and then finally secured the personal library of Dr. Ernst Seidel comprising about 4,500 volumes and representing the work of a lifetime in bringing together the fundamental material necessary to the study of the history of medicine.
>
> The Seidel collection is rich in material on Oriental medicine (in the Arabic, Turkish and Persian languages). Equal in value is that portion of the collection containing the ancient medical authors of the Occident. The works of the famous physicians of the 15th and 16th centuries are represented, partly in very rare original editions; the Greek and Roman classics of medicine are to be found without exception; and the whole library is rounded out by those publications of earlier and more recent date which are necessary for the study of the history of medicine. (The historical collection in Lane Library also now includes, among many others, such valuable acquisitions as the first edition of Vesalius' works on anatomy and a lengthy treatise of Ambroise Paré.)

During 1923-24 the third floor of the Lane Medical Library building was remodeled to accommodate the Barkan Library on the History of Medicine. New stacks were installed on the various floors, and exhibit cases and a beautiful reading room were provided on the second floor. The history collection increased rapidly in extent and significance as a result of purchases made possible by Dr. Barkan's annual contribution of $ 500, so that the Lane collection soon attained a respected position among history of medicine libraries nationally.[46]

The new reading room for the medical history collection on the second floor provided admirable quarters for this special library and also afforded working space amidst quiet and comfortable surroundings for those engaged in research. Soon after its completion Dr. Barkan held a meeting in the new room to which he invited all the physicians in the vicinity interested in the history of medicine. Tentative plans for the organization of a society of medical history were made but never carried out.[47]

During the next ten years, Dr. Sudhoff at the Institute for the History of Medicine in Leipzig continued to advise Dr. Barkan on the systematic purchase of books to augment Lane Library's History of Medicine collection. For example, in 1925-26 Dr. Barkan made a further contribution of $2032 to be expended by Dr. Sudhoff in the acquisition of books for the medical history collection, which was enriched on this occasion by some very rare items. It was to facilitate such transactions that a complete file of Lane's History of Medicine Collection was maintained at the Institute in Leipzig.[48][49]

Dr. Barkan Endows History of Medicine Library

Beginning January 1 1928, Dr. Adolph Barkan, made the University a gift of $1,000 a month for ten months, this sum of $10,000 to serve as a permanent endowment for the History of Medicine and Natural Sciences in the Lane Medical Library.[50]

Dr. Barkan requested that the first special library which he previously endowed in the Lane Medical Library be named "The Helmholtz Library of Ophthalmology and Oto-rhino-laryngology," founded by Dr. and Mrs. A. Barkan;" and that the second special library, which he was endowing with a gift of $10,000, be named "The Harvey Library of the History of Medicine and Natural Sciences, founded by Dr. and Mrs. A. Barkan."[51]

In her annual report to the Director of University Libraries for the academic year ending August 31, 1928 Miss Ophüls reported that Dr. Barkan, at Christmas, surprised her with a splendid gift of $500 for the purchase of old, rare books.[52]

Dr. Barkan also clarified the manner in which the interest from the $10,000 endowment was to be used. He specified that it was to be expended only for the purchase of old and rare books and that all modern publications on historical subjects were to be bought from other funds.[53]

To further his plan to stimulate the interest of the medical profession in the study of the history of medicine, Dr. Barkan conceived the idea of publishing in each month's issue of California and Western Medicine a short article on some historical topic. The editor of the journal kindly consented to do this. Under the title "The Lure of Medical History" several very interesting articles were written by members of the medical staff and many of the younger physicians began to be quite interested in the subject.

The greatest step forward in arousing the interest of students in historical subjects was taken by Dr. R. L. Reichert, Associate Professor of Surgery. During the academic year 1927-28 he gave an informal seminar once a weak in which he spoke about the famous men of medicine, and each week the books pertaining to their historical period were placed on exhibition. The seminar, which was elective and separate from the regular course in the history of medicine, was well attended.[54]

Dedication

The Medical History Collection was formally dedicated at a meeting held in the Medical History Room on the evening of January 11, 1932. The principal speaker upon this occasion was Professor Henry E. Sigerist, of the Institute of Medical History at Leipzig (now at the Johns Hopkins University). Dean Ophüls outlined the development of the collection, and Dr. Rixford spoke feelingly of the life and work of Dr. Barkan its founder.[55]

The Herzstein Bequests

Dr. Morris Herzstein was a humanitarian and philanthropist who died in San Francisco on October 25, 1927. In his will he left two generous bequests to Stanford University. One was the sum of $100,000 for the establishment of a Chair of Biology in the University to be named in his honor.

The second was the sum of $20,000, the income of which was to be used jointly by the University of California and Stanford University for medical lectures, these lectures to be known as

The Morris Herzstein Course of Medical Lectures

The respective Presidents of the two Universities jointly make all arrangements as to time, place and subject of the lectures which shall be open to the public, and no fee shall be charged for the privilege of attending the same.[56]

Buildings Completed during Dr. Ophüls' Administration

We have already reported on the following two construction projects conceived during Dr. Wilbur's tenure as Dean , but not completed until Dr. Ophüls' deanship:

1.) Stanford University Hospital (work begun on excavation of the foundation on 24 June 1916 and opened for patients on 26 December 1917);

2.) Stanford School of Nursing (work begun in 1920 and formally opened on 31 March 1922).

Endowment Campaign

Trustee Herbert Hoover predicted that President Wilbur would take vigorous action on behalf of the University and this he proceeded to do. He recognized that a vital area requiring urgent attention by the President was the raising of money with which to strengthen and expand the academic programs of the institution.

As a first step, President Wilbur requested the General Education Board of the Rockefeller Foundation to evaluate the University and to join in its support if they found it worthy. The GEB was so favorably

impressed by the University's program that it offered Stanford the sum of $300,000 towards a goal of $1,000,000 to provide adequate professors' salaries in the College of Arts and Sciences. The GEB grant was conditional on Stanford raising the remaining $700,000 from other sources. The GEB also agreed that, if their offer was accepted by the University, the Board would advance $25,000 a year for two years, so that the salary increases could be made at once.

Significantly, President Wilbur took this recognition of the University by the GEB as the occasion to establish an Endowment Committee and launch an Endowment Campaign in 1922 based on the following bold assertion:[57]

> Stanford University is making a new decision which will determine its future for all time. The University has reached the limit made possible by the Stanford Fortune. If it is to go forward and upward it can only do so through the support of every member of the Stanford Family and of the public in general. Stanford now takes its place among the great national universities of this country…
>
> Independent, self-contained, apparently rich, the University has gone its way to the best of its ability, making limitations in various ways, including the number of students accepted, so that the work done could be on a satisfactory plane. Not to grow is in part to die. The University must have increased facilities, more buildings, more advantages; must keep step with educational progress, just as a growing boy must have new clothes and new facilities as his capacity to do more increases with age…
>
> There is every reason to anticipate that we can obtain the same help that has come to similar institutions elsewhere. Stanford is the one great privately endowed university west of St. Louis. Certainly from this vast territory there will come the interest and help that is needed…
>
> If we can work together for Stanford and Stanford's progress we can rest assured that within another generation no institution in the country will have better facilities, a better reputation, or achieve better results in education.

In issuing this brave manifesto on behalf of the University, President Wilbur did not forget the Medical School. He cited the following "wish-list" of seven facilities in San Francisco as in need of endowment for construction or modernization. He implied that that the Endowment Campaign would raise the necessary funds.[58]

Facility	Suitable Endowment
Women's Hospital	$250,000 to $1,000,000
Children's Hospital	$250,000 to $1,000 000
Orthopedic Hospital	$250,000 to $1,000 000
Psychopathic Hospital	$100,000 to $750,000
Lane Hospital	A Liberal Endowment
Stanford University Hospital	A Liberal Endowment
Outpatient or Clinical Building	$150,000

Five years later, in 1927, the Endowment Campaign had made little progress on raising the funds needed for the above-listed facilities in San Francisco. President Wilbur referred to the stalled building program in the following manner:[59]

> The present buildings of the Medical School in San Francisco are entirely inadequate. Two of them, the old Cooper Medical College building and the Lane Hospital, are, in spite of much alteration, unfitted to serve as permanent housing. A new outpatient building, a new laboratory building, and new wards for clinical patients are urgently needed.
>
> In the Stanford Hospital, Nurses' Home, and Lane Medical Library we have three excellent and modern buildings. The Stanford Hospital is too small to serve effectively as an economic administrative unit. There is constant demand for more beds. Plans are now being formulated for a one-hundred-bed addition, and efforts are being made to interest friends of medical education so that funds may be obtained for the new construction which is urgently needed..
>
> As to the prospects for funding the medical School building program from voluntary contributions, we can only report that the University Endowment Campaign included a special drive for medical school projects (referred to as the "First Million for the Medical School") with a target of $1 million. Up to September 1, 1927 the amount pledged was $405,102; and the amount received was $390,650 - far from enough to renovate much less to replace Medical School facilities.
>
> Nevertheless, according to the following statement by Dean Ophüls, published in the President's Annual Report for the year ending August 31, 1928, the Dean was very optimistic about the prospects for raising the funds needed for the medical school building program outlined below with its price tag of 4 million dollars:[60]
>
> > Sketch plans of the proposed new School of Medicine Building on the west side of Webster Street have been completed; also the plans of the combined out-patient department and clinical hospital, which is to take the place of the present School of Medicine Building and the Lane Hospital. It is estimated that each one of these buildings will cost approximately a million and a half dollars, making a total of three million dollars, and that an additional million should be raised as a further endowment of the activities of the School of Medicine. It is hoped that, with the cooperation of the University authorities and the Board of Trustees it will be possible to raise in the near future two million dollars, which would allow us to go ahead with the new School of Medicine Building. The erection of the new out-patient building and the clinical hospital would have a strong appeal to all persons who are taking an interest in charitable work, and for that reason it is anticipated that the raising of an additional two million dollars for the purpose will be a relative easy matter, especially if we can secure the endorsement of the Community Chest.
> >
> > The plans for the new wing of the Stanford Hospital are going ahead very well, and it is hoped that after a renewed investigation of the financial aspects it will be possible to start building in the near future.

In the following year the outlook for new facilities continued to be promising and on February 24, 1929 the Board of Trustees voted that the University proceed with the construction of an additional wing to Stanford Hospital in accordance with the plans and estimates presented, and it was hoped that bids could be called for within a few months.[61]

General Plan for the Development of the School of Medicine

In spite of the Trustees' commitment, yet another year went by without new construction and the Report of the President to the Board of Trustees for the year ending on August 31 1930 carried only the brief but reassuring announcement that "in the course of the year a General Plan for the Development of the School of Medicine was worked out and authorization given by the Board of Trustees of the University for the presentation of this plan to prospective donors who might be interested in helping to make it a reality."[62]

In the eight years that transpired between launching of the Endowment Campaign in 1922 and completion of the General Plan for the Development of the School of Medicine in 1930 there was an abundance of encouraging rhetoric such as the above but no major construction or renovation project was actually carried out. Although financial support for the projects was committed by the Trustees, it was not provided - the reason being that raising a significant amount of the money through voluntary contributions was an essential prerequisite that proved impossible to fulfill due to the continuing financial depression that began in the fall of 1929, and to which we shall later refer.

Unexpectedly, during the academic year ending August 31 1931 an anonymous donor from the East came forward and offered to provide the sum of $2,503,417 for the erection and equipment of a new building for the Medical School in San Francisco. However, the gift was contingent upon the University raising an additional sum of $1,250,000 for endowment of the School by February 1, 1932. If these conditions could be met this donation would represent the largest single gift ever made to the University except for the great foundation set up by Governor and Mrs. Stanford. It would provide for the most important structure in the comprehensive General Plan for the Development of the School of Medicine drawn up the previous year, i. e., an eight-story building fully equipped to take care of the work of teaching and research in the School.[63]

Architects Drawing of Medical School Building

An elaborate campaign was undertaken to raise by February 1, 1932 the contingent sum of $1,250,000 as endowment for the Medical School. An impressive booklet of twenty-four pages entitled A Challenge to California and the West was published by the Medical School as a means of appealing to prospective donors.[64]

It was to no avail. February 1 1932 passed without the endowment of one and a quarter million dollars being raised and the offer of two and a half million dollars was withdrawn.[65]

By 1932 it was clear that, in spite of approval in principle of the General Plan by the Board of Trustees, national events had overtaken the planning process and the depression had made such expenditure no longer feasible. Although somewhat alleviated by the financial and social expedients of the New Deal, the depression was never really ended until 1939-40. It was then that America began to arm in anticipation of involvement in World War II.[66]

While disappointment at failing to qualify for the bountiful gift from the eastern foundation was keenly felt at the time, acquisition of it would probably have resulted in such a large investment in San Francisco facilities as to preclude the later move of the clinical program to the Stanford Campus - with disastrous implications for the future of the School as we now, in retrospect, can see.

For the same reason, we may regard as providential the role of the national depression in preventing the Endowment Campaign from raising sufficient funds to implement The General Plan for the Development of the School of Medicine.

To every thing there is a season, and a time to every purpose under the heaven.[67]

On March 4, 1929 there was a further development that adversely affected the prospects for implementation of the General Plan. President Wilbur, the Plan's most influential advocate on the Board of Trustees, took office as Secretary of the Interior in the Cabinet of his close friend, the Honorable Herbert Hoover, who became the thirty-first President of the United States on that date. Dr. Wilbur's secretarial duties included administrative control over many of the important activities of the Government. In spite of urgent calls from students and faculty for him to resign his cabinet position and return to his post as President of the University, the Board of Trustees extended his leave until the end of the Hoover presidency on March 4, 1933, at which time President Wilbur returned to the campus. Hoover also returned to his alma mater to live in his campus residence, the Lou Henry Hoover House on San Juan Hill.[68][69]

Death of Dean Ophüls

Dr. William Ophüls, Professor of Pathology and Dean, died in San Francisco on April 27, 1933.[70]

> Born in Brooklyn, New York, 23 October 1871, Dr. Ophüls was educated in Germany, where he acquired a slight accent and distinguished duelist scar on his left cheek. He was slight, elegantly slim, reserved, and sparing of words, which were spoken in a soft, unpretentious manner. He studied in Göttingen under Professor Johannes Orth, student of the famous Virchow, one of the intellectual giants of the 19th century. Dr. Ophüls possessed a quiet forcefulness which gave his students an understanding and lasting appreciation in the basic science of pathology.

The following resolution was adopted by the Academic Council of the University on June 16, 1933:[71]

> Our Medical School and University suffered a grievous loss through the death of our Colleague and friend, William Ophüls, Dean for seventeen years and Professor of Pathology for twenty-four. His quiet and modest demeanor, cooperative spirit and self-sacrificing devotion will always remain a treasured possession.
>
> After receiving his undergraduate and graduate training abroad,

William Ophüls acted as Assistant at the Pathological Institute of the University of Göttingen for two years. Upon returning to his native land, he became Professor of Pathology and Bacteriology at the University of Missouri, joining the faculty of Cooper Medical College in that capacity the following year. His scientific interests were not limited to pathology, however, but extended to medical education and public health. He had the latter particularly at heart, was President of the Board of Health of the City of San Francisco for three years, and maintained his interest and influence in this work throughout his lifetime.

As Teacher, William Ophüls enjoyed to an unusual degree the respect, confidence and affection of his students. He had their best interests at heart and they sought his presence and rejoiced in it. As pathologist he shared fully in the arduous duties of his Department, even after relentless illness had overtaken him. He asked little in support of his own activities, accepting restrictions without complaint and placing the welfare and desires of others above his own. As Dean, he always had the best interests of the School at heart and cooperated fully for its improvement.

In testimony of our loss and in appreciation of his services, your Committee recommend that these words be entered in the Minutes of the Academic Council, that a copy be sent to the Family of the deceased , to those nearest of kin, and to the Chairman of the Board of Trustees of our University.

The Hoover Presidency 1929 - 1933

We recall Trustee Herbert Hoover as a staunch supporter of the Medical School during the School's precarious early years. We therefore have a special interest in his remarkable career on the national stage, and envision his possible willingness to be again supportive of the School should the occasion arise.

When the election for the presidency of the United States approached in 1928 President Calvin Coolidge, who secretly aspired to a third term, announced that "I do not choose to run." Much to the President's discomfiture, this cryptic statement was taken to mean that he would not accept the nomination of the Republican Party even if offered to him. This misunderstanding opened the door for Herbert Hoover, who was serving as Coolidge's Secretary of Commerce at the time, to make a bid for the nomination himself.

By dint of his well-deserved reputation as humanitarian, administrator and trusted public servant, Hoover had since World War I advanced to the upper echelon of the Republican Party. Although never elected to public office, he seemed to be a new type of political leader, a socially-minded efficiency expert. Since becoming Secretary of Commerce, he had won the confidence of the business community and people did not resent his being a millionaire for he had been born on an Iowa farm and worked his way up to success. As a result he had wide support both nationally and within the Republican Party and when he ran for the Republican nomination for President of the United States, he won it handily.[72]

In 1928 President Wilbur at Stanford and various party leaders hit upon the idea of holding a ceremonial acceptance of the Republican nomination in Stanford's football stadium and of inviting the public to attend. This, Wilbur telegraphed Hoover, would allow "popular participation in greatest event in California" and "start campaign on new basis." It would offer a "vent for California enthusiasm" and be a symbolic break with "old style politics."[73]

And so, on August 11, 1928, one day after his 54th birthday, Herbert Hoover delivered his acceptance speech before 70, 000 admirers in the Stanford Stadium - and an audience of uncounted millions by national radio hookup. David Starr Jordan was there, as were some of the university's first professors and many members of the Pioneer Class of '95. Shortly afterward the nominee journeyed east on his arduous path to the White House.

On November 5, 1928, the day before the election, a confident Herbert Hoover returned home. The portents were promising as the campaign train streamed down the peninsula.

Ten thousand people, including virtually the entire Stanford student body, cheered the Chief at the Palo Alto railroad station that day. Overhead an airplane pilot dropped "bombs" that broke into parachutes flying the flags of the world's nations. Up Palm Drive Hoover and his family rode as students and adults lined their path. That night the nominee addressed the nation by radio from his campus home, the Lou Henry Hoover House on San Juan Hill …

The next day, Tuesday, November 6, the Hoovers, their two sons, and their daughter-in-law cast their ballots in mid-morning at their campus precinct….Then, its civic duty done, the family retired to its home, where special Associated Press and Western Union wires were in place to convey the returns.

Early that evening old friends from Stanford, Palo Alto, and the Bay Area gathered at the house of the nominee. As it happened, many months before - before, in fact, it was known that Hoover would be a presidential aspirant - the university had booked an election night concert by John Phillip Sousa and his 70- piece band. The venerable "March King" (who turned 74 that very day) agreed that if the returns showed Hoover victorious by the close of the performance, he would lead a parade to the candidate's home.

And thus, in late evening, an exultant crowd of 2,000 Stanford students ascended San Juan Hill, a tired and puffing Sousa at their head. Cameras whirred, reporters scrambled, a special Radio Hookup broadcast the scene. Out onto the roof and terraces came Hoover's family and friends. The candidate himself and his wife thanked Sousa at the front door and then mounted to the second floor to survey the scene.

Across the breadth of America - even as far away as Tahiti - owners of radio sets heard the jubilant sounds. Sousa struck up the band, it was the "El Capitan" march. Then came the "Stars and Stripes Forever." Then two thunderous yells for the President-elect.

Next the throng sang the "Star Spangled Banner." - not yet the national anthem (it would become so designated during Hoover's administration). As the crowd lifted its collective voice, a pilot from the Palo Alto School of Aviation fired a 21-gun salute of fireworks from an airplane circling overhead. And then the Stanford hymn:

Where the rolling foothills rise,
Up t'wards mountains higher,
Where at eve the Coast Range lies'
in the sunset fire,
Flushing deep and paling;
Here we raise our voices hailing
Thee, our Alma Mater.

From the foothills to the bay,
It shall ring,
As we sing,
It shall ring and float away;
Hail, Stanford hail!
Hail, Stanford hail!

As he heard the words of the anthem, Hoover was transfixed. He did not sing. He seemed "wrapt in thought." Tears filled his eyes. Never was his identification with Stanford as complete as it was at this, the most triumphant moment of his life.

And never was Stanford's identification with Hoover more joyful and unrestrained than it was that starlit November evening. His glory was also its own. A few days later an old British friend expressed the sentiment well: "I do hope and believe that a hundred years hence Stanford men will point back to Hoover with the same sort of pride that the University of Virginia now points back to Jefferson."[74]

The nominee of the Democratic Party was Al Smith of New York. On November 6, 1928, after an exciting campaign, Hoover, with Charles Curtis - an Osage Indian - as Vice President, was elected President of the United states by a wide margin. He received 58 percent of the popular vote and an overwhelming electoral college majority of 357, carrying every state but eight and smashing the solid South.[75]

Stock Market Crash of 1929 and Great Depression

President Hoover took the oath of office on March 4, 1929. In spite of reassuring economic forecasts from pundits and politicians the stock market had begun to act queerly early in 1929. On 23 October, barely six months after Hoover's inauguration, there was a spectacular drop in the market during the last hour of trading, and the 24th, when almost 13 million shares changed hands, became known as "Black Thursday.." Bankers and brokers insisted that the worst was over, but 28 and 29 October were even more terrible days from which there was no recovery. Stocks reached new lows on 13 November, rose slightly during the early months of 1930, but in April began a downward slide that continued with only brief interruptions to rock-bottom in mid 1932. By this time around 12 million people, about 25 % of the normal labor force, were unemployed. In the cities there were soup kitchens and breadlines. Shanty towns sprang up and small towns in the farm belt were almost deserted.

President Hoover did the best he could to restore confidence in the economy. He assured the public that business and industry were beginning to recover and that prosperity was just around the corner. But more was needed than assurances. Hoover's conservative economic philosophy (that is, his belief that normal market forces would in due course correct the recession) prevented his timely and aggressive use of the financial and other resources of government to create jobs and foster institutional stability and recovery.

Such measures along these lines as were adopted were too little and too late. By the end of President Hoover's term in office, public confidence in the Republican administration was at a low ebb.

On the promise of a "New Deal" for the "forgotten man" Franklin Delano Roosevelt gained the presidency in a landslide. victory and was sworn in on March 4, 1933.

Roosevelt occupied the presidency for the following twelve years and thirty-nine days. He held that office during two major crises, the Great Depression and World War II, and is ranked by many with Washington, Jefferson and Lincoln as among America's greatest presidents.[76]

In 1940 when President Wilbur reached retirement age the trustees extended his tenure through December 31, 1941 so that he could preside over Stanford's 50th anniversary observances. His days in the presidency were now waning and, in fact, Hoover had been chairman of the trustee's committee in search of a successor. Now, at this fateful juncture in their lives, Wilbur saw the opportunity in the 50th anniversary proceedings to pay tribute to Hoover and his peerless archive, the Hoover War Library.

The Hoover War Library[77]

The Hoover War Library had its inception from a paragraph in the autobiography of President Andrew D. White of Cornell. This paragraph was a discussion of President White's difficulties in collecting material upon the French Revolution and the Napoleonic era, due to the fact that there had been but little preservation of fugitive records of the period. That paragraph came under Mr. Hoover's eye soon after World War I broke out. He at once started the collection of such material pertaining to the war.

Collection and transportation during the period of the war was extremely difficult. While he traveled constantly between the enemy countries, because of his mission nothing could be done that would incur the slightest suspicion. However, he collected a very considerable amount of material in the course of the war during both his two and one-half years in Europe and his one and one-half in the United States as Food Administrator.

In 1918 Mr. Hoover was sent to Europe by President Wilson to represent the American government in what became subsequently the Supreme Economic Council, and to conduct various American activities during the period of the Armistice. Upon his arrival in Europe in late November he cabled to Dr. Wilbur through Mrs. Hoover a request to send someone to Europe who could take charge of the systematic collection of the vast materials which had been released at the end of the war. Stanford History Professor Ephraim Douglass Adams was sent over, and Mr. Hoover secured from the ranks of the American army the release of a number of young professors of history who were awaiting transportation home from Europe, and dispatched them into every part of Europe.

Thus the Hoover War Library was initially comprised of material

from over fifty nations. Its temporary home was in the Library Building at Stanford University where the Hoover Library Wing became a Mecca for history scholars from many lands.

By early 1925 the Hoover War Library had outgrown its allotted quarters. Less than six years after its founding, it occupied one fifth of the available stack space in the entire Stanford Main Library… .Never one to beat around the bush, Professor Adams had informed Hoover in mid-1923 that the collection would soon require a separate building. "The Chief" was astonished, but soon he, too, realized that the international archive carrying his name deserved - nay, demanded - a more dignified and commodious home.[78]

There ensued an arduous but eventually successful fund-raising drive followed by construction of the Hoover Library Building with its soaring Hoover Library Tower. In 1938 Hoover proposed and the University Trustees approved the title of the building to be:

"Hoover Library on War, Revolution and Peace,"[79]

The year 1941 marked Stanford's 50th anniversary. As the Stanford Community prepared to celebrate this milestone in its history, Hoover requested that the formal dedication of his library building be included in the ceremonies. The university accepted and went further - it made its most honored alumnus a focus of the observances (a tribute surely designed by President Wilbur).

From June 16 to 21, 1941 the university staged an elaborate Academic Week of Commemoration. The event opened with a four-day symposium on "The University and the Future of America," at which fifteen distinguished scholars and men of affairs from across the land delivered lectures to a total of approximately 5, 000 guests. To Hoover was given the privilege of offering the concluding address.

But before the final dedication exercises, a concert of carillon music rang forth from atop the stately tower. The magnificent, none-ton carillon had been built in Belgium and exhibited at that nation's pavilion at the anew York World's Fair. The Belgian American Educational Foundation had then purchased the instrument from its owners and presented it to the Hoover Library - a musical memorial to the humanitarian achievement that had created a hero a quarter of a century before.

Rising at last before the outdoor assembly seated in front of the tower, Hoover noted the treasures to be stored inside. His mind that afternoon, however, was on the present and the future… His plea was for American universities to raise "the lamp of freedom" in a world ravaged by the tyranny and World War II already afoot in Europe and Asia…A university, he told his audience, "is more than just to help you. It is a great living thing radiating truth, justice, service and freedom. And if you work for it and care for it and serve it in these next fifty years, it will give even greater service to mankind."

The next day, June 20, Stanfordians, dignitaries and visitors, gathered for what Ray Lyman Wilbur considered the climax of the entire symposium, the dedication of the new Hoover Library building. Speaker after speaker acclaimed the world's hugest collection of social and political documents, and the man who made this resource possible and second to none.[80]

Succession in the Presidency of Stanford University

The devastating air attack by the Japanese on Pearl Harbor on December 7 1941, the "day that shall live in infamy," catapulted the United States into World War II, a conflict it had sought to avoid. War was declared on Japan on December 8th Germany and Italy, faithful to their tripartite treaty with Japan, declared war on the United States on December 11. By the manner of its beginning for the United States, World War II united the nation against its adversaries as nothing else could have done. We shall later return to its effect on the medical school.

Meanwhile the most important responsibility confronting the Stanford Trustees relative to the school was the selection of a successor to President Ray Lyman Wilbur. On December 5, 1941 the board formally offered the Stanford presidency to the head of the Carnegie Institution of Washington, Vanevar Bush. Two days later, the Japanese bombing of Pearl Harbor thwarted that plan as 'Bush, a noted scientist, had to decline in order to accept war-related responsibilities.

On January 1, 1942 Wilbur became Chancellor as scheduled but agreed to act also as president until his replacement could be found. Later that year the newest member of the Board of Trustees, Donald B. Tresidder (Stanford Class of '19), personable physician- turned-businessman, attracted the favorable attention of Hoover who discussed the matter with several other trustees with the result that the 48-year-old alumnus was appointed the fourth President of the University on January 21, 1943.[81]

Then, on January 7, 1944, Lou Henry, Hoover's wife of nearly 45 years died suddenly, two months short of her 76th birthday. A few days later Ray Lyman Wilbur eulogized her at a memorial service attended by a few of her California Friends and neighbors. He spoke of her as the unaffected woman who had brought luster to her alma mater. There is no finer example of how to live," he said, "than was given to us by Lou Henry Hoover.

Hoover's spacious, storied and vine-clad campus residence on San Juan Hill had now lost its appeal for him. And so, later in 1944, he offered to donate it to the university to serve as the official residence of the university president - provided that it be named the Lou Henry Hoover House and that Stanford contribute $6,250 per year for ten years to document-collecting efforts of the Hoover Library in her memory. A grateful board accepted his bequest.[82]

In the summer of 1946 President Tresidder proposed a reorganization of the mode of governance that had been in effect since the 1920's. Both Hoover and the Board of Trustees approved the suggested plan which included changing the name of the institution to the "Hoover Institute and Library on War, Revolution and Peace.," and declared it to be "a separate division of Stanford University."[83]

Sadly, in early 1948, President Tresidder died suddenly at the age of 53. The Board soon appointed a committee to recommend a successor; not surprisingly, Hoover was a member of the panel. One of the prospective candidates under consideration was the new director of the Huntington Library, J. E. Wallace Sterling, a Canadian-born historian who had received his Ph. D. from Stanford in the 1930's. On August 25, 1948 Hoover's friend and fellow trustee, Seelye G. Mudd, called on Sterling to determine his political convictions. Sterling declared that he had never voted for Franklin Roosevelt and favored Thomas Dewey for President. As for the New Deal, Sterling said that he admired some of its social objectives but considered that the programs were poorly implemented and there was need for a thorough housecleaning. Mudd and Hoover concluded that Sterling's political views were compatible with theirs. Some years later Hoover declared that his was the deciding vote that put Sterling's nomination through. If so, he could claim a crucial, perhaps decisive, role in the selection of four consecutive presidents of his alma mater. On April 1, 1949, J. E. Wallace Sterling became the fifth President of Stanford.[84]

Ray Lyman Wilbur (1875-1949)

But not all the news from the campus was so encouraging. On June 26, 1949 Ray Lyman Wilbur died at 74 - victim of recurrence of a heart condition from which he had suffered five years earlier. He appeared to be improving but a new occlusion proved fatal.[85]

To the end he and Hoover had remained very close, with offices on the same floor of the Hoover Tower. With his passing Hoover lost not only an intimate friend of nearly 57 years but an irreplaceable personal link to the University. As Herbert Hoover stated it, "His loss leaves a gap in all our lives. America is a better place for his having lived in it."[86]

Dr. Wilbur served as Dean (or Executive Head) of the Medical School for five years from 1911 to 1915 and as the third President of Stanford University for over a quarter of a century - from 1916 to 1943 - the longest tenure of any of the University's Presidents.

We have previously referred to certain of Dr. Wilbur's accomplishments, but we should now call attention to other important contributions made during his long and varied career.

We are already familiar with Dr. Wilbur's early work in the physiology laboratory, and with his later crucial role as Dean in the original organization of the new medical school. His success in establishing high standards as the hallmark of the school was especially noteworthy. His close cooperation with the Board of Trustees in fending off strong forces seeking to close the medical school, or merge it into oblivion with the University of California, assured the survival of the School. Thereafter, as President of the University, Dr. Wilbur continued to be ever mindful of the needs of the Medical School throughout a presidency which spanned two World Wars and a Great Depression.

Dr. Wilbur discontinued regular medical practice when he became President of the University. In the ensuing decades, however, his professional interest in medicine and health was maintained at a high level and he rose to eminence in these and other fields of human endeavor.

This is reflected in his work on a number of important commissions, and by his election to the Presidency of several national organizations. Among these was the American Medical Association (1923-24) seven years after he had given up his medical school deanship to become a university president. This is one of the greatest honors in medicine and a post of great responsibility. After the completion of his term of office he continued to exert wide influence on matters of policy in the AMA and attended its annual meetings as chairman of the Council on Medical Education and Hospitals.

His other important undertakings included chairmanship of the Barite Committee on Physical Medicine (beginning in 1943); and his service on the Medical Services Committee of the Hoover Commission (beginning in 1948).

Particular reference should be made to his work as chairman of the Committee on the Cost of Medical Care (1927-32) which was financed by several foundations. This was in the pioneering days of a movement which was then, as now, highly controversial. The Committee's final report, published under the title "Medical Care for the American People," is a classic example of the way in which a broad question should be studied and reported upon. Dr. Wilbur took the lead in putting into effect some features of the report by organizing the California Physicians' Service in 1939 and becoming its first president. The CPS had a spectacular growth and was becoming a model for nationwide voluntary health insurance programs.

From the outset of the junior college movement in California, Wilbur was one of its staunchest advocates, foreseeing clearly the day, now long past, when the universities in this rapidly growing western commonwealth could no longer carry the load without weakening seriously the work which they alone are able to do in the graduate and professional years.

A comprehensive, farsighted grasp of big questions is reflected in every segment of Dr. Wilbur's career. As Secretary of the Interior under President Hoover, he and "the Chief" made an incomparable team. Both had wide experience in frontier life, were scientifically trained, were well acquainted with the vast undeveloped resources of the nation, and knew well how quickly reckless depletion would exhaust them. Almost overnight the Department of the Interior became, in effect, a department of conservation - conservation of forests; of oil and gas; of water for irrigation and falling water for power; of animal life; particularly of the migratory waterfowl; of the vast grazing lands of the public domain of the West; and of public health; To this task Wilbur brought the same wisdom, courage, integrity, and incredible capacity for dispatching business which he had shown in university administration.

Many honors came to him, among them more than a score of honorary degrees; the William Freeman Snow Medal, awarded by the American Social Hygiene Association "for distinguished service to humanity"; the title of Commander, Order of Leopold II; the Honor Corss of the German Red Cross; and the title of Chevalier, Legion d'Honneur of France.

In the last few years of his life he used what spare time he had in

working on his autobiography. He had the manuscript for it practically completed at the time of his death. Fortunately it was later edited and published as The Memoirs of Ray Lyman Wilbur.

Regarding this work Hoover said, "I can only add, as to this volume, that here is an autobiography which ranks with the best of those in American literature. And within it are profound lessons to the American people."[87]

Hoover Campaigns for the Medical Center

Hoover was an accomplished and persuasive campaigner for funds and the medical school was among the countless beneficiaries of his efforts. In 1956, the University asked him to serve as honorary chairman of a committee to raise more than $ 42, 000, 000 for a medical center to be located on the campus. The aging alumnus agreed, and the drive was successfully launched. Despite his "honorary" status, Hoover actively solicited contributions.

Even as Stanford benefited from the aura of Hoover's reputation, tension at times surfaced behind the scenes. In September 1956 he formally protested to his fellow trustees against the proposed architecture of the planned medical center. It was "a complete departure from the Romanesque which has been the architectural motif of the University since the beginning," he wrote. Once upon a time his directions would have carried the day. But Hoover was no longer as dominant as he once had been, and the board decided not to alter the design of the medical center as submitted by the renowned architect, Edward Durell Stone.[88]

The Chief did not give up easily. A year later he strenuously reiterated his disapproval of the university's growing break with its architectural past. The medical school and post office were a "sorry departure from the Romanesque," he charged; so, too, was the proposed new addition to the physics complex, which would be an "eyesore" until the university tore it down. He urged the trustees to revise their plans for the physics buildings now, when only a few thousand dollars had been expended. Stanford, he declared, was "one of only two or three American universities having a distinctive and consistent architecture. Its architectural motif is singularly appropriate for California as it memorializes the spirit of learning and religious faith which the Spanish Fathers brought to this state." It was also "an essential part" of the Stanford family's gift to the university.

This time Hoover's protest, in which at least one other trustee joined, had a noticeable impact on his brethren. Although the board did not modify its current projects, in November 1957 it did decide that all future structures erected adjacent to or facing the original Quad should "conform, as nearly as possible" to the modified Romanesque form of architecture of "the original Inner and Outer Quadrangles, due, allowance being made for modern costs and materials." Thanks in considerable measure to Hoover (and irrespective of the merit of his argument), the erosion of Stanford's architectural integrity - at least on the inner campus - was stopped.[89]

Herbert Clark Hoover (1874 - 1864)

On October 20, 1964 , at the age of 90, Hoover died in New York City, more than 73 years after he had entered Stanford University.

In all that period hardly a week had passed in which it had been absent from his thoughts. A few months before his death the Stanford University News Service issued a press release in which it recounted some of his principal benefactions for his alma mater. "No other American President," it noted, "has been more deeply involved or contributed more to the development of a single academic institution for so long a time as Hoover has done for Stanford." Indeed no other person except the Stanfords themselves had done so much for the University. He was the Stanford spirit personified, the epitome of Leland Stanford's ideal of "direct usefulness in life."

As for Hoover's contributions to the Medical School, we have already told how his influence within the Board of Trustees saved the Medical School from extinction, and was responsible for the election of Dr. Wilbur to the university presidency , thus assuring due consideration for the Medical School's interests in the University's highest councils.

In an autobiographical fragment written sometime after World War I, Hoover declared: "There is little importance to men's lives except the accomplishments they leave to posterity." It is "in the origination or administration of tangible institutions or constructive works," he wrote, that men's contributions can best be measured. "When all is said and done," he asserted, "accomplishment is all that counts."[90]

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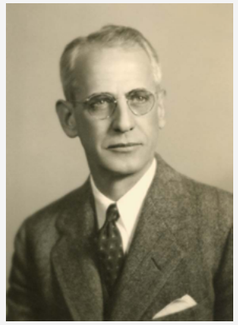
Chapter 36. Dean Loren R. Chandler's Administration 1933 - 1953



Dr. Loren R. Chandler, Dean, School of Medicine, 1933-1953

Dr. Chandler's twenty years as Dean of the Stanford Medical School (the longest tenure of any of the Stanford Medical Deans) included the Great Depression, World War II and the decision to move the School to the Stanford Campus. He dealt with these and other significant issues with a mature judgment and equanimity which led his successor (Dean Windsor Cutting, 1953-1957) to refer to him as "one of the wisest and most respected men in Stanford's history." Administrative talent was indeed his greatest endowment, continually called upon in coping with the many issues with which he dealt during his 20 years in office. [1]

Dr. Chandler was born in 1895 on a farm in San Joachin Valley near Fresno, California and had his primary and secondary education in Fresno. While In high school he went out for football. On his first day the coach saw him standing alone on the football field and asked: "Who is that tall Yankee over there?" Within a week he became known as "Yank Chandler," a name that graced his personality well and stayed with him for the rest of his life.

Yank's Father, Wilbur F. Chandler, was a grape grower, oilman and state senator. The family migrated from St. Johnsbury, Vermont, to the San Joaquin Valley where farming was the way of life for Yank and his four brothers, all raised in a Spartan environment of hard work. [2]

Curriculum Vitae

Stanford Degrees. A combination of scholarship, leadership, and sterling personal qualities won Yank Chandler admission to Stanford University where he received an A. B. degree in 1920 and an M. D. in 1923.

Stanford Appointments

1923-24 Senior Intern in Surgery, Stanford University Hospitals
1923-25 Teaching Assistant, Department of Surgery, Stanford
1924-25 Resident Surgeon, Stanford University Hospitals
1925-33 Clinical Instructor in Surgery, Stanford
1933-38 Associate Professor of Surgery, Stanford
1933-53 Dean, Stanford University School of Medicine
1938-60 Professor of Surgery, Department of Surgery, Stanford

Experience

1938-53 Trustee and Vice President, College of Physicians and Surgeons, School of Dentistry, San Francisco
1941-45 Advisory Committee on Medical Education, War Manpower Commission 1942-46 National Committee for Physician Procurement and Assignment, United States Selective Service System
1942-46 California State Committee for Physician Procurement and Assignment, United States Selective Service System
1942-46 San Francisco Committee for Physician Procurement and Assignment, United States Selective Service System
1947-59 Consultant, Letterman Army Hospital, San Francisco
1947-49 Consultant, United States Navy Hospital, Oakland
1948-53 Member, Surgical Study Committee, Research Grants Division, United States Public Health Service
1949-50 Dr. Chandler was one of a commission of three appointed by the American Medical Association to study the effects of the British National Health Science Act on health and education in Britain. He concluded that it would be "folly" to institute such a plan in the United States.
1951-53 Advisory Board for Medical Specialties, (President, 1951-53)
1955-56 Consultant, Grant Foundation, Albert Schweitzer Memorial Hospital in Haiti

Honors

Nu Sigma Nu; Alpha Omega Alpha; Sigma Xi;
1952 Sc. D., University of Southern California
1959 Stanford Honorary Fellowship (one of the highest and seldom bestowed honors of the University)

Association Officer

Pacific Coast Surgery Association (President, 1954-55
San Francisco Surgical Society (President, 1949)
California Academy of Medicine (Vice President, 1941; President 1942)
Association of American Medical Colleges (Vice President, 1937-38; President, 1941-42) [3]

Appointment as Dean (1933)

Upon completion of his residency training in Surgery at Stanford University Hospitals in 1925, Dr. Chandler joined the faculty as a Clinical Instructor in Surgery and entered surgical practice in downtown San Francisco. Over the ensuing decade he developed one of the largest surgical practices in the city, specialized in pediatric surgery and continued to serve on the faculty.

Dr. Arthur Bloomfield came to Stanford University School of Medicine as a full-time professor of medicine in 1926 and Dr. Emile Holman arrived as a full-time professor of surgery in 1925, just as Dr. Chandler started his career in practice and teaching. He admired the new excellence in teaching and patient care which they brought to Stanford and worked with them through the depression years as a geographic full-time faculty member. It was during this period that Dr. Chandler's talents as a teacher and administrator caught the favorable attention not only of the senior faculty but also of President Ray Lyman Wilbur who interested Dr. Chandler in the concept of voluntary prepaid health insurance, and introduced him to University Trustee Herbert Hoover.

Small wonder then that, when Dr. Ophüls retired as Dean in 1933, Dr. Chandler was appointed Dean of the Stanford University School of Medicine for he had by that time gained the support of President Wilbur, Trustee Herbert Hoover, and both the Full-time and the Clinical Faculty. [4]

Dr. Chandler's deanship was above all distinguished by the respect and affection with which he was universally regarded. His long tenure in office was fondly remembered by the faculty, students and alumni of his day as a golden era of devotion to learning in an atmosphere of cooperation, pride in the alma mater and lasting friendships.

Loren Roscoe Chandler (1895-1982) with unidentified persons

Such then was the wholesome influence of the personality and administrative style of Dr. Chandler on the affairs of the Medical School that we shall now turn directly to his own views on the subject.

Dr. Chandler's Reflections on his Deanship

"I think my contribution to Stanford, if any, has been in personnel rather than fundamental science research or basic changes in educational technique. I've always believed that you should get the right man in the right place and then let him alone. Be sure he is an expert in his field. Be sure he knows how to teach. And don't fence him in with too many rules and regulations made by somebody who is not an expert. That's what deans are for. And, I think, they are also meant to say 'yes' most of the time. They should think hard before they tell one of the crew 'No, you can't have that.' The dean's major task is to keep up the faculty's enthusiasm and excitement for the job." [5]

Running a medical school is something like running a team of 100-odd horses of different speeds, of different temperaments, and of different degrees of irascibility, but Dr. Chandler managed to keep the faculty functioning as "a big happy family." This doesn't mean that he was "soft." In fact, he did not believe that a medical school could be run by committees. "The more committees you have," he said, "the more time elapses until you can make a decision. Somebody has to sit at the head of the table."

Loren Roscoe Chandler (1895-1982) with Emile Holman (1890-1977), Arthur Bloomfield (1888-1962), Anthony J.J. Rourke, William Northway (1932-), John A. Anderson (1908-), Charles E. McLennan (1909-1986); Henry Kaplan (1918-1984)

Dr. Chandler took charge of the medical school in the depths of a depression when financial difficulties severely afflicted both the school and the students. The task of financing medical research and teaching through private support did not come easy in those days. An astonishing medical revolution also took place during Dr. Chandler's deanship, brought on by the discovery of antibiotics, newer diagnostic techniques for cancer and heart disease, and the phenomenal advances in general surgery that led to the present day developments in open-heart surgery and organ transplantation.

In spite of these innovations one thing did not change - Dr. Chandler's conviction that it is the faculty that makes a medical school tick. "You can have all the buildings you want," he said, "but you must also have the experts - the masters who can make a thing so simple that the student wonders why he didn't think of it himself. You need experts who can teach and good teachers will produce others, who at the same professional age will be better than they were."

Arthur L. Bloomfield (1888-1962) with Robert Evans, William Kirby and unidentified patient

Funding Teaching Patients

One of the major problems he encountered as a dean was meeting the hospital and other costs of teaching patients. Dr. Chandler solved this problem by a plan he championed - that of including not only the "medically indigent " in the teaching program, but also the great mass of patients covered by Blue Cross and the California Physicians Service and other programs of prepaid medical care of which he was a strong advocate. The policy of including private patients in the teaching program was later to become standard practice in the school. [6]

Ruth Lucy Stern Research Laboratory

Obtaining funds for research was also particularly difficult during

the depression years which made the gift of a research building by Mrs. Sternin 1939 both unexpected and especially welcome. Dean Chandler's surprise and gratification are apparent in his account of receiving the gift [7]

> We received a magnificent gift from the late Mrs. Lucy Stern, known to Stanford students as "Aunt Lucy." This was a promise to pay the bills for the construction of a three-story building located on Clay Street opposite the Stanford University Hospitals and to be devoted entirely to medical research. This was like money from home. Promptly, and without delay, a building was planned and constructed, equipped, dedicated and opened for operation in the autumn of 1939, Mrs. Sterns paying all the bills. To this day I don't know and I don't know anyone else who does know exactly how much that building and its extras cost.

World War II

> "On 24 August 1939 the Western World was stupefied by the news that Stalin and Hitler, who had been violently abusing each other for five years, had shaken hands in a non-aggression pact. The world did not yet know the secret clauses, in which they also agreed to partition Poland. After his usual preparatory propaganda of fake frontier incidents, Hitler launched his attack on Poland on 1 September 1939. Two days later Britain and France declared war on Germany. The British Dominions followed suit shortly, and World War II was on." [8]
>
> In response to the events in Europe, the peaceful progress of the medical school was interrupted by the declaration of a state of National Emergency on October 17, 1940. This included the establishment of compulsory military service for all males from 18 to 36 years of age. Also on October 17, 1940 orders went out from Washington to establish selective service agencies and put them in action throughout the various states and counties. Volunteer selective service boards were established by districts within larger cities and in all counties. The immediate problems of the medical school were, first, the deferment from military service of medical students so they could complete their medical education and serve as physicians, second, some method of deferring premedical students who were likely candidates for admission to medical school and third, the problem of maintaining an adequate faculty. [9]
>
> The dark days of all-out war came with the Japanese bombing of Pearl Harbor at Honolulu on December 7, 1941. Immediately, practically everything in the United States went on a war schedule. Industry began to expand, employment on the West Coast doubled or tripled, new ship-yards were built, airplane factories, munitions plants, and equipment manufacturers went into high gear. Because of the speedup in industry , particularly in the San Francisco Bay Area, salaries kept rising to a fantastic amount for day labor, either full-time of part time. The depression was finally a thing of the past.
>
> Shortly after the Declaration of War against Japan on December 8 , 1941 the medical schools went on a continuous teaching program known as the 9.9.9 Medical Plan. This meant that Stanford Medical School opened its regular classes in September, 1941, continued for the 9 months ending on a Friday afternoon in June, 1942, but the following Monday the next academic year was begun. This continued throughout the period of war and, during the four years, five classes were graduated from the medical school.
>
> Approximately 35% of the Stanford Medical Faculty were on military leaves of absence, many of them serving in Army Evacuation Hospital No. 59 in the European theater during the war. The Staff of this special unit was composed of members of the staff of the San Francisco Hospital, all but four were members of the Stanford University Medical Faculty or the Stanford resident staff. This Evacuation Hospital made an outstanding record in the European theater. The report of its accomplishments, the number of patients cared for, the low mortality rate of the large number or patients cleared through the hospital was the subject of a laudatory special Report by the Historical Division, Office of the Surgeon General, U. S. Army.
>
> World War II ended in Europe with the crushing defeat of the German army. German General Jodl signed an unconditional surrender at Allied headquarters in Rheims on 7 May 1945.
>
> The Combined Allied Chiefs of Staff, meeting at Quebec in September 1944 predicted that it would take eighteen months after the surrender of Germany to defeat Japan. Actually, the war in the Pacific was ended in 1945 only three months after V E Day as a direct result of the cataclysmic explosion of the first atomic bomb over Hiroshima on August 6 and a second atomic bomb over Nagasaki on August 9.
>
> Although many Americans have expressed contrition over exploding the first atomic bombs, it is difficult to see how the Pacific war could otherwise have been concluded , except by a long and bitter invasion of Japan.
>
> Even after the two atomic bombs had been dropped, and the Potsdam declaration had be clarified to assure Japan that she could keep her emperor, the surrender was a very near thing. Emperor Hirohito had to override his two chief military advisers and take the responsibility of accepting the Potsdam terms. That he did on 14 August 1945, but even after that a military coup d'état to sequester the emperor, kill his cabinet, and continue the war was narrowly averted. Hirohito showed great moral courage; and the promise to retain him in power despite the wishes of Russia (which wanted the war prolonged and Japan given over to anarchy) was a very wise decision.
>
> After preliminary arrangements had been made at Manila with General MacArthur's and Admiral Nimitz's staff, an advance party was flown into Atsugi airfield near Tokyo on 28 August 1945. Scores of ships of the United States Pacific Fleet, and of the British Far Eastern Fleet, then entered Tokyo Bay.
>
> On 2 September 1945 World War II ended with the signing by General Umezu, the Japanese Foreign Minister, of the surrender document. The signing took place on the deck of the American Battleship Missouri in Tokyo Bay and in the presence of representatives of the Allied countries.
>
> At 9:25 a. m., as the formalities closed, a flight of hundreds of aircraft swept over the Missouri and her sister ships. Then General Douglas MacArthur, the presiding officer, broadcast an address to the people of the United States:
>
> Today the guns are silent. A great tragedy has ended. A great victory has been won… A new era is upon us… [10]

It was indeed a new era for Stanford Medical School and its prospects for moving to the Campus, a major deterrent to which had been insufficient population on the Peninsula to provide patients for teaching and research. Now World War II and its aftermath had resulted in a massive influx of war related activities and population - the latter augmented by immigration of families seeking a better life on the Peninsula.

Another significant effect of World War II was the accelerated federal funding of educational and research programs. During the war years Dean Chandler accepted these government programs as necessary to meet wartime goals. However, it was his successors in the deanship who took full advantage of the tremendous postwar increase of federal funding to enlarge and strengthen Stanford Medical School along new lines, including its transfer to the University campus.

Deans Committee Veterans Hospitals

While he was in general cautious about accepting federal funds, Dr. Chandler approved the concept of Veterans hospitals and of medical school involvement with them.

On July 1, 1946 Stanford and the University of California Schools of Medicine jointly took over the professional staffing of the Fort Miley Veteran's Hospital in San Francisco and the medical care of all its patients The arrangement was made possible by the Veterans Administration's establishment of the "Deans Committee Veterans Hospitals" throughout the country. These teaching facilities were available for interns and residents but not for medical students. The affiliation of medical schools with Veterans Hospital proved invaluable to both the veterans and to the schools.

It was to a major degree due to Dean Chandler's efforts that Stanford and the University of California took over the professional staffing of Fort Miley Veterans Hospital. After Stanford Medical School moved to Palo Alto, Dr. Chandler served from 1959 until his retirement in 1968 as chief of surgery at the Palo Alto Veterans Administration Hospital. He played a key role in its original development as a teaching hospital under a Stanford Dean's Committee. [11]

The Quality of Education at Stanford

Dean Chandler believed that the contribution and stature of Stanford Medical School could be best measured by the accomplishments of its graduates. He proudly cited the following outstanding Stanford graduates in a wide range of medical fields as proof that the Stanford system of medical education was remarkably effective. Numbered among the eminent Stanford alumni who graduated during the Chandler years were Albert Snoke, Executive Director of Yale-New Have Hospital; Sherman Mellinkoff, Dean of UCLA School of Medicine; Arthur Richardson, Dean of Emory University School of Medicine; Philip Lee, Assistant Secretary of Health, Education, and Welfare; and pioneer surgeons Frank Gerbode, Victor Richards and Roy Cohn. [12]

It is of interest to note that the above list of those considered the outstanding graduates of the School during the Chandler years includes none devoted to investigation in the basic sciences.

President Tresidder's Plans for the Medical School

When President Donald Tresidder succeeded President Wilbur in the presidency of the University in January of 1943 he learned of Dr. Wilbur's ambitious Endowment Campaign which called for generous grants to the medical school to build new facilities in San Francisco. President Tresidder also learned that none of these facilities had been funded and that the offer of a large gift by an anonymous donor for a medical school building was not acquired because of failure of the University - after prodigious efforts -to raise the necessary matching funds. In short, President Wilbur's earnest fund-raising activities on behalf of the Medical School over the previous twenty-five years had been largely unsuccessful while the medical facilities in San Francisco had continued to deteriorate and the academic program to grow.

In 1944 the University Board of Trustees asked President Tresidder to review everything the University was doing to determine what was good and should be kept and expanded, what wasn't so good, should be approved or stopped, and what was not being done that should be done.

The Medical School component of this University-wide review was prepared by a committee appointed by Dean Chandler. This committee was comprised of Professors Harold K. Faber, Charles E. Smith, and Edwin W. Schultz (the so-called "Faber Committee")

The Faber Committee's study was completed in 1946 and at that time was approved by the Board of Trustees The Committee's most important recommendation was that the medical school buildings in San Francisco should be modernized and expanded. Specifications for the new construction were prepared and a definite fund-raising campaign for the School of Medicine was incorporated in an overall plan of securing additional gifts and contributions to the University as a whole. Insignificant progress was made, however, and the death of President Donald Tresidder in January 1948, put all these Medical School plans and activities in abeyance for five years. [13]

Before considering further developments in the final years of Dr. Chandler's deanship, let us comment briefly on a major reason for continuing reluctance to move the Medical School from San Francisco to the Stanford Campus. It was no secret that President Tresidder and Dean Chandler and some faculty members were keenly interested in the possibility of an integrated medical school on the Campus. This was in spite of the determined opposition of faculty members with established medical practices in San Francisco.

In order to explore thoroughly the concept of an integrated School President Tresidder and Dean. Chandler visited the universities of Illinois, Cornell, Duke, and Michigan to learn from their experience in this regard. After these visits the President and Dean concluded that a move to the Campus would be unwise until the school could be assured of an adequate number of patients for teaching and research

in that location, a condition requiring the cooperation of the local physicians.

Evidence of poor cooperation by the local physicians in the Campus area already existed. To be specific, previous efforts by Stanford to affiliate with the county hospitals in Santa Clara and San Mateo Counties had failed because of local politics and disagreement over who would control appointment of the service chiefs. To President Tresidder and Dean Chandler these rebuffs meant that the local doctors were not ready to cooperate with a Stanford Medical School in their midst and that an attempt to consolidate the School on the Campus was therefore premature.

Later experience showed that President Tresidder and Dean Chandler were correct in predicting that there would be significant friction between the Medical School and the local practitioners when the School moved to the Campus, but mistaken in their assumption that this negative disposition could not be overcome. [14]

President Sterling's Plans for the Medical School

In April 1949, J. E. Wallace Sterling was named President of the University to succeed the late President Tresidder, and in March 1951 the Board of Trustees reaffirmed their intention to proceed with plans to expand and modernize the medical school in San Francisco, as recommended by the Faber Committee in 1946. The Alumni and the public were informed. A drive for funds was started and, as on previous occasions, it was unsuccessful.

In view of the lack of progress, President Sterling and the Board of Trustees decided in the spring of 1952, to review again the whole problem of the Medical School's future. For this purpose President Sterling appointed the following eight-man committee of the Medical Council, known as the Sterling Committee, to conduct yet another study and determine what would be best for medical education at Stanford:

The Sterling Committee

Dr. R. L. Chandler, Dean

Dr. Arthur L. Bloomfield, Professor of Medicine

Dr. Windsor C. Cutting Professor of Pharmacy

Dr. William W. Greulich, Professor of Anatomy

Dr. Henry S. Kaplan, Professor of Radiology

Dr. William H. Northway, Professor of Medicine

Dr. Victor Richards, Asst. Professor of Surgery

Dr. Lowell A. Rantz., Associate Professor of Medicine

The Sterling Committee made a remarkably comprehensive study of medical education in general and the Stanford Medical School in particular, and reported its findings to President Sterling in the spring of 1952. Unaccountably, the question of moving the school to the campus was not addressed by the Committee and the inference of the Sterling Report was that the medical school would remain in San Francisco. [15]

Decision to Move to the Campus

Meanwhile President Sterling and the Board of Trustees had been considering the long-range advantages of consolidating the Medical School on the campus On July 15, 1953 the Board of Trustees announced their decision. The conditions were now, at last, favorable. They would establish a united Medical School on the Stanford campus.

Resignation of Dean Chandler

One month later, on August 31, 1953, Dean Chandler resigned the deanship he had held for the past twenty years, describing his decision enigmatically as "a necessary move to keep the Stanford University vital and growing. " Dean Chandler personally believed that the move of the Medical School from San Francisco to the campus was inevitable and only a matter of timing - and that President Sterling would provide the necessary leadership. [16]

For an insightful and nostalgic memoir of the Chandler years, see Medicine and the Stanford University School of Medicine: Circa 1932, The Way It Was by Dr. David A. Rytand, Arthur I. Bloomfield Professor of Medicine, published in 1984 by the Department of Medicine and Alumni Association, Stanford University School of Medicine.

Endnotes

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Chapter 37. The New Stanford Medical Center Planning and Building 1953 - 1959

Immediately following the decision on July 15, 1953 to consolidate the medical school on the Stanford Campus, there was another surge of intensive planning, now to be conducted by the Medical Council's Standing Committee on Curriculum. Much work had to be done by the faculty in addition to their regular medical school duties and it was evident that strong leadership would be required to cope with the many internal and external problems involved in preparing for the move to the Campus [1]

Deanship of Dr. Windsor Cutting (1953-1957)

Windsor Cooper Cutting (1907-1972)

Dr. Windsor Cutting, Professor and Chairman of the Department of Pharmacology, succeeded Dr. Chandler in the deanship. Dr. Cutting served as Acting Dean from September 1953 to November 1953 and as Dean from December 1953 to March 1957. During Dean Cutting's four years in office there was little change in the operation of the Medical School program in San Francisco, but there were the following activities related to the pending move to the Campus:

Chronology 1953-1956

September 1953 - The Medical Council's Committee on Curriculum began its studies of the School's Program.

Summer 1955 - Architect Edward D. Stone commenced the design of Stanford Medical Center.

July 1956 - Report of Committee on Curriculum. "A Program of Education for Medicine at Stanford University." (To be discussed in detail later.)

August 1956 - Public Fund-raising Campaign for the Medical Center announced by the Hon. Herbert Hoover. [2]

Deanship of Dr. Robert H. Alway (1957-1964)

Dr. Cutting resigned as Dean in March 1957 and was succeeded immediately by Dr. Robert H. Alway, Professor and Chairman of the Stanford Department of Pediatrics since 1955. Dr. Alway served as Acting Dean from 9 March 1957 through 14 May 1958, and as Dean from 15 May 1958 through 31 August 1964.

Robert Hamilton Alway (1912-1990)

A native of Nebraska, Dr. Alway took his B. S. degree in 1937 and his M. D .in 1940 at the University of Minnesota. He interned at Jersey City Medical Center in 1939-40, and was pediatric fellow and resident at the University of Minnesota from 1940 to 43.

He was Instructor in Pediatrics at Utah University in 1943-44. He was Assistant Professor in Pediatrics in 1944-47; and Associate Professor in Pediatrics in 1947-49, all at Utah University.

He was an Associate Professor of Pediatrics at Stanford from 1949 to 1952. He then served as Professor of Pediatrics at Colorado in 1953-55. From there he returned to Stanford in 1955 as Professor of Pediatrics, a rank which he held for the remainder of his career. [3]

Recruitment of New Department Heads

When Dr. Alway accepted the deanship, President Sterling made it clear that all department heads were expected to resign by August 31, 1958. All department chairs were vacated by that date and Dean Alway began his deanship with a clean slate. [4]

> On the theory that the old Stanford had been weakened by too much scholastic inbreeding. Dean Alway promptly went scouting for new talent and quickly recruited a dazzling array of candidates for the vacant departmental chairs - pediatrician Norman Kretchmer from Cornell University; Nobel Prize-winning biochemist Arthur Kornberg (along with almost his entire department) from Washington University; Nobel Prize winning geneticist Joshua Lederberg from the University of Wisconsin; immunologist Halsted Holman from Rockefeller University; hand surgeon Robert Chase from Yale; and psychiatrist David Hamburg from the National Institutes of Health.
>
> Two of the existing department chairmen in San Francisco - pharmacologist Avram Goldstein from Harvard and radiologist Henry Kaplan of the National Cancer Institute - were of similar academic stature to the new recruits and were therefore retained as chairmen of their respective departments of Pharmacology and Radiology. Alway also created a new department of Genetics, and added new full professors.
>
> Almost overnight Stanford Medical School was catapulted to national prominence. The school began to attract a medical faculty whose talents and prestige enabled them to acquire funds for research as well as for a measure of departmental development.
>
> Some of the faculty who were replaced were understandably bitter. None were more so than the staff of the Lane, Stanford and San Francisco County Hospitals. Their loyalties were with the old school and they believed the talent available in Palo Alto and the suburbs would be no match for that which Stanford had left behind in San Francisco.
>
> The medical leaders at Stanford disagreed, pointing out that under the new curriculum, full-time salaried faculty and proximity to the university the school would be better able not only to teach the best methods of caring for patients, but also to increase knowledge and benefit the whole world by its diffusion.

Alway's approach to recruitment was reminiscent of Trustee Herbert Hoover's advice to President Ray Lyman Wilbur "to appoint Illustrious men."

A Program for Education for Medicine at Stanford University (July 1956)

This Program is the crucial planning document of the School, exhaustively researched and clearly articulated by the Medical Council's Committee on Curriculum. The Program was originally approved by the Medical Council in 1956 and subsequently modified and endorsed by President Sterling and the Board of Trustees. [5] [6]

The Program addressed three critical issues: the move to the campus, a full-time faculty, and a new curriculum, with the following results.

Move to the Campus

The University began in 1951-52 a study of its Medical School in San Francisco. The most apparent need was for major replacement and refurbishing of its physical plant. The most urgent need was for annual financial support. Just to rebuild the physical plant would have cost ten to fifteen million dollars. To relieve the general funds of the University of the annual medical school charge would have required new endowment of an additional fifteen million dollars. In plant funds and endowment, the total need was $30,000,000.

The magnitude of the needed sum evoked the question: Would it be wiser to modernize and add to the existing Medical School facilities in San Francisco or to build anew on an alternative site? After more than a year of study the conclusion reached was embodied in the Board of Trustees' decision of July 15,1953 to move the Medical School to the University campus.

The basic reasoning behind this decision was that the future progress of the medical sciences would be inextricably linked with progress in the basic physical and biological sciences, and increasingly with the social sciences, such as psychology and sociology; therefore the closest possible relationship between teachers and investigators in all these fields would be desirable. Further, opportunities for enriching the general education of the medical student would be broader and simpler if the medical school were, by location, an integral part of the university.

Of greater importance than proximity was the creation of a university atmosphere in which the whole scholarly body of the institution, teachers and students of all levels of maturity, learn together and together advance knowledge.

It is of interest to recall that the Flexner Report of 1910 insisted that a medical school should be an organic part of its parent university and that divided and far distant departments should be altogether avoided. (See Chapter 31, Section 4.) [7]

Full-time Faculty System

The historical background of the full-time system is fully covered in Chapter 33. The Program for Education for Medicine at Stanford provided the following rationale for its adoption at Stanford.

There has been wide recognition that the increase of full-time faculties has improved medical education, but lacking funds for adequate salaries, American medical schools have adopted numerous systems under which the clinical faculty pays its own way. At Stanford, members of the preclinical medical faculty are on full-time appointment - that is, they devote all their time to medical school activities, are paid a salary, and receive no fees for other professional services. Members of the medical faculty in the clinical departments at Stanford are on geographic full-time. That is, all of their time is spent at the Medical School, part being devoted to teaching and research and part to the private practice of medicine, which provides a part, and in some cases all, of their income.

In the belief that a true university school of medicine will require their "entire time and devotion" the Stanford Medical Faculty adopted the principle of true full-time as a goal to be realized as financial resources permit. The Trustees discussed the issue of true full-time at their meeting in July of 1956 and affirmed it as a new policy for the School of Medicine.

In adopting this policy the members of the Faculty of the Stanford University School of Medicine have acknowledged:

> That all University faculty members should be appointed on the same basis and should share the same privileges and responsibilities;
>
> That the primary responsibility of a University faculty is teaching and research;
>
> That faculty salaries should be derived from University sources;
>
> That full-time members of a medical faculty should not engage in the practice of medicine for personal gain;
>
> That the use of knowledge and skill as physicians for the benefit of humanity by rendering medical care is an obligation of any group as capable for such care as a medical faculty;
>
> That the continued use of such knowledge and skill by clinical faculty members is essential to effective teaching;

> That the patient care rendered by a medical faculty must be limited to the amount required for teaching and research;
>
> That a direct relationship between any income from patient care and a faculty member's salary is incompatible with the maintenance of university status.

It was expected that these principles and policies would become effective as endowment funds for medical faculty salaries were obtained, that gradual transition to a true full-time status would be made as general University resources permitted. Flexibility will be required in the application of the general policy with respect to present senior faculty members, to allow for transition as vacancies occur through retirement or resignation. Income received for professional services to patients will be used in accordance with requirements of law and University policy.

The change to a full-time faculty will make no less important the position of the voluntary part-time faculty whose devotion to teaching and the advancement of knowledge has contributed so much to the Stanford Medical School. The change will make the great teacher increasingly important and should attract to medical education "the man of broad background and wide interest who has the capacity to kindle in his students the desire to join in an exciting life venture." [8]

A New Curriculum

In keeping with the concept that physicians must be broadly educated and understand the relationships between medicine and other aspects of society, Stanford's new curriculum is so designed that medical and non-medical studies can be carried on simultaneously and supplement each other.

The eight years between graduation from high school and graduation from medical school are looked upon as a continuum.

Students will be admitted to Medical School after three years of college work, as at present, but instead of devoting four years to the study of medicine, they will enter a Five-Year Program of medical work. (thus increasing the time normally required to earn the M. D. degree from four to five years).

Within the first three years of the Five-Year Program each student will complete the equivalent of an additional year of college work. Those students with interests and talents in non-medical subjects will be encouraged to continue and broaden their interests and to develop their talents at the same time that they study medicine.

Most students will follow the Five-Year Program, although for those who do complete four years of college work before entering Medical School, the curriculum is flexible enough to permit completion of basic medical education at the end of the eight years of college and university work.

Introduction of the Five-Year Program in 1959 was accompanied by adoption of a more liberal and more flexible admissions policy and by other innovations such as:

- stress upon principles rather than upon detailed mastery of subjects.
- a conjoint course in the basic sciences designed to overcome the splintering of biology into separate "subjects" which deal independently with structure, function and chemical processes.
- all laboratory exercises in biochemistry, physiology, microbiology, pharmacology and portions of pathology and anatomy will be combined into a single laboratory course to be conducted cooperatively by the six pre-clinical departments.
- the basic science course will be conducted in multi-discipline unit laboratories, each serving sixteen students as a "home laboratory" for a full year. These small laboratories are designed to foster a close relationship between students and the faculty members conducting the course.
- from the outset of their medical course, students will be guided toward increasingly greater degrees of independence in planning, executing, observing and interpreting experiments, in preparation for application of the skills and attitudes thus acquired to the advanced pre-clinical work which later will parallel related clinical experiences. The spread of the basic sciences throughout the medical program will permit an earlier introduction of clinical subjects. Here too, changes have been made to provide more unity in the curriculum.

These and many additional course innovations curriculum -wide were outlined in the Program of Education for Medicine.

There were those, of course, who predicted that increasing the duration of medical education from four to five years would price Stanford's new medical school out of the market. Such was not the case and when the first class was admitted in 1959 it was greatly overapplied.

By 1965, however, students had begun to complain that preclinical courses in the New Program had few linkages to subsequent clinical work and that the quality of teaching in required courses was poor. After students concluded that few course changes had occurred, they escalated their protest in the following year with formal petitions to the Dean's Office. The faculty Executive Committee concluded that the students' concerns were legitimate. [9]

As a result, Stanford's experimental Five-Year Program of Education for Medicine was after ten years replaced by a new curriculum crafted by contemporary faculty committees during the deanship of Dr. Robert J. Glaser and scheduled for implementation in September 1968. This new curriculum was viewed at the time as representing a further sequential step in the Stanford Program of Medical Education adopted in 1959, and designed to provide each student with an opportunity to pursue in depth, under the guidance of a group of faculty members, a study plan of his own choosing. [10]

In spite of manifest dissatisfaction with the Five-Year Program, when a class of graduates of the five-year science-oriented curriculum of 1959 was surveyed some years later, it was their unanimous verdict that the Five-Year Program was a remarkably successful experiment in medical education. [11] [12]

Palo Alto's Hospitals

Before further discussion of programs and plans for a medical center on the Campus, let us consider the effect of this project on the hospitals in the area.

Peninsula Hospital

In 1908 a group of private physicians incorporated to found Peninsula Hospital, with the intention of providing hospital care for Palo Alto, Stanford and the Peninsula. A three-story frame structure was built on a tri-cornered lot bordered by Embarcadero Road, Cowper Street and Churchill Avenue in Palo Alto. In 1920 the hospital had 48 beds but averaged only 22 patients daily. However, it was of great benefit to the members of the Stanford faculty and to the students.

During World War I, the 48-bed facility's patient-load dropped further and the hospital began to lose money. In 1921 the private stockholders approached the Palo Alto City Council and offered to sell the institution.

Palo Alto Hospital

As the Council was mulling over its decision, a plan for city-Stanford cooperation to set up and operate the hospital was presented. The plan was proposed by Dr. George B. Somers, Physician Superintendent of the Stanford Hospitals in San Francisco. The plan was quickly approved by the City Council, and a $55,000 bond issue was passed by the city's voters. Upon purchase of the Peninsula Hospital the City Supervisors, for legal and other reasons, decided to change the name to Palo Alto Hospital. This act also had the advantage of calling attention to the fact that the hospital was under new management with new plans and goals.

On July 1 1921 the University took over administration of the Palo Alto Hospital. The contract with Stanford called for the University to operate the institution while the city retained ownership. In this way Stanford saved itself the cost of building a hospital for its students and faculty while providing Palo Alto Hospital with professional administration, medical equipment and student nurses from the Stanford Hospitals in San Francisco. [13] [14]

During the 1920s the Palo Alto Hospital did well financially under city ownership and Stanford administration, but problems began to loom. The frame structure was widely regarded as a fire-trap and the third story was condemned for patient use in the late 1920s.

Fortunately, fire never occurred and the hospital became more and more crowded as business flourished. The year 1925 was the best in history both in attendance and income. A considerable surplus was shown, enabling the hospital to turn over a substantial sum of money to the City of Palo Alto. As a result of these developments, the members of the Palo Alto Medical Association felt the pressing need for increased accommodations and during the year sent a formal petition to the City Council recommending the building of a new hospital. This subject received much attention and was discussed both in the public press and among local organizations. Two representative committees were appointed to investigate and report on the matter. [15]

No immediate action was taken, however, and by 1927 the capacity of the Palo Alto Hospital was taxed to the utmost. Conferences were held with the members of the staff and with representatives of the City Council regarding the need for expansion and Dr. Richard C. Broderick, Physician Superintendent of the Stanford Hospitals, was directed to prepare a general plan and to estimate the cost of construction of a new Palo Alto Hospital on the site occupied by the old one. [16]

In 1927 Stanford offered a plot of land on the Campus near El Camino Real for the new hospital and sentiment grew in the city to finance the operation. The plan was strongly endorsed by local doctors and the American Medical Association and in 1929 a $ 250,000 bond issue was approved by Palo Alto voters. The bonds covered only about half the cost of erecting the 100-bed, all-concrete structure which is still standing as the central portion of the old Palo Alto Hospital on the Stanford Campus. The money required to complete the building came from gifts by individuals and groups. In the campaign for funds, the Women's Auxiliary of the Palo Alto Hospital played an important role.

Finally, in 1930, construction began on the Palo Alto Hospital on the Stanford Campus. The new plant, more than double the size of the previous one, was occupied in 1931. [17]

Hoover Pavilion

Palo Alto Hospital 1931 - 1958

The following account is excerpted from an article by Art German in the Daily Palo Alto Times dated September 15 1959. [18]

When the new Palo Alto Hospital on the Stanford Campus had been completed in 1931, the city was able to tear down the old Peninsula Hospital. During the 1930's the Works Progress Administration developed the hospital site at Embarcadero and Cowper into a small park.

The new Palo Alto Hospital on the Campus was operated under the same Palo Alto-Stanford agreement that was used for the Palo Alto Hospital. During the depression-years of the 1930's, the new hospital faced a problem common to many businesses throughout the nation. Patients simply didn't have money to pay their hospital bills.

To meet this problem, the Women's Auxiliary began a program of making interest-free loans to patients. Later, the Palo Alto City Council voted to pay $ 2. 50 per day toward the hospital bill of local residents when they were patients. In the 1930's, the city contribution constituted a major portion of the hospital bill.

Palo Alto continued its growth during the depression and in 1937 approved a $ 175,000 bond issue to finance an 80-bed addition to Palo Alto Hospital. After many delays, the new wing was completed in 1942,

increasing the capacity of the hospital to 200 beds and making it the largest on the Peninsula south of San Francisco.

During the years of World War II from 1941 to 1945 the population in the Palo Alto area expanded further and, shortly after the war, the community began to talk again of enlarging the hospital but Stanford declined at first to lease any more land for an addition.

Finally, after years of study, plans were drawn for a 200-bed addition to Palo Alto Hospital. The four million dollars bond issue to finance construction came to a vote of the people in 1954, and it was overwhelmingly approved.

Palo Alto - Stanford Hospital, 1958

Before anything could be done to start construction, Stanford adopted the plan to move the clinical program of its medical school from San Francisco to the Campus. A survey showed that a single hospital facility built jointly by Stanford and the City of Palo Alto could be constructed more inexpensively and operated more efficiently than individual facilities.

Accordingly, a new bond campaign got under way, canceling out the 1954 effort. A four million dollar City bond proposal was again approved handsomely. Stanford put up its share of the money and plans were drawn for a 440-bed joint hospital to be known as the "Palo Alto-Stanford Hospital" and to be an integral part of a new "Palo Alto-Stanford Medical Center ".

As construction of the new Palo Alto-Stanford Medical Center was nearing completion Palo Alto City Councilmen and Stanford officials acted on a number of important issues including the following:

They agreed that the "old" Palo Alto Hospital on the Campus would have a different role after the Palo Alto-Stanford Medical Center was opened. Therefore, the "old" Palo Alto Hospital was closed in 1959 pending renovation to meet future needs. In 1964 it was reopened under the name of "Hoover Pavilion" primarily but not exclusively for the patients of community physicians and surgeons who were not members of the Stanford Faculty.

It was further agreed by Stanford and the Palo Alto City Council that a new administrative arrangement was in order and that, instead of placing the full administration of the hospitals in the hands of the University, an eight-member Board of Governors would be appointed to represent the two owners. On February 1, 1958 the Board appointed Dr. E. Dwight Barnett, a Stanford graduate and nationally known expert in Hospital Administration, as the first Director of the Palo Alto-Stanford Medical Center Hospital. [19]

Construction and Occupation of the new Palo Alto - Stanford Medical Center Hospital 1957-1959

We have now traced in the foregoing paragraphs the far-reaching changes in faculty organization and curriculum resulting from adoption by the Faculty and Board of Trustees of the Program for Education for Medicine at Stanford.

We have also reviewed the long and complex history of the cooperation between Stanford and the City of Palo Alto in providing hospital services for the area. As we have now seen, this led ultimately to construction of the jointly-owned and operated Palo Alto - Stanford Hospital as an integral part of the Palo Alto - Stanford Medical Center.

We shall later see that the resultant hybrid institution failed to function as a "university hospital" in the Flexnerian sense of being devoted to a balanced program of research, teaching and patient care.

Meanwhile, administration, construction and occupancy of the new Medical Center proceeded on the following schedule: [20]

Chronology

March 1957 Dr. Robert H. Alway named Acting Dean, Medical School

June 1957 First construction activity begun with excavation for Palo Alto-Stanford Hospital.

May 1958 Dr. Alway appointed Dean

July 1959 Physical Therapy Department commenced operation in new Center. Outpatient Clinics opened in Center

August 1, 1959 Various Departments of Medical School move into new building. First patients admitted to Palo Alto-Stanford Hospital

August 17, 1959 Lane Library opens in new quarters

Description of the New Palo Alto - Stanford Medical Center [21] [22]

As mentioned earlier, the Architect for Stanford's 21 and 1/2 million-dollar, 440-bed Palo Alto - Stanford Medical Center was Edward Durell Stone, noted for his design of the American Embassy at New Delhi and the United States Pavilion at the Brussels World Fair.

Stanford Medical Center architectural model

The new Palo Alto - Stanford Medical Center consisted of three hospital and four medical school buildings interconnected by numerous arcades and open walkways. These seven structures shared a common roof in an "H" shape, each building being three stories in height and approximately 40 feet tall.

The Center was located on the Stanford University Campus a quarter mile west of the old Palo Alto Hospital (Hoover Pavilion). Architect Sloan designed the strikingly beautiful Center's 56-acre site along lines similar to those of Stanford's main quadrangle. For example, the same three-story height was maintained throughout and the concrete walls and columns of the Center were patterned to simulate the rusticated sandstone-block surfaces of the "Quad."

The Architect's characteristic grillwork was used extensively to sheath the exterior walls of the buildings. Flowered patios and walks lent a garden-like atmosphere, and a fountain-adorned entranceway created an impressive panorama on approaching the Center.

Stanford Medical Center architectural model

Stanford Hospital and fountains at night

Dedication of the New Medical Center September 17-18, 1959

The major feature of the program dedicating the new Medical Center on September 17 and 18, 1959 was a symposium of speeches by six prominent men with interests in medicine and medical education.

The following is a list of the six participants in the dedication ceremony, and the subjects of their speeches:

Robert H Alway, M. D., Dean, Stanford University School of Medicine: "Introductory Remarks."

James A. Shannon, M. D., Director, National Institutes of Health: "Medicine, the University, and Society."

William W. McPeak, Vice President, The Ford Foundation: "The Small, Frantic Voice of the Patient."

Vernon W. Lippard, M. D., Dean, School of Medicine, Yale University: "Medical Science in the Academic Community."

Lester J. Evans, M. D., Former Executive Associate, Commonwealth Fund: "The Patient in University Medicine."

Frank Stanton, Ph. D., President, Columbia Broadcasting System. "Medicine for a New Age."

The University published the speeches in a booklet entitled Medical Care, the University, and Society to which President J. E. Wallace Sterling wrote the following Foreword. President Sterling's commentary is a concise statement of the ideals, objectives and benefits of the new Medical Center and is therefore reprinted here in full. [23]

Foreword

The dedication of the Stanford Medical Center in September 1959, marked the culmination of six years of effort which began in July, 1953, when the Stanford Trustees decided to relocate the University's Medical School on the campus near Palo Alto. The effort encompassed not only the physical move and its financing but also the development of a new program of education for medicine.

Central to this new Stanford program is the concept that the future progress of the medical sciences is inextricably linked with progress in the basic physical and biological sciences and increasingly with progress in the social sciences. It followed that the Medical School should be so located and organized as to promote the closest possible relationship between teachers, investigators and students in all these fields. It followed also that opportunities for enriching the general education of the medical student would be greater if the Medical School became, physically and philosophically, an integral part of the University.

The speeches delivered at the Medical Center dedication ceremonies on September 17 and 18, 1959, were variations on the central theme that medicine and medical education are the concern of both the University and society generally. Each of the papers herein supports the conviction held at Stanford that a university must be responsive not only to changes in the realm of man's knowledge but also to changes in the society in which new and old knowledge may be applied. Each of the distinguished speakers honored Stanford by his participation in the dedication ceremonies, and the presence of each bespeaks a more than local interest in Stanford's endeavors.

Medical School Convened in the New Medical Center September 30, 1959

The first-year class of the Medical School for the year 1959-60 assembled in the new Medical Center on September 30, 1959. This first medical class to be held in the new Center was composed of 64 students, and the total student body at the time was about 250. [24] [25]

Just 50 years previously, in September 1909, the newly-established Stanford Medical School was inaugurated in the San Francisco facilities.

Now, a half century later, Stanford's Medical School was no longer "divided " from its parent university and no longer subject to the inherent deficiencies of a "divided school" to which Abraham Flexner called special attention in 1910, and to which President Sterling pointedly alluded in his Foreword to the speeches delivered at the Dedication. [26]

The following are some of the main developments in the School during

The Alway Years 1957-1964

Professor of Pediatrics Robert H. Alway agreed to serve as Acting

Dean in 1957 at a time of great stress. A year later he was persuaded to assume the deanship and guide the redevelopment of the medical school on the Stanford campus. His leadership was marked by courage, integrity, and devotion to principle. Appointments to the faculty were dictated solely by "the best man for the job". Himself a clinician without extensive research experience, Alway nevertheless held that research is the lifeline of medicine and vigorously supported its development in the curriculum and at the laboratory bench and bedside. Yet there was no decrease in emphasis on heeding the faint cry of the patient as an individual or as a member of the community. Integrity, scholarship, compassion were in the forefront of his administration.

Dr. Alway resigned from the deanship effective August 31, 1964 and returned to full-time teaching as Professor of Pediatrics His resignation coincided with the completion of the first and major phase of development of the Stanford University Medical Center. A new physical plant had just been constructed, a geographical move accomplished, key faculty appointments made, clinical and research programs developed, and a new curriculum launched.

This was clearly an appropriate time for evaluation of Dr. Alway's accomplishments during his deanship. The task of evaluation was undertaken by members of the Medical Faculty who published a documentary in 1964 entitled The Alway Years, 1957-1964, intended as a tribute to Dean Alway for his effective role in guiding the school through these early and decisive years. Much of the following information is excerpted from this important document. [27]

As we have already noted, one of Dean Alway's first acts after the new Medical School opened in 1959 was the appointment of top scientists to department head positions. He went on to create new departments of genetics, anesthesia and dermatology and to double the size of the faculty with carefully selected candidates.

Because of his emphasis on high standards and productivity, research funds were tripled. For example, funds were received from the National institutes of Health in 1962 for the establishment of the first clinical research center for premature infants in the United Sates. Among other research programs with outside funding at this time were those in radiotherapy and organ transplantation.

At the same time Alway sought to maintain good relations with the Palo Alto medical community by orienting them to the programs and needs of the Medical School. By the end of his term as Dean he had convinced the local physicians to abandon their insistence that medical faculty see only patients referred to them as consultants, and the patient load at the School had risen so that it now satisfied many of the requirements of undergraduate clinical teaching.

It was a special source of pride that Stanford medical students excelled in national competition. Their performance on the last National Board of Medical Examiners tests was outstanding. They rated number one in every one of the six preclinical sciences tested. In overall performance their average of 88.2 % (46.8 % honors and 0.0 % failure) was at least 2 % higher than any of the other schools. This was all the more remarkable in that the Stanford program was not directed toward passing examinations. Such exceptional performance attests to the quality of students who are attracted by the Stanford curriculum, and can meet these external standards while pursuing other goals.

Alway was the first to deny sole responsibility for the success of the move to Palo Alto. "I didn't do these things, " he says. "I was blessed with a rabbit's foot, and a superior faculty."

As for the future of Medicine he said: "Medical education in the next few years will feel the weight of a movement for the production of family practitioners …Society must carefully evaluate the roles that deliverers of primary care can play in medicine, and determine how resources will be allocated between the nurse practitioner and the physician."

As for the requirements of the Medical Center, Alway cited a problem familiar to deans: "The most urgent need at present is space. Our most serious handicap is the lack of space to comfortably and effectively cope with even the present demands."

Upon his resignation from the deanship, Dr. Alway took up his duties as Professor of Pediatrics. But this was not the end of his administrative role at Stanford.

In 1975 he was appointed medical director of the Hospital and Associate Dean for Clinical Affairs. He also became a member of the Regional Medical Quality Review Committee serving Santa Clara County, and served on the board of the county Professional Standards Review Organization.

Retirement

In the fall of 1977, Dr. Robert H. Alway, Medical Director of Stanford Hospital and former Dean of the Medical School, announced his retirement as Professor of Pediatrics Emeritus effective December 31, 1977. [28]

Naming of Robert H. Alway Building

On May 21, 1988 the Medical School's "M" Building was formally named "The Robert H. Alway Building" at a ceremony honoring the contributions of the former dean and Stanford pediatrician during a critical period in the development of the Medical School. [29]

Obituary

Dr Robert H. Alway died at his home in Oak Harbor, Washington, on October 26, 1990. He was 77. [30]

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Chapter 38. Consolidation of Stanford University Medical Center

Appointment of Dean Robert J. Glaser

When Dr. Alway stepped down as dean on August 31, 1964, Dr. Sidney Raffel, Professor and Executive Head of the Department of Medical Microbiology, was appointed Acting Dean effective September 1, 1964. He filled the vacated deanship on a temporary basis while a nationwide search for a new Dean was being conducted under the direction of University President J. E. Wallace Sterling.

Suspense and speculation by the medical faculty regarding the replacement for Dean Alway ended on February 18, 1965 with the announcement by President Sterling that Dr. Robert J. Glaser, 46, President of Affiliated Hospitals Center and Professor of Social Medicine at Harvard Medical School, had been appointed Dean of Stanford University School of Medicine effective July 1 1965.

The announcement also noted that Dr. Glaser had been appointed University Vice President for Medical Affairs and Professor of Medicine, these appointments also to become effective on July 1, 1965.

With the appointment of Dean Glaser, Dr. Raffel relinquished his appointment as Acting Dean and resumed his regular duties as Professor and Executive Head of the Department of Medical Microbiology on July 1, 1965.

"Dr. Glaser brings to Stanford an unusual combination of academic and administrative experience," said President Sterling. "He is nationally recognized for his concern to bring to patient care the best that medical science and teaching can provide. " [1]

"He has had experience in building a medical center, having completed one at the University of Colorado where he served as Vice President for Medical Affairs and Dean. For the past two years he has been associated with an ambitious and unique project which envisions a new kind of hospital complex in the vicinity of Harvard Medical School. The Stanford University School of Medicine is fortunate to be able to draw on Dr. Glaser's talents as scientist, teacher and administrator."

A graduate of Harvard College in 1940; and Harvard Medical School, magna cum laude, in 1943, Dr. Glaser received his American Board of Internal Medicine certification in 1951. Over the past 20 years, he has held important medical school faculty posts at Washington University, University of Colorado and Harvard.

He joined the Washington faculty in 1945, during his second year of residency in medicine at Barnes Hospital, St. Louis. During the next 12 years, he was promoted to become Associate Professor of Medicine and Chief of the medical school's Division of Immunology. He was named Assistant Dean of the Washington Medical School in 1947, and served as Associate Dean from 1955-1957.

In 1957 Dr. Glaser was appointed Professor of Medicine and Dean of the University of Colorado School of Medicine. Two years later he was also named the University's Vice President for Medical Affairs.

While at Colorado, he was the major planner of a $20 million hospital and research structure which included a 450-bed hospital and a major outpatient wing.

In July 1963, Dr. Glaser became President of the Affiliated Hospital Center, Inc. in Boston and Professor of Social Medicine at Harvard Medical School. His work was concerned with the process of affiliating six Harvard teaching hospitals, an arrangement involving Harvard Medical School and the Boston Lying-In, Children's Hospital Medical Center, Free Hospital for Women, Massachusetts Eye and Ear Infirmary, Peter Bent Brigham and Robert Breck Brigham Hospitals.

Throughout his professional life, Dr. Glaser has devoted much of his research activity to rheumatic diseases. He was Chief of the Rheumatic Fever Clinic in the Washington University Clinics and a consultant to the State of Missouri and University of Illinois programs for crippled children. Dr. Glaser also has served as a member of the Scientific Advisory Council of the Rheumatic Fever Institute and the Committee on Prevention of Rheumatic Fever and Bacterial Endocarditis of the American Heart Association. At the time of his Stanford appointment he was a member of the National Health Research Facilities Advisory Council of the U. S. Public Health Service.

His publications include more than 40 papers, a number of them dealing with experimental streptococcal infections and rheumatic fever, and medical education.

Dr. Glaser is a member of Alpha Omega Alpha, the medical honor society, and editor of Pharos, the society's national publication. He is also a member of numerous clinical societies and associations.

Considering the education, experience and accomplishments of Dean Glaser, it is difficult to conceive of a candidate better prepared than he to become Dean of Stanford Medical School in 1965.

A University Hospital

Dean Glaser recognized from his earliest observations of the Stanford program that the Palo Alto - Stanford Hospital did not function as a "university hospital."

Therefore when, in October 1966, he published a comprehensive Plan for the Next Decade, he placed acquisition of "A University Hospital" first on his list of concerns, for reasons given in the following excerpt from the Plan. [2]

> The advances of medicine have, if anything, made the teaching hospital an even more important part of medical education than it was twenty-five years ago. The expansion of clinical medicine, and the resultant growth in residency and fellowship programs in many clinical fields, calls for an adequate number of University-controlled beds in the Medical Center.
>
> The number of beds available to us at present -- about 200 -- in Palo Alto-Stanford Hospital, is grossly inadequate to the fulfillment of our educational mission. Without the valuable clinical facilities available to us at the Palo Alto Veterans Administration Hospital and at the San Mateo and Santa Clara County Hospitals, we could not possibly carry on at our present level. We do not expect to increase our postdoctoral programs significantly, but we badly need more beds in the Medical Center itself if we are to fulfill our potential in this activity. We have determined that approximately twice our present allotment of beds, i. e., a total of 450 to 500, should be obtained without further delay.
>
> When the School moved to the campus, and the present hospital was built as a joint venture with the city of Palo Alto, it was hoped, despite the diverse objectives of the two owners in respect to hospital beds, that a single facility could serve both. Experience has clearly demonstrated that this is not the case.
>
> The present administrative structure is unwieldy, and is not satisfactory to either the community staff or the University staff. Consequently, the University has indicated to the City its interest in acquiring the Palo Alto portion of the hospital. If the City elects not to sell, the University will have to expand its portion of the present hospital. In either case, the operating agreement between the City and the University will be significantly altered so that the University will ultimately have an autonomous facility that will constitute the Stanford University Hospital.
>
> The situation is complicated by virtue of the fact that the community physicians, who make up the Palo Alto staff, also must have more beds; further, their needs, like those of the University, must be provided for before any change in the current arrangement can be accomplished.
>
> Whatever the steps taken to provide more beds for the Medical School, we look forward to the prospect of an active clinical faculty.

The Problem

From its opening in 1959 the dual ownership of the Palo Alto - Stanford Hospital by the City of Palo Alto and the University resulted in a clash of professional cultures and standards that created complex administrative problems and a host of contentious issues. Faculty and Palo Alto physicians competed for patients and access to beds, and for control of clinical laboratories and ambulatory services. Inpatient teaching programs were impeded and required subsidies. These Town-Gown tensions were only palliated by the intervention of endless joint committees.

In October 1966, as we have seen, Dr. Glaser recommended the purchase by the University of Palo Alto's share in the Palo Alto-Stanford Hospital as the solution to the problem. This idea was received with interest by the Palo Alto City Manager and Council. A crucial issue within the City Council became the question of whether beds could be made available for Palo Alto patients, admitted by Palo Alto Medical staff doctors, if Stanford obtained complete ownership and control of the hospital. It became clear that Palo Alto would not approve the purchase unless some guarantees were made on this matter.

To explore the possibility of purchase of the Hospital by the University, a joint committee was appointed by the two owners, the City and the University. In this case, the committee was composed of administrative rather than policy or professional personnel. The key individuals on this committee were Dean Glaser and the City Manager, Jerome Keithley. [3]

In the spring of 1968, under the urging of Dean Glaser, this committee reached consensus on the text of a complicated Agreement between the Board of Trustees of Stanford University and the City of Palo Alto. This document recorded in detail the conditions under which the City of Palo Alto would transfer the Palo Alto Hospital and related assets to Stanford University. [4]

In view of the complexity and importance of the Agreement Dr. Glaser, the acknowledged prime mover in this transaction, was asked to explain its conditions to the Council of the City of Palo Alto. This he did so convincingly that the City Council approved the Agreement by a vote of eight to one. The following is the press release announcing the settlement: [5] [6] [7]

Stanford University Becomes Owner of Hospital Facilities 1 July 1968

After nearly three years of negotiations with the Palo Alto City Council, Stanford University finally assumed complete ownership of the jointly owned 580-bed Palo Alto-Stanford Hospital on 1 July 1968.

Robert Joy Glaser (1918-) with Cassius Kirk, John Ewart Wallace Sterling (1906-1985), and Palo Alto mayor

Under the terms approved by an 8-to-1 vote of the City Council, Stanford paid $1 million in cash to the City and assumed $3,500,000 worth of hospital construction bond payments over the next 20 years, and provided guarantees for specific community hospital services for the next 40 years.

Stanford Hospital and fountains

All community physicians currently on the hospital staff retained their affiliation for the remainder of their professional careers. A total of 370 beds previously used by patients of community physicians continue to be available to them.

Agreement between Stanford and the City came on the eve of Dr. Wallace Sterling's retirement as President of the University, and Dr. Robert J. Glaser's assumption of new responsibilities as Acting President. The appointment of Dr. Glaser as Acting President was effective September 1, 1968 upon the retirement of President J. E. Wallace Sterling.

In a joint statement, Drs. Sterling and Glaser said, "We are extremely gratified that a solution has been reached. The union of the hospital with the medical school provides a unique opportunity for all concerned."

Viewed in retrospect, It was President Sterling's continuing confidence in and support of the Medical School that made possible its move to the campus in 1959. The final crucial step of consolidation in 1968 through acquisition of a university hospital was taken essentially entirely under the tireless auspices of Dean Glaser with memorable results.

At the time of the announcement of the University-City agreement, Stanford University Hospital became an entity and the Board of Trustees designated the entire center, including both the School of Medicine and the Hospital, as the Stanford University Medical Center.

With the adoption of the full-time system in 1956, the move to the campus in 1959, and the consolidation of a university teaching hospital in 1968, the school was in conformity with all the major Flexnerian principles that included the following familiar items:

(1) Each medical school should be an integral part of a parent university.

(2) The medical school should have a university teaching hospital.

(3) The university, medical school and teaching hospital should be in the same location (that is, no "divided schools")

(4) The medical staff of the teaching hospital should be members of the medical school faculty regarding which all power of appointment and promotion rests with the university.

(5) The primary faculty in the school should be salaried (that is, on a strict full-time basis, including the faculty of clinical departments).

(6) Research and teaching should be inseparable because the approach of the investigator and the clinician should be the same.)

It should not be inferred from the above that rigid adherence to Flexnerian principles is a necessary condition for academic excellence, (Harvard Medical School being a notable exception), but experience has shown the principles to be valuable guidelines.

For another set of important guidelines, we should keep in mind the following formula so successfully applied during the Alway years:

Recruit a distinguished, research-oriented faculty.

Implement an innovative curriculum.

Attract exceptionally able students.

Commit to the endless pursuit of excellence.

Results of the Consolidation

Resolution of the hospital issue had the immediate beneficial effect of enabling the University to proceed with expansion and modernization of the present facility. Consolidation had the further effect of making available existing beds and other clinical resources essential to the teaching, patient care and research programs of the School, and without which these programs had been previously inconvenienced and even restricted.

Despite this temporary handicap to clinical programs, after the move to the campus in 1959 the School grew steadily in national stature until it attained and continues to hold a respected place in the front rank of medical education, scientific achievement and clinical medicine. Its potential for future progress was immensely enhanced by the consolidation which finally brought the Stanford program into full conformity with the highest standards, thus assuring the capacity of the School to contribute maximally to the furtherance of the historic revolution in the medical sciences ushered in with the 19th century (as described in Chapter 5).

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About John L. Wilson (1914-2001)

John Long Wilson received his undergraduate degree from Vanderbilt University in 1935 and his MD from Harvard in 1939. His residency in surgery at Massachusetts General Hospital was interrupted when he enlisted in the Navy the day after Imperial Japan bombed the United States Naval base at Pearl Harbor. Dr. Wilson remained on active duty for five years, serving much of that time in the Pacific Theater of Operations as a Naval Flight Surgeon. He continued his residency at U.S. Naval Hospital, Chelsea, Massachusetts until his discharge, completing his residency at Massachusetts General Hospital in 1949.

From the beginning of his civilian medical career, Dr. Wilson focused on medical education. In 1949, on his way from San Francisco to join the faculty of Cheloo University of Medicine in the People's Republic of China, he learned that the school had been closed to Americans. Instead, he became a Clinical Instructor in Surgery at the Stanford University School of Medicine. Still intent on serving abroad, he began a fifteen year career with the American University of Beirut in 1953. In preparation for this, he had spent a year in Thailand under the Point IV Program with a team of U.S. physicians from Washington University School of Medicine. At AUB he served as Professor and Chairman, Department of Surgery and Acting Dean and Dean of the Faculties of Medical Sciences.

Returning to Stanford in 1968, he served as Professor of Surgery until his retirement. He served as Associate Dean for Faculty Affairs from 1968 until 1984, and also served as Acting Dean from 1970 to 1971.

After this distinguished career in surgery and administration, Dr. Wilson spearheaded efforts to secure the archival records of the Stanford University School of Medicine and to integrate them with records of the predecessor schools. With the support of the Office of the Dean of the School of Medicine, Stanford University Archives, and Lane Medical Library, Dr. Wilson oversaw the establishment of the Lane Medical Archives and served as its Honorary Curator. In 1989 Dr. Wilson he began writing a history of the Stanford School of Medicine and its predecessor schools based on the archival records held in the collection. In 1998, Dr. Wilson completed Stanford University School of Medicine and the Predecessor Schools: an Historical Perspective", which was subsequently published in an online format.