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Medical and Surgical Journal

— AND —

WESTERN LANCET

Vol. XXVII.

JULY, 1884.

No. 1.

Original Articles.

THE ETIOLOGY OF CANCER.

By J. H. STALLARD, M.B., F.R.C.S.

While the pathology and clinical history of cancer have been greatly advanced by modern research, it must be acknowledged that little or no progress has been made with regard to its etiology. Beyond some rather indefinite opinions as to its hereditary character, and its connection with continued local irritation, and perhaps a still more vague suggestion of its nervous origin, we know but little of the causes which predispose to its commencement in the individual, or of the conditions which favor its propagation and increase amongst the community at large.

Soon after commencing practice in San Francisco, my attention was directed to the unusual frequency of cancer as compared with my previous experience in England, and I was particularly struck with the large proportion of males that were affected by it. This impression was fortified by the Report of the Medical Officer of Health, for in 1874 it was noted by Dr. H. Gibbons, Jr., in his annual report for that year, that "seventy-three deaths were accredited to cancer, the uterus, stomach, face and brain being the most frequently affected. Nearly two-thirds

of the decedents were males, and six-sevenths between thirty and sixty years of age. Seventy-two deaths occurred amongst the white population, which probably numbered 170,000, with a small proportion of children and a great predominance of adult males, which might have accounted to some extent for the excess in mortality amongst this class." The subject has continued to occupy my attention, and in order to institute a full inquiry, I made application to the Census Office at Washington for a return of the population of San Francisco at all ages, and by the favor of Mr. Noel Humphreys, of the English Registrar General's Office, I have received a circular return of the English population, together with the deaths from cancer, in corresponding groups of ages for a period of ten years.

It may here be observed that cancer is probably increasing in Great Britain. Attention has been drawn to this by Mr. Hugh Dunn, F.R.C.S. He states that the cancer deaths during the ten years 1860-69, were 80,049, and the annual increase 248, whereas, during the ten years 1870-79, the total number of deaths from cancer was 111,301, and the average annual increase 320. As the population increases at about the rate of one-tenth in every ten years, the influence of this upon the cancer rate is small, and he says that cancer bids fair to become more and more serious with the advance of time. But further, Mr. Dunn goes on to prove that the increase of cancer in England is chiefly noticed in the *female* sex; for whereas, in the male the numbers vary in a given series of years between increment and decrease, in the female the former is always predominant. And further, he states that the most marked and most constant augmentation of the disease seems between the thirty-fifth and forty-fifth years. He thinks it probable the explanation of the augmented mortality from cancer may be due to the greater fecundity of females at that period of life.

It will be important to see how far this deduction is borne out by the cancer mortality in San Francisco. In the first place, taking the mean population of England for ten years, the annual death rate from cancer was 3.18 per 10,000 males, and 6.24 per 40,000 females; whereas, in San Francisco the annual death rate amongst the whites for the five years ending June 30, 1883, on the census return of 1880, which may be fairly taken as the mean, was 5.3 per 10,000 for males, and 6.9 for females. From this it would appear that the male death rate from cancer is

higher for both sexes in San Francisco than it is in England, and that it is greatly in excess as regards the male sex.

But it is necessary to observe that a general comparison between the cancer mortality in England and that of San Francisco is vitiated by the totally different character of the two populations. In San Francisco there are 20 per cent. less of persons under twenty years of age, than in England; and whereas in the older country there is an excess of females over twenty years of age; in San Francisco the males predominate until the age of seventy is arrived at, when for the first time there is a slight predominance of females. It will be necessary, therefore, to compare the mortality of both sexes at the different periods of life, with the numbers living in corresponding groups as to age. This is presented in the following table.

The mortality under 20 years of age is the same in both cases. It is largest during the first year of life; but the amount is not such as to present very strong proof of hereditary tendency or the direct transmission of disease. From twenty to twenty-five years old in England the cancer mortality of males does not differ much from that of males in California, and the female mortality is scarcely to be relied upon, as in San Francisco there was but one case. From twenty-five to thirty-five the mortality of males is equal, but that of females in England is greatly in excess. From thirty-five to forty-five the males suffer more from cancer in England than they do in San Francisco, whilst the female mortality is also fifty per cent. higher. From forty-five to fifty-five the male deaths in San Francisco are still less than amongst the same class in England, but the females are now in excess. After fifty-five years the cancer mortality in San Francisco becomes much greater for both sexes than it is in England.

Annual Death Rate from Cancer per 1000 Living at Corresponding Groups of Ages.

<i>Age.</i>	ENGLAND.		SAN FRANCISCO.	
	<i>Average of 10 years, 1870-79.</i>		<i>Average of 5 years, 1878-83.</i>	
	<i>Male.</i>	<i>Female.</i>	<i>Male.</i>	<i>Female.</i>
0 to 20.....	0.14	0.13	0.14	0.14
20 to 25.....	0.7	1.75	0.88	0.20
25 to 35.....	2.41	7.97	2.34	2.95
35 to 45.....	7.09	17.72	5.30	11.97
45 to 55.....	16.02	27.70	14.4	29.22
55 to 65.....	28.22	35.40	33.08	44.12
65 to 75.....	30.44	35.70	43.80	38.26
20 and upwards....	6.97	13.34	8.8	10.20
All ages.....	3.18	6.24	5.3	6.9

But in San Francisco this is not the only peculiarity of male cancer. Thus out of 769 cancer deaths recorded in seven years, 129 males died of cancer of the stomach and only 50 females; 62 males died of cancer of the liver and only 27 females; 20 males died of cancer of the rectum and only 6 females.

In the five years (1878-83) there were 41 deaths from cancer of the lip, tongue, jaw, neck, and esophagus, of which only 6 were of females. In the same period there were 116 deaths from cancer of the stomach among males and 52 of females. The annual death-rate for each sex, per 10,000, living at corresponding ages is given as follows:

Annual Death Rate from Cancer of the Stomach of Males and Females, per 10,000 Living at the Ages Specified—Average of 5 Years.

	<i>Males.</i>	<i>Females.</i>		<i>Males.</i>	<i>Females.</i>
25 to 30	0.4	0.68	50 to 55	6.0	4.8
30 to 35	1.6	0.25	55 to 60	10.9	11.1
35 to 40	1.4	0.5	60 to 65	17.8	8.72
40 to 45	3.06	1.18	65 to 70	17.7	10.9
45 to 50	3.3	4.64	70 and over	19.2	2.12

There is a remarkable predominance of cancer of the stomach amongst males. It prevails almost throughout life after thirty years of age; and it is remarkable that the most important exception is between forty-five and fifty, the period of the menopause, when the female slightly leads the male. It will be seen that this is the period in which cancer of the womb is also most fatal.

Table of the Annual Mortality from Cancer of the Uterus, per 10,000 Females Living at Corresponding Ages, in San Francisco—Average of 5 Years.

<i>Age.</i>	<i>Total Deaths.</i>	<i>Annual Rate per 10,000.</i>	<i>Age.</i>	<i>Total Deaths.</i>	<i>Annual Rate per 10,000.</i>
Under 25	0.0	0.0	50 to 55	18	9.6
Under 30	1	0.27	55 to 60	15	12.9
30 to 35	8	1.79	60 to 65	7	10.2
35 to 40	13	3.266	65 to 70	3	8.2
40 to 45	18	5.31	70 and over	1	4.2
45 to 50	23	9.7			

According to this table the liability to uterine cancer steadily increases until the age of sixty, and continues high until the age of seventy. Unfortunately I have no similar returns to offer as regards England, owing to the absence of the official reports of the Registrar General. But enough has probably been adduced to confirm the observation that cancer is extremely prevalent in San Francisco, and that it especially predominates amongst the males at all ages over fifty-five, and amongst the females from forty-five to seventy-five.

There is little or nothing in these tables to indicate the importance of heredity in the peculiar prevalence of cancer amongst the males of California. They may be taken as a stock, selected by peculiar circumstances for their vital energy and health. Nearly all of those whose deaths from cancer are recorded in these tables were men who left their homes and families in search of gold. They were survivors of unheard of hardships in crossing the plains and deserts of America, in roughing amongst the mining camps of early days. These men survived perils to which thousands of their weaker brethren succumbed. Moreover, it was not during the time of hardship and exposure that the cancer was observed. From a long and extensive experience amongst the extremely poor in England, I am satisfied that cancer is less a disease of poverty than it is of wealth. Here in California it becomes deadly after fifty years of age when its victims have escaped the privations and exertions of their earlier years. Is it not, therefore, more probable that instead of looking to heredity as the predisposing cause, we may more hopefully examine the habits of the victims, and observe the peculiarities of their mode of life? We may also keep in view the valuable observations of Mr. Hutchinson and Sir James Paget, who attach so much importance to prolonged local irritation.

In the first place, it is the men in San Francisco who smoke and chew tobacco, often to great excess. Men may be constantly seen with cigars, not always lighted, in their lips. In the dry and sandy districts of California, cracked lips are also the common result of exposure to the sun, and the cracks are kept open by the sand. Syphilitic indurations of the tongue are far more frequent amongst males than they are amongst females, especially in a community where for many years there was a comparative deficiency of females. In no country in the world is the practice so common of taking cocktails and ardent spirits upon an empty stomach. Men begin before breakfast and repeat the stimulant frequently, and at the same time they carefully abstain from drinking anything but coffee, tea, and milk during and after meals.

When the victims of stomach cancer first came to California they were poor and industrious. They worked and fared hard. They went on a "bust" from time to time, but the first object was to secure an independence, and if they survived the hardships they were very generally successful. Coming to San Fran-

cisco their habits were at once and forever changed. They passed their days in saloons and stock-boards, in a fast, gambling and excited life—cocktails in the morning, bitters in the middle of the day, and punches at night; meals badly cooked and taken with improper haste; no active exercise; no regular habits; not even regular and sufficient sleep. Amongst such persons dyspepsia is extremely common, and if local irritation be a cause of cancer, can it be surprising that the males should suffer from cancer of the digestive organs?

Nor is it remarkable that the females should escape these forms of cancer and suffer in a different way. As a rule, the females of San Francisco neither smoke nor drink cocktails and ardent spirits. Whilst the men dine at the restaurants, the females are left to provide for themselves at home, and as servants are costly and difficult to obtain, many of them are compelled to do their own cooking, and to save trouble they live on cakes, bread and tea—in fact their food is too often of a weak and non-irritating character, not likely to set up gastric or intestinal irritation, and not likely to give rise to cancer in those organs. On the contrary the very debility which is induced by insufficient food, want of sufficient exercise, and confinement indoors predisposes them to uterine disturbances which concentrate continual irritation in that organ. Whilst the female children of California may be favorably compared with those of any other country in the world until the age of twelve or thirteen years, the forcing of the intellect in the public and private schools destroys their vigor and interferes with their development. Thousands suffer from amenorrhœa, dysmemorrhœa, and other disturbances of the reproductive organs, which lay the foundation of a life-long irritation. Nor are the adults and married females altogether innocent of practices which have a similar result. In California child-bearing is not very favorably regarded, and it is probable that the excess of uterine cancer, compared with mammary, may be due to the fact that miscarriages are quite as common as healthy and naturally nursed children.

But even in the cases of cancer in unmarried females, we may probably discover the predisposing cause of cancer in the mode of life rather than in hereditary taint. I think I have observed that cauliflower growths, and other of the more luxuriant forms of cancer, occur in persons of a loose and luxurious habit, in whom the tissues are more or less abundantly supplied with fat.

Such persons have lived often for years on the softer kinds of food—bread, tea, pork, bacon, eggs, milk, butter, mush, rice and other farinaceous articles. In some parts there is a tradition that the exclusive use of pork is a cause of cancer; and there is little doubt but that the excessive use of sugar is conducive to the same result.

Judging from the foregoing considerations, it appears fair to conclude that the prevalence and increase of cancer are due to some modification of cellular organization by peculiarities of feeding, rather than to hereditary character impressed upon it at birth. It may be suggested that hereditary tendency to cancer is more analogous to that of gout, than to that of bodily form, color, and mental character, the latter one positive and permanent. But the tendency to gout may be successfully cultivated or destroyed in the individual, by the neglect or observance of hygienic rules. At least the hereditary tendency to gout is but a tendency to abnormal organic processes, which may also be caused by special cultivation. For, as the character of a disease germ may be changed by successive cultivation, and altered in its virulence by the temperature and vascularity of the part of the body to which it is applied, so possibly may natural cell growth be changed into the malignant type by successive cultivations from improper or unwholesome food, as well as by the change of temperature and vascularity, which is the consequence of continued local irritation. It seems unnecessary to entertain the parasitic origin of malignant growths until the simpler question has been solved.

No subject presents a more hopeful field for the conjoined action of the profession. We want a more exact personal history of those who suffer from malignant disease, especially as regards the great questions of diet and regimen; and it is much to be hoped that those physicians in England and America who have promoted this mode of investigation, will take up this great and important subject. It is now settled that our best remedies are failures, and that early extirpation is our best resource. If we should be able to attack our enemy by preventing the predisposing condition, there will be hope that the cancer mortality will fall.

ON THE CONTAGIOUSNESS OF EPIDEMIC CHOLERA.

By H. GIBBONS, Sr., M.D.

[Read before the San Francisco County Medical Society.]

That epidemic cholera is communicated by an active contagion appears to be the almost universal sentiment of the present period. Having had more or less personal knowledge of all its visitations in our country since its advent in 1832, I have thought that some interest might attach to my observations in connection with its history. It is not my design to present any argument pro or con, only so far as facts constitute argument.

When cholera appeared in Quebec on its first invasion of America in June, 1832, I resided at Wilmington, Delaware. As is well known, the disease almost immediately began its march southward, reaching the City of New York by the way of the Hudson river in the latter part of June. Its steady approach, its great fatality and its remarkable features, tempted me to visit New York and prepare myself as far as possible to encounter its invasion. I went to that city about the 30th day of July, when the number of deaths by cholera was one hundred daily. The streets were thronged with people as usual and business was but little interrupted, very few persons having fled from the pestilence. No dread of contagion existed, though most people were afraid to eat crude vegetables and fruits. The history of the disease in Europe had established the fact that diarrhea almost invariably preceded an attack of cholera, and that if the diarrhea were arrested, which was easily done, no danger from cholera was to be apprehended. Further, it was an established fact that drunkards were particularly liable to the disease; in fact that most of its victims were of that class who indulged freely in strong drink.

Besides Bellevue and some other established hospitals to which patients were admitted, four or five hospitals had been improvised for cholera patients exclusively. I spent several days in going the rounds of these hospitals and gathering all the information possible from examination of the patients and from the medical attendants. No fear of contagion existed. I was informed again and again that not one physician or nurse had contracted the disease. So far from suffering from apprehension on my own account, I never in my life spent a few days with

an interest so deep and all absorbing, as on this occasion whilst contemplating and studying the marvelous plague. But all the knowledge I gathered in regard to treatment was negative. The experiences of Europe was repeated; that after the development of the characteristic symptoms, one-half at least of the cases proved fatal. When the stage of collapse was fully established, death was certain. All that human ingenuity could devise was futile. Inunction with mercurial ointment and capsicum; internal medication with opium, brandy, ipacacuanha, calomel; salt water emetics; the injection of quarts of saline solutions in the veins; were tried in vain. Strange as it may seem, blood letting gave more hope than any other treatment.

I returned to my home much wiser than on leaving it; but the wisdom consisted in knowing what not to do, rather than in knowing what to do.

According to expectation the disease reached Wilmington. A hospital had been prepared for it. The first cases occurred under circumstances which baffled all attempts to trace them to contagion. All the cases were sporadic and isolated. There were never more than three or four patients in the hospital at one time. All the physicians in the town were in the habit of visiting the hospital daily and remaining sometime without thought of contagion. A certain district of the city was traversed by a small stream, on the borders of which were the slaughter-houses, the putrifying offal from which was very offensive. There prevailed a general apprehension that this locality, which was surrounded with inhabitants, would be severely visited; but not a single case of cholera occurred in it. Such freaks were common in the history of the epidemic.

My next acquaintance with cholera was in 1847 in Philadelphia, where I then resided. Again in 1849 it visited Philadelphia. On both occasions it put on the same features as in 1832. but at neither time did it prevail to any great extent. Most of the cases were isolated and solitary, though scattered broadcast over an extensive area. In 1849 there were many cases taken to the large city almshouse, at Blockley, where two and perhaps three of the resident physicians fell victims to it. It was understood that they had sought to protect themselves from it by smoking cigars and indulging more or less in intoxicating beverages. Both tobacco and alcohol have been generally recognized as tending to invite the disease instead of repelling it. One would

infer this from the depressing influence of tobacco; and no fact was more universally acknowledged than the predisposing action of alcohol.

In 1849 there were two or three localities which supplied a large number of cases—narrow, filthy and ill-ventilated alleys and courts. With these exceptions, seldom more than one case occurred in the same house, though no special means were employed to disinfect, nor were the dwellings vacated by the survivors. In several instances a day's work at the wash-tub or ironing-table was followed by a sudden and fatal attack in the night. I was repeatedly called from my bed on such occasions after midnight; and neither then nor at any other time did I hesitate to return to my family without a shadow of fear of conveying disease.

I next encountered cholera in 1850 on my way to California. The steamship *Ohio*, on which I embarked from New York, reached Havana about the 8th of June. Cholera prevailed there at the time and the vessel anchored several hundred yards from the landing, the passengers not being allowed to go on shore. At the same time the *Falcon* arrived with passengers from New Orleans, and the passengers from the *Ohio* were transferred with their effects to the *Falcon*, a small vessel, which now became excessively crowded. Here we remained for twenty-four hours, the ship's officers spending most of the time in the plague stricken city. We then left for Chagres, the ship being in the filthiest condition, and so crowded that it was impossible to cleanse it. Many of the passengers were seasick, and the decks were almost covered with the discharges from their stomachs. If ever there existed a hot-bed for breeding pestilence it was here. A week was spent on the way to Chagres, but neither cholera nor any other epidemic appeared.

I arrived at Panama about the middle of June, and was forced to remain there over six weeks awaiting the steamship *Republic* which was on her way "round the Horn," and to which I was ticketed. During this period there was a constant influx of passengers from New York, the vessels mostly touching at Havana. But not one case of cholera appeared. There was no restriction of travel, no quarantine, no dread of contagion, no cholera.

We left Panama for San Francisco early in August, four hundred passengers being crammed into the little *Republic* of four

hundred tons burthen. Every berth, every bunk, every nook and corner were occupied. The hygienic condition of the ship was as bad as possible, but with the exception of a few cases of diarrhea no disease made its appearance.

Arriving at Acapulco in eight or nine days, and approaching the town after night, we were warned off to an anchorage a mile distant, on account of cholera which prevailed in the town with great fatality. We remained at Acapulco between two and three days, getting a supply of coal. Meanwhile most of the passengers spent the day on shore, rambling about the town, and many of them indulging freely in eating and drinking. I had two brothers with me, Dr. Edward Gibbons and Rodmond Gibbons, since residents of Oakland. We called on the Alcalde, whom we found reposing in a hammock and in the act of firing a train of gunpowder which he had laid on the plastered floor so as to surround him. The smoke from the explosion rose and for a moment concealed him from view, and no doubt he felt more secure from the plague in consequence. Whilst we were with him a messenger came to ask aid for two men, a father and son, said to have cholera. Understanding that my brother and myself were "medicos," the Alcalde requested us to visit them. We did so, and recognized two type cases of cholera in the stage of collapse. The doors throughout the town had pasted on them little pieces of paper containing a prayer within the outlines of a cross, and a note stating that the repeating of the prayer and the posting of it had been found useful elsewhere in arresting the plague. The prayer was an invocation to the Virgin, begging her on account of the sufferings of her blessed son on the cross to intercede against the pestilence. We saw no indications of medical aid to the sick except these crosses, one of which was supplied to each of us by the Alcalde's daughters.

We re-embarked about the middle of August. If ever contagion had an opportunity to declare itself—if ever escape from it were next to impossible, here was the occasion. For two and a half days a throng of reckless passengers had inhaled the infected atmosphere, until in modern parlance their blood was filled with cholera microbes. Preventives were entirely wanting, and provocatives took their place, and yet not a single case of cholera or anything approaching it was developed among them. A few instances of diarrhea incidental to a tropical climate composed the sick list. There were other aggravating circumstan-

ces. The faulty condition of the ship rendered her progress painfully slow. Her boilers were so leaky that several cart loads of gravel were thrown into them at Acapulco. On the approach to San Francisco the provisions and coal which had formed her ballast were consumed, and for some days of the latter part of the voyage the vessel careened over so that one wheel was entirely out of the water, and it was difficult to cross the deck without grasping something with the hands.

We arrived at San Francisco on the 23d of August. At that date cholera prevailed in Sacramento, having reached there apparently with the current of immigration overland from the valley of the Mississippi, over which it had swept with great fatality. A few interior mining settlements in California suffered at the same time with Sacramento. There was daily intercourse from San Francisco with the latter place by steam boats, the distance being over one hundred miles. But no cholera existed in San Francisco until late in October, when a few straggling cases made their appearance. In the meantime Sacramento lost one thousand of her population of eight or ten thousand, whilst other thousands fled abroad.

For several weeks there were but a few cases in San Francisco, scattered in different localities. As the cool weather of November came on, contrary to precedent the disease developed into an epidemic. It so continued about a month and entirely disappeared towards the end of December. In a population of twelve or fifteen thousand the total mortality was not over one hundred. With a single exception the cases were isolated, not more than one or at most two, occurring in the same house. The exception was a crowded lodging house on Sansome street, near the bay, under which a drain had just been dug. From this building six or eight patients were brought to the hospital one after another.

The hospital was a wooden building of two stories, located on Broadway above Stockton street. Being a member of the Board of Health I was placed in charge. It was kept open eight weeks and never contained more than six or eight patients at a time. The leading employes decamped abruptly because they could get their pay only in depreciated warrants. In the emergency I requested my two brothers to take it in charge, one as resident physician and the other as steward. They lodged and lived in the hospital for nearly a month and until it was closed, without

the slightest fear of contracting the disease from the first to the last. No employé of the hospital was taken sick.

Early in the summer of 1853, a steamship arrived at San Francisco from Panama with about twelve cases of cholera on board. Some of the patients were taken in charge by their friends and removed to private houses; six or seven were taken to the city hospital, then under the care of Dr. Wm. P. Gibbons and myself. They were hopeless, and indeed moribund, and all died within forty-eight hours. They were placed in a ward by themselves and nursed by the hospital attendants and the Sisters of Mercy. Neither in the hospital, which contained 150 patients, nor among the employes, did any disease ensue. Neither was there a single case of cholera reported from the cases which had been distributed in private charge.

The bedding from the infected ship was washed at a laundry on the lagoon a mile west of the city. Rumor had it that a number of the washermen were attacked with severe diarrhea. Though inclined to believe the statement, I can neither deny nor affirm it. It is certain, however, that no cholera was developed.

In three or four other instances during the early period of immigration a few cases of cholera were brought to San Francisco by the Panama steamers; but I have never heard of the disease being propagated by them, nor of any special care to prevent its extension.

In the Summer of 1854 a personal friend of mine living in San Francisco, a man of exemplary habits, was seized with cholera and died with all the characteristic symptoms. He had not been away from home, nor was there known to exist another case of cholera within hundreds of miles. It was a most violent, rapid, and intractable case. Another case occurred under my charge in the following year, which presented the distinctive features of the disease and resisted all medication up to the period of incipient collapse, when relief was afforded by a hypodermic injection of half a grain of sulphate of morphia. A more satisfactory result from medical treatment never fell to my lot.

Such is a plain and true statement of my experience in regard to the contagiousness of epidemic cholera. Incompatible as the statements may appear with the doctrines now current, they are nevertheless facts, and I leave them at the disposal of the reader.

FRACTURED FIBULA WITH EXTENSIVE SUPPURATION.

By N. S. GIBERSON, M.D., Eureka, Humboldt Co., Cal.

T. O., brakeman, had his right leg caught between the coupling of a locomotive and a six-inch pine scantling. The blow was heavy enough to splinter the timber. Upon attempting to rise he fell back with a sensation as if the entire leg had been drenched with scalding water. Rapid and enormous swelling supervened, and he was advised by his attendants to apply liniments, plasters, etc., to a "bad bruise," and also to go out on crutches as much as possible.

At the end of five weary weeks he was admitted to the hospital in my charge, and when the dirt was sufficiently removed to make him feel human once more the injured member was carefully inspected, with the following results: From the bend of the knee to the annular ligament the limb was engorged and edematous, and the cuticular surface, from a six-week's conflict with that unholy trinity blisters, liniment, and "blue ointment," hung in shreds, with an occasional gangrenous spot as large as a dime. The tibia was intact, but the swelling was so great that the fibula could not be outlined. An obscure sense of fluctuation and a muffled crepitus a few inches below the fibular head excited our suspicions. In the bend of the knee, just between the ham-string tendons, was a dirty looking, shallow ulcer of the size of a half dollar. The limb was wrapped in spongio-piline saturated with hot water. In twenty-four hours the sense of fluctuation along the upper margin of the fibula had become patent. A puncture was made at its most prominent point, and the introduction of a trocar was followed by the exudation of a pint of grumous pus. After being well emptied of its contents the muscular walls of the abscess relaxed, and through the now flabby tissues it was easy to recognize a fracture of the fibula about three inches below its head. Crepitation was so distinct that the patient himself heard and took notice of it.

Carbolized injections (two per cent.) were ordered every four hours, and the limb was enveloped in a flannel bandage and sponged with alcohol and water twice daily. At the end of three days the old ulcer in the popliteal space stopped discharging and the application of a poultice over night revealed the fact that a sinus connected the ulcer with the abscess down in the heaviest

part of the calf muscles. The antiseptic injection now came away freely at both orifices. All went well for a week under a generous diet and a liberal use of cod-liver oil and the muriated tincture of iron. The patient improved rapidly; when on a sudden he complained of a sense of distress on the inside of the leg—a few inches above the malleolus. An examination showed fluctuation, and the part was freely incised. About eight ounces of laudable pus exuded and it seemed to have penetrated every tissue of the leg, dissecting in every direction between the muscular layers. There were now three openings, all connected, and it was thought that in all conscience the drainage was complete. Another week passed and the injections issued clear from the lower and upper orifices. The first puncture was now allowed to close, and we were enjoying the prospect of a speedy attention to the fracture, when, to our dismay, another abscess formed, or the old one reformed, along the superior line of the fibula. A free incision was now made, four inches in length, along the fibular margin and the sac fairly laid open. A thorough injection of a solution of carbolic acid (one to twenty) was now employed, and the wound protected by the ointment of oxide of zinc. A large tent was inserted and the dressings were kept supported as before by a flannel bandage. This treatment proved the finishing touch. In ten days all discharge ceased, and the limb was encased in the immovable dressing (silicate of potash), which was worn for three weeks without discomfort, and then discontinued.

This case is of interest to the advocates of brilliant, not to say perfunctory, diagnosis, as a shining example of "country practice," where a little care and conscientious application of well understood principles, would have saved this unfortunate man weeks of misery, and perhaps a permanent shock to his constitution.

LARGE DOSES OF OPIUM IN THE OLDEN TIME.

[Dr. C. E. Nelson, of New York, late editor of the late *Planet*, sends us a manuscript found by him amongst the papers of his deceased father, Dr. R. Nelson, who practiced medicine in the city of New York many years ago, describing a case of injury in which enormous doses of laudanum were administered. He thinks it worthy of reproduction at this time, as anticipating the modern practice in peritoneal inflammation.—Ed.]

In the year 1820, M. O. was wounded in a duel, by a ball 20 to the pound. It struck the posterior third of the crest of

the right ilium, fracturing that bone, and entered the body of the last lumbar vertebra, where it was found some eighteen years afterwards. When struck, he fell to the ground and instantly grasped at his privates, believing that the scrotum was shot away, but felt no pain in the real seat of injury. He trembled all over as if in a severe fit of ague. On that occasion I attended him in the capacity of assistant surgeon, had him carried home, and sent for my superior, a garrison surgeon, and the surgeon-in-chief, Granett. By orders I bled him to 50 oz. and gave ten grains Dover's powder, using the catheter on the same day. On the third day I was left in charge of him for the night, with orders to give an anodyne of 40 drops laudanum with spts. nitre at 8 o'clock P. M., to repeat it twice in the night, and bleed again if I found it necessary. Such agony as the man suffered I never witnessed before or since. His bedstead trembled with his body; he breathed and spoke through his teeth, and sweat so as to wet his mattress. At eight o'clock P. M. I gave the draught, without effect. He exhorted me to give him relief by any means whatever, and even called for death. Having already, when under no obedience to superiors, given dram doses of laudanum, I ventured to disobey orders and give him two drams. In half an hour, finding no perceptible effect (for the first impression of opium, when efficient, is manifest within half an hour), and fearing the entire loss of its influence if not speedily repeated, I gave him three drams more. I waited nearly an hour for the effect, but none came. At this time both the patient and his friends were clamorous, and insisted upon a repetition of the laudanum, even if it should kill him. I then gave him a whole ounce. Half an hour afterward, the patient and his bedstead trembled less than before, and in three-quarters of an hour after taking the dose, he slumbered slightly and the perspiration diminished. About midnight the pain began to return, when I gave him half an ounce more, with the same result as the last dose. For the same reason he took another half ounce between three and four o'clock A. M. After this he fell into a good sound sleep, with entire cessation of the trembling.

At eight in the morning the surgeons came, and were pleased to find him so easy. But when I showed them my memoranda for the night, the first exclamation was: "You surely never gave such doses. How dared you go beyond your orders?" etc. But the surgeon-in-chief was a kind-hearted man, and took me aside to be assured of the truth of my statements. This was easily

proved by the quantity of laudanum remaining in the bottle, and by the testimony of the patient's friends, who had passed the night with me, and urged me to do as I had done. The three surgeons had an energetic discussion as to the reason of the large quantity of opium producing no poisoning. I was young, and ventured to say that the "pain had eaten the opium." This caused a laugh, and I was left alone with the patient. From that time onward he took half an ounce of laudanum two or three times in twenty-four hours, with good effect, no other symptoms following than ordinarily resulting from a moderate anodyne in ordinary cases. He gradually improved, and the laudanum was as gradually reduced to two drams a day.

His urine was highly ammoniacal in two days from the injury, and remained so for more than a month, when it gradually improved. From the first he suffered almost complete paralysis of sensation in the left thigh, and in the scrotum, which persisted ever after. But there was no paralysis of motion. Many curious physiological phenomena occurred in the course of the case which were not relevant to the action of the opiate.

To sum up: The patient took, on the third day at eight p. m., 40 drops of laudanum; at nine p. m., 3 drams; at nine forty-five, 3 drams; at half past ten, 1 ounce; after which he slumbered for the first time, having taken more than 13 drams in two hours and a half—equivalent to about 25 grains of opium. From twelve to four a. m., he took an ounce, and slept soundly two hours for the first time. The quantity thus taken with impunity from eight p. m. to four a. m. was $21\frac{1}{2}$ drams, equal to more than forty grains of opium. Since that time, having entered civil practice, I have given two-dram doses of tincture of opium in the severe forms of enteritis often encountered in the autumn and winter in Canada; and in an epidemic of puerperal fever, which carried off many patients in the practice of an excellent accoucheur, I gave three-dram doses with benefit and success.

A TWIN BIRTH WITH MEMBRANES INTACT.

By A. M. PRATT, M.D., Oakland, Cal.

The Eastern journals have lately contained accounts of cases where parturition has been completed without the rupture of the membranes. The following case occurred in Solano County:

I was called about midnight to attend Mrs. S. Her husband bade me hurry, as the babe was born. I found her on her knees on the carpet, the baby crying lustily. She informed me that not feeling well, she had risen and was pacing the floor. As she had felt no pain, labor was entirely unexpected. Suddenly she had a furious pain, and not being able to step or stand, she dropped to the floor, and before her first and only pain ceased, the babe was born. While I was tying the cord, she quietly remarked that the after-birth had come. Obeying an impulse to see that after-birth I moved aside a fold of night-dress, and instead of an after-birth I found a second infant, the membranes of which were intact. Both children are alive to-day. The odd features of the case are, that for the first child there was but one pain, but that a furious one; the birth of the second being without pain, and with unruptured membranes.

Licentiates of the California State Board of Examiners.

At the regular meeting of the Board of Examiners held July 2d, 1884, the following physicians, having complied with the law and the requirements of this Board, were unanimously granted certificates to practice medicine and surgery in this State:

JAMES BLAKE, San Francisco; University of London, 1846.

ANDREW J. COMSTOCK, JR., San Buenaventura; Jefferson Medical College, 1884.

F. W. CONN, Napa; College of Physicians and Surgeons, New York, 1871.

JOSEPH MCCHESENEY, San Francisco; College of Phys. and Surg., N.Y., 1881.

J. W. REESE, Los Angeles; University of Iowa, at Keokuk, 1870.

WM. E. REED, Los Angeles; College of Phys. and Surg., St. Jo., Mo., 1881.

JOHN A. STRATTON, Los Gatos; University of Michigan, 1882.

NATHANIEL WILLIAMS, Richland; Geneva Medical College, 1841.

Work on the New Medical Register is being pushed forward rapidly. Circulars have been sent to each of the one thousand towns in this State, asking physicians and postmasters to give correct names and addresses of *all* parties practicing medicine in their vicinity. This has been done in order that a correct list of illegal, as well as legal practitioners may appear in the next issue of the Register. Those having neglected to register, but who are entitled under the law to that privilege, should attend to it at once by sending their credentials to this office, that they may be numbered among the legally-qualified physicians and law-abiding citizens. If not attended to in time, their names will

appear among the illegal practitioners, in the same list with charlatans and medical mountebanks. Any deaths or removals which may occur prior to December 1st, 1884, should be promptly reported at this office.

R. H. PLUMMER, *Secretary.*

Pharmacy and Materia Medica.

Exhibitions of Drugs, etc.

The exhibition at the last annual meeting of the New York Pharmaceutical Association was so unsatisfactory as to call in question the propriety of continuing such exhibitions. The *Weekly Drug News* favors the continuance, on the ground that much benefit has resulted from them in former years and that the recent failure was exceptional. The exhibits have less of the advertising element than formerly. In view of the fact that such displays encourage laudable emulation to excel in chemical and pharmaceutical products they should be continued, for the present at least. We should regret to see the pharmacists of the United States abandoning any course which tends to the promotion and perfection of pharmaceutical science and art.

"A Business That Pays."

Under this head an Eastern journal publishes the actual cost to the vendor of soda water and some other drinks. We give a specimen; One glass of plain soda water costs one-tenth of a cent; one glass with syrup costs one cent and a half; one glass of root beer costs one cent; one glass of ginger ale costs one cent and a quarter; plain soda water, best quality, in bottles, with corks and fasteners, costs eight cents per dozen. Of course labor, time, etc., are not included in these estimates.

Pharmaceutical Legislation.

The tendency of the period is towards legislation in medicine and pharmacy—not a hasty and ephemeral effort in that direction, but a settled and determined course of legislation that will protect society from ignorance, imposture, and knavery. In a large number of states laws have been enacted requiring an examination of the credentials or qualifications of candidates before they are allowed to practice. In many states similar legislation has been

effected in regard to the drug business. Legislation of this kind promises to become general before many years. One point should never be overlooked in advocating it, viz: that it is not so much for the interest of physicians and pharmacists as for the benefit of the general public. The public are the chief sufferers from the rapacity of quacks and the incompetency of druggists.

Zoajax.

The latest curiosity in the drug enterprise is *zoajax*, which is advertised in the *New York Weekly Drug News* as "the only specific for the fear of lightning." A company has been organized in New York for its manufacture and sale, under the title of "The Zoajax Company." Cannot some of our Eastern druggists get up a specific for the fear of the devil? It might sell well in certain circles, though there would be no more occasion for it in California than for *zoajax*. The peculiar orthography of the name would lead to the supposition that it is a homeopathic preparation.

The Quinine Habit.

Under this head attention is directed by some of the Eastern newspapers to the great and increasing abuse of this drug in a large proportion of human ailments, even those of a slight grade. There is no doubt of the existence of the practice to a very injurious extent. Thousands of people resort to it habitually and recklessly, ignoring entirely the possibility—the certainty indeed—of injury from its prolonged use, unless in very small quantities. A disposition is growing up among those who condemn the practice, to place it among narcotics and stimulants as a habit fraught with danger to health and life.

School of Pharmacy for Women.

The first school of this kind in the United States and the only one now existing, is the Louisville school. Its announcement for 1884-5 refers to it as having "passed through its trial year and being now an established fact. The rights of its graduates to practice their profession have been sustained by the courts at every point in the long and protracted legislation which our opponents have forced us to resort to in order to obtain the recognition of women as pharmacists."—We are surprised to learn of the opposition alluded to. The pursuit of pharmacy is certainly not amenable to the objections that have been urged against the practice of medicine by women, and we have never

known their right to the latter to be opposed by a resort to law. The *Louisville Courier Journal* gives a lively description of the graduating exercises of the school, which it pronounces the most entertaining of all the commencement exercises of the season. Among the speakers on the occasion was Dr. D. W. Yandell whose remarks are given in full, endorsing the measure and giving it his hearty approval. There are two terms in the year, one commencing in March and continuing twelve weeks, the other in September and continuing twenty weeks. The requirements for graduation are rigid and in no respect more lenient than those of schools of pharmacy in general.

The Oath of Pharmacists.

A correspondent of the *New York Weekly Drug News* furnishes a copy of an oath adopted by the French pharmacists in 1336, modeled to some extent after the Hippocratic oath of the older physicians. The first item promises to live and die in the Christian religion. One item is "not to give any emetic to an acute diseased person before asking advice of a doctor of medicine." Another, "not to touch the pudenda of a woman except in case of urgent necessity, *id est*, if there a remedy should have to be applied." Other provisions are: "Not to give poison to any one—not even to my worst enemies." "Never to give an abortive." "Not to keep poor and old drugs in my shop."

Editorial.

To Subscribers and Readers.

The editors and proprietors of the PACIFIC MEDICAL AND SURGICAL JOURNAL take pleasure in announcing that they have made arrangements with Dr. Whitwell, the editor and proprietor of the *Western Lancet*, to unite the two journals under one joint charge. For some years past, the junior editor of the JOURNAL has been unable, on account of professional and college duties, to render any material aid, so that the burden of the JOURNAL has fallen almost entirely on the senior editor. For this reason the junior editor withdraws in favor of Dr. Whitwell, who will assist in the editorial department, besides assuming the principal charge of the business management. Dr. Whitwell is a graduate of Harvard, and is well known as a

scholar and an able writer. The new arrangement will not only increase the force employed in preparing and improving the contents, but will also secure a more punctual issue of the work.

The JOURNAL will in future contain about one-fifth more reading matter than hitherto, and the subscription price will be reduced to \$2.50 per annum *to all subscribers paying in advance*. The reduction can only be made on the presumption that subscribers will comply with these terms. Bills will be promptly forwarded, so as to give ample opportunity for compliance with this reasonable condition.

Under the new management the JOURNAL will be the only one on the Pacific Coast devoted to the interests of the regular profession. Under these circumstances its circulation ought to be extended, and an effort will be made in that direction. The senior editor has now given twenty-two years to this work. He may say without boasting that he engaged in it with no view to pecuniary profit, and that no such motive could ever have induced him to persevere so long in the self-imposed and often arduous task. Only in consideration of a large number of tried friends and patrons, who have always been ready as well with their sympathy and good wishes as with the yearly stipend, could he have borne the difficulties and discouragements inseparable from the prosecution of the enterprise. In the interests of the profession on this Coast, much more than for his own personal benefit, he feels free to ask for an extension of the subscription list.

The JOURNAL will be conducted as heretofore, with a view to adapt it to the condition and wants of the entire profession in California and the Pacific Coast, and not in the interest of any bookseller or publisher, nor of any particular college or class or clique. The present number has been delayed by the necessities of the new arrangement, but it is contemplated to issue the succeeding numbers after August punctually at the beginning of each month.

Cholera—Panic as a Factor.

The history of pestilence proves that no form of plague is more promoted and diffused by panic than epidemic cholera. And yet the course adopted by the newspaper press in general, as well as that of some health boards, could scarcely create panic more effectually if designed for that purpose. The cry for quarantine is a popular one. But the idea of protection by quaran-

tine is a delusion. It may well be questioned whether an irruption of cholera was ever yet prevented by quarantine. The plan has been pursued more or less in every approach of the pestilence for many years. Perhaps it was never more rigidly applied than on the shores of the Mediterranean during the past year. The result is before us. One reason of failure, admitting that the disease is carried by personal contagion and fomites, is the absolute impossibility of constructing a perfect barrier against human intercourse. People are trained in the belief of a deadly contagion and the security created by a quarantine. They look little if at all to home causes. They neglect the true preventives. Presently the dreaded scourge appears among them. Then comes an explosion of panic, driving them to hazardous flight, or handing them over with paralyzed energies to disease and death. If people were to abandon the idea of contagion and of quarantine protection, and place their reliance on purified surroundings and personal hygiene, we have no doubt they would fare better. If cholera should invade under these circumstances, it would be shorn of much of its terror and fatality.

We observe that it has become the practice of not a few newspapers to assume superior judgment and to dictate to health officers and health boards. How would it answer to hand over to these sagacious journalists the care of the public health, and to place their journals in charge of the present health departments? Many a newspaper editor and many a reporter could run a health department as well as the man in the old story who insisted on exchanging household duties with his wife.

Contents of the Journal

The article on Cancer, by Dr. Stallard, deserves attention. So large a figure does this disease present in the bills of mortality that anything calculated to throw light on its etiology is worthy of consideration. It is possible that the conclusions of Dr. Stallard in regard to the prevalence of the disease in San Francisco are not of general application. People from all parts of the State who are affected with cancer and chronic ailments generally, flock to San Francisco and swell the death roll in the metropolis beyond the proper proportion for the State.

Dr. Rosenstern's case of ligation of the carotid and subclavian arteries published in the *JOURNAL* of May last, has been copied or noticed in several of our exchanges. We believe it was copied in full by the *Cincinnati Lancet and Clinic*.

Dr. Lane's paper describing 23 cases of arterial ligation for aneurism has been summarized in several journals. If it had appeared in the *London Lancet* as the work of a British surgeon, it would have been copied by nearly all the journals in America.

Communication of Syphilis by Vaccination.

An English physician is reported to have succeeded in producing syphilis by vaccinating himself with the clear lymph of a vesicle on a child laboring under the disease. The evidence however is not sufficient to satisfy the editor of the *British Medical Journal*, though the opponents of vaccination have full faith in it. When vaccination with the lymph of an individual known to be syphilitic has to be repeated again and again before communicating the venereal poison, and when that isolated case is of doubtful authenticity, the reputed exceptional fact militates but little against the value of vaccination in general.

Management of the Placenta in Labor.

It is strange that obstetricians have not yet been able to determine a general rule in regard to the delivery of the placenta after the birth of the child. Even among men of eminence the practice varies indefinitely, from immediate removal to non-interference and entire dependence on nature, some adopting the one course and some the other, while not a few limit the period of waiting to one hour, less or more. No such question arises when hemorrhage occurs or is threatened. Here, only one opinion is held. Referring to our own experience, we should say that no general rule can be adopted. Perhaps it is a mistake to attempt one. In the majority of cases the placenta is detached in the expulsion of the fetus. It may be loose partly in the vagina, or it may be loose in the womb, the edge presenting, or it may be loose the central part presenting. In the last case, it is not always easy to procure speedy extrusion. In all instances where it is detached, we can see no object in delay. At least there is no reason against gentle

tension of the cord, accompanied by compression through the abdominal walls—always taking advantage of the natural tendency to occasional spontaneous contractions of the uterus. Should this procedure be ineffectual, the good judgment of the accoucheur is to govern him in such cases. He should avoid an arbitrary rule rather than seek to conform to any such rule.

To wait twelve hours, or even six, without any interference whatever, is cowardly, not masterly inactivity. Such delay requires the constant presence of the medical attendant. He dares not leave his patient for a moment in that condition of hazardous suspense. There is always room for interference in some degree or in some form. The judgment of the obstetrician must determine the proper time and the proper degree and kind of force in each case.

Criticism and censure on the hasty delivery of the placenta abound in the obstetric literature of the day. We are of the opinion that there is but little ground for them, and that the general practice in this respect in the United States produces but a shadow of evil compared with the haste in the delivery of the child. Our advice should be, rather to trust more to nature in the latter case and less in the former.

Passage of the Ileo-cecal Valve.

Dr. Price, of Jacksonville, Illinois, long known as an enterprising and enthusiastic surgeon, described at the late meeting of the American Medical Association a "Rectal Obturator," by means of which he claims to do almost what he will with the alimentary canal, and particularly to accomplish all that a complete command of the ileo-cecal valve can effect in intestinal obstruction. In the language of the American Journal of the Medical Sciences, he thinks by its means the position of an intestinal obstruction can be ascertained, obstinate constipation relieved, alimentation carried on, anesthesia cured by alcoholic fluids, the blood diluted and the temperature reduced by passing large quantities of fluid through the emunctories; and all this by means of what the doctor calls a "stopper." It will be good news to the profession at large to learn that the problem of the passage of the valve has been solved, though nature seems determined on its prohibition. The design of the obturator is to prevent the return of fluids injected in the rectum. For this purpose an India rubber ball with

a tube passing through it is introduced and inflated, and then fluids may be forced through the tube to an indefinite extent. Three gallons may thus be forced in before the liquid begins to escape from the mouth. The editor of the journal aforesaid is quite tickled with the idea. He writes: "We are not told how much muscular force is required before fluid flows from the mouth; but any difficulty in that direction could easily be overcome by attaching a force-pump to the obturator, and we wonder that the inventor has not made the suggestion instead of leaving it to us to do so. We have never used a rectal obturator; we do not know when we shall be obliged to do so. But the active surgeon cannot in future regard his armamentarium as thoroughly equipped without a machine by which he can wash his patient out from stern to stem."

Neglect of the Study of Botany.

That medical education has made rapid strides during the last half century can not be disputed. But there is one branch of study in which the movement has been retrograde. We refer to botany. The average physician of fifty years ago knew more of botany than the average physician of the present period. In fact it may be asserted with confidence that this branch of science is less cultivated than formerly in the community at large. True, it is taught after a fashion in many schools, and frequently by incompetent teachers. But the end of the school term commonly ends all pursuit of the subject. It has been suggested that the cause of the neglect is that no pecuniary gain results from the study. Such a reason should put its proponent to shame. When men estimate knowledge by the dollar, neither their knowledge nor their judgment is of much worth. Apart from its value as a possession, a knowledge of botany is not only an accomplishment but also a source of no little intellectual enjoyment. We hope to see it cultivated more thoroughly and more extensively than now, both in connection with pharmacy and medicine, and as a department of general education.

Women in Medicine—Progress and Conservatism.

The Massachusetts Medical Society has got rid of a bone of contention by changing its constitution so as to admit female members on equal terms with male. The *Philadelphia Medical Times*, com-

menting on the procedure, is fearful of the consequences, and expresses itself in the following language, which may provoke a smile: "There seems some ground for a fear that, in a long established and wealthy community, the admission of women to the medical societies on equal terms with men will encourage a class of *dilettante* doctors—women who enter at medical schools as a relief from china-painting and South Kensington art-work and other like serious pursuits, and who receive a diploma in due course, without having any real appreciation of the dignity or duties and responsibilities of the medical degree." "In view of the difficulties which meet the question of the general admission of women to our medical societies, it might be expedient to change the standard of age and to have been at least five years in the actual practice of his (qu. ? her) profession," etc., etc.

We know nothing of the family relations of the editor of the "*Times*," but we strongly suspect that he is a misagynistic old bachelor and never enjoyed the companionship of a wife.

Urinary Analysis Made Easy.

From Parke, Davis & Co., the enterprising pharmacists of Detroit, comes a curiosity in its way, being a neat little pocket-case about three inches square and one inch in depth, containing a complete chemical laboratory for the examination of the urine at the bed-side, sufficient for all clinical purposes. The apparatus consists of test papers, tubes and pipette, with full instructions for their use, in accordance with suggestions made by Dr. G. Oliver, of Harrowgate, Eng., in the *London Lancet*, February 3d, 1883, and by Dr. C. W. Purdy in the *Journal of the American Medical Association*, June 10th, 1884. One of the tubes contains six little glass balls, the floating of a lesser or greater number of which determines the specific gravity of the urine. There are also spaces differently colored to correspond with different appearances of urine. The test papers are arranged with marvelous compactness and neatness, several hundred slips being so arranged and labeled as to indicate their chemical character and their mode of application in determining the presence of sugar and albumen. By these methods the qualitative analysis is made easy and complete, and the quantitative sufficiently exact for practical purposes. Enclosed in the case are the most ample instructions to the analyzer, and quite a compend of valuable information besides. We think

practitioners in general will find the pocket-case valuable in saving time and trouble and greatly facilitating their labors in the examination of urine. The package of test papers with required instructions is put up separately also and sold for fifty cents.

Death of Bishop Simpson.

This almost idol of the Methodist Episcopal Church, died recently in Philadelphia in his 73d year. He began his active life by the study of medicine, and practiced for several years before entering his remarkable career in the service of the church. The study of medicine may well boast of the very large proportion of men who have entered through its portals into the various departments of science and useful pursuit and attained the highest places within reach of human effort. Farther than this, Bishop Simpson is an illustration among many others that might be adduced, showing that the study and practice of medicine, instead of blunting the human instincts and promoting unbelief, has a humanizing tendency leading to the recognition of the highest relations of man: in short, whilst the physician's life and experience are hostile to the superstition and proscription often cherished under the name of religion, they promote liberal views and charitable conduct, and tend to develop that important element of the human character, the religious instinct.

Mortality in San Francisco for June.

Through the kindness of Dr. Hodgdon, Assistant Secretary Health Department, we have a report of the deaths in San Francisco for June. The whole number was 386, which is a smaller mortality than usual. There were 54 deaths from phthisis, equal to one-seventh of the entire number. Next to consumption the highest figure is 27 attaching to disease of the heart. Enteritis had 19, pneumonia 18, apoplexy and paralysis 18, cancers the enormous number of 17, typhoid fever 10. Two deaths are charged to measles, two to diphtheria, and none to scarlatina. The number of violent deaths was 18. In public institutions 88 died. A single death is noted from puerperal fever, and to this designation metro-peritonitis is added. Cholera morbus makes

no appearance, notwithstanding the fruit deluge. Five from premature birth and 21 still births form too great a mortality in the budding stage of existence.

TWO BOGUS COLLEGES OUTLAWED.—By a final decision of the Court of Appeals, the "United States Medical College" (Eclectic) has been deprived of its charter. The "Buffalo College of Physicians and Surgeons" goes by the board under the same decision. Both were of the Bogus species.

SNUFF-DIPPING is said to be extensively practiced by women in New England, particularly by factory girls. We supposed the filthy practice had become obsolete in civilized regions.

Notices of Books, Pamphlets, Etc.

Official Report of the relief furnished to the Ohio River flood sufferers, Evansville, Ind. to Cairo, Ills. &c. By R. P. F. AMES, M. D., Assistant Surgeon U. S. Me. Hosp. Service, Evansville, Ind.

A general history of the great flood of February and March, 1884, is given, with the presumed causes. These are, in addition to the large rainfall, the removal of forests, and the drainage of immense surfaces of swamp and other lands, which prevents the absorption of rain by the soil. The writer predicts repetitions of floods, and proposes various remedies, such as restoring the forests, deepening the channel of the Ohio river, and cutting a canal so as to drain off the surplus water more rapidly into the Mississippi river. The history of the various measures adopted for the relief of the sufferers is quite interesting.

On Infant Foods. A lecture by PROF. ALBERT B. WEEDS, Ph.D., of the Stevens Institute of Technology, Hoboken, N. J. (*Med. News*).

This lecture was delivered before the College of Physicians of Philadelphia, and is founded on the rational assumption that the mother's milk is the natural food of infants. An exact analysis of this is applied to artificial foods and preference given to those preparations most nearly resembling it. It is claimed for Mellin's Food that it comes up to this standard.

Students' Manual of Electro-Therapeutics, embodying lectures delivered in the course on Therapeutics at the Womens' Medical College of the New York Infirmary. By R. W. AMIDON, M.D., Secretary Amer. Neurological Association, &c. &c., N. York, G. P. Putnam's Sons.

The design of this neat little volume of 90 pages is, according to the author, to impart the knowledge necessary for the construction and use of medical batteries—to point out the more common physiological effects of electricity—to outline the method of electro-diagnosis—and to determine the kind of electricity and its mode of application in different cases. If this can be done in the limited compass of 90 pages, it will give great relief to practitioners who have had to handle the ponderous volumes previously written. For sale by Bancroft & Co., San Francisco.

Quarantine and Sanitary Operations of the Board of Health of the State of Louisiana, during 1880, '81, '82 and '83. By JOSEPH JONES, M.D., President of the Board.

For industry and work in health affairs Dr. Jones is almost without a rival, as is attested by this pamphlet of 400 pages, filled with information medical, statistical, administrative, sanitary, topographical, agricultural, &c. A minute history is given of the origin of yellow fever in New Orleans, and the means adopted to prevent its dissemination.

The Pathology, Diagnosis and Treatment of Diseases of the Rectum and Anus. By CHARLES B. KELSEY, M.D., Surgeon to St. Paul's Infirmary for Diseases of the Rectum, &c. &c. With two chromo-lithographs and nearly 100 illustrations. New York, W. Wood & Co. 1884. San Francisco, A. L. Bancroft & Co.

Several years ago the first edition of Dr. Kelsey's book was published as one of Wood's series of Standard Medical Works. The present issue is much improved and as nearly perfected as the present condition of our knowledge on the subject will admit. We have no doubt that it is the best accessible treatise in its department.

Proceedings of the American Pharmaceutical Association, at the 31st Annual Meeting, held at Washington, D. C., September, 1883.

This report exhibits the evidences of industry and research which have characterized the former issues. The report on the progress of pharmacy by C. Lewis Diehl, of Louisville, Ky., oc-

cupies nearly 300 pages and bears the impress of a master hand. We design making some future use of the contents of the volume.

Auscultation, Percussion and Urinalysis. An Epitome of the Physical Signs of the heart, lungs, liver, kidneys and spleen in health and disease. Edited by C. HENRI LEONARD, M.D., Professor of Diseases of Women, &c. Michigan College of Medicine.

A little book of 166 pages, filled with a condensed view of the subjects mentioned, to which is added a brief account of bacteria, bacilli, and other microscopic organisms. Dr. Leonard has packed it "as full as an egg is of meat."

Notes on the Opium Habit. By ASA P. METLEET, M.D., New York. Published by G. P. Putnam's Sons.

A paper read before the Harlem Medical Association. It contains many important facts pertinent to the subject, particularly in regard to the experience of the writer in the treatment of the habit.

Quarterly Epitome of American Practical Medicine and Surgery, collateral to Braithwaite's Retrospect, Part 18, June 1884, W. A. Townsend, Publisher, New York.

An excellent number, containing nearly 150 articles, selected from American sources.

Womens' Medical College of Pennsylvania, 35th Annual Announcement, 1884-5.

This institution appears to be in a flourishing condition. The list of matriculates numbers 130, and of graduates at the last term 26.

Tenth Annual Register of Pierce Christian College, College City, Colusa Co. Cal. With Course of Study, &c., for 1884-5.

This is a prosperous institution, under the presidency of Albert Fouch, M.D.

Peroxide of Hydrogen in suppurative Conjunctivitis and Mastoid Abscesses, with a report of two cases. By A. E. PRINCE, M.D., Jacksonville, Ill. (*St. Louis Med. and Surg. Journal*).

Announcements.—Medical Department Univ. of Louisville, 1884-5. Forty Eighth Session.

Medical Department Univ. of Louisiana, 51st Session, 1884-5.

Address on Practical Medicine. By JOHN V. SHOEMAKER, M.D., Chairman, &c. (*Jour. Amer. Med. Association*).

Deterioration of the Puritan Stock and its Causes. By JOHN ELLIS, M.D., New York, published by the author.

Annual Address delivered before the American Academy of Medicine, by HENRY O. MARCY, M.D., President. From the Author.

Arrest of Developement, caused by Intra-Uterine pressure. By H. F. HENDRIX, M.D., Lecturer on Obstetrics, &c. (*St. Louis Med. and Surg. Jour.*)

Annual Address to the Med. Society of the State of California, by IRA E. OATMAN, M.D., President. (*Trans. Cal. State Society*).

Peroxide of Hydrogen in Diphtheria. By R. J. NUNN, M. D. Savannah, Geo.

Address by Washington Ayer, M.D., before the California Pioneers, advocating certain amendments in the Constitution and By-Laws of the Society.

Selections and Abstracts.

THE LIFE-WORK OF PASTEUR.

By HIS SON-IN-LAW.

Louis Pasteur passed his childhood in a small tannery which his father had bought in the city of Arbois, in the department of the Jura, to which he removed from the ancient city of Dole, in the same department, where he was born. When Louis became of suitable age, he was sent to the communal school, and was so proud of the fact that, though he was the smallest of the pupils, he went on the first day with his arms full of dictionaries away beyond his years. He does not appear, as yet, to have been a particularly diligent student. He was as likely to be found drawing a portrait or a sketch—and the walls of several Arboison houses bear testimonies of his skill in this art—as studying his lesson, and to go a hunting or a fishing as to take the direct way to the school. Yet the principal of the college was

From a volume under this title, translated from the French by Lady Claude Hamilton. In press of D. Appleton & Co. The present article is translated and abridged directly from the French by W. H. Larabee.

ready to predict that it was no small school like this one, but some great royal institution, that was destined to enjoy his services as a professor. As there was no Professor of Philosophy in the college at Arbois, young Pasteur went to Besancon to continue his studies. Here, in the chemistry class, he so vexed Professor Darlay with his frequent and searching questions, that the old gentleman was disconcerted, and declared it was his business to question the pupil, not Pasteur's to question him. Pasteur then had resource to a pharmacist in the town who had gained some distinction in science, and took private lessons in chemistry from him. He fared better at the *École Normale*, where he had Balard for a teacher, and also enjoyed the instructions of Dumas, with whom he formed a life-long friendship at the Sorbonne.

Pasteur's first important investigation was suggested at about this time, by an observation of Mitscherlich, the German mineralogist, of a difference in the behavior towards polarized light of the crystals of paratartrate of soda and ammonia and tartrate of soda and ammonia, bodies identical in composition and external form and other properties. Pasteur discovered differences in the form of the crystals and the molecular structure of the two bodies that had escaped detection, and was led to consider that all things may be divided into two categories: those having a plane of symmetry—that is, capable of being divided so that the parts on either side of the plane of division shall be equal and identical—or symmetrical bodies; and dissymmetrical bodies, or those not capable of being so divided. Occupied with the idea that symmetry or dissymmetry in the molecular arrangement of any chemical substance must be manifested in all its properties capable of showing the quality, he pursued his investigations till he reached the conclusion that an essential difference in properties as to symmetry exists between mineral and dead matter and matter in which life is in course of development, the former being symmetrical, the latter unsymmetrical.

Pasteur's wedding-day came on while he was engaged in this investigation. He went, not to the marriage feast, but to his laboratory, and had to be sent for when all was ready.

With his observing powers quickened by his studies of symmetry and dissymmetry, Pasteur went to the researches with which his life has been identified, beginning with his studies in

fermentation. Liebig's theory, that fermentation is a change undergone by nitrogenous substances under the influence of the oxygen of the air, ruled at the time, and the observations of Schwann and Cagniard-Latour on the yeast-plant were overlooked or regarded as exceptional. M. Pasteur continued the investigation of the alcohol-producing yeast-plant, and cultivating it in suitable solutions, proved that it possessed organizing power ample to account for the phenomena. He found a similar organism—minute cells or articulations narrowly contracted in the middle—active in the lactic fermentation, capable of cultivation; and another organization, vibrion, full of motion, living singly or in chains, working in the butyric fermentation.

The butyric vibrion was found to work quite as vigorously and with as much effect when no air was added to the decoctions, and in fact to perish with a stoppage of the formation of butyric acid when air was too freely supplied. Reverting to the development of the yeast-plant and the alcoholic fermentation, he found that they also went on best when free air was excluded. Thus, Liebig's dictum, that fermentation is the result of the action of oxygen, must be reversed or abandoned. The organisms working these processes were given the class-name of *anaerobes*, or beings that live without air. The French Academy's impressions of the results of Pasteur's work were spoken by Dumas, who said to him, "In the infinitely little of life you have discovered a third kingdom to which belong those beings which, with all the prerogatives of animal life, have no need of air to live, and find the heat they require in the chemical decompositions they provoke around them." The place of the organisms in the economy of Nature had not yet been fixed, but Pasteur was able to declare: "Whether the progress of science makes the vibrion a plant or an animal, is no matter; it is a living being endowed with motion, that lives without air and is ferment." It would be mere repetition to follow the experiments in putrefaction, where Liebig had denied that living organisms have any place, into which Pasteur carried the same methods and obtained the same results as in the case of fermentation. He proved that living organisms have all to do with it.

After M. Pasteur had been collecting his proofs for twenty years, Dr. Bouillaud sharply asked in the Academy: "How are your microscopic organisms disposed of? What are the ferments of the ferments?" He, as well as Liebig, believed the question

could not be answered. Pasteur proved, by a series of the parallel experiments of the kind that have since become familiar, that oxygen deprived of its germs is incapable of producing fermentation or putrefaction, even after years, while the same substances are acted upon at once if the germs are present; and then answered that the ferments are destroyed by a new series of organisms—*ærobes*—living in the air, and these by other *ærobes* in succession, until the ultimate products are oxidized. “Thus, in the destruction of what has lived, all is reduced to the simultaneous action of the three great natural phenomena—fermentation, putrefaction, and slow combustion. A living being, animal or plant, or the *débris* of either, having just died, is exposed to the air. The life that has abandoned it is succeeded by life under other forms. In the superficial parts accessible to the air, the germs of the infinitely little *ærobes* flourish and multiply. The carbon, hydrogen, and nitrogen of the organic matter are transformed, by the oxygen of the air and under the vital activity of the *ærobes*, into carbonic acid, the vapor of water and ammonia. The combustion continues as long as organic matter and air are present together. At the same time the superficial combustion is going on, fermentation and putrefaction are performing their work, in the midst of the mass, by the means of the developed germs of the *anærobes*, which not only do not need oxygen to live, but which oxygen causes to perish. Gradually the phenomena of destruction are at last accomplished through the work of latent fermentation and slow combustion. Whatever animal or vegetable matter is in the open air or under the ground, which is always more or less impregnated with air, finally disappears. The processes can be stopped only under an extremely low temperature, . . . in which the microscopic organisms can not flourish. These facts come in to fortify the still new ideas of the part which the infinitely little play as masters of the world. If their work, always latent, were suppressed, the surface of the globe, overloaded with organic matters, would become uninhabitable.”

Pasteur extended his observations to the acetic fermentation, or conversion of alcohol into vinegar, in which he found an organism, the *Mycoderma aceti* actively promoting a process of oxidation. Liebig had attributed this fermentation, also, to the presence of an albuminoid body in process of alteration, and capable of fixing oxygen. He knew of the plant called “mother,”

but regarded it as an outgrowth of the fermentation, and in no sense the cause. Pasteur proved, by experiments that left no room for doubt—the prominent characteristic feature in all his investigations—that the plant is the real agent in producing the fermentation. He eliminated from his compositions the albuminoid matter, which Liebig had declared to be the active agent, and replaced it with crystallizable salts, alkaline phosphates, and earths; then, having added alcoholized water, slightly acidulated with acetic acid, he saw the mycoderm develop, and the alcohol change into vinegar. Having tried his experiments in the vinegar-factories at Orleans, he became so sure of his position that he offered to the Academy, in one of his discussions, to cover with the mycoderm, within twenty-four hours, from a few hardly-visible sowings, a surface of vinous liquid as extensive as the hall in which they were meeting.

Liebig allowed ten years to pass after Pasteur's investigations, and then published a long memoir traversing his conclusions. Pasteur visited Liebig at Munich, in 1870, to discuss the matter with him. The German chemist received him courteously, but excused himself from the discussion, on the grounds of a recent illness. The Franco-German War came on; but, as soon as it was over, Pasteur invited Liebig to choose a committee of the Academy, and furnish a sugared mineral liquid. He would produce in it, before them all, an alcoholic fermentation in such a way as to establish his own theory and contradict Liebig's. Liebig had referred to the process of preparing vinegar by passing diluted alcohol through wooden chips, as one in which no trace of mycoderm could be found, but in which the chips appeared perfectly clean after each operation. It was, in fact, impossible that they should be any mycoderm, because there was nothing on which it could be fed. Pasteur replied to this: "You do not take account of the character of the water with which the alcohol is diluted. Like all common waters, even the purest, it contains ammonical salts and mineral matters that can feed the plant, as I have directly demonstrated. You have, moreover, not carefully examined the surface of the chips with the microscope. If you had, you would have seen the little articles of the *Mycoderma aceti*, sometimes joined into an extremely thin pellicle that may be lifted off. If you will send me some chips from the factory at Munich, selected by yourself in the presence of its director, I will, after drying them quickly in a

stove, show the mycoderm on their surface to a committee of the Academy charged with the determination of this debate." Liebig did not accept the challenge, but the question involved has been decided.

The experiments in fermentation led by natural steps to the debate on spontaneous generation, in which Pasteur was destined to settle a question that had interested men every since they lived. The theory that life originates spontaneously from dead matter had strong advocates, among the most earnest of whom was M. Pouchet. He made a very clear presentment of the question at issue, saying: "The adversaries of spontaneous generation assume that the germs of microscopic beings exist in the air and are carried by it to considerable distances. Well! what will they say if I succeed in producing a generation of organized beings after an artificial air has been substituted for that of the atmosphere?" Then he proceeded with an experiment in which all his materials and vessels seemed to have been cleansed of all germs that might possibly have existed in them. In eight days a mold appeared in the infusion, which had been put boiling-hot into the boiling-hot medium. "Where did the mould come from," asked M. Pouchet, triumphantly, "if it was not spontaneously developed?" "Yes," said M. Pasteur, in the presence of an enthusiastic audience, for Paris had become greatly excited on the subject, "the experiment has been performed in an irrefragable manner as to all the points that have attracted the attention of the author; but I will show that there is one cause of error that M. Pouchet has not perceived, that he has not thought of, and no one else has thought of, which makes his experiment wholly illusory. He used mercury in his tub, without purifying it, and I will show that that was capable of collecting dust from the air and introducing it to his apparatus." Then he let a beam of air into the darkened room and showed the air full of floating dust. He showed that the mercury had been exposed to atmospheric dust every since it came from the mine, and was so impregnated and covered with it as to be liable to soil everything with which it came in contact. He instituted experiments similar to those of M. Pouchet, but with all the causes of error that had escaped him removed, and no life appeared. The debate, which continued through many months, and was diversified by a variety of experiments and counter-experiments, was marked by a number of dramatic passages and

drew the attention of the world. M. Pasteur detected a flaw in every one of M. Pouchet's successful experiments, and followed each one with a more exact experiment of his own, which was a triumph for his position. Having shown, by means of bottles of air collected from different heights in a mountain-region, that the number of germs in the air diminishes with the elevation above the earth, and that air can be got free from germs and unproductive, M. Pasteur asserted decisively: "There is no circumstances now known that permits us to affirm that microscopic beings have come into the world without germs, without parents like themselves. Those who affirm it have been victims of illusions, of experiments badly made, and infected with errors which they have not been able to perceive or avoid. Spontaneous generation is a chimera." M. Flourens, Perpetual Secretary of the Academy, said: "The experiments are decisive. To have animalcules, what is necessary, if spontaneous generation is real? Air and putrescible liquids. Now, M. Pasteur brings air and putrescible liquids together, and nothing comes of it. Spontaneous generation, then, is not. To doubt still is not to comprehend the question." There were, however, some who still doubted, and to satisfy them M. Pasteur offered, as a final test, to show that it was possible to secure, at any point, a bottle of air containing no germs, which would, consequently, give no life. The Academy's committee approved the proposition; but M. Pouchet and his friends pleaded for delay, and finally retired from the contest.

The silk-raising industry of the south of France was threatened with ruin by a disease that was destroying the silk-worms, killing them in the egg, or at a later stage of growth. Eggs, free from the disease, were imported from other countries. The first brood flourished, but the next ones usually fell victims to the infection, and the malady spread. All usual efforts to prevent it or detect its cause having failed, a commission was appointed to make special investigations, and M. Pasteur was asked to direct them personally. He did not wish to undertake the work, because it would withdraw him from his studies of the ferments. He, moreover, had never had anything to do with silk-worms. "So much the better," said Dumas. "You know nothing about the matter, and have no ideas to interfere with those which your observations will suggest." Theories were abundant, but the most recent and best authorities agreed.

that the diseased worms were beset by corpuscles, visible only under the microscope. He began his investigations with the idea that these corpuscles were connected with the disease, although assurances were not wanting that they also existed in a normal condition of the silk-worm. M. Pasteur's wife and daughters, and his assistants in the normal school, associated themselves with him in the studies, and became, for the time, amateur silk-raisers. He studied the worms in every condition, and the corpuscles in every relation, for five years. He found that there were two diseases—the contagious, deadly *pébrine*, the work of the corpuscles, and *flachery*, produced by an internal organism; and “became so well acquainted with the causes of the trouble and their different manifestations that he could, at will, give *pébrine* or *flachery*. He became able to graduate the intensity of the disease, and make it appear at any day and almost at any hour.” He found the means of preventing the disorders, and “restored its wealth to the desolated silk district.” The cost of this precious result was a paralysis of the left side, from which he has never fully recovered.

As early as 1860 M. Pasteur expressed the hope that he might “be able to pursue his investigations far enough to prepare the way for a more profound study of the origin of diseases.” Reviewing, at the conclusion of his “Studies on Beer,” the principles which had directed his labors for twenty years, he wrote that the etiology of contagious diseases was, perhaps, on the eve of receiving an unexpected light. Robert Boyle had said that thorough understanding of the nature of fermentation and ferments might give the key to the explanation of many morbid phenomena. The German doctor, Traube, had in 1864 explained the ammonical fermentation of urine by reference to Pasteur's theory. The English surgeon, Dr. Lister, wrote in 1874 to Pasteur that he owed to him the idea of the antiseptic treatment of wounds which he had been practicing since 1865. Professor Tyndall wrote to him, in 1876, after having read his investigation for the second time: “For the first time in the history of science we have a right to entertain the sure and certain hope that, as to epidemic diseases, medicine will shortly be delivered from empiricism and placed upon a really scientific basis. When that great day shall come mankind will, in my opinion, recognize that it is to you that the greatest part of its gratitude is due.”

The domestic animals of France and other countries had been

subject to a carbuncular disease, like the malignant pustule of man, which took different forms and had different names in different species, but was evidently the same in nature. A medical commission had, between 1849 and 1852, made an investigation of it, and found it transmissible by inoculation from animal to animal. Drs. Davaine and Rayer had, at the same time, found in the blood of the diseased animals minute filiform bodies, to which they paid no further attention for thirteen years, or till after Pasteur's observations on fermentation had been widely spread. Then Davaine concluded that these corpuscles were the source of the disease. He was contradicted by MM. Jaillard and Leplat, who had inoculated various animals with matter procured from sheep and cows that had died of the disease without obtaining a development of the bodies in question. Davaine suggested that they had used the wrong matter, but they replied that they had obtained it direct from an unmistakable source. Their views were supported by the German Dr. Koch and M. Paul Bert. At this point, M. Pasteur stepped in and began experiments after methods which had served him as sure guides in his studies of twenty years. They were at once simple and delicate. "Did he wish, for example, to demonstrate that the microbe-ferment of the butyric fermentation was also the agent in decomposition? He would prepare an artificial liquid, consisting of phosphate of potash, magnesia, and sulphate of ammonia, added to the solution of fermentable matter, and in the medium thus formed would develop the microbe-ferment from a pure sowing of it. The microbe would multiply and provoke fermentation. From this liquid he would pass to a second and then to a third fermentable solution of the same composition, and so on, and would find the butyric fermentation appearing in each successively. This method had been sovereign in his studies since 1857. He now proposed to isolate the microbe of blood infected with carbuncle, cultivate it in a pure state, and study its action on animals." As he was still suffering from a partial paralysis, he employed M. Joubert to assist him and share his honors. In April, 1877, he claimed before the Academy of Sciences that he had demonstrated, beyond the possibility of a reply, that the bacillus discovered by Davaine and Rayer in 1850 was in fact the only agent in producing the disease. It still remained to reconcile the facts adduced by Messrs. Jaillard and Leplat with this assertion. The animals which they had

inoculated died, but no bacteria could be found in them. M. Paul Bert, in similar experiments, had found a disease to persist after all bacteria had been destroyed. An explanation of the discrepancy was soon found.

The bacteria of carbuncle are destroyed as soon as putrefaction sets in. The virus with which these gentlemen had experimented was taken from animals that had been dead twenty-four hours and had begun to putrefy. They had inoculated with putrefaction, and produced septicæmia instead of carbuncle. All the steps in this line of argument were established by irrefragable proof. M. Pasteur afterwards had a similar controversy with some physicians of Turin, at the end of which they shrank from the test experiment he offered to go and make before them. "Remember," shortly afterward said a member of the Academy of Sciences to a member of the Academy of Medicine, who was going—in a scientific sense—to "choke" M. Pasteur, "M. Pasteur is never mistaken."

Having discovered and cultivated the microbe that produces hen-cholera, Pasteur turned his attention to the inquiry whether it would be possible to apply a vaccination to the prevention of these terrible diseases of domestic animals. He found that he could transplant the microbe of hen-cholera to an artificially prepared medium and cultivate it there, and transplant it and cultivate it again and again, to the hundredth or even the thousandth time, and it would retain its full strength—provided too long an interval was not allowed to elapse between the successive transplantations and cultures. But if several days or weeks or months passed without a renewal of the medium, the culture being all the time exposed to the action of oxygen, the infection gradually lost in intensity. A virus was produced of a strength that would make sick, but not kill. Hens were inoculated with this, and then, after having recovered from its effects, with virus of full power. It made them sick but they recovered. A preventive of hen cholera had been found. In the experiments upon the feasibility of applying a similar remedy to carbuncular diseases, it was necessary to ascertain whether or not animals which had once been stricken with the disease, were exempt from liability to a second attack. The investigator was met at once by the formidable difficulty that no animals were known to have recovered from a first attack, to serve as subjects for trial. A fortunate accident in the failure of another investigator's experi-

ment gave M. Pasteur a few cows that had survived the disease. They were inoculated with virus of the strongest intensity, and were not affected. It was demonstrated, then, that the disease would not return. M. Pasteur now cultivated an attenuated carbuncle-virus, and, having satisfied himself that vaccination with it was effective, declared himself ready for a public test-experiment. Announcing his success to his friends, he exclaimed in patriotic self-forgetfulness, "I should never have been able to console myself, if such a discovery as I and my assistants have just made had not been a French discovery!"

Twenty-four sheep, a goat, and six cows were vaccinated, while twenty-five sheep and four cows were held in reserve, unvaccinated, for further experiment. After time had been given for the vaccination to produce its effect, all of the animals, sixty in number, were inoculated with undiluted virus. Forty-eight hours afterward, more than two hundred persons met in the pasture to witness the effect. Twenty-one of the unvaccinated sheep and the goat were dead, and two more of the sheep were dying, while the last one died the same evening; the unvaccinated cows were suffering severely from fever and oedema. The vaccinated sheep were all well and lively, and the vaccinated cows had neither tumor nor fever of any kind, and were feeding quietly. Vaccination is now employed regularly in French pastures; five hundred thousand cases of its application had been registered at the end of 1883; and the mortality from carbuncle has been reduced ten times.

There is no need to follow M. Pasteur in his further researches in the *rouget* of pork, in boils, in puerperal fever, in all of which, with other maladies, he has applied the same methods with the same exactness that have characterized all his work. His laboratory at the Ecole Normale is a collection of animals to be experimented upon—mice, rabbits, Guinea-pigs, pigeons, and other suitable subjects, with the dogs upon which he is now studying hydrophobia most prominent. There is nothing cruel in his work. His inoculations are painless, except as the sickness they induce is a pain, and the suffering they cause is as nothing compared with that which they are destined to save. On this subject he himself has remarked in one of his lectures: "I could never have courage to kill a bird in hunting; but, in making experiments, I have no such scruples. Science has a right to invoke the sovereignty of the end."

What he has done, M. Pasteur regards as only the beginning of what is to be accomplished in the same line. "You will see," he has sometimes said, "how this will grow as it goes on. Oh, if I only had time!"—*The Popular Science Monthly*.

The Milk-Treatment of Disease.

In a rather extended experience with this treatment Dr. Tyson (*Journal American Medical Association*) has met with encouraging results in the following conditions:

1. In diabetes mellitus he has found no measure so efficacious as the dietetic and, of the dietetic, none so prompt as the exclusive skimmed milk regimen. The milk gives the crippled organs, especially the liver, more complete rest than any other food, thus allowing "the reparative tendency of nature to assert itself."

2. In certain forms of calculous disease. He has yet to see a case of uric acid gravel in which, sooner or later, the persistent use of milk did not cause entire disappearance of the deposit. He found signal benefit from it in a case of nephritic colic. It may also obviate the oxalate of lime tendency, but will not dissolve the deposit. In phosphatic calculus it is rather contra-indicated because it has a tendency to alkalinize the urine.

3. In Bright's Disease it has accomplished good. It is especially indicated in the contracted kidney of interstitial nephritis, causing frequently a rapid disappearance of nausea, vertigo, headache and other symptoms. In parenchymatous nephritis and in amyloid kidney it has proved less useful, but often does good by "producing diuresis and relieving dropsies."

4. In gastro-intestinal disease, ordinary dyspepsia is sometimes signally relieved. In gastric ulcer, the use of no other food than peptonized milk should be permitted. We may expect "the most satisfactory results" from its use in bowel affections, especially of the large intestine.

5. In obesity it has given most satisfactory results, reducing the weight consistently with health. It seems to do this by making the system call upon its stored-up subcutaneous fat for oxidizable material, the milk furnishing very little of this itself.

To sum up: milk is highly useful in disease, especially those mentioned, because it is non-irritating, leaves little waste and makes the smallest demand upon the digestive function.

Skimmed milk is preferable in diabetes and some other affections, because it is more assimilable than milk with cream. Some objections to its use have been urged, as that it sometimes causes indigestion, flatulence and constipation. The addition of lime water will do away with the first two objections, a mild laxative will obviate the latter.

The milk is to be given as follows: Four ounces every two hours from 7 A. M., to 9 P. M., at first. This, of course, will be insufficient. It is to be increased afterwards to six, eight or more ounces every two hours, until the quantity is from five to ten pints in two to four hours, according to the needs of the patient. The quantity may be increased by giving some at night. After a varying time other food may be tentatively given until it is found that it does not cause symptoms to reappear.—*Exchange.*

Medical Use of Peroxide of Hydrogen.

Peroxide of hydrogen was first introduced as a medicine by Dr. Richardson in 1858. Not even water itself is capable of the extensive application in medicine and surgery which can be made of this substance. It will disinfect the air, the secreta and excreta, supply oxygen for respiration, purify and cleanse the skin and hair; it can be applied with advantage to simple and specific sores and ulcers, to sinuses of various kinds, to pyogenic membranes in all situations, to lymphous, aphthous and pseudo-membranous deposits everywhere, and wherever bacterial life is to be destroyed internally and externally. In fact, in ways too numerous to mention, but suggested by a knowledge of its wonderful properties, this substance has during the past four years done me good service. The fact that it yields up its oxygen with the greatest ease, and at the same time leaves behind it no corrosive or irritating substance, nothing but pure water—this is the key to its proper employment in medicine.—*Dr. R. J. Nunn, Savannah, Ga.*

Biblical Disinfection.

—We are indebted to Dr. S. Solis-Cohen for a careful translation of the directions given in Leviticus (Chap. XIV) for dealing with infected places, which is interesting reading in comparison with some of the modern views on the same subject.

“When you shall come into the land of Canaan, which I have given you for a possession, and it happen that I should put the

plague of leprosy* on a house of the land of your possession, the owner of the house shall report to the priest, "something like a plague has appeared in my house."

The priest shall order the house to be emptied of its contents before he comes to look at the plague, in order that these may not be rendered unclean.† After that, he shall visit the house; if he finds there is a plague in the walls of the house, as shown by sunken places, greenish or reddish; the discoloration appearing to be below the general level of the wall (*i. e.*, in the stone?); he shall leave the house and see that it is shut up for seven days. On the seventh day he shall return and re-examine the premises. Should the plague have spread in the walls of the house, the priest shall order all the infected stone to be removed; and they shall be cast on an unclean place, *beyond* the limits of the city. *The entire interior surfaces of the walls shall be scraped, and the rubbish shall likewise be cast without the city, on an unclean place. The stones removed shall be replaced by new stones, and the house shall be re-plastered. Then, if the plague return and propagate itself in the house after the stones have been removed, and after the house has been scraped, and after it has been re-plastered, the priest shall come and examine it again, and if he find that the plague has spread in the house, it is a destructive leprosy—the whole house is contaminated. They shall tear the house down; its stones, its timbers and all its plaster; everything shall be cast out beyond the city.*

If any one should enter the house during the time that it is shut up, he will be contaminated until evening.‡

Whoever eats in the house shall wash his clothing; whoever lies down in the house shall wash his clothing.

If, after the house has been re-plastered, the priest should find that the plague does not reappear, he shall pronounce the house clean; the leprosy is healed." (In other words, disinfection is complete.)—*The Polyclinic.*

* Leprosy, here, is a general term to indicate infectious disease, not necessarily *lepra*.

† Religiously so, by his dictum; depriving the family unnecessarily of their clothing, household utensils, etc.

‡ For those who were unclean (*Tamé*) "until evening," certain rules of purification existed, which had to be carried out before they could be restored to the society of family and friends. Except for this limitation "until evening," their isolation would have had no definite termination. Hence the restriction.

The Ethical Codes.

In regard to the ethics of the profession, I wish to have placed on record that I am opposed to any important change in the established Code of the American Medical Association. The change adopted by the New York State Medical Society, is a compromise between science and fiction. It lowers the standard of regular scientific medicine, and elevates the irregular and unscientific to meet on common ground—ground on which we never can affiliate or harmonize in the interests of science or of suffering humanity. The immutable principles of science know no compromise with ignorance or cupidity, how much so ever they may be reinforced by numbers and influence. The exalted and well earned eminence of regular scientific medicine rests upon a solid foundation, as of adamant, which cannot be moved. Regular medicine can no more affiliate and consult with irregular, than the religionists of the Bible can consult in the interests of their churches with Mohammedans or idolatrous, pagan priests. Irregular and unscientific practice will have its votaries and patrons. As correct knowledge increases and the inefficiency of the unscientific becomes more generally known, it will be self regulating—the chief inspiration of its votaries being sordid cupidity. Scientific progress and reform may move slowly, but “truth is mighty, and will prevail.” The public mind is sufficiently observant and logical, if *scientific facts* involved could be demonstrated before them.—*Dr. Oatman's Address to Cal. State Medical Society.*

Bleaching by Electric Light Rays.

MM. Depierre and Clouet have communicated to the Industrial Society of Mulhouse some experiments upon the bleaching action of rays of solar and electric light upon colors printed upon calico. The electric light bleaches as does the solar light. All colors of rays bleach, but not equally. The bleaching takes place either in the air or in vacuum. The yellow rays are the least active, and the red rays the most active. Of all artificial lights the electric light is the most active.—*Textile Recorder.—Electrician.*

MEDICAL JOURNALISM IN THE U. STATES.—The Peoria Medical Monthly says that Dr. Leartus Connor, in an address to the Association of Medical Editors at the late meeting in Washington, stated that since 1797, 509 journals of all schools have been started

of which 373 have expired, leaving 136 now extant. Since 1879, 129 regular journals have been started, of which 5 issued but one number, 25 failed to complete the first volume, 37 failed at the end of the first volume, and 49 fell short on the second volume. Dr. Connor further stated that medical journalism is just now passing through an epidemic of cheap journals, cheap in every sense—cheap in price from \$1.00 to nothing, cheap in make-up, in paper, in press-work, in editorial work, in contributed articles. The cheap epidemic he thinks will soon pass by, and medical men will be willing to pay what a journal is worth.

A GARGLE OF STRONG BLACK TEA is the fashionable preventive of sore throat in London, to be used night and morning. Hot water by the quart or gallon is running away.

THE MICROCOCCI OF PNEUMONIA have been discovered under the floor of a prison by a Prussian microscopist. The next discovery will be the micrococcus figmenti imagonis, which is awfully all-pervading.

THE SISTERS OF CHARITY were expelled as nurses from the Paris hospitals some time ago. A recent report complains of the enormous increase of expenditures since that event. One patient was receiving, besides his regular diet, which included a pint of ordinary wine, three pints of wine and eight ounces of rum.

AN EFFECTUAL ANAPHRODISIC (*Cincinnati Lancet and Clinic*) is said to be 10 drops tincture of digitalis three times a day, repeated and increased if necessary.

OINTMENT OF VERATRIA, 2 grains to 1 ounce, is said to be an efficient remedy for pruritus, when that affection is limited to particular regions.—*N. Y. Med. Record*.

ONE THOUSAND DEAD BODIES were lately removed from one part of Mechanics' Cemetery, in Philadelphia, to other parts of the same cemetery, on account of the opening of a street. The work required three months. No disease befel the workmen nor the residents of the neighborhood.

THE EIGHTH INTERNATIONAL CONGRESS is to be held in Copenhagen, August 10th to 16th. German, French, and English are the languages to be used. The language of Denmark is excluded.

IS IT HONEST?—The *St. Louis Medical and Surgical Journal* is an old and well established monthly. The eclectics have just started a journal in that city with the title of the *St. Louis Medical Journal*. The eclectics appear to be growing ashamed of their distinctive titles, and are willing to steal from the regular profession what they cannot obtain honestly.

TO PREVENT CONCEPTION.—According the *Australian Medical Gazette*, the natives of Central Australia have a method of preventing conception which we recommend to advertising quacks and dealers in “preventives” on the Pacific Coast. It is to make an opening in the male urethra anterior to the scrotum, or to slit open the urethra in its entire length.

WHAT IS AN ECLECTIC?—The *New Orleans Medical*, and some other Eastern journals, have been worrying over a definition for “Eclectic,” as applied in medicine, but without success. Some one suggests that it should be spelled “Rejectic.”

DR. T. GAILLARD THOMAS divides the American women into two classes; one class comprising those women who desire above all things to become pregnant, and the other those who are anxious above all not to bear children.

THE ashes of Prof. S. D. Gross weighed seven pounds. They were enclosed in a marble urn about three feet high, unornamented and without inscription, and placed beside the coffin of his late wife in the family vault at Woodlawn cemetery.

LAWSON TAIT recommends the radical cure of all kinds of hernia by abdominal section. After reducing the hernia, he pares the edge of the hernial opening and sews it up, thus producing a radical cure. He thinks the future of the operation is certain. The cases he operates upon are those having ovarian disease, but he thinks that the same procedure is fitting for uncomplicated cases of hernia.

HARD ON COUNTRY DOCTORS.—Some wag has started the following squib.—*First Country Doctor*.—Could you come to my place, Brown, to-morrow?

Second Country Doctor.—All right, old man, what's out now?

First Country Doctor.—Well I've had a case of endocarditis, which I have very successfully treated with convallaria majalis, and I want your help with the *post mortem*.

PACIFIC
Medical and Surgical Journal
— AND —
WESTERN LANCET

VOL. XXVII.

AUGUST, 1884.

No. 2.

Original Articles.

A NEW HYPODERMIC CASE.

By J. H. PARKINSON, M.D.

[Read before the Sacramento Society for Medical Improvement.]

Every physician in daily practice is aware of the enormous advance that has been made in the department of hypodermic medication since it was first tried as an experiment by Drs. Taylor and Washington in 1839. The certainty with which remedies administered by this method act, the power of applying them directly to the part affected, and the absence of those disadvantages which so often attend their administration by the stomach, have contributed to make the syringe the sheet-anchor of the physician in emergencies which call for prompt relief. The researches of therapeutics coupled with the skill of pharmacists have given to the profession many new remedies and confirmed preparations of those long in use. The inventive ingenuity of the practitioner and instrument-maker has also been taxed, and as a result we have Bartholow's silver syringe with its golden iridium-pointed needles. The great difficulties with which the physician has had to contend are, first, the instability of the solutions in use and their tendency to organic as well as chemical

decomposition; and next, the extremely uncertain strength of even the most carefully prepared, and the difficulty of accurately and readily estimating a very minute dose. When drugs are to be combined before injection, as in the case of morphia and atropia, the difficulty is increased; the approved proportions vary with the dose, so that a single solution would only serve for the injection of one fluid quantity of each alkaloid. Recognizing these facts, Professor Bartholow says that for all purposes powders of known strength, which can be readily dissolved when required, are to be preferred. Under the direction of this eminent authority, Wyeth, of Philadelphia, has succeeded in perfectly fulfilling all the requisites for an accurate and ready application of the medicinal agent. The alkaloids in certain quantities are mixed with sulphate of sodium or other non-irritant salt, and compressed into small discs. These are soluble in cold water, the solution being aided by previous disintegration of the pellet; but should any difficulty be experienced, the addition of heat is all that is necessary. The convenience, certainty, and cheapness of this method cannot fail to recommend the preparation to the profession; and except in hospital practice, its use ought to become general.

The danger which attends an over-dose, and the dissatisfaction consequent on the administration of the insufficient one can thus be avoided. Assuming that this is the safest and readiest means of applying the remedy, which it is desired to administer, it is next of importance to determine the most portable form in which the discs can be carried. As supplied by Wyeth they come in small glass tubes, two inches in length by the sixth or eighth of an inch in diameter, each containing twenty discs. Friction is prevented by keeping the space between the upper disc and the cork packed with cotton. These tubes are very easily broken, and if carried unprotected in the pocket must be carefully guarded against accident. To meet this contingency cases have been devised, of which Dr. J. W. White's, as made by Gemrig, of Philadelphia, is the best example. The great objection to these, as to other so called portable or pocket-cases, is the space which they occupy by their unnecessary bulk. A pocket-case proper ceases to fulfill its purpose when it cannot be the constant companion of a busy practitioner. Any case which requires a special pocket to contain it, or when in the pocket produces some personal discomfort and an unsightly tumor externally, is worse

than useless; it is only carried when absolutely unavoidable, and when an emergency arises is certain to be "at home." The desideratum is an arrangement which shall be perfectly effective, and at the same time take up so little space that it will always be at hand. Fully impressed with the necessity of a hypodermic case which should fulfill these conditions, I began a series of experiments some twelve months ago, and think I have now met most of the requirements demanded. The case is of nickel, the metal being of a sufficient thickness to stand a very considerable amount of violence. In shape it follows the rectangular figure, the corners being rounded to prevent its injuring the pocket, or other contents which it may come in contact with. The dimensions are, length $2\frac{3}{4}$ in., breadth $1\frac{3}{8}$ in., thickness $\frac{5}{8}$ in. On opening the box, which is fastened by a strong spring catch, nearest the front is a glass silver-mounted syringe of 20 minims capacity, graded on the piston-rod, the button at the end of which is slightly concave for the thumb. A small silver cap slides on the nozzle of the instrument, and limits the evaporation from the piston. The value of this simple little addition, which was first suggested by Dr. Whittaker of Cincinnati, can only be fully appreciated by those who live in a dry climate like that of California. Forty-eight hours disuse will in the unprotected syringe, as a rule, render the most effective piston unfit for service, without a troublesome preliminary soaking. On each side of the syringe held in small brass clips, are the needles, two in number, one inch in length, very finely made, and of steel. These, like the air cap slide on the nozzle, and being ground to an accurate fit dispense with the troublesome and complicated screw and leather washer arrangement. At the back of the case is the addition for which I claim credit. In place of the small 2 dr. vial, which usually accompanies this pattern, is a small silver box, two inches in length, $\frac{4}{8}$ inches in breadth, $\frac{7}{8}$ in. deep anteriorly, and $\frac{5}{8}$ in. posteriorly, so as to accommodate itself to the rounded edges of its containing case, the lids of each opening in the same direction. The space internally is divided by small transverse partitions into nine compartments of uniform size. In these compartments are the pellets, the number varying with their bulk, and ranging from five to twelve. The names and strengths are printed on a small slip of paper attached to the outside of the lid, and correspond to the space immediately beneath. When the compartments have been

filled with the discs, so as to leave a clear space $\frac{1}{8}$ inch between them and the lid; the vacancy is packed with absorbent cotton to prevent friction and consequent disintegration. This arrangement is preferable to any permanent contrivance, as it admits of one disc being carried as securely as twelve. In the bottom of the case, immediately in front of the pellet box, rests a small silver tube containing wires for the needles; and above it fits a Fisher's iris forceps. This delicate little instrument, which I utilized at the suggestion of my friend Dr. W. A. Briggs, the oculist, enables the smallest discs to be readily and easily extracted from their compartments, whilst the round extremity is of service in crushing them to promote their readier selection.

Every practitioner must make his own selection of the remedies, and having done so, the names and quantities can be engraved on the lid. The list I at present carry, and which, as will be seen, admits of several combinations, is as follows: $\frac{1}{8}$ gr. morph., $\frac{1}{8}$ gr. morph. with $\frac{1}{120}$ atropia; $\frac{1}{4}$ gr. morph. with $\frac{1}{150}$ atropia; $\frac{1}{3}$ gr. morph. with $\frac{1}{120}$ atropia; $\frac{1}{2}$ gr. morph. with $\frac{1}{60}$ gr. atropia and $\frac{1}{60}$ gr. strychnia; $\frac{1}{3}$ gr. pilocarpine; $\frac{1}{20}$ gr. apomorphia. This comprises every thing that may be required in any emergency; and the doses, by combining the discs can be endlessly varied.

It may be objected, that the trouble of filling these compartments at short intervals is considerable; and that the selection of the pellet and re-arranging of the wool, etc., also tend to consume valuable time. To the first, I would answer that very few practitioners use the syringe more than three times a day, as a rule; and rarely as frequently; then the original charge, so to speak, would in all probability last seven or ten days. The time occupied in refilling is so very slight as to be more than compensated for by the great convenience gained. As for the second objection; it is easier to take a disc from its place in the box than to extract one from the tube. The material and style of the syringe and needles can be varied as individual taste or experience may suggest. In perfecting the above, I am materially indebted to Mr. C. Wilkie, of this city; to whose intelligence and mechanical ingenuity in grasping the idea and carrying it out, the success of the "Bijou Hypodermic Case" is largely due. Messrs. George Tiemann & Co. of New York, will supply the case to any one who may require it.

OLD-TIME TREATMENT OF CONCUSSION OF THE BRAIN.

By H. GIBBONS, Sr., M.D.

In the autumn of 1829, fifty-five years ago, I set out from my home in Wilmington, Delaware, to ride to Philadelphia in a two-wheeled "gig," such as was in common use at that time, accompanied by a friend. After traveling six miles, a portion of the harness gave way and the horse ran off and began to kick. We were descending a hill. The shafts broke one after the other, and we were thrown out with great force. My head struck the stones of the turnpike and I lay unconscious. My friend escaped with only slight bruises, and assisted in carrying me to a wayside hotel hard by. A messenger was dispatched to Wilmington for medical aid. In less than two hours after the accident a physician arrived and bled me. The injury was received about two P.M., and I remained unconscious till near midnight, when, opening my eyes I observed as I lay on my back, a moulding on the ceiling not familiar to me, and some one sitting at my side. The enquiry—"where am I?" was answered by a statement of what had happened. Perceiving a sense of discomfort in the head I felt my pulse and exclaimed—"I want bleeding." "You have already been bled," said my attendant. "I must be bled again, I replied. The attendant then proceeded to call my father who had arrived after the other physician and who had gone to lie down in another room. My father, who was a physician, reopened the vein in my arm and took a liberal quantity of blood. I must have lost in the two bleedings not less than thirty ounces. I then slept again till morning, when I was taken home lying on a bed in a carriage. I slept all the way, and again fell asleep immediately on being put to bed at home. My father then had fifty leeches applied to my temples—the small American leeches, equal in all to about one-third the number of "Spanish" leeches. I slept during the leeching, and awakened just in time to hear my father, who was leaving the room to visit some patients in the neighborhood, give orders, if the drowsiness should continue to administer a dose of salts.

At that date Epsom salts had but recently been introduced instead of the salts of Glauber which were relegated to the horse-stable. I had tried both and liked neither; aversion to the impending dose determined me to escape it by keeping awake,

or perhaps the cerebral congestion which had been the cause of the comatose condition was just then removed by the depletion of the blood-vessels. At any rate the drowsiness vanished altogether. Next day I was up and walking, and the following day I went to Philadelphia by steamboat. There I spent several days in active life among my friends. On looking back it has often surprised me that no harm resulted from so much exertion and excitement so soon after the injury and depletion. Without doubt I was sustained more or less by an erethism of the nerve centers of which I was not aware. But no reaction followed and convalescence was speedy and complete. The only abnormal conditions perceptible were a sudden and transient suspension of mind-power when engaged in a brisk argument or any other lively mental effort, and a similar result attended with a sense of bewilderment whenever I indulged in a hearty laugh. The former soon disappeared, but the latter continued a long time. Both phenomena must have arisen from a disturbance of the cerebral circulation, the cause of which was mental in the one case and mechanical in the other.

It may throw some light on the case in explaining the toleration of loss of blood, to mention that I had been in the habit of bleeding myself during my student life for the purpose of relieving drowsiness and increasing the capacity for study. With the assistance of a younger brother to do the bandaging I would bleed myself every month or two before going to bed at night, taking about 14 or 16 ounces; awaking next morning fresh and vigorous, with greater aptitude for study. This singular habit was kept up for several years. Whether a practice so dangerous in modern estimation was destined to shorten my life remains to be determined, as I am still living at the age of 76 and in good health.

In the light in which our fathers regarded it concussion of the brain has been almost discarded from modern pathology. It is resolved into shock, speedily fatal if violent, but otherwise vanishing spontaneously; and mechanical lesion of the brain leading to effusion or inflammation. The case above cited appears clearly to have been one of cerebral congestion, in fact, congestive apoplexy. There may have been a period of depression or collapse immediately following the injury, reaction having taken place before the arrival of the physician who resorted to blood letting. But how shall we account for the coma, which continued for,

nearly 24 hours, otherwise than by assuming that the function of the brain was arrested by the violent concussion, and that its vessels became engaged with blood which they had not the power to impel in its normal course. And under these circumstances, what means so effectual as depletion of the blood vessels? I can scarcely entertain a doubt that my life was saved by the lancet, and that under the care of the average modern practitioner I should have slept the sleep of death.

MEMOIR OF PROF. S. D. GROSS.

By WALTER LINDLEY, M.D., Los Angeles, California.

[Read before the Los Angeles County Medical Society.]

Entertaining in our memories the thoughts and actions of illustrious, noble men, is a work of both love and profit; but the duty of preparing an outline of these thoughts and works for the benefit of ourselves and others, is a task that can be performed very meagerly in Los Angeles, separated as we are by the width of a continent from the city in which the subject of our sketch wrote and taught.

Samuel D. Gross was born in Easton, Pennsylvania, in 1805. Twenty-three years later he graduated from Jefferson Medical College and immediately began practicing his profession in the city of Philadelphia, the Mecca of the American medical profession. During the early months of his practice, or rather of his waiting for practice, he translated from the French and German languages four works—one each on Anatomy, Obstetrics, Typhus Fever, and Operative Surgery. Only two years after his graduation his work on Bones and Joints was published. Here for the first time, according to the *Medical News*, was brought forward the now popular treatment of fractures of the bones of the lower extremities by extension by means of adhesive plaster. All this we notice within two years from the date of his graduation. He had no time for complaining that practice was dull.

During the next twenty-six years he brought out the result of his Experiments on Hanging and Manual Strangulation, his Elements of Pathological Anatomy, his Treatment of Wounds of the Intestines, his treatise on the Urinary Organs, and that on

Foreign Bodies in the Air Passages. During this time he lectured two years in the Medical College of Ohio, four years in the Cincinnati Medical College, sixteen years in the University of Louisville and one year in the University of New York.

In 1856 he was elected to the Chair of Surgery in Jefferson Medical College, the halls of which he had left as a youthful graduate twenty-eight years before. In 1858 his *System of Surgery*, the monumental work of his life was published. This work has reached its sixth edition in America, has also been published in England, and has been translated into Dutch and Russian. It is recommended as the leading authority by over half the medical colleges in America, and is the most practical, comprehensive work on Surgery that has ever been written by one man. It is not a compilation, but has the practical, Gross individuality stamped on every page.

This work starts out with the following definition of what a surgeon should be, as stated five hundred years ago by Guy de Chauliac: "He should be courteous and condescending, bold in security, cautious in time of danger, avoiding impracticabilities, compassionate to the infirm, benevolent to his associates, circumspect in his prognostication, chaste, sober, pious and merciful, not greedy of gain, no extortioner, but looking to his fee in moderation according to the extent of his services, the ability of his patient, the result of his treatment, and a proper sense of his own dignity."

Prof. Gross was President of the American Medical Association in 1868, and of the Centennial International Medical Congress in 1876; was founder and first President of the Pathological Society of Philadelphia, of the Philadelphia Academy of Surgery, and of the American Surgical Association. According to the *Medical News* he was the first to perform or suggest wiring the dislocated clavicle to the sternum or acromion process, the suturing of divided nerves and tendons, amputation high up in senile gangrene, a modification of Pirogoff's amputation, an operation for neuralgia of the jaw in old persons, deep stitches in wounds of the abdomen, and a direct operation for hernia by suturing the pillars of the ring. He was also the first to describe prostaticorrhea and he invented many instruments in surgical practice.

He has been very active in urging upon physicians of every city or country town to establish a training school for nurses. He says in one of his last published articles "Nursing is no

longer a menial occupation, but an art and a science." The proposed training school for nurses in Los Angeles will be the direct fruit of his advice. In 1882 he resigned his position as Professor of Surgery, and his son S. W. Gross was elected as his successor.

He died from gastric troubles, May 6, 1884, in his 79th year. We notice as a coincidence that Bishop Matthew Simpson, a man of about Prof. Gross's stature and age, who was probably the leading orthodox pulpit orator of America as Prof. Gross was the leading lecturer on surgery; died in the same city, Philadelphia, during the same season, of the same disease, while under the professional care of the same physicians.

Prof. Gross was a grand man in appearance as well as in fact. One picture is indelibly impressed on my memory: It was during the winter of 1871 or 72 when the students to the number of five or six hundred were assembled in the amphitheatre of Jefferson Medical College. Two students got to fighting about a seat, others began taking sides, and there were bloody noses and men falling over seats on every hand, when in the midst of all this great confusion Prof. Gross stepped into the arena, and with an imperious gesture said "Gentlemen, for God's sake remember where you are and who you are!" All was still as death before he was through speaking. Oh! the grand old man! I can see him now as he stood there with his flowing white locks, his noble forehead, his piercing eyes, his uplifted hand, the incarnation of majesty; such a man needs no crown to make him king among men.

He was an excellent surgical operator, but always spoke to his classes of his colleague, the late Prof. Pancoast, as the most skillful surgeon in America.

What can we do away out here on the Pacific Coast to show to the profession on the Atlantic sea board that we venerate the memory of this great surgeon? A movement is on foot to endow a Professor S. D. Gross Chair of Pathological Anatomy in Jefferson Medical College. Prof. D. Hayes Agnew is Chairman of the committee, and I suggest that we give a reasonable sum from the treasury of our society towards the endowment of that chair.

We learn from Prof. Gross's life what perseverance will do. It was twenty-eight years after he began the practice of medicine before he received the election to the chair of surgery in

Jefferson Medical College, and it was after that date that he accomplished the greatest work of his life.

The lives of such men inspire us with new hope, and increased ambition to do good in our chosen walk in life.

THE STUDY OF MEDICINE IN VIENNA.

By E. L. GRATTAN, M.D.

The great advantage of clinical study in this city lies in the arrangement of the hospital, for there is in reality only one where clinics and courses are carried on systematically.

This, the "Allegemeine Krankenhaus," faces on the Alserstrasse, within fifteen minutes walk from the center of the city and all the principal hotels. It is composed of a mass of three story stone buildings, built in squares and parallelograms which open into yards or "Hofs," of which there are nine altogether; every "Hof" opens into the next by high-arched passages, which make it particularly convenient for those going from one clinic to another, as by this arrangement hardly any time is lost, and the physicians and students can take a course from ten to eleven at one end of the hospital and from eleven to twelve at the other, a very few minutes only being required to traverse all the yards.

Every specialty appropriates a certain number of wards which are controlled and managed by one or more professors, who further have each several assistants; the professors as a rule give no courses but hold the general clinics in the various amphitheaters, and the first and second assistants are usually the men that the student will have most to do with, for these are the men who give courses and in most cases to a limited number of students only. It must be understood that an assistant in this hospital is not as a rule a young man, and must be a physician of ability and experience to hold the position; from my personal experience, and that of a number of others that I have questioned upon the subject, they as a rule are men as able as the professors under whom they serve. Courses (and it is these that I strongly advise the student to take, and attend the general clinics as he finds time between courses) are run from four to six weeks and some few for eight; the number of students to which they are limited, varies greatly, hardly any two courses having the same number, the

lowest being four and from this running up to twenty and even more.

For the course an *honorarium* or fee is required, and the amount varies as much in this as in the number of students to which a course is limited, the lowest, however, being ten florins and the highest fifty florins, although, if I am not mistaken, there are only two courses which reach the latter high price and they are courses limited to four (a florin is equivalent to about forty-one cents of our currency). I do not doubt but that a student can safely average his courses at twenty florins or \$8.20 of our money.

It will be well for the student, on his arrival to give his name to the professors with whom he wishes to take courses, and that as soon as possible, asking him to keep it on his list so that at any time when he feels disposed to take the course, he will have the first vacancy that occurs given him, whereas if he neglected doing this, when he wished to take the course he might find some twelve or fifteen names ahead of him (his name naturally going to the end of the list), and would be obliged to wait until all these men had had places assigned them in the course—often a matter of months as I found to my sorrow, for I had this experience with Dr. Toelg who gives a course in physical diagnosis. This man, Prof. Bamberger's first assistant, is such a thoroughly good teacher that his course, which is limited to eight, is always full. Some six months ago, wishing to take it, I handed in my name and was told I should have to wait my turn, which I did for five months, and am only now after nearly a year's sojourn here deriving the benefit of this man's teaching, whereas had I known enough to give him my name on my arrival, I should by this time have had the benefit of several months of study in this most important branch of medicine. Of course this is not the only course given in physical diagnosis, but none of the others are as good nor as much sought after as this one.

Those physicians who not knowing the German language go to London or Paris for study, make, I feel convinced, a great mistake, and I strongly advise those who know not one word of German to come at least and give Vienna a trial, and I feel sure that the trial will extend itself into a long and profitable stay. It takes the average man about three months to learn enough of the language to be able to understand almost every word spoken in courses, and during those first three months there are plenty of courses where one can work, almost, I might say, without speak-

ing a word, such as operative surgery, the application of splints, &c., normal histology, at which two or three hours per day for three months can be spent with advantage. Then there is that vast field of study which is day by day increasing in importance, namely: Pathology both macro and microscopical, and these courses may all be taken without the student knowing German. Where the student chooses other courses he will find that German is not of such paramount importance, for nearly all the professors and their assistants speak English more or less fluently, and are always perfectly willing to explain in that language, and there are a few courses given altogether in English, notably that of Dr. Finger on venereal diseases, who is first assistant to Prof. Neuman and who gives the best course here. Syphilis-material both male and female is plentiful and the patients have none of that mock modesty with which their American companions in misfortune are so much troubled and which is so great a draw-back to the student; this applies not only to syphilis but to all branches. Patients seem to be more like oxen than human beings, in their perfect indifference as to what you do with them, and this affords the student every opportunity and facility for investigation and study, so that Vienna has justly earned renown as the best school in the world for clinical study.

Accommodations and living I suppose are also of great interest to the new comer, and I hope that a few words on this subject may be of use to some one at home. Let me first advise against going into a "pension" or boarding-house, for it will only necessitate moving at the end of the week, as I have been informed by, nearly all who have tried it. At the Anglo-Austrian-Bank and also on the bulletin boards at the entrance to the hospital, can always be found notices of furnished rooms or "*Möblirtes zimmer zu vermieten.*" Furnished rooms, but without the comforts of gas and stationary washstands, which are almost unknown when you get beyond the first floor, rent from fifteen to thirty florins per month, according to the location and floor; the nearer the roof the lower the rent. The new-comer will see on almost every house door situated near the hospital little square cards with the announcement of a room to rent, and I am certain he will have no trouble in finding one to suit him.

There are a half dozen very good restaurants, all situated at a convenient distance from the hospital, but the one particularly to be recommended is situated on the *Schlüsselgasse*, five minutes'

walk from the hospital and is known as the "Riedhof." Between 12 and 2 a large number of the Americans can be found there..

To those leaving home and with the intention of staying some length of time in this city, it may be useful to know where they can have their letters addressed, and the most convenient as well as accommodating house is the Anglo-Austrian Bank. The traveler on leaving home may give that as his address and will find all his letters and papers awaiting him, if he does not choose to come direct to Vienna. The bank further re-directs letters to any address you give them which makes it particularly convenient for the new comer who may perhaps be obliged to move three or four times before he is definitely settled.

In conclusion let me state that between twelve and two, also in the evening, very many of the Americans can be found at the Café International, vis-a-vis the entrance to the hospital, and also in the Riedhof, and they will always be happy to give all help and information which lies in their power.

This article is addressed principally to those intending to pursue studies in Vienna, with the hope that it may save them many of the petty annoyances to which a stranger in a foreign city is so liable, and which I myself experienced and which has prompted me to try and help, so far as I am able, others of my profession.

Pharmacy and Materia Medica.

Manufacture of Olive Oil in Tuscany.

An article on this subject in the *Pharmaceutical Journal* gives the following account of the process employed in Tuscany:

"The fruit is crushed in a stone mill, generally moved by water power, the pulp is then put into bags made of fibre, and a certain number of these bags, piled one upon another, are placed in a press, most frequently worked by hand; when pressure is applied the oil flows down into a channel by which it is conveyed to a receptacle or tank. When oil ceases to flow, tepid water is poured upon the bags to carry off oil retained by the bags. The pulp is then removed from the bags, ground again in the mill, then replaced in the bags and pressed a second time. The water used in the process of making oil must be quite pure; the mill, press, bags and vessels sweet and clean, as the least taint would ruin the quality of the oil produced. The oil which

has collected in the tank or receptacle just mentioned is moved day by day, and the water also drained off, as oil would suffer in quality if left in contact with water; the water, also, which necessarily contains some oil mingled with it, is sent to a deposit outside, at some distance from the crushing house, which is called the "Inferno," where it is allowed to accumulate, and the oil which comes to the surface is skimmed off from time to time. It is fit only for manufacturing purposes. After the second pressing the olive pulp is not yet done with; it is beaten up with water by mechanical agitators moved by water power, and then the whole discharged into open air tanks adjoining the crushing-house. There the crushed olive kernels sink to the bottom, are gathered up and sold for fuel, fetching about 12 francs per 1,000 kilos., while the *débris* of the pulp is skimmed off the surface of the tank and again pressed in bags, yielding a considerable quantity of inferior oil, called "Olio lavato," or washed oil, which, if freshly made, is even used for food by the poorer classes. The pulp then remaining has still a further use. It is sold for treatment in factories by the sulphide of carbon process, and by this method yields from 7 to 9 per cent. of oil; of course suitable only for manufacturing purposes. Only the first two pressings yield oil which ranks at first quality, subject of course to the condition of the fruit being unexceptionable. New oil is allowed to rest awhile in order to get rid of sediment; it is then clarified by passing through clean cotton wool, when it is fit for use."

It would appear from the following extract from the same article, that the production of olive oil in the chief European locality is attended with difficulties unknown in California:

"The olive crop is subject to many vicissitudes, and is an uncertain one. It may be taken as a rule that a good crop does not occur more frequently than once in three years. A prolonged drought in summer may cause the greater part of the small fruit to fall off the trees. A warm and wet autumn will subject the fruit to the ravages of a maggot or worm, which eats its way into it. Fruit thus injured falls to the ground prematurely, and the oil made from it very bad quality, being nauseous in taste and somewhat thick and viscous. Frost following immediately on a fall of snow or sleet, when the trees are still wet, will irretrievably damage the fruit, causing it to shrivel up and greatly diminishing the yield of oil, while the oil itself has a dark color, and loses its delicate flavor."

ADULTERATION OF IODOFORM.—The *National Druggist* calls attention to some bad effects following the application of iodoform externally, and attributes them to adulteration with picric acid, which it says is largely used for that purpose. The subject is important, as iodoform has grown into extensive use.

GUARANA is a "rude heterogeneous mixture," according to Dr. Squibb, containing but a small portion of the seeds of *Paulinia Sorbilis*, of which it professes to consist. It is made by the Guaranis, a tribe of half savage Indians in Brazil, and contains a large quantity of starch, by means of which it is moulded by the savages into the forms of lizards, birds and other objects. It owes its virtues as a medicine to the Paulinia seeds, the active principle of which is caffeine. Some years ago it could be bought for 65 cents a pound; but a fashionable furor so extended its use that it now brings \$3.50. For the reasons above defined, the Drs. Squibb have discarded from their list the fluid extract, which is the form employed for its administration, and substituted a fluid extract of green coffee.

DR. BARTHOLOW in prescribing mercury and potassium iodide for syphilis does not combine the two, as is usually done, but gives them separately. He gives, for instance, 20 grains of the iodide dissolved in 4 ounces of water three times a day, before meals. The mercury is in the shape of bi-chloride, and is administered in doses of $\frac{1}{2}$ of a grain, made into a pill with 1 grain of extract of cinchona, and given three times a day after meals. He claims that the effects are more satisfactory in every way when the medicines are thus administered. This is confirmed by my experience with these drugs.—*Dr F. L. James in National Druggist.*

DANGER FROM INHALING PETROLEUM.—A scare has been started in certain quarters against exposure to the fumes of petroleum and its preparations. Some employés in Malta demanded higher wages in consequence. The *National Druggist* (St. Louis) says the subject has been investigated by Surgeon-General Hamilton, U. S. A., who has most positively refuted the allegation. A physician in Vienna recommends the fumes of petroleum, paraffine, etc., as preventives of cholera. He declares that the workmen who distil it have never been attacked.

A NEW METHOD OF ANALYSIS.—A translation from the German, contained in the *National Druggist*, describes a new mode of analysis devised by a German pharmacist, called the guttular method because a few drops of a liquid are sufficient for the process. The liquids are placed in very small vials with glass stop-

pers, so that a single drop can be withdrawn by the stopper. The essence of the plan seems to consist in having a great variety of test-papers, by which the chemical reaction and the character of the liquid can be determined.

Coca.—Squibbs' *Ephemeris* says that the difficulty in obtaining a good article of coca in the markets has become so great, as to cause the writer to abandon the manufacture of the fluid extract, and to substitute for it an extract of tea (*Thea Viridis*.) Coca, according to the same authority, has not commended itself generally to therapeutic use.

Proceedings of Societies.

SAN FRANCISCO COUNTY MEDICAL SOCIETY.

SAN FRANCISCO, May 13th, 1884.

The Society was called to order by the President, DR. WHITWELL. The minutes of the previous meeting were read and approved.

DR. JOHN F. MORSE exhibited a pathological specimen of a fractured femur, with the following history: The deceased, a man of about thirty-five years of age, was accidentally shot in a *melée* at Dashaway Hall. He was taken to the City Receiving Hospital, where he remained two or three days, and was then removed to the German Hospital, where he came under the Doctor's care. The case presented a gun-shot wound of the left thigh, at the junction of the upper and middle third. At the Receiving-Hospital an extension apparatus had been applied, and an ice bag placed over the limb. The limb was greatly swollen, and presented on palpation signs of fluctuation. The patient was feverish, restless, with dry tongue; icterus and hiccough present; no chill, temperature 102. It being necessary to return the extension apparatus to the Receiving-hospital, another was substituted, and subsequently a long incision was made on the outer aspect of the thigh, which evacuated a large quantity of pus and a large blood clot. On inserting the finger into the wound, the bone was found comminuted, and the bullet divided into two fragments was extracted; it was perfectly flattened, and found lying next to the outer surface of

the femur. The next day the patient's temperature was almost normal, although icterus remained and hiccough more marked than ever. Amputation was advised as a last resort, septicemia having undoubtedly set in. The patient wished first to consult his friends in regard to the operation, and the following day a consultation of the hospital staff was held, and an amputation was deemed advisable by the majority of those present. The following day the patient was much worse, evidently dying, and another consultation being held it was thought best to desist from amputating the limb. The patient died the next day. The *post-mortem* revealed the femur fractured obliquely into two parts. A third fragment two inches long was completely separated from the rest of the bone from the inner side of the shaft, and a fissure extended from the point of fracture of the upper fragment into the immediate neighborhood of the capsule.

DR. C. G. KENYON remarked that this case demonstrates a glaring mismanagement in cases of accidents, occurring in this city, a defect in municipal government that ought to be corrected at once. The removal of a patient suffering from a compound fracture of any of the long bones, within a few days of the injury, and the immediate subsequent removal of dressings to accommodate some other unfortunate is little short of legalized murder; it certainly took away the one chance of life this man had, and in all similar cases makes a fatal case out of an already dangerous one.

DR. MORSE coincided with the Doctor, and deemed it imprudent to remove a patient already suffering from septicemia.

DR. WHITWELL called the attention of the Society to a home-made preparation of beef, which he had been using with success. The members were no doubt well aware of the fact that there were a number of valuable preparations of beef, which were put up by different firms, and some of these were in the powdered form; notably the Beef Peptonoids of Reed, Carnrick & Co. These were all prepared because of the well recognized fact that beef tea had but little of the nutrient portions of the beef, and was almost entirely a mere stimulant. Dr. Whitwell said that he had used the Beef Peptonoids, and believed that they were very nutritious, but he had found that patients objected to the taste, and could not take them for any length of time. He had therefore used them entirely by injection. Some months ago he noticed in a journal that dried pulverized beef had been used with success in France,

and determined to try it. The first attempt at preparing it was not encouraging, but in the second, through the care and attention bestowed by the mother of one of his patients, the success was complete. It was prepared as follows: A piece of lean beef was obtained, and after all the fat had been cut off it was chopped fine. It was then placed on the stove in a hot enough place to sear it, so as to prevent the juice from running; after this it was placed where it was cooler until it was thoroughly dried; it was then powdered and sifted. A sample was shown the Society, both of that which had passed the sieve and that which remained. It may either be mixed with some liquid or it may be merely moistened, and spread upon bread or cracker.

It was then agreed that the subject for discussion at our next meeting be the treatment of typhoid fever.

No further business coming before the Society a motion to adjourn prevailed.

SAN FRANCISCO, June 10th, 1884.

The discussion for the evening being upon the treatment of typhoid fever, the President called on Dr. James Blake to state his mode of treating the disease.

The Doctor remarked that many years ago; when he first began to practice, bleeding was all the rage, sometimes removing a large quantity of blood from the patient. Then calomel became fashionable, this had its supporters in England. After this alcohol, then cold water was the favorite, and last of all quinine, the latter having often produced congestion of the brain and irritation of the stomach and bowels. The Doctor stated that the remedies were as contagious among the physicians as the disease itself, and that most physicians run in a certain groove; this ought to be guarded against. He stated that the less medicine used in the treatment of this disease, the better it is for the patient, and here is where the homeopath has an advantage. The diet should be seen to; if the temperature is high, use cold water, and moderate doses of quinine, if it does not cause any irritation of the intestinal tract. He recommended carbonate of soda and poultices, and towards the last to keep up the strength by giving alcoholic stimulants. The digestive organs require strict attention, and all prominent symptoms treated, but above all no over-medication as it will not do any good, but be productive of harm, as the disease will have to run its course.

DR. R. H. PLUMMER concurred with the Doctor, and in his experience quinine had produced in several cases, evil results, even causing death from cerebral irritation. He had good effects from the acid treatment, which lowered the temperature equally as well as quinine, with less irritation to the gastro intestinal canal. Salicylate soda by the stomach or rectum will also reduce the temperature; cold water or ice he also recommended; also the alkaline treatment. In olden times they used to starve the patient, who would die from exhaustion; but now we believe that nourishment should be given freely, and that often alcoholic stimulants are needed. For the diarrhea and other complications, remedies should be given that may be required, but nourishment is far better than medication.

DR. C. G. KENYON remarked that the old-fashioned remedy, turpentine, is still recognized as having a good influence on the mucous membrane of the intestines, as it is well known that Peyer's glands are involved in this disease. He also stated that serpentaria has a marked influence on the intestinal canal. In all cases he advised that the bowels should be opened at the commencement of the disease.

DR. J. F. MORSE remarked that all cases of typhoid fever are not similar, and that we cannot pursue the same treatment in all cases. He had treated cases of typhoid fever with quinine, where the temperature was 104° with delirium, with very good result in reducing the temperature. In other cases he has used the acid treatment where quinine was not indicated.

DR. N. ROGERS does very little in the way of medication, but treated the symptoms as they presented themselves

DR. L. L. DORR, said that, as a germ is the cause of the disease, and as mercury is such a good disinfectant, why not use it internally; he gave a ten grain dose of calomel at the commencement of the disease, and repeated it after several days interval. He also used the acid treatment, and of late used with success iodine and carbolic acid. He also used salicylic acid and bismuth, and every other night he gave the patient from ten to twenty grains of quinine. He did not advise quinine to be given continuously, as it has a tendency to produce congestion of the brain.

DR. W. W. KERR remarked that he had tried salicylic soda, that it reduces temperature, and there is less disturbance of the

intestinal tract, than by the use of quinine, but it is very depressing. He used quinine when the temperature was 103° , and treated the symptoms as they presented themselves. He also gave small doses of calomel to remove the germs, as they can be taken into the system by the stomach, by means of food, as well as by inhalation from sewer gas. He also used hydrochloric acid and digitalis, sponged the body with alcohol, and resorted to the bath, the temperature of which should at first be 10° higher than the temperature of the body. He sustained the system with a milk diet and eggs beaten up in milk.

DR. JAMES SIMPSON said that there is no disease in which there is such a variety of treatment as there is in typhoid fever. When physicians are called in to see a patient whose temperature is 103° or 105° they pronounce the disease typhoid fever. The attack can frequently be aborted by free emesis, by giving twenty grains of ipecac, following it up in the morning with a good dose of calomel. He usually treated the symptoms as they presented themselves; for the fever he used aconite, digitalis, salicylate soda, and when no brain symptoms existed he gave quinine, and also resorted to cold sponging. Where there is diarrhea after the first week he gave bismuth or bismuth and opium, and chalk mixture, also equal parts of the infusion of cinchona and serpentaria, which prevents ulceration of the bowels. For any brain symptoms ice applications, and opium or Dover's powder for a night's rest were recommended. When the heart's action is weak use stimulants, and when tympanites exists use turpentine and hot compresses over the abdomen. When hemorrhage of the bowels set in he used ergot hypodermically, astringent injections, bismuth and opium internally; had also used with success five drops of Fowler's solution, and fifteen drops tincture opii, every three or four hours, and externally ice applications. When the tongue and throat are dry, use a solution of chlorate potash, glycerine and water as a gargle; also dust the parts with one-sixth of a grain of calomel and sugar, and give demulcent drinks. In conclusion the Doctor remarked that the less medication the better for the patient, unless the necessity was clearly indicated by circumstances, and throughout the disease the patient should be given plenty of nutritious food, and be kept clean and comfortable.

DR. L. L. DORA then presented to the Society for inspection some gall stones, which a female patient passed a short time since.

For two years she had been suffering from some liver trouble, and had frequent attacks of bilious colic. Three months since she had a similar attack; she was then given podophyllum and sweet oil, and in five days she passed with the feces the specimens. She has not had an attack of colic for the past three months, and no doubt she has passed all the stones that the gall bladder contained.

The President announced that the subject for the next meeting will be "Intestinal Obstruction," with a paper by Dr. W. E. Taylor.

No further business coming before the Society a motion to adjourn prevailed.

HENRY H. HART, M.D.,

Recording Secretary.

Editorial.

The Medical Botany of the United States.

We have been quite interested in the first and second numbers of a monthly periodical issued by J. U. & C. G. Lloyd, of Cincinnati, describing the medicinal herbs of North America. In the early part of the present century much attention was given to the Medical Botany of our country. Dr. J. Rhea Barton, who held the position of Professor of Materia Medica and Botany in the University of Pennsylvania, published a large folio containing descriptions and plates of the principal medicinal plants then known. It was a work of great value, and gave very correct ideas of the medicinal qualities of the plants described. Since that early period the subject received but little attention until it was taken up by the Eclectics thirty or forty years ago. Had the Eclectics pursued their investigations in a purely scientific spirit, much good might have resulted; but unfortunately they were largely instigated by prejudice against the regular profession and many of the remedies in regular use, and thus the fruits of their labors were impaired by narrowmindedness and sectarianism. Of late a number of our pharmacists have taken up the subject and displayed much industry and skill in the analysis of plants found in our own country and elsewhere, and the development of their active principles, and though their action may have been prompted more by the spirit of trade than the love of

science, the results have been none the less useful in extending the range of the *Materia Medica*. The leading workers in this field appear to be Parke, Davis & Co. of Detroit, and the Messrs. Lloyd of Cincinnati. The "Drugs and Medicines of North America" before alluded to as published by the Lloyds, contains some interesting statements regarding "Liverwort," the *Hepatica triloba* of the older botanists. When the present writer was a student, some fifty odd years ago, the decoction of the leaves of liverwort was in common use in diseases of the lungs and liver. It was supposed to have been introduced in medicine under the domination of the ancient doctrine of signatures, the leaf having three rounded lobes which suggested a resemblance to the liver and indicated its applicability to diseases of that viscus. In a few years however it almost disappeared from use. Lately it has been resuscitated, and according to the publication referred to, it appears that last year over 340,000 pounds were consumed, of which all but 40,000 pounds were imported from Europe. Four years ago the entire consumption did not reach 10,000 pounds. Two species are found in America, one with pointed leaves which is not recognized as officinal, but which appears to be collected with the *triloba*. Modern botanists have placed both plants in the genus *anemone*, and changed the name of liverwort to *Anemone Hepatica*. It will probably be changed back again in a few years, as this is a common custom among botanists. The Messrs. Lloyd say: "Nine tenths of the native drug of commerce is collected from the sharp lobed species, which has never been officially recognized. The medical properties of *Hepatica* are unimportant. The plant does not contain an active principle, and is as devoid of characteristics as is the grass of the field. Of the vast amount of the drug consumed, it is creditable that the medical profession uses but a small per cent. Almost the entire lot is employed in the preparation of certain secret remedies."

Oregon State Medical Society.

The Proceedings of the Eleventh Annual Meeting of this Society, held at Portland, May 27, 28 and 29, are received. The meeting appears to have been an occasion of much interest to the members, and to have elicited a creditable degree of professional intelligence. Dr. W. H. Saylor, of Portland, presided.

An appropriate address of welcome was made by Dr. G. M. Wells, of Portland, in which he urged the securing of a Medical law. Dr. A. D. Bevan reported an important case of radical cure of hernia by Czeruy's operation. Provision was made for a shorthand reporter at the next annual meeting. An appropriation of \$20 was made to the Sims monument fund. The officers elected for the coming year are: President, S. E. Joseph, E. Portland; Vice-President, N. B. Eaton, Portland; Secretary, E. P. Frazer, Portland; Executive Board, Drs. R. Glissan, G. M. Wells, W. H. Watkins, R. G. Rex, K. A. J. McKenzie. Portland was selected as the place of meeting next year.

The papers read at the meetings bear creditable evidence of thought and originality, though the historical assault by the compositor on medical composition is not wanting in the published reports. Dr. Wm. Jones reported a successful case of lateral lithotomy—the first operation of the kind performed in Oregon. He referred to the extreme rarity of stone in the bladder in that section of country—this being the first known case of a large calculus in permanent residents. An elaborate and well digested paper on Headache was read by Dr. J. W. Givens; one on the Uses of Bismuth in Medicine, by Dr. O. S. Binswanger, setting forth its application to a great number of affections; one by Dr. Holt C. Wilson on Diseases of the Joints, in which Hip Disease is represented as more successfully treated by American than European surgeons; Dr. F. B. Eaton read an excellent original paper on Cellulitis and Periostitis of the Orbit, as sequels of other morbid conditions, with Cases. Dr. W. H. Watkins canvassed the subject of Tubercular Consumption, adopting the somewhat popular idea of its contagiousness, at least from husbands to wives if not from wives to husbands. He also falls in with the tempting bacillus theory. Dr. Saylor, the retiring President, winds up with a brief paper on the Relations between Physicians and Druggists, in which he dwells expressly on prescription writing, and laments that so small a number of recently made doctors are acquainted with Latin. We doubt whether his hopes that the Latin tongue will be more taught in the future, will be realized. The tendency is in the opposite direction, the opinion increasing that, in the vast extension of scientific knowledge recently accomplished, the time of youth may be better spent than in wrestling with the dead languages.

Revival of Exploded Cholera Cures.

The newspapers are largely stocked with communications from medical men and others recommending various cholera cures, some of which are reputed never to have failed. Even some medical journals follow in the wake. If the sanguine proposers of these cures were to examine the history of cholera, they would find that almost without a solitary exception, all these boasted cures have been tried long ago and have been discarded as failures. There is a ready explanation of this muddle. The preliminary stage, or the diarrhea which invariably precedes an attack of cholera, can be arrested with great certainty by any form of astringent. Also, as the epidemic subsides in any given locality, the disease becomes manageable in a certain degree, and many cures occur even in the stage of collapse. Whatever means are employed under these circumstances appear to effect the cure, and receive credit accordingly. No disease on the face of the earth is more easily arrested in its ordinary incipient stage. No disease is more deadly fatal when the patient has passed the narrow isthmus which separates this curable stage from that of collapse. The universal knowledge of this fact and a corresponding action, will do a hundred fold more to save human life than all the quarantines that can be instituted.

Leprosy in California.

A semi-professional crank well known in this part of the world has been playing off his pranks in the Atlantic cities by an exhibit of leprosy on the brain. No fiction which this erratic genius could devise would attract attention where he is known. Diligent inquiry has been made again and again for the purpose of discovering whether leprosy has ever been contracted by an individual of the white race in California. One solitary case of the kind was asserted some years ago, but the truth of the statement was never established. Since the foundation of the State thirty-five years ago, Chinese immigration has gone on, with the introduction of occasional cases of leprosy, and in all those years, comprising more than a third of a century, only this one doubtful case has been declared to prove the risk of the disease extending to the white population. The subject has more than once been considered by the State Board of Health, and not a solitary instance has been reported from any part of the State;

and yet the half-crazed individual before alluded to is propagating the most absurd stories about whole families of white people contracting leprosy from a Chinese employé, and apparently doing his best to frighten people away from the Pacific Coast. Fortunately our Eastern friends have seen through the imposture and assigned the impostor to his proper level. He has succeeded nevertheless, beyond a doubt, in producing in the minds of many, a false impression detrimental to California in its sanitary relations.

A Slow Pulse.

S. B. Davis, M.D., of Eureka, Cal., writes us in regard to a gentleman who consulted him on account of a remarkably slow pulse. He says: "I found it only 32 in the minute. He had but a poor appetite and did not feel very strong, but he suffered no pain nor anything that seemed to call for active medication. I gave him quinine and iron without benefit, and then quinine and whisky, but without affecting the pulse, which ranges permanently from $31\frac{1}{2}$ to 34. I have felt it many times, and have found it above 34 but once, and that was after a fast walk. He is 55 or 56 years of age, has light brown hair and red whiskers slightly gray, weighs 150 pounds, married and has two healthy children, is of good family and has never had any serious disease." Our correspondent does not say whether his patient's pulse has always been so slow, or has become so of late. As it is exactly half the normal rate, one might suspect that the slowness is owing to the heart dropping every second beat. Our books tell us of pulses even slower than that described, and which are regarded as idiosyncrasies and not incompatible with sound health. The slowest pulse we have ever known as normal to the individual was 40 to the minute. The subject of it was six feet and a half in height, and enjoyed a perfect health and lived till near 80 years of age.

Crazy Logic.

A prominent eclectic editor writes: "Do you know there is no fraud so gross as the *regular* medicine they wish to make legal?—that there is nothing more absurd than this same regular practice? Of it was said by Dr. Oliver Wendell Holmes, 'If all the medicine were emptied into the sea, it would be better for mankind though worse for the fishes.'" Dr. Holmes never said this

of regular practice or of any other kind of practice. He referred to drugs, the hotch-potch of eclectics included. Everybody knows that "doctors" of this sect are famous dosers—that the average eclectic will cram into his patient a greater amount of powders and pills and potions and decoctions and concoctions in a day than a "regular" would be likely to do in a week. 'Tis pity however that Dr. Holmes or any professional man should utter such sweeping statements. They are at best but flourishes of rhetoric, and hare-brained sectaries are sure to take advantage of them and pervert them to sinister purposes.

Carbonate of Ammonia for Leavening Bread.

A small pamphlet has been circulated with a view to the introduction of carbonate of ammonia as a "vesiculating or leavening agent in bread and baking powders." The pamphlet contains the statements of a large number of eminent authorities in England, France, Germany and America, in favor of the measure. If any thing in domestic economy can be settled by authorities, the question of the advantages of the proposed agent over every other means of leavening bread may be regarded as conclusively affirmed by the contents of this publication.

Florence Nightingale on the Contagiousness of Cholera.

Some time ago the Editor of the *N. Y. Herald*, knowing that Florence Nightingale had had great experience in regard to cholera, and that she was a person of intelligent observation and superior judgment, wrote to her at Paris requesting her view in regard to the mode of propagation of the disease. Her answer so well accords with the result of our own observations and with the opinions which we have more than once advanced, that we take pleasure in transferring it to our columns. She writes, speaking for herself and those associated with her in her labors of benevolence:

"Our whole experience in India, where cholera is never wholly absent, proves the disease is not communicable from one person to another; that the sick do not manufacture the special poison which causes disease; that cholera is a local disease, an epidemic affecting localities, and there depending upon the pollution of the earth, air and water and buildings; that the isolation of the sick cannot stop the disease, nor can quarantines, nor cordons, nor anything like them. These, indeed, tend fatally to aggra-

vate the disease directly and indirectly, by turning away our attention from the only measures which can stop its advance. The only preventive is to put the earth, the air and water and buildings in a healthy state, by scavenging, lime-washing and every kind of sanitary work, and if the cholera does come, to move the people from the place where the disease has broken out, and then to cleanse. Persons about cholera patients do not 'catch' the disease from the sick any more than cases of poisoning 'infect' others. If a number of persons have been poisoned, say by arsenic put by mistake into food, it is because they have each swallowed arsenic."

Reported Yellow Fever in Guaymas.

A. A. Mix, M. D., of Guaymas, is a physician of education, intelligence, and experience. He is a competent and impartial observer. We have received from him a letter dated July 30, giving particular information regarding the health of the place. There are two physicians in Guaymas besides himself, Drs. Spencer and Figuera, the latter being City Physician. He writes: "Since the first outbreak as announced by Dr. Figuera on the 15th of May last, there have died here as per register of Civil Judge, the number of eighteen persons from yellow fever, to wit: In May 3; June 10; July 5. Of all these deaths Dr. Spencer has not had a case. I have had only one, and I was called to that only when the party was in "*articulo mortis*." Such of the cases which I have seen and which were pronounced to be yellow fever by the city physician, were cases of severe bilious fever; and in my humble opinion the fatal termination was caused by adherence to the mercury and quinine treatment. The Board of Health of this place still, as in former times, continues to issue clean bills of health. There has been no case of this so called disease here since the 12th of July. There are some cases of rail road men (which Dr. F., who is R. R. Physician, has pronounced yellow fever) brought from off the road in the region of Hermosillo. But I am secure in stating to you that at this date no original cases are extant here. What the future may develop I am unable to say; the delay of our usual summer rains, the mismanagement of our Board of Health, and the unusual warm weather, may produce a repetition of last year's plague. So far no signs of it are apparent, and Guaymas to day is far healthier than it has been for any time since the month of August last. Should any disease of the kind mentioned show itself here you may rest assured I will advise you promptly."

Notices of Books, Pamphlets, &c.

Diseases of the Throat and Nose, etc. By MORELL MACKENZIE, M.D., London. Consulting physician to Hospital for Diseases of Throat, etc. etc. Vol. 2; illustrated; pp. 550. Philadelphia: P. Blakiston, Son & Co. San Francisco: A. L. Bancroft & Co.

This volume treats of the Pharynx, Larynx, Trachea, Esophagus, Nose, and Naso-Pharynx. The author is well known in the world of letters as an accurate observer and a practitioner of skill and judgment. No other work on the subjects in our language has been so fully and thoughtfully studied. The reader will find in it everything valuable that the literature of the class of diseases embraced by it is capable of furnishing. We recommend it with alacrity.

Memoir on the Nature of Diphtheria. By Drs. H. C. Wood and H. F. FORMAD, of Philadelphia.

A pamphlet of 133 pages, composing a portion of the Report of the National Board of Health for 1882. The authors are well known as able and eminent investigators, and the work is a valuable contribution to this important department of pathology. For sale by J. A. Hoffman, 208 Montgomery St., San Francisco.

Clinical Lectures on Mental Diseases. By T. S. CLOUSTON, M.D., Edin. F. R. C. P. E., Superintendent of Royal Edinburgh Asylum for the Insane, etc., etc. Philadelphia: Henry C. Lea's Son & Co., 1884; pp. 550. San Francisco: A. L. Bancroft & Co.

To the original and popular English work of Dr. Clouston, has been added by the American Editor, Dr. Chas. F. Folsom of Boston, in this edition, an Abstract of the Statutes of the United States and of the several States and Territories relating to the custody of the Insane. This abstract is a very desirable addition. Although we have a good supply of recent treatises on mental diseases, yet the field is so wide and diversified as to open the way for new forms of presentation, and new views to an almost indefinite extent. The author has succeeded in imparting much interest to the subject by his originality of thought, and his book is very pleasant reading. The illustrations are especially rich, the microscopic plates more particularly.

Hooper's Physician's Vade Mecum. A manual of the Principles and Practice of Physic; with an outline of General Pathology, Therapeutics and Hygiene. Tenth edition. Revised by W. AUGGUY, M.B., Cantab, F. R. S., and JOHN HARLEY, M. D., London, V. L. S. Vol. 2. New York: Wm. Wood & Co. San Francisco: A. L. Bancroft & Co. Pp. 358.

That this Vade Mecum of Hooper is a valuable work is fully demonstrated by the tenacity with which it clings to life amid a throng of similar publications which the press has emitted from year to year. Retaining its original substance which made it a favorite from its birth, two able editors of the present edition have grafted on it the new material developed by modern experience. It is terse, solid and substantial reading.

Dunglison's History of Medicine. A new edition of this work is announced, to be published by subscription only. Price, \$1.50.

Persons desiring the work will forward their names to Dr. Rich. J. Dunglison, Lock box 1274, Philadelphia.

Twentieth Annual Report of the Alumni Association of the Philadelphia College of Pharmacy, 1883-4.

A pamphlet of 150 pages, full of valuable information on pharmcal and other subjects.

Women's Medical College of the New York Infirmary. Sixteenth Announcement, 1884.

No less than twenty-four Professors and Instructors appear on the roll of this school—a sacrifice of substance to show, as it appears to us.

College of Physicians and Surgeons of New York, Medical Department University of New York, Seventy-seventh year.

University of Pennsylvania, Catalogue and Announcements, 1883-4.

Jefferson Medical College, Philadelphia. Sixtieth Annual Announcement 1884-85.

BISMARCK declined an honorary fellowship in the Scientific Society of Berlin on the ground of his hostility to vivisection. "Nothing on earth," he wrote, "would induce me to become the colleague of Virchow or Mommsen."

PROF. FORDYCE BARKER, of New York, has had the degree of LL.D. conferred on him by the University of Edinburgh.

Selections and Abstracts.

DIETETIC DELUSIONS — THEIR DELETERIOUS EFFECTS, AND THEIR RECTIFICATION.

By R. M. HODGES, M.D.

[Read before the Boston Society for Medical Improvement, June 9, 1884.]

The amount of food required by a healthy adult will surprise most persons, even those who are good feeders. While this varies with the work performed, the heat or cold of the weather and the condition and quality of the food taken, it has been estimated that in the case of a man in health and of average size the total daily ration should weigh 6 pounds 13 ounces 128 grains, of which 1 pound 4 ounces 245 grains consist of dry food substance, the remaining 5½ pounds being water.*

Authorities on the subject of diet say that nitrogen is the most essential of all foods, and that a certain amount (about 316 grs.) should be taken daily by an adult man. If the minimum quantity of nitrogen (which for the sake of argument may be put as low as 250 grains) be not consumed, the various functions of the body languish and a degree of weakness is induced, with greater or less rapidity, according as the quantity falls much or little

* Under ordinary circumstances a daily ration should contain something like the following proportions and quantities of its main ingredients:

Water..... 5 lbs. 8 oz. 320 grs. Albuminoids, or flesh-formers. 0 lbs. 4 oz. 110 grs. Starch, sugar, etc. 0 lbs. 11 oz. 178 grs.		Fat..... 0 lbs. 3 oz. 337 grs. Common salt... 0 lbs. 0 oz. 325 grs. Phosphates, post- ash, salts, etc. 0 lbs. 0 oz. 170 grs.
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This might be furnished by a mixed diet of the following foods:

Bread 18 oz. Butter 1 oz. Milk 4 oz. Bacon 2 oz. Potatoes 8 oz. Cabbage 6 oz.		Cheese 3¼ oz. Sugar 1 oz. Salt ¼ oz. Water alone and in tea, coffee, beer, etc 66¼ oz.
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Altogether these quantities will contain about 1 pound 5¼ ounces of dry substance, though they weigh in all 6 pounds 14½ ounces.

It will be seen that the weight of this allotment exceeds by one ounce—even when the solid matter contained in beverages is omitted—that of the analytic table which precedes it. This excess is mainly owing to the fact that in all articles of food actually used there are small quantities of matters (cellulose, etc.) which cannot be reckoned as having a real feeding value. (A. H. Church: "Food—Some Account of its Sources, Constituents and Uses," London, 1880, page 49 *et seq.*)

below 250 grains per diem. But let the consumption drop to an average of only 138 grains, which is the smallest amount necessary for the bare maintenance of life, and in a year or two (not at once, for every body contains a store of nitrogen) important modifications of the nutritive processes, with distinct predispositions to disease, will inevitably be established.†

These results of experimental investigation have a practical significance. They find expression in the fact that a failure to consume all the essential elements of full rations, whether nitrogenous or non-nitrogenous, will sooner or later, as in the disastrous Irish and Lancashire famines, give rise to a train of symptoms which have been justly denominated those of "chronic starvation."

From the small knowledge of the value of food possessed by individuals as well as the public‡ a diminution in its adequate supply easily escapes attention; loss of appetite is looked upon with indifference, and the first steps are inadvertently taken towards a condition which is as full of meaning in the case of a single person as when a whole community are its subjects. The absence of the keenness of appetite affords no indication of the

† "Parkes' Practical Hygiene," page 173 *et seq.* Gr. Hewett, *British Med. Journal*, Aug. 4, 1884, p. 225.

‡ The manufacturers of cellulose and paper pulp propose, by an advancement of scientific cookery, to resolve nut-shells, wood-shavings and sawdust into wholesome and digestible food. They remind us that a pair, which when full-grown in autumn is little better than a lump of acidulated wood, with careful storing for two or three months becomes by nature's unaided cookery the most delicate and juicy pulp which can be tasted or imagined; and that cotton and linen rags have been converted into sugar artificially in the laboratory of the chemist. (*Paper Maker's Monthly Journal*, Feb. 15, 1884, p. 49.)

At the existing (1884) International Health Exhibition, London, the "Vegetarian Society" are furnishing a six-penny dinner to four or five hundred people daily. From a carefully-kept account of the substances used for the bill of fare the following "food equivalents" have been reduced, showing that each diner receives, of

Albuminoids63 oz.	Carbo-hydrates	3.17 oz.
Fat44 oz.	Mineral matters09 oz.

Physiologists lay down the standard diet for ordinary labor pretty much as follows:

Albuminoids	4.2 oz.	Carbo-hydrates	18.7 oz.
Fat	1.6 oz.	Mineral matters	1.0 oz.

It appears therefore that it would require about six of the six-penny dinners to support a man during a day's hard labor. (*Med. Times and Gazette*, May 25, 1884, p. 712.)

amount of food which the stomach will digest and the body assimilate or an individual be benefited by swallowing.

The body requires not only to be fed, but filled; and the object of eating is as often to bring up past arrears as to supply present demands. Quality of food, with all the heat and force it may contain, will not make up for quantity, which is required for constructive, and reparative purposes. The constant waste of flesh and blood can only be compensated for by an equivalent assimilation of actual materials. Yet, in spite of this self-evident proposition, a large proportion of the better educated classes of the community readily deceive themselves and mislead others in regard to the amount of food necessary for their welfare and nutrition.

From a practice, often beginning in infancy with the common maternal prejudice against giving solid food at a sufficiently early period and in adequate amount, persisted in through childhood from an erroneous idea that "meat once a day" is an ample supply of animal food, still continuing through adolescence, especially in the case of girls, under the conceit of eating heartily or "between meals," is neither wholesome or lady-like, a habit of going without enough sustenance is finally established in adult life which is further perpetuated and confirmed by a great variety of influences. Among the more common may be mentioned personal temperament, disturbed mental conditions, languid in-door life, fatigue and exhaustion, theoretical dietetic prejudices, fastidiousness as to eatables, unwise distribution of meals, insufficient variety of food, too rigid domestic economy, and pre-eminently, the revived fashion of tight lacing. These, and a multitude of similar agencies, apart from pathological derangements, are well recognized causes of deficient bodily nourishment, and prolific sources of disturbed health, revealing themselves in deficient weight, "weakness," anaemia, feeble circulation, neuralgia, cough and throat trouble, constipation, headache, backache, nausea, and a variety of phenomena, unconnected with sensible organic alterations, but characterized by neurotic and functional symptoms easily magnified by the patient and over-treated by the physician.

The consequences of an insufficient dietary are most frequently exemplified in young people of both sexes, growing school children, boys fitting for college, *débutantes* in society, young mothers of families, seamstresses, shop-girls, etc.; and although they

also appear at other periods of life and under other circumstances than those which have been enumerated, it is during the years of adolescence that the utilization of feeding has its supreme value and its prophylactic and curative effects as a therapeutic method are most easily obtained. Sir Andrew Clark, Mr. Grailly Hewett, Mr. Clifford Allbut, and others who have described the ailments which follow inadequate alimentation, have especially urged the necessity for greater attention to the question of diet in bringing up of families.

The underfed constitute so considerable a class that a large part of medical practice is devoted to attempts at satisfying their importunate demands for "something which shall make them feel better." To attack with drugs symptoms which are daily regenerated by starvation is labor in vain so long as that condition is permitted to exist. But if the famished tissues of those who say they are not sick and there is nothing the matter with them, only that they "don't feel well," and "cannot eat," be permeated with the fat which is so often loathed in food—if veins be filled with a more bounteous supply of blood, and if out-door air be made attainable without the expenditure of an already slender supply of strength—their bodily functions will take on renewed vigor and be reanimated from better life-giving resources, force will be stored up, energy will be developed, and innumerable discomforts evicted. The futile use of iron, quinine, bitters, elixirs, and other so-called "tonics," either when self-prescribed or methodically directed by physicians, and the insuccess of medicines, as a rule, to relieve the wearisome complaints daily listened to from persons whose mode of living is an injustice to themselves, do not always serve as a reminder that suitable nutriment in some form or other is the only real "tonic," and that its methodical consumption can alone relieve the protean afflictions of many, if not most, of those querulous supplicants. To say to them in a vague and general way that a nourishing diet should be taken, and that anxiety and overwork are to be avoided, is to give weak advice. The most rigid and literal obedience to fixed and precise rules in regard to the quantity and character of their food and the times of taking it—in fact, the carrying out of the process of "stuffing," practiced at short intervals of time, without regard to appetite, and pushed to the stomach's maximum capacity of digestion—is necessary to extricate them from their deplorable situation.

It is not my purpose to describe in detail the ailments and functional irregularities which are successively dealt with by dietary treatment, but to make some criticisms on prevalent habits of eating, to offer certain practical suggestions in regard to methods of improving them, and a few homely remarks on the extent to which feeding beyond inclination may be advantageously pushed, and the kinds of food, and its adjuncts, by which its effective adoption may be promoted.

The theoretical standard of a full ration has been given. The conventional standard, however, is an unsettled one. The statement that a person eats as much as other members of his or her family may mean a great deal or nothing, for there are large and small eaters both by habit, as well as by example, and there can be no criterion of the amount proper to be eaten under given circumstances, except that which is determined by a physician's judgment. This amount, as has been said, should not only be specified exactly, but its consumption insured, and nothing but precise and positive evidence accepted in regard to the fulfillment of the specifications given.

To secure a constant and sufficient conversion of food material by those who are or have been insufficiently fed vigilant supervision is often requisite. The personal influence which accomplishes this is a variable possession. Some persons can win obedience where others might capitulate, and will exhibit a persistency in carrying out their suggestions which makes successful feeding a certainty when more lenient and compromising tactics would fail. Enfeebled subjects, especially women, often feel a great satisfaction in being controlled, and in being led, lifted, pushed by a strong will. With such individuals, resolute oversight tells. That which they say, in regard to eating, they "cannot do" they are made to do. When they think they "do their best" they are compelled to do more and better, and an assertion that they will "try" to eat is counterbalanced by a determination that they shall succeed. No symptom of the feebleness which results from being underfed is more characteristic of the condition than the almost invariable obstinacy of its subjects to accept advice which suggests an increase in their consumption of nutriment, and no steps in securing a mutual understanding between physician and patient are so difficult as those directed to overcoming the dogged resolution and pertinacity which are manifested in this respect.

As a stomach may become over-distended and permanently dilated by long gluttony or by the accumulated ingesta which a slow and feeble peristalsis refuses to move on, so may it also become contracted from the habitual want of sufficient victualing, sometimes to such a degree that the introduction of enough food can only be accomplished after the gradual dilatation of its receptacle. This may be affected by increasing the frequency of meals. The custom, common in this country, of having a long interval between them is the reverse of that desirable for those who require extra feeding. The ordinary European arrangement adopts a system which is worthy of imitation, a "little and often" being the motto of the eater. It is useless to attempt too much at a time. The stomach conforms slowly, and rebels at a certain limit, but a brief respite and a short intermission put it in a less antagonistic attitude. If, for the reasons given, or from mere disinclination, two meals have been all which the subject under treatment declares can be "got down," as is often the case, then three must be taken or the time between successive feedings shortened to two hours, according to the aggregate amount of nourishment intended to be given and the readiness with which its forced consumption is effected. It is an advantage, therefore, that certain periods of the day, not precisely fixed, but approximative, should be established as meal times. For instance, before rising, at the usual breakfast hour, in the middle of the forenoon, at the accustomed luncheon, in the middle of the afternoon, at the regular dinner, and on going to bed.

It is a common impression that to take food immediately before going to bed and to sleep is unwise. Such a suggestion is answered by a reminder that the instinct of animals prompts them to sleep as soon as they have eaten; and in summer an after-dinner nap, especially when that meal is taken at midday, is a luxury indulged in by many. Neither darkness nor season of the year alters the conditions. If the ordinary hour of the evening meal is six or seven o'clock, and of the first morning meal seven or eight o'clock, an interval of twelve hours, or more, elapses without food, and for persons whose nutrition is at fault, this is altogether too long a period for fasting. That such an interval without food is permitted explains many a restless night, and much of the head and backache, and the languid, half-rested condition on rising, which is accompanied by no appetite for breakfast. This meal itself often dissipates these sensations. It

is, therefore, desirable, if not essential, when nutriment is to be crowded, that the last thing before going to bed should be the taking of food. Sleeplessness is often caused by starvation, and a tumbler of milk, if drank in the middle of the night, will often put people to sleep when hypnotics would fail of their purpose.* Food before rising is an equally important expedient. It supplies strength for bathing and dressing, laborious and wearisome tasks for the underfed, and is a better morning "pick-me-up" than any hackneyed "tonic."

That the particular food is alleged to be unpalatable, or the hour at which it is to be taken inconvenient, is of no importance. Indeed, it sometimes lends a helping hand to have each mouthful considered the equivalent of a dose of medicine. A tablespoonful of cod liver oil is often taken regularly and amiably when even the smallest quantity of some inviting delicacy will not be swallowed. It is a matter of observation, says Mr. Francis Galton, "that well-washed and combed domestic pets grow dull. They miss the stimulus of fleas." The energy required to dispose of that which is disagreeable is often a discipline of great service to certain classes of persons. Their faculties need to be whipped and spurred to prevent them from perishing by disuse, and the degree of vigor capable of being generated is often proportionate to the amount of coercion to which they are subjected.

The rugged way, however, may be smoothed by various procedures, and need not be made unnecessarily hard to travel. It is helped by selecting food containing the most nourishment and the least bulk, and which is easiest to swallow after a minimum of mastication, or without any. The culinary art facilitates the ingestion as well as the digestion of meats, which, without its cajolery, might be tough and uninviting. Skillful feeding by a nurse who recognizes the art which may be exhibited in coaxing food into the stomach is often of advantage. Food thus administered must be introduced in large mouthfuls. Every gourmet knows how necessary this is for the satisfaction of the palate, and the correctness of the fact is substantiated by reason and by analogy. Well-shaped, widely-seasoned, large morsels make a

* It should be borne in mind that a full bladder is a frequent cause of early morning wakefulness. Rising and passing water will often send restless sleepers back to bed for a refreshing nap, which without relief from this source of reflex irritation would not have occurred.

relishing and appetizing mouthful, inviting repetition. In divided bits they quickly satiate or excite repugnance. By this epicurean method the stomach is rapidly and persuasively charged with a sufficient supply of nourishment, as it never can be by the feeble pickings of an apathetic eater. *L'appetit vient en mangeant* is a paradoxical adage constantly verified. Not only mere disinclination to eat is often successfully overcome by persistent feeding, but a liking for, and dependence upon, full and hearty meals is established, and, what is more, retained.

In cases where food is urgently called for its artificial introduction is an easy and beneficial manœuvre. It does not require a stomach tube, and has but little resemblance to the procedure resorted to with the insane. It may be practised with insignificant discomfort by means of a soft rubber catheter, not exceeding a No. 12 in size, fitted to a small glass tunnel, into which the nutriment is poured, or it may be sent through the tube by a Davidson's syringe. The catheter need enter but a short distance into the œsophagus. If no resistance be offered the operation can be performed by almost any one, even by the patient himself. Milk, cream, broth, eggs, and homogenous liquids are thus readily deposited, and to the desired extent, in the stomachs of those disinclined to eat.

The number of females, especially those who "do their own work," whose food consists almost wholly of bread and tea, is very large. How inadequately they are nourished is shown by the statement that, in order to get the required amount of aliment, persons who eat nothing else must consume about four pounds of bread. As this is so much more than any one can dispose of with comfort, the practice of eating butter with bread is almost universal. This not only meets the necessity of a heat-producing, non-nitrogenous food, but the unattractive character of dry bread as an eatable is compensated for by the relish of a savory addition. In proportion as the use of butter is increased the requisite quantity of bread may be decreased. To eat "more butter than bread" should not therefore be the reproach to growing children which it is often made, and the large amount of the former which may be profitably disposed of by the underfed without "disturbing their stomachs," is not surprising if the process by which oleaginous substances are taken into the system is re-called. "Fat, butter, and oily matter in general require no digestion, the emulsion into which they are mechanically con-

verted, chiefly by the pancreatic and duodenal secretions, passes (almost directly) into the general circulation of the blood."* For reasons similar to those which make cream and butter such useful articles of diet, and because the habitual food of insufficient eaters is so lacking in fatty matter, cod-liver oil has acquired its well deserved place among therapeutic and alimentary agents.

The tendency of those whose appetite is deficient to lay great stress upon their readiness to take food which does not require mastication makes them willing consumers of soup. And yet of all articles entering into the common dietary soups are perhaps the most deceptive, and certainly the most important to discountenance with the underfed. They fill up the stomach at the expense of solid, "staying" nourishment, and contain so little in the way of sustenance that they are therapeutically almost worthless. As a rule they are but some form of meat tea, and are now known to have a food value not unlike that which urine would possess, were it drank, and which they resemble chemically.† "They may have on the system a stimulant action somewhat analogous to theine. They may render more prompt and efficacious the assimilation of any wholesome food with which they may be associated, and they may even give so effective a fillip to an exhausted system as to enable it to dispense for a time with real food, but it is clear that they must not be looked to for direct nutrition."‡ The established use of *bouillon* at lunches and "Germans," and of a "clear soup" at the commencement of dinner, is thus accounted for; and it is only in a sense, such as has just been indicated, that the Crimean saying, "Soup makes a soldier," has any justification in fact.§

Broths, however, that is, soups which contain large quantities of solid matter, disintegrated meat, vegetables, macaroni, vermi-

* Church, p. 36.

† An old and essential custom prescribed recently-passed urine at the completion of every case of labor. Such a practice, it would seem, was not altogether absurd. I can myself recall an instance when this draught was administered after her confinement, as a matter of course, to the wife of an eminent medical gentleman, at that time connected with Hartford University.

‡ T. Twining, Familiar Lessons on Food and Nutrition, London, 1882, page 212.

§ The meat from which soup is made allowed to become cold, should be pounded to a paste in a mortar and then returned to the soup. Veal, pidgeon and rabbit are especially adapted to this procedure. "French" cooks prefer to make "chicken broth" from rabbit.

celli, *pâte d' Italie*, rice, barley, sago, tapioca, etc., are often, and in proportion to the consistency thus given, excellent alimentations. They are palatable and easily consumed in considerable quantities at a time. *Soup à la Reine*, *purée de gibier*, various vegetable *purées*, chowder of fish, *bisques* of oyster, clam, lobster, are illustrations of the perfection of this kind of cookery. That they may be what is sometimes called "rich" is no objection. The digestive powers of the underfed are usually good, though the owners of them may not think so. They are apt to be active and ravenous even if the appetite is not.

Notwithstanding its capacity to digest there is, invariably, something repulsive to an insensible stomach in what are conventionally called "roasted joints." This antipathy, together with considerations of convenience as regards the size of portions to be cooked, makes it almost imperative for protesting but frequent eaters that meats should be either broiled or stewed; and steaks of various kinds, chops, cutlets, chicken, game, some kinds of fish and shell fish, become, therefore, the only really available resources of the caterer for an ill-ordered appetite. And yet no more difficult undertaking can be given non-hungry patients than that of eating beefsteak. Apart from its somewhat uncertain quality nothing requires more mastication, and the class named always declare that there is no item of food of which they are already "more tired." Any other variety of meat, mutton, veal, venison, etc. cooked in the form of steak is more readily eaten. The short, compact fibre of mutton chops, especially those from the loin, makes them less likely than beefsteak to be badly cooked, and far easier to be consumed. Well selected, carefully-cut lamb chops, in their proper season, are a delicacy of the highest order, and rarely fail to be appreciated by the most benumbed eater.

Meats stewed, or semi-stewed, and then partially browned in the oven (braised, as it is called in the language of cookery) are attractive and submissive preparations, and this method of cooking is an excellent one for purveying small portions of animal food. In the various forms and denominations of stewing and braising the *cordon bleu* finds scope for the highest aspirations of culinary art. || They impart an appetizing flavor to viands cooked to ex-

|| The details of braising and other refined culinary processes are feelingly particularized by Sir Henry Thompson, in *Food and Feeding*, third edition. London: 1884.

treme tenderness, the perfection of these methods being found in their application to sweet-bread, a costly luxury, but an article which, by its slight demand for mastication and its nutritious qualities, is peculiarly adapted to the requirements of an invalid eater. Others of the viscera besides the pancreas and the thymus gland, namely, the brains, the liver, the kidneys, the testicles of lambs, successfully lend themselves to this process of cookery, and, like calves' heads, pigs' feet, and sheep's tongues, are converted into delicate and easily assimilated nutriment for those who are ignorant of, or can overcome, the associations which they suggest.

Of various mechanical processes available for rendering food easily eaten preparatory mincing offers great advantages, and is particularly applicable to chicken, and veal. A common and attractive method of serving both in the form of minced meat is that of *croquettes*. I am at a loss to know why veal is so often proscribed rather than prescribed. Its chief defect is in being a lean meat, containing more water and less fat than mutton or beef, and consequently of subordinate nutritious value. It is, however, the standard meat of France, as beef is of England, and properly chosen veal, from large calves, is open to no dietetic objection which I am aware of except the difficulty of cooking it well. It is not less digestible than other young meats, and if occasionally "poisonous" it becomes so from decomposition, which, in the season of its abundance, more readily takes place from keeping, or changes in the weather, than is the case with meats of maturer growth. But this, like poisoning by partridges which have been too long kept in winter time, is an inexcusable accident.

In spite of the somewhat flippant assertion of a justly distinguished medical writer that "there is a growing incapacity to digest fat which is truly alarming," I do not hesitate to assert that of all the modes in which minced meat may be presented the calumniated and much-labeled sausage is, in winter time, one of the most useful and successful articles for frequent feeding. Lean and fat meats, more digestible together than separately, are discriminately mixed in the compact and appetizing form of this ubiquitous and popular comestible, the sole secret of whose easy digestion is that it should not be eaten except when it has become thoroughly cold after cooking. Bread and butter can be tolerated with complete immunity when hot buttered toast

would provoke exasperating dyspepsia, and it is exactly thus that sausage cold stands in relation to that which is served hot. Presenting the albuminates and fat in an economical, savory form, easily obtained and made ready for consumption, sausage, in some countries, might almost be said to have become a national food, and it offers to the fastidious or indifferent eater an article of diet from which great benefit may be derived. A trial of this stigmatized edible will be followed by a ready recognition of its alimentary value in the class of cases under consideration.

As has been remarked already, food to be taken outside the conventional meal hours must be of a kind easily obtained anywhere, readily "kept in the house," and which does not demand preparation or delay. Few persons can command the services of a "professed cook," or of a good "plain" cook, or have either at their disposal every two hours in the day. The practical articles of diet which meet these restricted requirements of convenience are few, and of these the chief in importance are eggs, milk, cream, butter and bread.

"Raw albumen is one of the most digestible of foods; coagulated, it is comparatively indigestible."* Eggs to be easily digested must be eaten uncooked, since albumen under prolonged heat acquires progressive degrees of toughness.† When cooked, buttered, salted, and peppered they are soon tired of as articles of food, and alleged to be "bilious." Cooking, moreover, involves waiting and preparation. An uncooked egg is always ready and at hand, is clean to be kept anywhere, and scarcely needs to be broken into a glass. With a little knack it may be swallowed direct from the shell, as most persons know if in childhood they had access to country barns. A raw egg weighs from two to two and a quarter ounces, and is said to contain about the same flesh-forming and heat-giving material as an equal amount of butcher's meat.‡ It offers in perfection the quickest and neatest mode of taking a large equivalent of substantial and nutritious food at a swallow. Every bar-room realizes this, and supplies its counter with a bowl of eggs. The

Twining, p. 184.

† Eggs should not be cooked by boiling but by placing them in hot water, and allowing them to remain there from seven to ten minutes.

‡ Church, p. 147.

steady drinker; who has eaten nothing for breakfast and has no appetite, but knows the injurious effect of a drink on his empty stomach, can crack an egg, quickly dispose of it, and justify himself for an early dram. Even "soda shops" appreciate their value, and dispense them with lemonades and phosphates. Beaten-up eggs are the certain provocative of dyspepsia. When subjected to this process with the infinite pains taking of an attentive friend or nurse, an inviting draught of creamy froth is brought to the unfortunate recipient,—a tumbler full of air, which has been introduced in the largest possible amount to a given quantity of egg, milk, wine, sugar and nutmeg,—than which nothing could be better devised to promote indigestion, abominable eructations, and the most uncomfortable flatulence or acidity. Every beer drinker has the good sense to blow off the "head" of his mug of beer, or to wait patiently for the froth to subside, before he imbibes the draught; and if crochety persons will not learn the trick of swallowing an egg whole, they can compromise the difficulty by slowing stirring the white and the yolk, which may be thus mixed together and made to seem a less revolting dose without the incorporation of air by beating. Taken as a medicine, and looked upon as such, eggs are at least equally palatable with codliver oil, for which they offer an equivalent substitute, adapted to winter or summer, as the latter hardly is, and are far more readily digested. There is no limit to the number which may be taken with advantage continuously and for months at a time. Eighteen eggs are required to furnish the flesh-forming materials and other nutrients sufficient for the various needs of an adult man in one day. No more striking illustration of their concentrated food value, or a better proof of its general appreciation, can be given than the statement that during the first quarter of 1876, in Great Britain, the consumption of eggs reached the enormous number of seventeen and a quarter millions. || Fifteen millions were imported into this country from Europe in the year 1883. It is but fair, however, to remember that a vast number of eggs are used in the arts, especially photography, and in manufacturing processes.

Milk and cream are convenient and therefore important and desirable articles of food. It is a common assertion of patients that milk "always disagrees with them,"—that they have "never been able to take it." This statement, which, as a rule, may

|| Church, p. 148.

safely be attributed to mere prejudice, is also in some cases a true one, simply for the reason that the milk is drank too rapidly or because it is not rich enough, an easy remedy being to take the given quantity more slowly, or to increase by addition the amount of cream which the milk naturally possesses, the trouble being due, in the first instance, to the fact that a large and solid cheese curd is suddenly formed in the stomach by the rapidity with which the milk is deposited in that organ, and in the second, to the hardness of the casein derived from the milk with an insufficient percentage of cream, which is always inconstant in amount (varying between ten and fifteen per cent.) or in composition, the water alone ranging from forty-five to sixty-five per cent. § Milk is often too poor, but never too rich, for purposes of enforced nutrition, and the fact is incontrovertible that it is the model food for digestibility. ¶ By adding cream to milk the amount of fat is increased and the curd is softened; and its digestion can be still further facilitated by the disintegration of its coagula, accomplished by crumbling into it bread, cracker, etc., or by the addition of a small amount of cooked meal or flour. By this latter means cold milk is made warm, which gives it an increased efficacy. This end may also be attained and the distastefulness of warm milk removed by flavoring it with the preparations of cocoa, weak coffee, or some of the inert substitutes for the latter, sold by grocers, the best of which, it has seemed to me, is known as "new era coffee," consisting simply of roasted and ground wheat. But, as hot milk demands a certain amount of trouble, cold milk alone, or with bread broken into it is, after all, the only practical resource so far as its use for frequent nutriment is concerned; and two quarts of milk, or three pints of milk and one pint of cream, are not more than the minimum quantity desirable for ingestion in twenty-four hours. Clear cream may be administered in doses of a wine-glassful after each meal, as any other medicine might be, and a great deal can be disposed of by eating it liberally added to cooked

§ Church, p. 136.

¶ The analysis of "market" milk sold in Philadelphia and New York is as follows:—

Water.....	87.7 per cent.	Milk sugar.....	4.42 per cent.
Total solids.....	12.3 per cent.	Albuminoids.....	3.42 per cent.
Total solids, not fat ...	8.48 per cent.	Ash.....	0.64 per cent.
Fat.....	3.75 per cent.		

A. R. Leeds, Medical News, July 21, 1883.

fruit and various dessert dishes. *Blanc mange*, Italian cream, and the various forms in which many delicate farinaceous articles are cooked, may thus be made more eatable through the zest given them by this accompaniment. There is a great difference in the palatableness as well as digestibility of cream which is obtained from milk by centrifugal force, as is largely done for the market, and that which is skimmed after "setting." This distinction should be borne in mind in prescribing cream which is to be taken uncooked. The last-named product is by far the most desirable article.

Very few patients, especially women, drink a sufficiency of water to maintain their health or an adequate nutrition. Water is an important constituent of food; is, indeed, the carrier of food into and through the system, and forms more than two thirds of the whole body. Neglect to keep up the supply of water leads to a diminution in the quantity of blood, and lessens the body's strength.* When it is remembered that there are daily eliminated from eighteen to thirty-two ounces of water from the skin by perspiration, eleven ounces from the lungs, and fifty ounces from the kidneys, it is easy to see that the amount consumed by many persons falls short of the demand, and that their bodies must be insufficiently supplied with the requisite degree of moisture; some sixty-six ounces of water alone and in tea, coffee, beer, etc., being required for a daily supply over and above that which is contained in the solid food of a full ration to make good the average regular waste.† The constipation which is so common in illnourished persons is largely due to a want of liquid in the intestinal canal. This, therefore, will be ameliorated by the free use of water, as is also the constipating tendency of milk which is sometimes complained of, the curds being liquified and reduced in size, and thereby made more readily digestible. Its effect on hardened fecal masses or accumulated mucus in the intestines is equally obvious, and explains in part the intention as well as the success of the hot-water craze at present so popular.‡

* The characteristic thirst which attends great and sudden losses of blood is a symptom of interest in this condition.

Some valuable comments on the therapeutic uses of water, by Mr. Lander Brunton, may be found in the *Practitioner*, May, 1884.

† Church, page 51.

‡ There was perhaps more common sense than Martin Chuzzlewit supposed in the American habit, prevalent when people lived more frugally, and

The underfed are benefited and the process of feeding is helped by alcohol. But the amount of alcohol which such persons may take as a food adjunct with advantage is very small. The cumulative effects of a medicinal dose at stated intervals are of greater utility than the more instant result of a larger allowance swallowed in a single drink. A measure of alcohol which produces an effect quickly, that is, which flushes the face, or exhilarates, as a sherry-glass of wine does with most females, for instance, is a toxic dose and will be followed by reaction. It is a quantity short of this which is allowable. A teaspoonful, or at most a dessertspoonful, three or four times a day, is usually as much as can be borne without such sequelæ as are above alluded to. Spirits serve their purpose better than wine, for the reason that the relative quantity of alcohol administered is more measurable. Wines vary in strength; spirits are comparatively uniform. Tinctures even, or elixirs, may be given when spirits are objected to either on principal or from prejudice. In any case there should be a large dilution with water, as a more gradually stimulating effect is thus produced. Alcoholic medicines ought never to be taken on an empty stomach.*

The subject of bathing, incidentally alluded to, leads me to call attention to the fact that cold baths chill down the feeble circulation of the badly nourished, and provoke a physical torpor which is obstructive to the processes of nutrition. They drive the blood from the surface of the body in upon vascular organs, whose circulation is already sluggish from general weakness. They thus produce discomforts which aggravate existing languor and enhance the feeling that food and drink ought not to and

went to bed with empty stomachs oftener than nowadays, which he noticed in his fellow boarders at Mrs. Pawkins', "who, after taking long pulls from a great white water jug upon the sideboard, and lingering with a kind of hideous fascination near the brass spittoons, lounged heavily to bed." Water drinking was indulged in thirty years ago more than at present, and in the half-starved existence which bred the lank and conventional type of American in those days, I cannot but believe that the comfort and well-being of the then living community were greatly promoted.

*There is much pragmatical talk about "pure liquors," and the difficulty of obtaining them. It may be questioned whether alcohol and water, except for an educated and fastidious palate, is not as wholesome for medical uses as any high cost wine or spirit. Noxious impurities, when they exist, are usually owing to imperfect distillation, or lack of age, rather than to deliberate "doctoring."

therefore cannot be taken. A bath described as one "from which the chill has been taken" is too cold for subjects under medical advice who are in need of extra feeding. Great pains should be taken to discountenance everything which reduces the bodily heat, and employments or amusements which in any sense tax the strength ought to be abandoned when a forced diet is attempted. Even ordinary exercise is often objectionable, and its complete discontinuance sometimes so important that confinement to bed is a necessity. Those who raise animals are practically made aware that a restless disposition is fatal to successful growth in vigor and flesh. The truthfulness of this observation is equally apparent with human beings who need "building up" in the literal sense of these remarks.

Mere fattening is not the object of full feeding, but it is to a certain extent its necessary accompaniment. The motive of the measure, as has already been stated, is to add to the quantity and quality of the blood, and it is hardly possible for an individual to grow fat, without a decided increase in his volume of blood. Weighing at stated intervals is therefore an important procedure, and there is no other way to make sure that the subjects of treatment are sufficiently well fed to gain blood. Persons who put on fat rarely fail to improve in color; their comfort is enhanced; warmth of body is gained, in itself no slight improvement; the pulse becomes fuller; the cheeks grow redder; the spirits are raised; the general mien becomes brighter; and these phenomena are explainable only by admitting that there has been an accession to their stock of blood. The scales thus become the thermometer of improving health and strength, by the aid of which, the physician measures the progressive results of his regimen. Like the "pass-book" used at banks, they reveal in a ready and serviceable way the healthful standing of an individual, the relation of his resources to the wear and tear checks which he is continually drawing, and whether his account is nearly or quite overdrawn or superfluously plethoric. They ought not to be put into requisition too frequently, and only when there is reason to think that an encouraging increase of weight has taken place. This should manifest itself soon after systematic feeding is begun, and continue at the rate of two pounds a week, or not less than one pound, so long as improvement seems desirable, or until a weight has been reached, the

minimum of which shall be equivalent to two pounds for each inch of stature.

Experience and observation have universally confirmed the expediency of a heartier and more systematized diet than recently prevailed. Its utilitarian advantages are publicly recognized. Within twenty years the rations of armies, of institutions, charitably penal and medical, have been liberally increased. Family habits in regard to eating, since the flush times of the Civil War, have greatly changed, and the large allowance of food requisite for the maintenance of a sound health can scarcely be exaggerated in any statement of its details. In the application of this accepted dogma to special and personal cases there is much, however, still left to be desired.

I cannot better conclude this paper than by a paraphrase of Mr. Clifford Allbutt's words in his recent Gulstonian lecture,* wherein he observes, although not precisely in the language which follows, that: Under the benign and self-controlling influences of an amended nutrition the domestic atmosphere changes. Sore throats and trivial indispositions which once raised the frequent suggestion of a conflict with school, or a dinner, or an evening party, no longer present themselves as subjects for anxiety. Headaches and vague transitory pains disappear. Ill temper, fretfulness, the fidgets, crying-spells, shrewishness, sleeplessness, listlessness vanish away, and the complaint of being "good for nothing" ceases to be made. By the building up of digestive resources a reserve of strength which never before existed, is created, or a wasted one is restored, not merely for use on great occasions, but by its wisely managed expenditure, to serve permanently for the silent work and equable running of vital machinery. Convince underfed invalids that no further defalcation of diet or new combination of drugs is needed; that, instead of waiving dishes aside, like the physicians of Sancho Panza, they should be indulged in liberally, and they will find health within their reach; and by careful advances and the frequent repetition of small and highly nutritious meals realize that they can steadily eat their way upwards to a regenerated and tranquilized condition of body and mind.—*Boston Med. and Surg. Journal.*

* Lancet, April 5, 1884, page 605.

A Strong Opinion in Favor of Ether.

Many still cling to the delusion that chloroform is a safe anesthetic, because they have never seen a patient die from it. Is one man's experience to weigh against the physiological, the experimental, the clinical experience of the whole world? Dare we employ chloroform instead of ether, when recognized authorities state that in chloroform anesthesia death occurs without warning in the hands of experienced administrators?—when some five hundred deaths have already been reported?—when Schiff and Dalton reject it in physiological laboratories because of its mortality?—when the Scientific Grants Committee of the British Medical Association asserts that chloroform is a more dangerous anesthetic than ether? Adherence to chloroform in the face of such facts is criminal when circumstances permit ether to be obtained. The assertion that it is often impossible to produce anesthesia with ether is the result of inefficient methods of administration. Ether, if given as chloroform is and should be given, is in truth a useless anesthetic, but given properly it is efficient.—*Address of John B. Roberts, M.D., Philadelphia.*

Hypodermic Injection of Anthelmintics.

The *Medical Press and Circular* states that the hypodermic method of administering santonate of sodium has proved entirely successful in the hands of Dr. Dubois (*Allg. Med. Cent. Zeit.*), in an experiment made by him upon a dog, in securing the discharge of an immense quantity of seat worms. Sixteen grains of that drug were so injected, and the proceeding was unattended by a single untoward symptom, either general or local. Experiments are yet wanting in the case of human beings; but if similarly successful when tried, this method will be a pleasant advance upon the present mode of administering anthelmintics by the mouth, promising, as it does, to effect a cure "safely, quickly and pleasantly." Many of the drugs now used are nauseous to the taste, and require to be given either in large or frequently repeated doses. By the new method the exact dose will soon be determined, and the irritation of our present treatment upon the intestinal tract will be avoided.—*Weekly Drug News.*

TO PREVENT DISTURBANCE OF THE STOMACH from tincture of iron, it is advised to add muriate of ammonia in the proportion of one part to two of the tincture.

PACIFIC
Medical and Surgical Journal
—AND—
WESTERN LANCET

VOL. XXVII.

SEPTEMBER, 1884.

No. 3.

Original Articles.

FLOATING KIDNEY—A CASE AND CURE.

By ALBERT ABRAMS, M.D.

The case which I here propose to cite, has no special interest, other than the comparative rarity of the affection in question. An unmarried female, æt. 29, of phthisical parentage, presented herself to me for treatment. She complains of uneasy sensations of an indefinite character, confined to the abdominal cavity, without any definite localization. Aside from hemoptysis, which has occasionally manifested itself, this is all in brief that can be elicited regarding the present affection from the subjective symptomatology. The patient is the embodiment of the conventional phthisical physiognomy, viz.: long, flat chest, deep and broad intercostal spaces, the manubrium receding at an acute angle from the plane of the sternum, protruding scapulæ, (scapulæ alatae), etc., a picture which almost invariably confirms the diagnosis of phthisis. In order to economize space, our attention, in the main, will be concentrated on the abdominal cavity. On inspection an intumescence to the left of the linea alba on a level with the umbilicus, is discerned, which becomes less prominent when the patient assumes the recumbent posture. The abdominal parietes, aside

from the paucity of subcutaneous fat, exhibit nothing abnormal. On palpation, conducted in the knee-elbow position, which facilitates most readily manipulation, the tumor admits of only partial luxation, and is somewhat resistant. On palpation furthermore, a pulsation is felt corresponding to an indentation in the tumor. The figure of dulness elicited by percussion, corresponds with that exhibited by palpation, viz: *reniform*. On measurement, the length of the figure of dulness is 3, and the width $1\frac{3}{4}$ inches. On palpating and percussing the lumbar regions, no difference in resistance or resonance between the two sides is noted. The pelvic viscera are normal, with the exception of a slight anteversion of the uterus. The diagnosis in this case was not difficult; indeed no differential diagnosis was necessary. It was a case of *Floating Kidney*, the left kidney having moved from its normal anatomical location.

We read in the literature of the subject, that out of 173 cases of floating kidney, in 162 the right, and in only *eleven cases* the left kidney was implicated. The precedence in order of frequency attained by the right kidney in undergoing ectopia, is based on anatomical and physiological principles. The normal kidney is firmly embedded in its capsule and lies on the quadratus lumborum muscle. The adipose envelopment, (which is absent in the fetal and infantile periods) and the attachment of its vessels, furthermore assist in its fixation. The right kidney is however less firm than the left, owing to the following causes: We know that the concave surface of the right lobe of the liver contains a depression (*impressio renalis*) for the partial lodgment of the right kidney, or more properly for the right suprarenal capsule, which is firmly adherent to the kidney. Now the ordinary respiratory movements are transmitted to the liver, and thence to the kidney. We readily see that this physiological act could be a paramount factor in conducing to dislocation of the kidney; but if this alone represent the factor in its etiology, why should the preponderance of cases be met with in females? (In 97 cases only 10 occurred in males.) Cruveilhier comes to our rescue and avers what to my mind has been slightly dealt with by authorities on the subject, viz: that the mode of apparel used by females, viz: corsets, dislocates the liver and by contiguity, the kidney.

Again, the left supra-renal capsule vein empties into the left renal vein, whereas the vein of the right supra-renal capsule empties directly into the inferior vena cava. Thus the support

gained by the left kidney, by this freak of anatomical dissimilarity is lost in the right kidney. If we go still further, although we are likely to encroach on the problematical, we may venture to say, that owing to the position of the abdominal aorta, the right renal artery is longer and more tortuous in its course than the left. Thus an aid of support gained by the left, is wanting in the right kidney. In our case the left kidney is the affected one, and we refer to the patient for a reason. She remembers having received an injury in the left lumbar region, which necessitated for a time her confinement to bed. Although this may be a remote cause, it did not meet the requirements of the case, for only recently when she began to *emaciate* her present trouble began. A floating kidney has often developed after emaciation, and we are safe to conclude that the injury received, together with the emaciation, were the etiological factors in this case.

Landau tells us, that in only two out of 42 cases occurring in women was the affection noted in unmarried females. The cause of this, as maintained by the authorities, is due to the fact, that owing to the physiological changes occurring in pregnancy, the pelvic viscera are crowded upon and exert a tension on the ureters. It would be difficult to find a more appropriate reason than this, why a floating kidney occurs more frequently in married than in unmarried females. The pulsation palpable in this case, was a somewhat unusual phenomenon in the symptomatology. That it emanated from the renal artery was beyond question. The sensations elicited by the patient on palpating a kidney are of course various. Some have a tendency to vomit, others experience severe pain. In our case nausea could be induced by palpating the kidney. Gerhart reports the case of a physician, who interpreted the sensation as somewhat similar to that when the testes are compressed. The absence of a difference in resonance between the two lumbar regions did not necessarily preclude the possibility of a floating kidney. Indeed when authors maintain that a sympathetic tone is obtained on percussing the lumbar region on the affected side, the inference is somewhat theoretical, or at any rate the sensation is perceptible only to the more dexterous. Often when the kidney is not bound by adhesions, we are able to reduce the dislocated organ, and thereby perceive the difference in resonance before and after reduction.

The prognosis in uncomplicated cases of floating kidney is, to quote the language of Trousseau, "not serious: but the results

accruing from mistaking the affection often render it so." No recorded death has as yet been directly ascribed to a floating kidney. Regarding the treatment, the primary step to be attained is to reduce the dislocated organ, and to retain it in its original site by appropriate bandages constructed for this purpose. The reposition is of course best accomplished in the supine posture after thorough evacuation of the bowels, and means being furthermore insured to secure a thorough relaxation of the abdominal wall. If the dislocation of the kidney be a result of any acute injury, it is suggested that the recumbent posture when prolonged for weeks, may secure fixation of the organ by the formation of adhesions. In our case reposition was impossible, owing to existing adhesions; at any rate an abdominal supporter especially constructed was recommended. I did not surmise that any material benefit would follow this mechanical treatment, for in those cases where it is of benefit, the abdominal walls are flaccid and hanging. We know that the kidneys are to a certain extent maintained in position by the normal intra-abdominal pressure, and when this pressure sinks, opportunity is offered for the kidneys to wander. Now in those cases where an abdominal supporter brings relief, it acts in the main by increasing the intra-abdominal pressure. Again, in cases where the abdominal walls are flaccid, faradization and massage, and even hydraulic treatment of the abdominal parietes often yield excellent results.

After wearing the abdominal supporter for a week or more, the patient, to use her own language, "could sleep better than she did for months, and the distressing sensations were no longer present." But this relief was only of short duration, for she again consulted me owing to a recurrence of the distressing sensations. In pernicious cases of floating kidney, nephrectomy has in the last decennium been repeatedly resorted to. A case is reported where Czerny extirpated a floating kidney; but the case terminated fatally owing to the congenital absence of the other kidney. Modern surgery, notwithstanding its temerity, is comparatively seldom brought into requisition for the relief of a floating kidney. Hahn recommends sewing the affected kidney to the abdominal walls. In our case, less heroic means were resorted to. Proceeding on preconceived views regarding the occasional physiological action of *cantharides* when applied topically, viz: to penetrate the skin and cause inflammation of serous membranes and as a result adhesions, collodium cum cantharide was applied

directly over the tumor, and repeated twice or thrice daily; and the patient was enjoined to assume the prone posture. A compress was furthermore applied over the region of the kidney to render if possible the contiguity of the abdominal walls and the kidney more intimate. This treatment was persisted in for about a week, and the result was highly satisfactory. I could assure myself that the luxation of the kidney was no longer possible. A month after this I saw the patient, who still continues to report her condition as favorable. Complications usually following the continuous application of cantharides locally, e. g. dysuria, albuminuria, etc., did not occur. In more pernicious cases than ours, caustics could be resorted to, in order to promote peritoneal adhesions, on the same principle as when hepatic abscesses are to be incised. There were certainly advantages met with in our case which facilitated the therapeutical procedure, viz: partial adhesions of the kidney to the abdominal walls. There is nothing absolutely conclusive in the case, and the treatment and result can only be decided upon favorably or otherwise, by adducing the results of a number of similar cases, similarly treated.

**CASE OF INSANITY CAUSED BY DEPRESSION OF SKULL
FROM OLD WOUND—TREPHING—RECOVERY.**

By M. F. PRICE, M.D.

Physician to the Arizona Territorial Prison at Yuma.

O. W. A., aged 35, born in Sweden, a prisoner in the Arizona Penitentiary, committed for a term of four years for manslaughter, came under my observation in Jany., 1883, when I became connected with said prison as Physician thereof. At that time he was in a state of imbecility, and at times violently insane. I could get no history of his case, but was told that he was in his present condition when admitted. No one seemed to know how long he had been demented, nor the cause. On examination I found a depression of the skull, with cicatrix, two inches and a half above and behind the left ear. I could not ascertain how or when the injury which caused the depression was received, but was satisfied that this was the cause of the mental disorder.

Feb'y 12th, 1883, he was attacked with confluent small-pox, and during the initiatory and secondary fevers, was managed and kept within bounds only by force. After recovery from this

attack he was about as before, but during the following winter gradually grew worse. He made frequent attempts to commit suicide and had to be constantly watched. This tendency was manifested in various ways. Once he was found standing on a box with a rope around his neck, and in the act of putting it over the ridge pole of a tent into which he had stolen. At another time he was found butting a wall with his head. He also persistently refused to eat; would not go into the dining-hall except on compulsion, and then would not eat. Food was sometime forced into his mouth, which he would then swallow. He now began to lose flesh and strength rapidly.

Seeing that it was impossible for him to live much longer, I decided to give him the benefit of the only chance to save his life, and the only hope for the recovery of his reason. Therefore, on the 24th of March, 1884, I trephined and removed the depression above mentioned, taking away $2\frac{1}{8}$ by $\frac{7}{8}$ inches of bone. This was removed in three pieces, two with the trephine and the intervening portion with Hey's saw. The operation was performed under ether, with antiseptic precautions, but without the spray. Instead of this I had a large pail filled with the antiseptic solution (mercuric bi-chloride, 1 to 1200) suspended over the table, to which was attached a rubber tube controlled by an assistant, who was instructed to keep the wound clean by flowing the fluid over it every few seconds. All my assistants were unskilled, (no other physician being within reach), detailed with two exceptions from the prisoners. The patient was under the influence of the anesthetic one hour and a half, the tying of a small superficial artery occupying much time owing to the inefficiency of my assistants.

On the removal of the bone the membranes were found to be healthy, and branches of the middle meningeal artery were plainly visible. The dressings used were made of strips of cheesecloth, saturated with the sublimate solution before mentioned, and carefully dried. No one was allowed to touch any instrument, towel, dressing, or the patient, without having previously washed his hands in the antiseptic solution. The wound was put up with the dressings thus prepared: horse hair previously washed and rendered antiseptic being used for drainage, and the man put to bed and carefully watched. Complete memoranda of temperature, pulse, sleep, etc., etc., were kept day and night. At no time did the pulse or temperature rise above normal, nor did an unfavorable symptom present. On the eighth day the dressings were

removed; the horse-hair drain taken out, and clean dressings applied. The wound was found nearly healed, and when again looked at, several days thereafter, entirely so. During the whole time not two drachms of matter of any kind was discharged. The man was returned to his cell twenty days after the operation.

RESULTS AND COMMENTS.—As soon as the patient had recovered from the anesthetic and while being carried to bed, he said, in English, “I’m hungry. I want something to eat.” It was not before known that he could speak English. Food was given him and was eaten with relish. While eating, and afterwards, he talked with his attendants quite rationally, and seemed to be cheerful and in his right mind. His condition continued improving from day to day.

About twelve days after the operation he gave me a history of his case, about as follows, viz: In May, 1880, he was working in the Republic Iron Mine in Michigan; the mine caved on him, crushing him down, breaking his skull and otherwise injuring him. He was treated by the physician of the mine, who took out seven small pieces of bone. When the wound was nearly healed he went away, notwithstanding the Doctor told him to go to him again. From that time on he seems to have a confused idea of events, and cannot give a very intelligent account of his movements. His incarceration in the prison seems to be but partially understood. I think he now realizes where he is, and this knowledge is having a very depressing effect on him. Like many others in prison, he will not let his people know where he is, nor will he give their address to the prison officials. At present he seems to be brooding over his lot, and wants to be alone; but when talked to by any one, seems to be rational and bright. His eyes and expression of countenance appear natural, and not at all as before the operation. If he could have been sent home immediately after recovery from the operation, where he could have had home influence and care, I think the cure would have been permanent. As it is, he will I fear become a victim of despondent melancholy, and it may be necessary to care for him all his life.

This case is, even under all the discouraging circumstances, quite a remarkable success, and proves the value of courageous treatment and active interference in diseases of the mind, where the cause can be ascertained or even suspected.

SAN FRANCISCO COUNTY MEDICAL SOCIETY.

SAN FRANCISCO, June 24th, 1884.

DR. W. E. TAYLOR exhibited to the Society a pathological specimen of a gall bladder and a portion of the duodenum, and a large gall stone with the following history: The patient, a former resident of the Sandwich Islands, aged 66 years, short and stout, came under the Doctor's care in September, 1883, suffering from pain in the region of the liver, nausea, loss of appetite and constipation, also from an irritating cough, but with expectoration. There was no indication of heart or lung disease. The Doctor suspecting some biliary trouble, treated her accordingly; and in a few weeks the patient's health improved, the bowels becoming regulated, nausea relieved and the appetite improved. On December 11th, while out shopping, the patient was seized with violent pain, nausea and vomiting, and had to be taken home in a carriage and put to bed. The Doctor was summoned that evening but found the patient relieved from pain. The following morning the pain returned, with nausea and vomiting, no fever or tympanites. On the evening of December 12th the case looked suspicious; the patient having vomited stercoraceous matter. Examination found the rectum clear; and the uterus in its normal position. The Doctor then concluded that there was an acute intestinal obstruction, through internal strangulation. He informed the relatives of the gravity of the case, and that death was inevitable, and the only hope for her recovery would be to open the abdominal cavity and relieve the obstruction. On the morning of the 13th, thirty-six hours after the commencement of the attack, and eighteen hours after the beginning of stercoraceous vomiting, the abdominal cavity was opened in the usual manner; there was found some circumscribed peritonitis, and a portion of the small intestines was considerably distended with gas, and other portions collapsed; thus giving the impression that there must be an obstruction. In the lower third of the duodenum there was found a hard mass wedged in the bowel; it was difficult to tell what this was, as there was no history of the presence of gall stones. A needle was passed into the bowel to break up the mass but it was impossible; the same result followed when an attempt was made to push the mass onward. The bowel was then opened and a gall stone removed one and a half inches long and one inch wide; the bowel was then sewed up with Lembert's Suture, using

fine silk. The bowels moved twenty-four hours after the operation, and up to the fourth day she was doing well, when the pulse became more frequent and feeble; then the skin became cold and clammy, the temperature lowered, and on the fifth day she died from exhaustion. At no time was there any fever, tympanites, or special abdominal tenderness. The question was, how did such a large mass get into the bowel, which was too large to pass the gall duct; there must have been some inflammation, followed by adhesions between the gall bladder and duodenum, ulceration following, and the gall stone thus dropped into the bowel. The *post mortem* revealed such to be the case. Many cases die from supposed enteritis and peritonitis, which are no doubt due to obstruction. Where there is acute constipation with nausea and vomiting, etc., there must be an obstruction of some kind; and where the case is a desperate one, to insure life it is best to make an abdominal section, for where one mistake is made ten patients may be saved.

DR. O. V. THAYER remarked that a lady stated to him that a year previous she had symptoms of obstruction, and was dangerously ill; she was advised to take large doses of sweet oil, which was followed by the passage of three large gall stones.

DR. J. F. MORSE said that it was very difficult to differentiate between perforation and iliac obstruction. Two years since a young man was brought to the Hospital who had been ailing for some days with swollen abdomen and pain, dry tongue and constant vomiting. There had been no passage from the bowels since the day previous; the left iliac region was tympanitic and emitted an empty sound on percussion. The Doctor diagnosed an omental hernia and operated, but as there were symptoms of collapse the operation was discontinued and the wound sewed up. The same evening the patient died. The *post mortem* revealed an old hernial sac, inflamed, filled with pus, and a small perforation of the vermiform appendix.

DR. H. GIBBONS, SR., remarked that it is a difficult matter to make diagnosis in these cases, and that there are no doubt cases of supposed peritonitis, followed by death, where there never was a suspicion of a foreign body in the vermiform appendix. In one case of his, a middle aged man of good habits was seized with great pain; the bowels were moved which gave him temporary relief; the pains returned; the peritoneal inflammation was not of a severe type, and on the fourth day the patient felt well enough to get up, and walked around for three or four hours, when he was

seized with violent pains and died in twelve hours. The post mortem revealed a small biliary calculus in the vermiform appendix together with perforation. One case has been reported in which a portion of the ileum was found impacted with the seed and skin of grapes.

DR. J. D. ARNOLD remarked that no doubt Dr. Taylor was justified in operating in this case, but would it not be a good plan where a foreign body is suspected to resort to Bamberger's method of alternating injections of air and water and thus dilate the bowel.

DR. TAYLOR remarked that this would not have any effect in this case, as there were plastic adhesions, besides a gall stone was not suspected. The foreign body was held fast in the bowel as a cork in a bottle, and it could not be broken or moved by force. The Doctor also remarked that he does not always advocate the knife, but advises to seek for a hernia; if one is found to resort to taxis, but this cannot be done where it is internal in the small intestines. Where a proper diagnosis has been made an operative procedure would be justifiable to save the patient's life.

DR. GIBBONS, SR., remarked that a similar method to that of Bamberger's was resorted to ten years since, by a Texas doctor, who first injected a solution of bi-carb. soda and then a solution of tartaric acid, and thus caused a formation of gas.

DR. TAYLOR also exhibited to the Society nineteen ounces of broken crockery and glassware, which was sent to him by Dr. A. Anderson, of Bodie. This was removed from the rectum of a young woman, who with a suicidal intent swallowed the foreign substances, it taking two days to do so. Five days afterwards she was put under the influence of chloroform and they were removed, some as high as the sigmoid flexure. Some days afterwards the Doctor gave the patient a laxative and another half ounce was passed.

SAN FRANCISCO, July 8th, 1884.

The meeting was called to order by the President, Dr. Whitwell. The minutes of the previous meeting were read and approved.

As no subject was before the Society under the head of New Business, Dr. Plummer called the attention of the members to the new medical register that the Board of Medical Examiners propose to issue. This one will be complete in all its departments, it will contain the names and address in full of all regular

and irregular practitioners of this State. The Doctor stated that the register would be sent to all regular physicians, the press, and all medical schools of the country, and in this way it would get into the hands of the public, who could then see who were the regular practitioners of their district. This would also induce competent men to come and register, and would also do more than we can do at present by means of the courts, to suppress irregular practice.

DRS. PLUMMER, MORSE and SIMPSON spoke in favor of prosecuting all irregular practitioners, and urged that some member of the Society should be appointed to act as prosecutor.

DR. PLUMMER then moved that the President should act as prosecutor for the Society. The motion was duly seconded and carried.

No further business coming before the Society, it then adjourned.

HENRY H. HART, M.D.,

Recording Secretary.

Licentiatees of the California State Board of Examiners.

At a meeting of the Board of Examiners, held Aug. 6, 1884, the following physicians having complied with all requirements, were granted certificates to practice medicine and surgery in the State of California:

JACOB D. ARNOLD, San Francisco; Washington Univ., Md., 1876.

HUGH H. DAVIS, Sonoma; Univ. of Pennsylvania, 1868.

WM. E. DOZIER, Sierra City; Med. Dep. Univ. of Virginia, 1883.

JOS. S. EASTMAN, Berkeley; Missouri Med. Coll., 1878.

E. V. JACOBS, Meridian; Missouri Med. Coll., 1884.

W. W. MACFARLANE, Pomona; St. Louis Med. Coll., Mo., 1866.

ANDREW F. MCLAIN, Santa Rosa; Med. Dep. Univ. Louisiana, 1858.

BEVERLY MCMONAGLE, San Francisco; Harvard Med. Coll., 1876.

FRANK K. SAXE, Santa Clara; Bellevue Med. Coll., N. Y., 1883.

E. R. SMITH, Los Angeles; Rush Med. Coll., Ill., 1873.

J. S. STONE, Healdsburg; Med. Coll. of Ohio, 1873.

LEWIS Q. THOMPSON, Colledgeville; Med. Dep. Arkansas Industrial Univ., 1884.

CHAS. T. WIDNEY, Los Angeles; Univ. of Louisville, Ky., 1872.

LEWIS K. WILCOX, San Francisco; Med. Dep. Univ. of Missouri, 1852.

At the special meeting of the Board held July 23d, the certificates heretofore issued by this Board to A. E. Minte and G. P. Allen of this city were revoked on the ground of unprofessional conduct.

At the meeting held Aug. 6th, the applications of J. E. Blanc and C. E. Mazzei, of San Francisco, were rejected on the ground of insufficient credentials, and the certificate of H. J. Spear, of this city, heretofore issued by this Board, was revoked on the ground of unprofessional conduct.

R. H. PLUMMER, *Sec.*

San Francisco, 852 Mission St.

Selections.

CHOLERA—PETTENKOFER VERSUS KOCH.

Professor Von Pettenkofer, of Munich, has recently taken the opportunity of discussing in the *Neuesten Nachrichten* the subject of cholera infection and the significance of Koch's discovery of the cholera bacillus. As the views expressed by him differ considerably from those put forth in German literature generally, and as they appear to be less tinged by the political spirit that appears to predominate more or less in even German medical journals, we think they will meet a more cordial acceptance at the hands of English physicians than those with which we have been favored by French and German physicians during the past year or two.

He states at the outset that the discovery of the fungus was not unexpected by him, as his own researches on the spread of the disease were based on the existence of such a micro-organism. He does not belong to that class of contagionists, however, who look upon the dejecta of cholera patients as the point from which all measures for limiting the spread of the disease are to proceed; he rather considers that the question stands where it did before Koch's discovery.

Thirty years ago he began his observations on cholera with the assumption that cholera stools contained the cholera germs. After he had decided the dependence of cholera upon communication and locality, he sought to explain the connection between them by the answer to the simple question, What does a man bring to the soil through his own person? the answer being: urine and feces and nothing else. The consideration of this question and answer led to the opinion that direct infection must be met by disinfection of cholera stools and of the vessels containing them. This opinion, however, he was led to discard by the continued study of facts such as the uselessness of measures for disinfection and the harmlessness of undisinfected cholera stools. It was in this state of unbelief in the efficacy of disinfection that he observed the epidemics of cholera from 1870 to 1874, and his unbelief was strengthened by his observations of those years. He looks upon Koch's discovery as rather supporting him in his opinions than as being in any way antagonistic to them. Up to

this discovery people could always assume that disinfection proved futile for the reason that the disinfecting material, principally sulphate of iron and carbolic acid, did not destroy the cholera germs. Koch's researches show, however, that the cholera germ, capable as it is in suitable places and at suitable times of destroying large bodies of men, is in itself but a feeble germ, easily killed by drying or by a small quantity of acid. Previous to this Von Pettenkoffer himself had proposed to bring everything that came from cholera patients to an acid reaction. Koch himself had supported the views of the localists when he said that they (the cholera germs) were destroyed in the normally-acting stomach, this being shown by the fact "that in animals fed for some time with cholera bacilli and then killed, the bacilli could not be discovered either in the stomach or intestinal canal."

He goes on to say that where cholera epidemics have been accurately followed their local and time limitations have been strikingly manifest. The opportunities for infection by privies and objects that have been in contact with excrement are everywhere present, and at all times; but cholera does not spread everywhere and at all times, if even the germs are introduced repeatedly. There were places, and amongst them great towns, in which a cholera epidemic had never made its appearance. Lyons and Versailles in France, and Birmingham in England were instances of this; and in Germany, Stuttgart, Salzburg, Innsbruck, &c. Even in localities receptive of cholera there were spots that were spared in all epidemics. Thus in Munich on every occasion the epidemic spread of the disease had come to a standstill before the Lehmücken in Haidhausen, although the houses were built and occupied just as they were elsewhere.

Into such immune localities cholera was necessarily often introduced, and from these cases one or two more individuals were here and there infected, but the disease quickly became extinct and did not develop into an epidemic. Stuttgart afforded a very instructive example of this in 1854. During the virulent epidemic of cholera in Munich, a Stuttgart man then in Munich returned home already suffering from diarræa; he was there attacked with cholera and died. After a few days a fresh case of cholera came to light, occurring in a person who had never left Stuttgart. This was the nurse of the man who had returned from Munich. This case was taken to be one of direct infection

from the previous case. A few days afterwards a third case occurred, in the person of a laundress who had washed the clothing of the man who had come from Munich. Finally, the husband of the laundress sickened of cholera. But with this the cholera was at an end in Stuttgart.

Such cases were always adduced by the contagionists as proofs of the direct infection of healthy by infected persons, and especially by the soiled linen of cholera patients, and at first sight it appeared as if this were so. But if it were assumed that the man from Munich infected three persons in Stuttgart, the question should also be asked, Why did not these Stuttgart cases act as poisonously as the Munich case? The Stuttgart cases were also nursed, and their soiled linen was washed. Why were not further cases induced, and why was there no epidemic? The soiled linen from Munich only was thus poisonous; that from Stuttgart was no longer so. Must not one assume that besides the harmless cholera bacilli there was something in the soiled linen specifically peculiar to Munich--some local factor that caused the infection? In his opinion, the Stuttgart man returning from Munich had a Something from the epidemic originating in the soil of Munich, perhaps a permanent form of the bacillus which only originated under certain local conditions, and just enough to infect the three individuals. This local Munich factor was wanting in the three Stuttgart cases, and infection ceased.

The occurrence of cholera on board ship was formerly adduced as a proof that the disease did not require any peculiar local conditions--any cholera soil for its spread. A more accurate study of the disease however, led up to the conviction that it behaved on shipboard exactly as in districts not subject to cholera, and the extremely rare and quiet exceptional severe outbreaks of cholera on board ship were never dependent on the presence of one or more cholera patients on board, but simply on the past relations of those embarked to a cholera-infected place on dry land.

Another important feature in the physiognomy of the spread of cholera, and one that did not in the least fit in with the views of the contagionists, was the dependence of the epidemics on a time factor, not only as regarded years, but also the period of the year. Localities that were liable to cholera outbreaks were not so at all times. People had attempted to explain this by individual predisposition. They had assumed that a population

that had passed through an epidemic of cholera lost its receptivity for a certain length of time. A nearer consideration, however, showed that the saturation could not be assumed with regard to the individuals but to the soil. There had been years in which Berlin, and years in which Munich, had not been receptive of cholera. In the year 1849, in which Berlin had one of its worst epidemics, Munich, notwithstanding all the intercourse between the two places, was not attacked. The inhabitants of Munich must have been susceptible for the last epidemic had been in the year 1836. In 1854, when Munich had its severest epidemic, Berlin showed itself unsusceptible; whilst in the year after it suffered a violent outbreak. In 1873 Munich had two distinct epidemics in the same year—a summer and a winter epidemic. In this instance the individual disposition must be looked upon as having been very rapidly lost and as rapidly re-established. In the epidemic cholera regions of India the inhabitants must have been long thoroughly saturated, and yet cholera constantly makes its appearance. But even there the ebb and flow of the disease constantly depended on the season of the year.

If the matter was simply one of a fungus passing over from one man who had it to another the disease would occur with much greater regularity in point of time. That season did not act upon the individual disposition for cholera was shown by the fact that summer and winter epidemics were possible. The conditions for the development of the fungus within the human body were tolerably regular at all times, equal temperature, equal moisture, equal constitution of the soil, whether it were warm or cold outside, whether it snowed or rained, or whether it were dry or moist. Inoculable infection material (small-pox, splenic fever, &c.,) attacks at every season of the year, but not so cholera, a certain sign that it could be called contagious as little as intermittent fever, which was also an infective disease, and had a fungus as its specific cause. As a proof of the existance of an important time factor in cholera, he knew of no more instructive example than the chronology of the disease during the years 1848 to 1860 in the kingdom of Prussia. During that interval cases of cholera occurred every year in Prussia of various degrees of severity, and in various provinces. Brausser had collected all the cases notified during this period and arranged them

in months. Of the fatal cases occurring within these 13 years there were in

April	112	October... ..	35,271
May.....	446	November.....	17,630
June.	4,392	December.....	7,254
July.....	8,480	January	2,317
August	33,640	February....	842
September.....	56,561	March....	214

In view of such a fact, which was independent of every theory, with the astounding regularity of increase and decrease in the number of cases according to the various months, one was compelled to accept the dependence of cholera and of the infecting cholera fungus, not only upon the locality, but also upon a time factor.

The time factor could also make its appearance according to the locality and the various circumstances, at various times. Thus Munich under various circumstances, had had its summer and winter epidemics; and in Prussia also cases of cholera accrued in every month of the year, and one could say, that cholera, indeed, made its appearance at all times, but from the great number of cases at Brausser's command, the individual irregularities regularly receded and became insignificant. A closer examination of the exceptions to the rule constantly showed that they were no contradiction to the laws that underlay the rule, and he has thus correctly explained the irregular appearance of the last epidemic of 1873-74 in two distinct divisions, a summer and winter epidemic, by the time factor which essentially lay in a change in the humidity of the soil, which for Munich was best calculated under certain regulations from the state of moisture of the soil, and not from the rainfall.

In the regions of endemic cholera in India in Lower Bengal the minimum of rainfall in July and August coincided with the maximum of humidity of the soil, and the maximum of cholera cases in March and April with the minimum of humidity of the soil, as Douglas and Cunningham had shown. The same was expressed in Brausser's tables, although the months for maximum and minimum were exactly the opposite of those in India, the humidity of soil being greatest in March and April, and lowest in September. For the further development of the cholera inquiry and cholera prophylaxis the fact of the existence of a local and time disposition was quite as important as the proof of the existence of the specific infective material. He was in doubt as to whether

the possibility of infection by way of the air passages was excluded. As the cholera fungus as it existed in the intestines could not infect human beings, and as it only arrived at an unknown condition, a so-called permanent form under the influence of the local and time factors, it seemed to him not impossible that the germs should enter the air passages and reach the intestines through the blood, where they developed into the bacilli of Koch. It was also possible to conceive that the local and time factors produced a something that could serve as a host within, and by means of which the germ developed into a true infective material, in which state neither drying nor the acids of the stomach could injure it, and in which it first became transportable. That the local and time factors played leading parts in the cholera process was no theory, but simply a fact that could at last, after thirty years, be verified. Further investigation had to show the relation of the cholera bacillus to them. Until this relationship had been shown our prophylactic measures would have to remain as they were. We could, as was known, seek to combat the disease in three directions, in the direction of the spread of the infective material, in that of the local disposition, and that of the individual disposition. Up to the present only those hygienic measures had shown themselves efficacious, which were aimed at the local and time disposition, which insured the cleanliness of our dwelling places, the principle being thorough drainage of houses and inhabited localities, by means of which the foul water that formed a nutrient solution for low organisms was carried away.—*Medical Press and Circular.*

VIRCHOW ON DARWINISM AND EVOLUTION.

At the recent Tercentenary of the Edinburgh University, Professor Virchow presented his views on Darwin and evolution in the following language. We copy from the *St. Louis Weekly Medical Review*:

“I never was hostile to Darwin, and never have said that Darwinism was a scientific impossibility. But at that time when I pronounced my opinion on Darwinism at the Association of German Naturalists, at Munich, I was convinced (and still am) that the development which it had taken in Germany was extreme and arbitrary. Allow me to state to you the reasons on which I founded my opinion. First, Darwinism was interpreted in Ger-

many as including the question of the first origin in life; not merely its manner of propagation. Whoever investigates the subject of development comes upon the question of the creation of life. This was not a new question. It is the old generatio equivoca, or epigenesis. Does life arise from a peculiar arrangement of inorganic atoms under certain conditions? We can imagine oxygen, carbon and nitrogen coming together to form albumen, and that out of the albumen there was produced a living cell. All this is possible; but the highest possibility is only a speculation, and cannot be admitted as the basis of a doctrine. In science it is not hypotheses that decide, but facts; we arrive at truth only by investigation and experiment. I need not say that this demand of science for proof, instead of speculation, was long ago made in England. Ever since the time of Bacon it has had a home amongst you. We may concede that generatio equivoca is a logical possibility; but it is important for you students always to bear in mind the great distinctions between the construction of logical possibilities and their application in practical life. If you try to shape your conduct simply according to logical possibilities, you will often find yourself coming into violent conflict with the stern facts of existence. Let me give you an illustration: In recent times the fact of the presence of minute organisms giving rise to important processes, has been recognized, not only in medicine, but in connection with agriculture and various industries. It was of the utmost importance to determine whether these organisms were originated *de novo* in the decomposing bodies or were produced by similar pre-existing organisms and introduced from without. A century ago it was possible to admit the spontaneous generation of micro-organisms; but here sits M. Pasteur, the man who has demonstrated, by means of direct experiment, that, in spite of all logical possibility, all known micro-organisms found in decaying matter are derived from similar ancestors. No man would now be justified in practical life in acting on the possibility of a generatio equivoca of micro-organisms. A physician who finds himself in presence of infectious disease among his patients, or an agriculturist whose crops are blighted, or a man engaged in the production of alcohol or sugar by fermentation, must set himself to discover what brings about the changes with which he has to deal; he must see that organisms are there which have been imported from without, and must then inquire from whence they have

been derived. The physician who has to combat an epidemic dare not act as if the germ were spontaneously produced in any patient. Such is the difference between logical possibilities and the practical work of daily life. Every teacher of science must lead his students to suppose that each living being that he meets must have had a father and mother, or, at least, one or other of them; and every scientific conclusion maintains that one generation is legitimately descended from another precisely similar. That was one consideration that led me to warn my fellow-countrymen against developing a system out of logical possibilities.

At the very time when we were getting free from the chains of former dogma, we seemed to be in danger of forging new ones for ourselves. The second question concerning Darwinism had regard to the descent of man, whether from apes, or other vertebrate animals. Was there anywhere a pro-anthropos? In regard to this question, I thought that the existence of such a precursor of a man was a logical possibility, perhaps a probability. Only I found, to begin with, that it was a purely speculative question; not one raised by any observed phenomenon. No pro-anthropos had ever been discovered; not even a fragment of him. I had myself long been specially occupied in making prehistoric investigation to get near the primitive man. When I began these studies, twenty years ago, there was a general disposition to arrive at this discovery. Everybody who found a skull in a cave, or a bone in the fissure of a rock, thought he had got a bit of him. I wish you specially to notice that the smaller the fragment or skull, the easier it was to make it out to be the skull of the pro-anthropos. It was never thought of where an entire skull was in hand. When the upper part of the cranium alone—the calvarium without the face and the base, as is the case of the Neanderthal skull—was discovered, it was easy, by changing its horizontal position, by elevating either the anterior or posterior part, to give the impression that it had belonged either to a being of a superior or of an inferior race. You can make the experiment with any calvaria. If you make a series of diagrams of skulls, placing them over each other, you may make them appear similar or dissimilar, according as you choose one or another fixed point for bringing them into relation. I should like to impress upon you that every discovery of that kind should be received with caution and scrutiny. In my judgment, no skull hitherto discovered can be regarded as that of a prede-

cessor of man. In the course of the last fifteen years, we have had opportunity to examine skulls of all the various races of mankind—even of the most savage tribes—and among them all no group has been observed differing in its essential characters from the general human type. Hence I must say that an anthropological teacher has not occasion to speak of a pro-anthropos except as a matter of speculation. But speculation in general is unprofitable. As Gothe says:

‘ Ein Kerl der speculirt
Ist wie ein Thier auf oeder Heide
Vom boesen Geist umhergefuehrt.’

[“ A speculating fellow is like a beast on a barren heath led about by the Evil Spirit.”]

The day before I gave the address in Munich to which I have referred, Haeckel had gone so far as to propose to introduce into our schools a new system of religious instruction based upon the doctrine of the Descent of Man; and I think it necessary to guard against the danger of constructing systems of doctrine out of possibilities, and making these the basis of general education. Lastly, I have to refer to the geological aspect of the question. This is the most important aspect of it as treated by Darwin himself; and here we must recognize that the most important advance has been made in consequence of his ideas in our understanding of the progressive development of organs in the different classes of animals. From the earliest period, the organization of man has been regarded as an animal organization; and, therefore, from a zoological point of view, the body of a man must be regarded as belonging to the animal kingdom. That I do not wish to deny. This day ten years ago, Liebig died. I recall his memory at this moment to repeat one of his memorable sayings: “ Natural science is modest.” He meant that science should be confined within the limits of observation. Every man who goes beyond that sphere becomes a transcendentalist, and transcendentalism has always been dangerous to science.”

THE ONLY PRINCE IN THE WORLD who practises as an oculist is Duke Charles of Bavaria, who has opened an eye infirmary. He treats the indigent gratuitously.

WM. PEPPER, M.D., has been elected to the chair of Practice in the University of Pennsylvania vacated by the resignation of Prof. Stillé.

Pharmacy and Materia Medica.

PHARMACY IN AUSTRIA.—According to a statement copied from an Austrian journal by the *National Druggist*, a drug store is not opened in that quarter of the world with the same facility as in America. For instance: The Imperial Ministry of the Interior has granted a permit for a third drug store “in the town of Hernal, in the building on Rosestre alley, between May and Tag alleys.” The best candidate will get the place. The applicant (apothekergewerbe) must send to the proper officer (bezirkshauptmannschaft), together with a small fee, certificates of his qualifications, with a sort of autobiography. Among the requisitions is the possession of enough ready money to carry on the pharmacy in a creditable manner.

MELLIN'S FOOD is a useful preparation, the analysis of which indicates its fitness for nutrition of infants, and its analogy to the milk of the mother.

EXTRAORDINARY LOW PRICE OF QUININE.—Since the removal of the tariff on quinine, the price has gradually tended downward, until it has been sold as low as \$1.00 per ounce. The *New York Times*, in referring to the subject, has the following interesting statements: “Since the forests in Peru became less ready of access, causing the experiment of the planting on a large scale in Ceylon and Java, the production has steadily increased; and now, according to the judgment of the largest manufacturers in the trade here, the supply manufactured largely exceeds the demand.

“The trees, when planted, yield their bark within four or five years, and, unlike the native trees in Peru, do not become exhausted, but the bark is taken from them year after year. The quality of the article from the cultivated tree is far superior to that produced from the wild trees. Moreover, the Peruvian forests have become, to a certain extent, exhausted by the indiscriminate robbery of the trees wherever found, and the sources of supply have become so remote from the sea coast that the cost of transportation has risen so much as to almost drive the native article out of the market; in fact, the name Peruvian bark will soon become a misnomer. Had the experiment of the planting

in the East not been tried, and had the world been left dependent for its supplies on the Peruvian forests, the price of quinine, it is estimated, would now not be less than \$5.00 per ounce.

“The world’s production to-day is estimated at 4,500,000 ounces, of which Germany and Italy manufacture by far the greatest portion. There is considerable made in England, but this is of a superior quality, and its enhanced cost limits its consumption and consequent production. America consumes forty per cent. of the total production, or about 1,800,000 ounces. Prior to the removal of the tariff, 1,500,000 ounces were produced here, but the effect of the removal of the duty has been to decrease the manufacture and make the United States more dependent upon foreign supplies. It is estimated that now not more than 1,000,000 ounces are manufactured in the New World; but this is in part due to the destruction by fire in Philadelphia of the works of the largest American producers, who now send their bark to Europe to be prepared for the market. From the East Indies the shipments of the raw material to the United States were over 6,000,000 pounds, of which a very large proportion was shipped to Europe for account of the American manufacturers.

Editorial.

Yellow Fever in Sonora.

After all the reports and developments regarding the coast fever which has prevailed in parts of Mexico and southward during the past and present year, there remain grounds for doubt whether the disease is to be classed as yellow fever in the typical form of that malady. Physicians who are familiar with the pernicious Autumnal fevers of the Atlantic and Mississippi valley States, well know how often those fevers approach the characteristic form of yellow fever. Sporadic cases of this sort are not uncommon, which would unhesitatingly be pronounced yellow fever if the latter disease were prevailing in the region where they occur. It must not be overlooked that most of the information we possess in regard to the Mexican fever is tinged with rumor or embarrassed by conflicting statements and opinions. If it be the true type of yellow fever, the conclusion is almost inevitable that the factors necessary to produce that disease exist on the

Pacific Coast, and that this region may become the birth-place and cradle of this pestilence as the West Indies are supposed to be.

How far the public mind may be influenced by statements loosely made and imputed to good authority may be judged from a publication in a Los Angeles paper of August 9th, made by a "Physician who has been there," and who has private advices that the disease (yellow fever) is raging at both Guaymas and Hermosillo at present. "Fifteen deaths a day are reported by the authorities." He adds, "but that means at least twenty-five per day." Now we call attention to the testimony of a correspondent residing in Guaymas, A. A. Mix, M.D., on whose statements we place implicit confidence, knowing him to be a well qualified and disinterested observer. He writes under date of August 13th, four days after the publication in the Los Angeles paper:

"So much has been published by telegram and letter from Sonora in regard to yellow fever, and so many manifest errors have been made in regard to the matter, that truth and justice call for a plain statement of the present condition of this part of Sonora. To that end I have devoted some time, and have unearthed from the records of the past three years the data sent you in this. In my former letter I told you that neither Dr. Thos. Spence nor myself had seen any of the twenty-nine cases reported as defunct from yellow fever in Guaymas, save the one which I excepted. That statement is true as of to-day. In fact, from July 19th to the date of this letter, no case is even reported. Since July 20th there have died of the disease at Hermosillo, to the 4th of August, 21 persons—19 in July and 2 in August. From August 5th to date, seven days, there have been some deaths of important persons which has in part caused a scare there; viz. Bishop Rico and Father Aguilar. At no time from the first case reported by the city physician (who seems to have had all the cases) has the disease risen to an epidemic form, either here or at Hermosillo; and to-day Guaymas is dirtier than it was when the fever broke out here a year ago.

"The people here go on eating fruit and enjoying themselves as though there was no fever in the land. Business of all kinds is at a stand-still of course, but I can frankly give my opinion that at no time in the last three years has Guaymas enjoyed as good health. Clean bills of health are granted by our Board of

Health to all vessels. Yesterday the *Sonora* arrived from San Blas and Mazatlan and reports those ports to be in a healthy condition, with the exception of the usual fevers attendant on the rainy season, and which are the same all along this lower coast.

“You will perceive from the annexed table that whilst only 100 died in 1882, 49 of these were from “fever;” and again, in 1883, of the 121 who died, 53 were from “fever.” Whereas this year the total deaths from yellow fever were 29, and as I remark, every one of them is ascribed to yellow fever. There has been but a slight increase of population, say 300, in the last three years.

“You are aware of my opinion in the cases of last year. Those of this year I deem but such cases of malignant fever as naturally have occurred here for years past, but hitherto elicited no particular attention. I am told that some eight years ago a fever resembling this prevailed here, and I am now in search of the records of that year to find the mortality. My informant tells me that nearly all who were taken severely died.

“The following is the mortality report of the port of Guaymas, Mexico, for July, 1884.

NO.	MALES.	FEMALES.	NATIVE.	INDIAN.	FOREIGN.
37	23	14	27	5	5
YELLOW FEVER.					
14	10	2	9	3	2

“Of these two males were assassinated, and one took poison by mistake: 8 adults, 6 children, two of which were under two years.

“Estimated population of Guaymas is fifty-five hundred (5500

“From January 1st, 1882, to July 31st, total deaths 100, or $14\frac{2}{7}$ per month; from January 1st, 1883, to July 31st, total deaths 121, or $17\frac{2}{7}$ per month; from January 1st, 1884, to July 31st, total deaths 138, or $19\frac{3}{7}$. In the seven months herein set forth, in 1882 there were 49 deaths from fever; in 1883 there were 53 deaths from fever; in 1884 there were 29 deaths from fever; but singularly, none are marked to any other fever than yellow fever in 1884, the whole 29 victims being charged to that disease.”

Dr. Mix further informs us that the physician who administered the panicky report to the Los Angeles editor never had charge of a hospital in Sonora, and that he came to Guaymas on call and was there only one day.

Coal-Smoke: A Question in Sanitary Science.

An Eastern writer says: "If the electric Dynamo-motor, now so frequently spoken of as a means of operating light machinery, should realize the hopes of its inventors, we may reasonably expect that the hundreds of coal engines, the stacks from whose furnaces pour out such volumes of suffocating and blackening smoke, will give way in the great cities to the new power. No single improvement would relieve life of more inconveniences and discomforts in large cities than the abatement of the coal-smoke nuisance."

A question here arises, whether the sanitary influence of coal-smoke, or of the unconsumed products of coal combustion which permeate the air, is not much more than sufficient to counterbalance all the inconvenience and discomforts alluded to in the foregoing paragraph. We have long entertained the opinion that the extraordinary healthfulness of London is due in a great measure to the heat and vapors which issue from the million of coal fires in that great metropolis. The establishment of an iron furnace has been known to dispel malarial disease from its immediate locality. Workmen in smitheries and foundries, who constantly inhale the emanations from burning coal enjoy more than an average degree of health. An analysis of coal-smoke would detect various elements more or less absorbent and disinfecting. The heat given off is of itself important. It not only alters the hygrometric condition of the air but it promotes atmospheric circulation. The subject is well worth the attention of sanitarians.

Model Treatment of Pleurisy.

We often read in medical journals the reports of cases which would awaken censorious criticism if reported by irregular practitioners. A case of this kind appears in Braithwaite's *Retrospect*, copied from the *British Medical Journal*.

Dr. "Tom Robinson" had a patient with pleurisy, "pain, catching breathing, and a cry at the end of inspiration. He sat up in bed and held his hand against his side complaining bitterly of the pain. A bandage was put firmly round the thorax with much and rapid relief and he was ordered absolute rest, a liquid diet, and some opium." The next day he was "much relieved," but on the day following, as might be expected from such wretchedly inefficient treatment, he was nearly suffocated from

effusion—"lips livid, nostrils smoky [!], eyes prominent, nails blue cold, clammyness of hands and brow, breathing 51 times in a minute, pulse scarcely perceptible." He refused tapping. I put him under the following conditions, says the doctor: "He was to take every hour one teaspoonful of common salt, dissolved in a wineglassful of tepid water. I produced sweating by a hot wet flannel and a piece of waterproof sheeting, and I gave him two ounces of the common black draught at once and stopped all fluids." In two hours he was "materially improved in every way. His respiration had dropped down to 48 [!]. I now gave him one dram of common salt twice a day, two ounces of the brandy mixture of the Pharmacopeia every four hours, together with some oysters and anchovy and Digby chick, or a piece of salted bacon."—The effusion vanished and the patient was up and out of doors in a week. This silly experiment on human life is published in the columns of the world-renowned *British Medical Journal*. Had it come from a country doctor in the Sierras and been published in the "Pacific," our contemporaries abroad would have suspected that the practice of medicine on this coast was in the hands of grannies or Chinamen.

Los Angeles Orphans' Home.

The fourth annual report of this institution is highly creditable to all parties concerned in the management. Of the 143 children cared for in the four years' work, only one has died, and that was a case of typhoid fever almost moribund on admission. The physician, Dr. Walter Lindley, says in his report: "During the four years of the Home's existence it has cared for 143 children, the average number in the institution being about forty, and it is my opinion, after reading the annual reports of many orphanages, that there is no charity in any other part of the world that has cared for children with so small a rate of mortality."

Summer Vacation for Physicians and Men of Business.

Our San Francisco physicians are more and more giving themselves to a period of summer vacation. The habit is a good one. It tends to renovate the physical and moral nature, and involves no permanent financial loss. Dr. Holland, the distinguished English physician and writer made it a rule of his life to spend a month or more every year in a continent tour. He had a

fixed understanding with his clientage that when the time came he must go. No contingency of business stopped him. He declared that the practice not only conduced to his health and mental vigor and tended to prolong his life, but that it increased rather than diminished his annual income. Merchants and men of business generally should improve the hint. A few of them do so, but the majority do not. There are in San Francisco scores of such men who are wearing out their lives by incessant devotion to business. From the beginning to the end of the year and from one year to another they run the living machine on the same track—in the same groove. They toil with the right arm of life, so to speak, and fail to distribute the burthen to other members of the body. They strain the nervous organs and they neglect and abuse the organs of digestion. They make good subjects for the doctors and they dig their own graves.

Bogus Butter.

Our much respected contemporary of the *Medical Press and Circular* has just discovered the existence of a vile compound of oil and lard, with which a manufacturer in New York has made six or eight million of pounds of what he called "Butterine oleo-margarine," and passed it off as genuine butter. Rather a smart yankee trick, we should say, to call it one thing and pass it off as another! He informs us that immense quantities of mutton and beef suet are shipped from England to Holland to be manufactured into "Dutch butter," which is "a far less unwholesome article than oleo-margarine,"—that the latter is injurious to health and its manufacture should be prohibited by law. Evidently our London confrere knows not whereof he writes. It is probable he has been breakfasting on American oleo-margarine at Christmas time for twenty years and smacking his lips over it whilst felicitating himself on the excellence of English winter butter.

TO THOSE SUBSCRIBERS who have so promptly responded to our call for payment of dues, we return our grateful acknowledgements. In doing so we do not wish to be considered as getting more value than we give, and we hope that those who have not yet paid will consider the claim of a journalist for compensation to be just as obligatory as any other indebtedness. The reduction of price in connection with advance payment appears to give general satisfaction.

Notices of Books, Pamphlets, &c.

Practical Manual of Obstetrics. By Dr. E. VARRIER, Lecturer on Obstetrics in the Faculty of Medicine of Paris. Fourth edition, enlarged and revised with the four obstetric tables of Professor Pajot. One hundred and five illustrations. First American edition, with revisions and annotations by Edward L. Partridge, M.D., Prof. Obstetrics, N. Y., Post-Graduate Md. School. New York: Wm. Wood & Co. 1884. Pp. 400. San Francisco: A. L. Bancroft & Co.

The obstetric bonanza of the last forty years is still further enriched by this contribution. Four editions in rapid succession bear witness of the value set on the work by French practitioners. It is a manual only, and as Prof. Pajot says in the preface, "To try to learn medicine, surgery or obstetrics is utter folly; but to regard such a work as a handy resumé and aid to classification seems proper." The general plan of the work corresponds with the ordinary arrangement, but there will be found in its pages much that is original and novel. We have no doubt of its receiving a cordial welcome from American practitioners, specialists as well as others. The translation is excellent, as might be expected from the ability of the translator, Dr. Leigh H. Hunt, and the labors of the American editor are valuable. It constitutes a number of Wood's well known library of Standard Authors.

Hooper's Physician's Vade Mecum. In two volumes, belonging to Wood's Standard Library.

This work was first published more than sixty years ago. It is one of the few old medical works that have not been crowded out of existence by the new. The publishers say of it with great appropriateness:

"One of the remarkable books in medicine is Hooper's Physician's Vade Mecum. For over fifty years it has enjoyed the confidence and esteem of the profession; revised and improved from time to time, it has always kept its place in the front ranks as a reliable and concise treatise on the Practice of Medicine. The present issue is reprinted from the tenth English edition, which is fresh from the press, and presents the most advanced and approved views of the subjects of which it treats."

Black or Micro-organisms. The formation of poisons by micro-organisms.
By G. BLACK, M.D., D. D. S. Philadelphia: P. Blakiston, Son & Co.
San Francisco: A. L. Bancroft & Co.

A series of lectures delivered before the Chicago Dental College. The subject is not only interesting in itself, but is handled in an original and interesting manner.

The Fifth Annual Report of the Illinois State Board of Health, for 1883, is a voluminous and valuable document. It has over 600 pages of small print, and contains a mass of information, statistical and other, seldom found compacted together. A liberality is shown by the Legislature of that State concerning the health interests of its population which cannot be too highly commended. California might follow the example with much credit and much benefit.

Quiz Compend—Leffman's Organic Chemistry. A compend of organic and medical chemistry, including urinary analysis and the examination of water and food. By HENRY LEFFMAN, M. D., D. D. S., Prof. Chemistry and Metallurgy, etc., etc. Philadelphia: P. Blakiston, Son & Co., 1884.
San Francisco: A. L. Bancroft & Co.

A small volume, compact, substantial and exact; well suited as a remembrancer to students of chemistry.

The Hillocks or Mound Formations of the Pacific Coast. By GEORGE W. BARNES, M.D., San Diego, Cal.

An intelligent and satisfactory explanation is given by Dr. Barnes, not of the Indian mounds, but of the hillocks and undulations everywhere found on what are called the deserts of the Pacific Coast.

Briathwaites Retrospect. Part 89, July, 1884. New York: W. A. Townsend, publisher.

Abounds in choice selections from English authorities.

The Journal of Physiology. By MICHAEL FOSTER, M.D., F. R. S. Vol. 5, No. 2, June, 1884, Prof. Physiology Univ. of Cambridge. From the John Hopkins University, Baltimore.

Observations on the Management of Enteric Fever, based on the so-called specific treatment. By JAMES C. WILSON, M.D. (Trans. Col. of Physicians of Philad.)

Report on Ophthalmology, made to the California State Medical Society. By WILLIAM ELLERY BRIGGS of Sacramento, Chairman.

Women's Medical College of the New York Infirmary. Sixteenth Annual Catalogue and Announcement. 1884.

Abstracts and Extracts.

CHOLERA EPIDEMICS: THEIR ETIOLOGY, MODES OF DIFFUSION, AND PREVENTIVE MEASURES.

By DR. J. CHRISTIE.

[Read at the Congress of the Sanitary Institute, held at Glasgow, Scotland.]

ETIOLOGY.—At the International Sanitary Congress, held at Vienna, in July, 1884, it was unanimously affirmed that “Asiatic cholera, susceptible to spreading epidemically, is spontaneously developed in India, and when it breaks out in other countries it has always been introduced from without. It is not endemic in any other country but India.” To these propositions I cannot assent; for it is impossible to say more than that cholera is endemic in India, just as we say that enteric fever is endemic in this country. We, as yet, know nothing regarding the origin of the disease; nor can we say, in any case, that it originates spontaneously or *de novo*, though there is no reason why we should conclude that it never originated *de novo*. What happened once, when the first case appeared, may, under similar combinations of circumstances, happen again; but what combination or circumstances would certainly, or ever probably, give rise to cases of cholera we have no conception of. There is certainly nothing in the manners and customs of the inhabitants of India, nor in the climate thereof, as distinguished from the manners and customs of the inhabitants of other tropical countries, that can give us any clue to the etiology, or the intimate pathology of cholera.

Medical men who have made this subject a special study both in this country and in India, maintain views diametrically opposite to each other, as to the genesis of cholera, some affirming that the disease depends upon the presence of specific germs, or micro-organisms, which, having gained access to the human body, multiply to an enormous extent there, giving rise to the various phenomena of the disease; while others, to use the language of Sir Joseph Fayrer, “admit the existence of a poison of some sort—a miasm or an influence, though of its nature they are ignorant. It is a subtle thing that travels in certain directions in obedience to certain laws, is influenced by atmospheric and telluric conditions, and where it goes and finds certain local conditions, and people prepared by them to submit to it, there

cholera will prevail. They deny the efficacy of any enteric or specific poison in the water to produce it, though they attach the greatest importance to the purity of water from all organic contamination, impure water being one of the local conditions which, if added to crowding, filth, or other insanitary conditions and want of proper ventilation, is that, of all others, which favors cholera." The germ theory is that which finds most favor with epidemiologists in this country, while the latter is that most generally accepted by those in India, though many in India give their adherence to the germ theory.

MODES OF DIFFUSION.—In investigating the modes of diffusion, or propagation, of cholera, or of any other disease which is liable to become epidemic, we must commence our investigations at the sick, not at the dead. Our starting point must be at the bedside, not at the books of the Registrar; but if the statistics of the Registrar are to be utilized for any practical purposes, they can only serve as guides to the locality where the investigation must begin. The bare statement that so many deaths from cholera occur in Calcutta in the month of February, and that they gradually increase in number till April, and decrease until the end of May, a period of storms and showers, is of some interest as a statement of facts; but is of no value whatever either in respect to the etiology or the propagation of the disease. It has been affirmed, again and again, that cholera and enteric fever "may have different modes of working in India and Europe;" but it is much more probable that the varying results obtained depend more on the different modes of investigation.

The most startling statement I have read for many a day is contained in the eighteenth report of Dr. Cunningham, sanitary commissioner with the government of India p. 127, when he says:—"The experience of fairs and other gatherings in this country (India) has, again and again, testified to the truth of the conclusion that cholera is not carried by persons from one locality to another, so as to cause persons not themselves exposed to the necessary local influences to become affected by the disease. Coincidences certainly can be cited, in which the arrival of persons from a cholera-affected district has been closely followed by an outbreak of the disease; but even these coincidences are far fewer than is generally supposed." The statement of the highest sanitary official with the government of India that cholera is not carried by persons from one locality to another so as to cause

persons not themselves exposed to the necessary local influences to become affected by the disease, certainly demands explanation at the present juncture of affairs. What are the *necessary local influences*? From a careful perusal of the report which has just been issued, I can form no conception as to what these *necessary local influences* are. If the disease be not transmissible by persons, I cannot imagine that it can be transmissible by any of the belongings of persons, such as clothing, or that it can be transmissible at all. If so, I, in conjunction with my late lamented friend, Mr. Netten Radcliffe, have been engaged in writing a work of fiction called a "History of Cholera Epidemics in East Africa."

That the views of Dr. Cunningham are not universally adopted in India is evident from a perusal of the eighteenth report of Dr. Furrell, sanitary commissioner of Madras, dated 1882, which contains several cases of thoroughly investigated outbreaks of cholera within the presidency, more especially in connection with the great annual feast at Triupate.

The local conditions necessary for the diffusion or propagating of cholera are local conditions of filth, the more important of these being a local supply of portable water exposed to excremental pollution. I do not, by any means, hazard the statement that water polluted by the excreta of a cholera patient is the only mode of propagation, but I maintain that it is the chief, and that, in every case where great and sudden outbreaks have occurred, the *origo mali* has been traced to such polluted wells. In May, 1865, the number of pilgrims at Mecca was estimated at about 100,000; and during the celebration of the rites from 10,000 to 15,000 fell victims to the disease, two-thirds of the deaths having occurred during the six days over which the rites extended while the pilgrims were at Arafat and the Valley of Muna. Previous to the celebration of the rites each pilgrim, standing at the side of the well, has a bucket of the water poured over him, and he drinks as much of the water as he can, the water poured over him passing back into the well. In writing on this subject in 1876, I called attention to the fact that, if any of the pilgrims were at the time suffering from cholera, or had cholera-tainted garments about them, the well of Zem Zem would certainly be poisoned, and that the fearful mortality would be accounted for. Within six days after these ablutions, and the drinking the water of the Zem Zem, the streets of Mecca and its mosques, the

twelve miles of road lying between the city and Mount Arafat, the valley of Muna, and the plain of Arafat were cumbered with the dead. In 1881 Professor Frankland got a sample of the water for analysis, and he says: "I have analysed this water, and find it to be of the most abominable character. In fact, it is a sewage, more than seven times as concentrated as London Sewage, and it contains no less than 579 grains of solid matter per gallon. Knowing the composition of this water, and the mode of propagation of Asiatic cholera by excrementitious matters, it is not to be wondered at that outbreaks of this disease should often occur among pilgrims to Mecca, while it would scarcely be possible to provide a more effective means for the distribution of cholera poison throughout Mohammendan countries." Year after year pilgrims may drink of this water with impunity, but the introduction of the specific germs, or the *materies morbi* of cholera would certainly render it a virulent poison; for there is every reason to believe that such matter is propagated in a suitable medium outside the human body.

In 1869-70, during an epidemic of cholera, there died in the city of Zanzibar, at least 10,000 out of a population of about 100,000. Two sections of the community escaped not only death but sickness, those unaffected being the European resident in the town, and the Banyan population, natives of India. A considerable number of Europeans on board ship in the harbor, were attacked, and there were several deaths. During the epidemic, the ships were anchored well out, and they were not exposed to any land breeze; for the north-east monsoon was blowing strongly at the time. The local influences, atmospheric and telluric, were common to all in the city, and the houses of Banyans who escaped were mixed up and identical with the houses of the other natives of India who were attacked. The Banyans, however, in accordance with their invariable custom, used the water of their own well, which was not exposed to excremental pollution, and to which none but their own caste have access, while the Europeans living on shore used either filtered rain-water, not exposed to pollution, or water of a superior quality brought from a distance of four or five miles. With the exception of an unpolluted water supply, the Banyans and Europeans had nothing whatever in common. The other natives of the city used water drawn from the town wells, which were all exposed, more or less, to fecal contaminations through soakage; while the water

supplied to the shipping was drawn from a stream liable to pollution though the pollution could not be constant. The immunity of these two sections, however, was not complete; for each had a single death from cholera. The European who died had been drinking water from polluted sources during a long journey from the country to the town; while the Banyan who died was in the old-clothes line of business, and he had been dealing in the spoils of the dead. If there is one thing more than another as to which I am thoroughly convinced, not even excepting my own existence, it is that cholera is conveyed by man to man, not necessarily, nor even usually immediately, but mediately through excretal matter.

Pandemic waves, air-born influences, choleraic blasts, atmospheric and telluric conditions, subtle miasms and influences, the variations in the ground-water, neither single nor combined, can account for the geographical distribution of the great cholera epidemic which prevailed in Asia, Africa, and Europe from 1864 to 1872. With steady march it passed along lines of human intercourse, attacking the inhabitants of cities and towns who were exposed to all sorts of insanitary conditions, and also tribes whose only protection from the weather was a bullock hide for a tent, and whose only article of dress was a coating of oil or fat. It prevailed among tribes whose exclusive diet was vegetable, and among others who ate only the flesh of the bullock. Those who ate fresh meat were as liable to attack as those who ate the flesh of animals in an advanced state of decomposition. The outbreak of cholera at Damietta last year was ascribed to the pollution of the Nile from the bodies of dead cattle having been thrown into it; but how this mode of pollution could originate cholera I cannot imagine. The Wanyamuezi do not bury their dead, and they delight in putrid animal food. I have myself seen crowds of them cutting up the body of a hippopotamus in such an advanced stage of decomposition that I could not stand within a hundred yards to the windward of it. The Manyema eat their own dead, but not until their bodies are semi-putrid, and they do so with apparent impunity. In consequence of such practices, cholera never originated in the Wanyamuezi, nor in the Manyema countries; but it reached them in the usual mode.—*The Sanitary News*

The Application of the Forceps to the Breech.

Truzzi relates his experience in this method of using the forceps, a method which has been proscribed by most obstetricians in a series of fourteen experiments upon the cadaver. The conclusions are as follows: 1. In a case in which the buttocks are wedged in a superior or middle portion of the pelvis, and the indication is for rapid extraction, the application of the forceps is preferable to traction in the groin with the finger, crotchet or fillet, an operation which is likely to be attended with fracture of the femur or laceration in the soft parts of Scarpa's triangle. 2. Ollivier's proposal to apply the forceps upon the thighs, and not upon the pelvis of the fetus, is plausible in theory, but not warrantable in practice. If his directions were carried out, the abdominal walls, and especially the region of the liver, might be compressed in a dangerous manner. 3. The application of the forceps upon the sides of the fetal pelvis is easier, more certain, and less perilous than Ollivier's method. The soft tissues which cover the iliac bones form a suitable protection for them, and an unusual compressive force would be requisite to injure the bony structure. In all the author's experiments there was neither fracture of the iliac bones nor injury to the sacro-iliac or pubic articulation. 4. In order to obtain a good grip, the bite of the blades should reach the level of the iliac crest. The *point d'appui* should be taken at the iliac crest; the convexity of the fetal hips will adapt itself to the concavity of the blades of the forceps, and the abdominal viscera will escape injury. 5. Porro's forceps thus applied has an excellent grip, especially in the anterior presentations. In the intervals between the efforts at traction it is desirable to maintain a certain compressive force with the instrument, lest the resiliency of the iliac bones cause the instrument to lose its grip. 6. Porro's forceps will answer all the requirements for application to the breech. The author thinks that most of the forceps which are now in use are too large, and have departed far from the simple plan of the original instrument.

Milk Diet.

The recommendation of men distinguished for their talents and with world-wide reputations, has had the usual result with the milk diet question that we are wont to note with all other questions, namely, that the masses, following blindly the few leaders,

have gone to the extreme; and we see daily, in the secular press, items to the effect that so-and-so (mentioning some distinguished person) is on the milk diet, and it is generally added that his complaint is Bright's disease. Thus these accumulating reports lend still more popularity to the diet, until in the minds of many persons Bright's disease and milk diet have come to hold a most wonderfully intimate relationship, the one with the other.

That milk is an exceedingly nutritious and easily digested article of diet no one questions, but that it has any *specific* action in Bright's disease seems to us, to say the least, very problematical; while on the other hand, such a restricted diet, serving as a constant reminder to the patient of his malady, would have the effect in many cases of causing the invalid to brood over his incurable disease, and thus by disturbing his equanimity and distressing his mind, would, we fear, have an injurious influence on the progress of the disease. A very distinguished physician in this city, places great faith in milk diet in this and other chronic diseases; and so firmly does he seem to believe in its efficacy, that even though it may sicken the stomach and constipate the bowels, as it not infrequently does at first, he still persists in its use, ordering his patient to bed, and commencing, may be, with teaspoonful doses of milk, with lime water, keeps the patient on his back until the milk ceases to produce these disturbing effects, and can be taken with impunity. But while this process of gradual accommodation may remove some of the objections to an absolute milk diet, it will not do away with the introspective objection which we have urged—it will not prevent the patient from brooding on his disease, and thus helping its progress. It is a fact that we have frequently observed in Bright's, as in other diseases, and it is a fact familiar to all physicians, that in those who are blessed with a buoyant, happy, "easy-going" disposition, who seem to forget (unless reminded of it) that they are afflicted with an organic and incurable disease, the disease seems to make comparatively little progress. We are all familiar with the evil influence of "worry," and of too much concentration of thought upon self and upon one's weakness. And from this fact we must perforce draw the logical lesson that we should never advise that which is calculated to cause worry and introspection. Hence, while we recognize the value of milk diet, yet we think that before directing it we should carefully study the temperament and disposition of our patient. To the sanguine, "easy-

going," it will, in the majority of instances, prove an unalloyed boon; while to the nervous, irritable, introspective, and "worrying" patient, it would seem more prudent to recommend the free use of milk, but not to enjoin the absolute, restricted milk diet.—*Medical and Surgical Reporter*.

Glycerine in Fevers.

A palatable and promptly beneficial febrifuge is a desideratum, felt more particularly, perhaps, in pediatrics than in general practice. Children are peculiarly susceptible to disturbing causes, and the degree of fever is not always in their case the important indication which it is in the case of the adult. The cause of a very high degree of fever may be, in itself, so insignificant as scarcely to warrant the careful search therefor as would be necessary in undertaking the treatment of a similar elevation of temperature in the adult. It is usually quite justifiable in the fevers of children to address the remedies to the symptoms, unless, indeed, their persistence under such treatment should make a deeper scrutiny for the cause imperative. But whether the cause be first determined or not the febrifuge employed should be of such a nature as will not depress the vital forces, as some of the more common agents of this class are apt to do. As an effort at supplying an agent of the class required Dr. Mariano Semmola (*Allgemeine Medicinische Central Zeitung*) recommends the use of glycerine, which he prescribes in the following formula:

R. Glycerine.....	℥ i
Accidi citrici (<i>vel tartarici</i>).....	℥ ss
Aqnae.....	℥ vi.

M. Sig. One or two tablespoonfuls every half hour. This is for an adult.

Dr. Semmola has employed this mixture with profit in typhoid fever. In most cases its use was followed by a decrease in the amount of the urea excreted, of from ninety to one hundred grains.—*Therapeutic Gazette*.

Ovariectomy on a Child of Eight and a Half Years.

The mother had only noticed the abdominal development during a few days. The tumor was movable and slightly fluctuating. The abdomen was opened, the tumor punctured, and about a quart of lemon-colored fluid drawn. The left ovary and fallopian tube were implicated. No adhesions. Convalescence

was rapid and uncomplicated. Spencer Wells has published one at eight years and another at thirteen years. Pean one at twelve years, the cyst having been punctured several times. All recovered.—*Leire Medicale.*—*Obstetric Gazette.*

Constipation Habit.

The subject of constipation is so extensive, involving the discussion of so many diseases and remedies, and with its diarrhea of literature covering so much ground, that I forbear, for want of time, if nothing more, from entering into a full consideration of the subject.

That it is often a symptom of disease, or a disturbance arising from disease, I need not discuss; but I wish, at this time, to call brief attention to it as a disease in and of itself, in order to elicit discussion, and thereby enlarge our ideas.

The constipation habit is certainly a perversion of an important function, and is often productive of great harm and suffering. The normal act of defecation, as a rule, occurs regularly once every twenty-four hours, and with a majority in the early part of the day, before or soon after breakfast. In health the call to evacuate the bowels is a peculiar sensation that cannot be misunderstood. If not heeded it may soon cease, and the call not return for an indefinite length of time. Immediately preceding this sensation is the peristaltic contraction of the sigmoid flexure which ejects its contents into the rectum, from which arises the warning and call for voluntary muscular assistance, that is so often unheeded or put off to a more convenient season. But the rectum must be relieved, and if not in the natural way then anti-peristaltic action takes place and the load is sent back whence it came a burden and clog, blunting that delicate sense of the bowels.

Women, I think, neglect the function more than men. This is often from a false sense of modesty, their natural delicacy leading them to endure while away from home traveling or in society, rather than to withdraw with eyes upon them to a strange shrine devoted to *Cloacina*. Even at their own homes where there is a lacking of modern conveniences, the inclemency of the weather, the exposure to cold and the foul breath of the private vault cause so much dread of the simple act of defecation, as to lead them to procrastinate to the utter demoralization of the normal defective act. I have no doubt that the trammels of

fashionable clothing also interfere to some extent. The considerable straining which is sometimes required to complete the act, may be unattainable from the clothing limiting too much the action of the diaphragm and abdominal muscles.

Sedentary habits which deprive the bowels of the gentle stimulus of exercise, is one cause of constipation; and when to the sedentary habits is added position of posture which cramps and crowds the bowels, as is the case with the shoemaker, habitual constipation is almost sure to follow.

The abuse of cathartics is a fruitful cause to induce and confirm this habit. What with the anti-constipation pill, wafers and pellets flooding the land to dredge the *primæ viæ* on the first indication of its filling up, or to be used from the fear that it will fill up, it is a wonder that nature's *clouca* is maintained at all.

Errors of diet, though not mentioned first, are not least in causing this habit, which is perhaps, more prevalent in this country than in any other; and some one has said that it is because we eat too little soup. Water as a solvent and a diluent acts in the alimentary canal a very important part, and soup-eating should certainly be encouraged in order to counteract the tendency to take our food too solid, and to favor the fecal current.

Whatever line of diet we are in the habit of taking, and the bowels are normal, if we make a sudden or marked change in our diet, it is often attended by bowel disturbances in one way or the other. I have been in a position to observe a great many persons who have made sudden changes, particularly from a mixed, generous diet, to a vegetarian diet, which from its bulky nature imposes more work on the bowels than they are used to, often beyond their working capacity, and the result would often be acute constipation. The next step then, was to use the much abused water enema, which to the overworked bowels, seemed a God-send, but by frequent repetition proved a blight to their work, making them a sluggard in the human economy.

I give one case to illustrate:

Mr. S. had been a vegetarian for five years or more, and had adopted two meals a day. He was in fair general health for one of such habits, but his great difficulty was no natural action of the bowels, which had existed for the last five years. His sole reliance for a movement, was the coarse food and water enemata, which he had come to take regularly.

He consulted me ostensibly for hemorrhoids, which he said the

doctor, who had treated him, told him he had had, and who had expected to operate on him. On making a thorough exploration of the rectum, I was not surprised to find no hemorrhoids, for he gave no symptoms of any. I found, however, a very large, pouch shaped rectum, with flabby, relaxed and attenuated walls, which I attributed to the protracted use of the water enemata.

I changed his diet, stopped the enemas, gave him three meals a day, had him drink four or five goblets of water per day, and had him inject on retiring one-third of a cup of cold water to be retained. Ordered daily massage and kneading of the bowels, with a mild faradisation of the same; also ten drops of *fid ext. casc. sag.* four times a day. In four week's time he had natural stools, without the use of medicine or treatment of any kind.

A too concentrated diet may cause this habit, but I have observed no danger in this direction. A variable appetite which makes extremes in quantity and quality of food is sometimes a cause, but as this would lead us to discussion not intended at this time, we desist. I have often observed that a long journey by rail will produce a severe constipation, and have wondered if the constant jarring of the cars has any thing to do with it.

The more difficult a disease is to treat successfully the longer the list of remedies employed; and, judging from the length of the list in this case, one would be almost discouraged from attempting a cure.

Yet with clear ideas of causes, the indications for treatment are simple, and with the hearty coöperation of the patient the physician may feel quite certain of gaining sooner or later the desired result.

The following I give as a general outline of the treatment, which of course must be varied somewhat according to the special indications of each case:

Regulate the diet, having three meals per day of palatable, nutritious food, not too bulky or too concentrated. Have soup at at least one meal each day.

On rising, at least an hour before breakfast, drink one or two large goblets of water. If the stomach is weak and inclined to chronic gastritis, I order the water to be drunk hot. Twenty or thirty minutes following the water, give the bowels a thorough kneading for ten minutes. Then assume erect position, with arms above the head and left foot on a line with the right and placed in front of it, bend forward till the knuckles of the closed

nands touch the floor, then back to the first position, repeating this five or six times; then, reversing the position of the feet, repeat the movements. This is an excellent exercise for the abdominal muscles and an inactive liver.

At night, also, before retiring, drink a goblet of water, and if there are indications of dryness of lower bowels, I use an enema of one-third to one-half cup of water, to be retained.

Flushing the sewer may be a good practice with some, making the stomach the flooding tank; but we must use great care not to interfere with digestion.

When it is available, I often order a fifteen minutes' daily application of electricity to the abdomen, using the Faradic current.

If any medicine is demanded, the first on the list is cascara sagrada. I think it is an excellent "peristaltic persuader." It renders in my hands the most efficient service in small and repeated doses.

I impress it upon my patients to make it a daily practice to go to stool at a regular hour, to induce if possible, by voluntary muscular effort, a movement, remembering that this measure alone, if persisted in, will oftentimes overcome this deplorable habit. Perhaps the best time of the day for this is soon after breakfast. Patient continuation in this line of treatment will do a great deal to dispel this *bete noir* of medical practice.—*Detroit Lancet*.

Picrotoxin in the Night Sweats of Phthisis.

Drs. Westbrook and Platt, in the *N. Y. Med. Journal* of June 28th, make the following statement of the action of picrotoxin in controlling the night sweats of phthisis, drawn from their experience in St. Mary's Hospital, Brooklyn.

"The first case in which it was used was one in which the ergotin and quinine had controlled the sweats for a month, and which had subsequently been treated with quinine and zinc sulphate, and with small doses of Dover's powder, without apparent effect, and in which atropine was tried, with the result of reducing the sweats, but also of producing such annoying dryness of the throat as to preclude its continued use.

"The picrotoxin was at first administered in the dose $\frac{1}{96}$ of a grain hypodermically at night. The first injection was given on March 24th; the following night the sweating was less, and on March 27th it had ceased entirely; from that time till April 3d

there was no sweating, the picrotoxin being administered every night. By this time, April 3d, the sweats had recommenced slightly, and the dose was increased to $\frac{1}{48}$ of a grain at night. From this time till May 1st, twenty-seven days, there was no sweating, except on two occasions, when the picrotoxin was omitted and a slight sweat followed.

“From May 1st to May 10th medication was suspended, with the result that the sweats gradually increased in severity until the latter date, when they were as bad as ever.

“From to the 10th the 26th of May picrotoxin was given in doses of $\frac{1}{48}$ of a grain hypodermically every second or third night, with the result of controlling the sweat entirely for two nights following its administration; the third night, if none was given, there would be a slight sweat.

“In a subsequent case the dose of picrotoxin was increased and the interval between the doses lengthened until it was found that $\frac{1}{20}$ of a grain hypodermically at night would control the sweats for ten nights following.

“In other cases the picrotoxin was given, either hypodermically or by the mouth, at intervals varying from two to ten days, and in doses of from $\frac{1}{80}$ to $\frac{1}{20}$ of a grain.

“The total number of cases in which the drug was administered was nine; in six the sweats were entirely checked, in two they were greatly relieved, and in one very troublesome case it seemed to have no effect whatever.

“The observations go to confirm the results of Murrel’s experiments, who had but one failure in twenty cases, and found the effect to last about ten days, though we have found it necessary to use larger doses, he stating that he accomplished this result with from $\frac{1}{160}$ to $\frac{1}{60}$ grain.

“In one case, where picrotoxin by itself only relieved the symptom, combined with quinine it completely controlled it.”

Tuberculosis in Cattle.

A paper upon this subject was lately read and very earnestly discussed before the Veterinary Society at Munich, and the following conclusions adopted:

1st. The disease is transmissible from parent to offspring; a tuberculous bull can affect the ovum of the cow during the act of coition, and congenital tuberculosis appears in the young.

(We doubt this, or else the original is not explicit enough.

The cause is, the weak, sensitive tissues are congenital; but ante-partum tuberculosis is something which we are at present quite sceptical about.—Ed.)

2d. The embryo also can be infected from a diseased mother.

3d. Calves that are born healthy can become tuberculous from being fed on milk derived from cows having tuberculosis.

4th. That the disease may be transmitted from one animal to another by means of cohabitation, has been proved beyond all question.

The author of the above paper draws a very fine distinction as to what is to be considered general tuberculosis in the inspection of slaughtered animals, viz:

When the disease extends "per continuitatem," that is, out from one center of infection to parts in the immediate vicinity, or has gradually extended in this way to organs quite distant from the original seat of the disease, then it is no general tuberculosis; but where we find a center in one point, and other centers in other glands and organs of the body distinctly situated, then we are to assume that the disease has extended by means of the circulatory system, and the flesh is unfitted for human food. It is well known that at present not a single case of tuberculosis in man has been directly traceable to the consumption of beef taken from animals having the kindred disease.

Notwithstanding this fact, there is no question that in many cases we are justified in excluding such meat from sale and consumption, for it cannot be pronounced to be free from disease in any sense of the word.

For the dukedom of Hesse, the Ministerium has declared "that when the disease has acquired but a slight organic extension, and when the animal has not become cachectic, then such meat may be sold when marked and branded and the consumer is told that he is buying such meat, and that with it must go a warning that it must be well cooked before being eaten."—*Jour. Comparative Medicine and Surgery*.

Gangrene of Both Feet, with Amputation.

W. S. Janney, M.D., reported to the Philadelphia County Medical Society the case of a colored man aged 41, who suffered gangrene of the lower extremities after exposure to severe cold. The left leg was amputated four inches above the ankle. After some sloughing the stump healed, whilst the sloughing of the

right foot continued. Dr. Janney ultimately operated on the right foot by disarticulating the third, fourth and fifth metatarsal from the tarsal bones, leaving an open wound, which was dressed the first twenty-four hours with carbolized oil. Gangrene speedily appeared in the wound; a poultice of tar, iodine and flaxseed was crowded between the gaping edges; in three days the wound was clean and full of granulations; the wound was then dressed with a solution of bi-chloride of mercury, 1-1000; straps of adhesive plaster were applied, so that the edges were gradually approximated; the foot healed and is in the condition of slight varus, but very serviceable; the man's general condition is good. The internal treatment was quinine, iron and chlorine water.

On Infant Foods.

Prof. Albert R. Weeds thus summarises a lecture given by him on the subject of Infant Foods:

1. Cow's is in no sense a substitute for woman's milk.
2. Attenuation with water alone is inadequate, and chemical metamorphosis, or, mechanically, the addition of some inert attenuant is required, in order to permit of the ready digestibility of cow's milk by infants.
3. The utility of manufactured Infant's Food is to act as such attenuants, and as such they take the place of the simple barley and oatmeal water, the sugar, cream, baked cracker, arrowroot, etc., etc., used in former times.
4. The results of both chemical and physiological analysis are opposed to any but a sparing use of preparations containing large percentages of starch.
5. It is eminently probable that besides acting as attenuants, the matters extracted in the preparation of barley and oatmeal water, and still more the soluble albuminoid extractives obtained at ordinary temperatures (whereby coagulation is prevented) by Liebig's process, have a great independent value of their own. For this reason, instead of employing starch, gum, gelatine, sugar, etc., the use of a natural cereal extractive, containing saccharine and gummy matters and soluble albuminoids as well, such as our great and inspired teacher Liebig himself advocated, is in accordance with the developments of science since his time.
6. The use of a food made up of equal parts of milk, cream, lime water, and weak arrowroot water, as practised for years by

the late Dr. J. Forsyth Meigs, and recently advocated by his son, Dr. Arthur V. Meigs, is sustained by theory, analysis, and practice. It provides for the increase of fat to an amount comparable to that contained in human milk. It adds alkali to permanent reaction, and to convert caseine into soluble albuminates. It adds a little bland attenuant. And if, in addition, the amount of milk-sugar were raised, and instead of arrowroot water, barley or oatmeal water were substituted, as the case demanded, it would approach, it appears to me, still more nearly to the conditions required.

7. The perfect solution of the present problem is to be found in the modification of cow's milk by chemical processes, so as to make it physiologically equivalent to human milk. The nature of these processes and the results to be obtained are at present so nearly wrought out that there is good ground for believing that such a solution of this problem is not far distant in the future.

Women as Nurses and Doctors.

From the address of Oliver Wendell Holmes at the hundredth anniversary of Harvard Medical School, we make the following extract:

Now it is just in these little unimportant, all-important matters that a good nurse is of incalculable aid to the physician. And the growing conviction of the importance of thorough training of young women as nurses, is one of the most hopeful signs of medical advancement. So much has been done and is doing that the days of the Sairey Gamps and Betsey Prigs are numbered. I cannot help saying in this connection, that the Registry of Nurses fortunately connected with the Boston Medical Library, itself of comparatively recent formation, is a blessing to our community which can hardly be over-estimated. What is there in the hour of anguish like the gentle presence, the quiet voice, the thoroughly trained and skillful hand of the woman who was meant by nature, and has been taught by careful discipline, to render those services which money tries to reward, but only gratitude can repay? I have always felt that this was rather the vocation of women than general medical and especially surgical practice. Yet I myself followed a course of lectures given by the younger Madame Lachapelle in Paris, and if here and there an intrepid woman insists on taking by storm the fortress of

medical education, I would have the gate flung open to her as if it were that of the citadel of Orleans and she were Joan of Arc returning from the field of victory.

I have often wished that disease could be hunted by its professional antagonists in couples,—a doctor and a doctor's quick-witted wife making a joint visit and attacking the patient,—I mean the patient's malady, of course,—with their united capacities. For I am quite sure that there is a natural clairvoyance in a woman which would make her as much the superior of man in some particulars of diagnosis as she certainly is in distinguishing shades of color. Many a suicide would have been prevented, if the doctor's wife had visited the victim the day before it happened. She would have seen in the merchant's face his impending bankruptcy, while her stupid husband was prescribing for his dyspepsia and indorsing his note; she would recognize the love-lorn maiden by an ill-adjusted ribbon, a line in the features, a droop in the attitude, a tone in the voice,—which mean nothing to him, and so the brook must be dragged to-morrow. The dual arrangement of which I have spoken is, I suppose, impracticable, but a woman's advice, I suspect, often determines her husband's prescription. Instead of a curtain lecture on his own failings he gets a clinical lecture,—on the puzzling case, it may be, of a neighbor suffering from a complaint known to village nosology as “a complication of diseases,” which her keen eyes see into as much better than his as they would through the eye of a small-sized needle. She will find the right end of a case to get hold of, and take the snarls out as she would out of a skein of thread or a ball of worsted which he would speedily have reduced to a hopeless tangle.

How to Cleanse and Bleach Sponges for Surgical or Gynæcological Uses.

Dr. L. Curtis in the *U. S. Med. Investigator* says: Having made the sponges free from sand and calcareous matter by gently beating them, wash them in water, squeeze them as dry as possible and then place a few at a time in a solution of *Permanganate of Potassa*, made by dissolving one hundred and eighty grains of the salt in five pints of water, and pouring a portion of the solution into a clean glazed vessel. Let them remain a few moments until they have acquired a dark mahogany-brown color, when they are to be squeezed by hand to free them from the solution. They are then dropped a few at a time into a bleaching solution

made as follows: Hypo-sulphite of soda, ten ounces; water, sixty-eight fluid ounces; when dissolved, add five fluid ounces of Muriatic acid.

This solution should be made the day before being wanted for use in order that the sulphur precipitated by the acid may be easily separated. This solution is poured off from the sulphur, and if necessary, is strained through muslin into a glazed vessel. The sponges are allowed to remain in this solution a few moments, squeezing them with the hand occasionally in order that every part may be reached by the fluid, then squeeze out and wash through several waters to rid them of the sulphurous odors. They may be completely deodorized by washing them in a weak alkaline solution of *Bicarbonate of soda*, about one hundred grains to the pint, and then washing through several waters to free from any traces of the alkali. Much caution must be used in this last operation lest the bleaching effect of the previous solutions be partly neutralized. When the sponges are *nearly dry*, immerse them into a solution of Glycerine water, one-half ounce to the pint, squeeze them as dry as possible, and dry them in the shade—be sure and not let direct sunlight on them until dry. They will be as soft and white as wool.

THE PHYSICIANS MUTUAL AID ASSOCIATION of New York pays \$475 to the family of a deceased member.

A CHINESE DOCTOR has been permitted to register in the City of New York to practice among his countrymen.

A "REGULAR" PUFF.—Dr. W——, who was called abroad to attend a prominent Philadelphian in Geneva, has returned after successfully accomplishing his mission,"—*Med. Bulletin*.

SOMEWHAT PEDANTIC.—Definitions do not always simplify. "*Coryra vaso-motoria periodica*" is what a learned Professor in Baltimore proposes to designate "Hay Fever," and another Professor gives a lecture on "Diastasis of the Inferior Epiphysis of the Femur causing Genu Varum."

THE TEXAS COURIER-RECORD says that a great revival in medicine is in progress in that State, and that, from a false and ignominious position, that profession has stepped to one so conspicuous that other States are pointing to it with pride and pleasure.

THE OFFICERS OF THE NATIONAL BOARD OF HEALTH for the ensuing year are: President, Dr. James Cabell, of Virginia; Vice-President, Dr. Stephen Smith, of New York; Secretary, Geo. E. Waring, Esq., of Rhode Island.

MEMORIAL TO DR. GROSS.—Dr. W. Yandell, M.D., sends us a description designed for the memorial urn of the late Prof. Gross. It is an eloquent, appropriate and well merited eulogium on one of the greatest and best of men.

We have received from the Secretary of the Sacramento Medical Society, a neatly printed copy of the Constitution and By-laws of the Society, with a list of members, amounting to twenty. Dr. W. A. Briggs is President, Dr. J. H. Parkinson, Secretary and Treasurer, and Drs. Briggs, Cluness, Simmons, Nichols and Parkinson, Directors.

A GOOD PLAN has been adopted by many of the principal Eastern druggists—to publish the prices of their various drugs and preparations. The Wyeths, of Philadelphia, send us a list of their kind with the prices per hundred of pills of all kinds, and also their hypodermic tablets. Their agents in San Francisco are A. F. Downing & Son, 14 Second St.

THE S. D. GROSS PROFESSORSHIP OF PATHOLOGICAL ANATOMY—The Alumni Association of Jefferson Medical College proposes to establish a professorship as above. A large number of prominent physicians are engaged in the project. Dr. R. J. Dunglison, of Philadelphia, is Treasurer; and contributions to the endowment fund will be forwarded to him.

It is said that forty applications were made by well known surgeons for membership in the American Surgical Association. Four of these only were selected by the council to be voted upon by the association. These were all black-balled.

Dr. H. C. Wood says that if he finds ten grains of potassium produces symptoms of iodism, he is quite sure that the case is not one of specific disease. If the patient takes from one-half to one drachm of the iodide of potassium and thrives thereon, he is sure he is the subject of specific disease. Hence iodide of potassium is the diagnostic test for obscure syphilis.—*Detroit Lancet, June, 1884.*

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Medical and Surgical Journal

—AND—

WESTERN LANCET

VOL. XXVII.

OCTOBER, 1884.

No. 4.

Original Articles.

REPORT ON PRACTICAL MEDICINE, MADE TO THE CALIFORNIA STATE MEDICAL SOCIETY AT ITS ANNUAL MEETING IN APRIL, 1884.

By H. GIBBONS, Sr. M. D., Chairman of Committee.

There has been no marked epidemic in California during the past year. The nearest approach to it was the general prevalence of pneumonia and bronchitis in the spring and winter months. These two forms of disease are diffused very equably on the Pacific Coast. Whilst pneumonia is attended with much fatality, bronchitis, as every one knows, is seldom fatal directly, though in many instances it exhibits great tenacity and frequent recurrence, so that many persons attacked in the early winter find it difficult to get well till the season changes.

After the American occupation there was for several years a bronchial outbreak on this Coast every summer, principally in June, amounting almost to an influenza. It recurred punctually for several years, and then disappeared as an epidemic.

The form assumed by pneumonia is mostly sub-acute. The invasion is seldom primary and idiopathic, but nearly always secondary to a general condition tending to a loss of resisting vital force. This accounts for its fatality.

Phthisis maintains its reputation as the great destroyer, claiming its quota of one-tenth to one-fifth of the whole mortality. Local mortuary statistics, however, are of little value in determining the climates and localities favorable or unfavorable to its development. Many of its victims fly from the hostile climates which have kindled the disease, to swell the record of its mortality in the best sanitary regions; making the worst appear the best, and the best the worst. The question of climate for consumptives is commonly investigated with the idea of finding some particular climate suitable for all cases. But this is an impossibility. As well might one attempt to make a coat or a hat to fit every individual. In the extraordinary diversity of climates in California as regards summer temperature, the best possible opportunity is afforded to invalids to find localities adapted to individual cases. No other part of the globe furnishes a winter climate so nearly alike for so many degrees of latitude, and few climates exhibit in so close proximity the coldness of the summer on the sea-coast during the day, and the high temperature of the interior at the same moment of time.

Much of the benefit to invalids usually ascribed to certain climates and localities depends more on the change of place than on the absolute superiority of one locality over another. We frequently observe two invalids exchanging climates with advantage to both, though one of the localities be acknowledged as far inferior on the score of healthfulness. For many years it has been my practice to recommend to migratory patients in search of health resorts, to move frequently from one place to another, as soon as they cease improving in the new locality.

Some of our California climates are best for winter, and others for summer. That of San Francisco is less unfriendly to pulmonary patients than is generally supposed. In winter it differs but little from other localities, except in the extreme South. Even in summer, the tonic influence of the ocean winds compensates in some degree for their damp and chilly character.

After the countless pages that have been published in favor of different health resorts in various quarters of the globe, I doubt if there is any area of territory, of the same extent as California, presenting so many excellent sanitary resorts, and commanding all the comforts and luxuries of home life. Our territory is increasingly dotted over with cities and towns, its fields and plains improved and planted, and access from place to place is becom-

ing more and more easy from year to year. Our mineral springs are profusely distributed, and wonderfully diversified in character. It is not an extravagant expectation that before many years California will be the grand sanitarium for a great portion of the civilized world.

The question of the communicability of phthisis has gained advocates within a few years. That the disease is contagious is no new belief. A wife who has nursed her consumptive husband, or an individual who has slept habitually with a tuberculous person, falls a victim to the disease; and though ninety-nine in a hundred so exposed escape such ill consequences, a few pathologists have, at times, seized upon the exceptional cases as proofs of contagion. It is not surprising that a wife or a mother, who has exhausted her strength by a long siege of nursing, whose body and mind have been on the rack for months, and who may possess the required diathesis—it is not surprising that such a person should succumb to tubercular disease, nor is it surprising that our profession should develop its proportion of *post hoc* reasoners on this and other subjects.

Then came that revolutionary agent, the microscope, with which Koch discovered a peculiar form of bacillus in the sputa of phthisis, the bacillus tuberculosis. Immediately the discovery and the name made thousands of converts to the doctrine of contagion, though Koch himself refrained from asserting such a positive inference. The production of tubercle in certain inferior animals by inoculating them with the tubercular sputa appeared to confirm the doctrine, but then the curious discovery was made that the same result often followed inoculation with substances having no relation to the tubercle.

Whatever may be said of the contagiousness of phthisis, there can be no doubt of the contagiousness of opinion. A large majority of converts to any new doctrine or hypothesis have caught their belief, so to speak, from other individuals, whose prominence in the world of science renders it creditable to take rank among their followers. Fashion has nearly as much to do with the opinions of men on scientific subjects as with the forms of women's garments. The microscope is now running a triumphant career, and has brought to the front in medical etiology the hitherto unknown world of micro-organisms to such an extent that these organisms have become the very incarnation of contagion. One after another, special forms of disease have been assigned to mi

microscopic germs, until every disease seems likely to have its special bacillus or bacterium, capable of transporting its peculiar morbid action from one body to another.

I am acquainted with a medical gentleman of high professional attainments, who attributes an attack of pneumonia which he lately suffered to contagion from a patient whom he attended with pneumonia. In the course of forty years of practice, this gentleman had probably attended a thousand cases of pneumonia, with no such sequence in a single case. To what can we ascribe his belief of contagion in the one instance, if not to a credulity begotten of the doctrine of organisms? The same may be said of the belief in the communicability of phthisis—a belief which is largely the offspring of the bacillus tuberculosis. In entertaining this opinion, do we not discard experience for theory? I have had twenty years of hospital practice, with patients in all stages of pulmonary consumption, distributed promiscuously in the wards with other patients, and neither in my hospital experience nor that of fifty-five years of private practice have I met with one solitary instance in which suspicion of contagion was entertained. As far as experience is concerned, there is quite as much argument in support of the contagiousness of rheumatism, neuralgia, gout, nephritis, and many other diseases, as of phthisis. Let the microscopist discover a bacillus rheumaticus, or a bacillus podagræ, etc., and believers in the contagiousness of those diseases will immediately spring up.

If the bacillus be the cause of phthisis, the treatment deducible from the hypothesis consists in the use of some agent which will destroy the organism. Hence, inhalations of various kinds have been employed, such as carbolic acid, ammonia, spray of corrosive sublimate, etc. Thus far, no good results have been reported. It is quite probable that more harm than good has followed this course, by inducing the rejection of means sanctioned by experience and condemned as empirical, and substituting others based on theory alone. Such is "physiological medicine"—the boast of modern times. I do not hesitate to condemn any therapeutic method which depreciates experience by stigmatizing it as empiricism, and which is guided by theory alone.

Not long since I had occasion to purchase eye glasses. A skilled and scientific optician took the measure of my vision, and selected glasses accordingly. On trial, I found them inferior to the old pair. Again he applied his optical instruments, and as-

sured me that he was right, and that his selection was the proper one. But still I could not see well with the new glasses. He insisted that I was wrong, and that those of his selection were precisely adapted to my vision; and I was under the necessity of trying one pair after another until I found what I wanted. In other words, I discarded science, or what professed to be such, and fell back on experiment or empiricism. I mention this incident to illustrate the relation of exclusive physiological therapeutics to experimental methods. United, the two are friends to the sick; but separated they are, or may be, his enemies.

The safest and best practitioner is he who stores up all the fruits of experience, and keeps at his fingers' ends all the resources of the past; who inquires diligently into all new theories and new remedies, but holds them in abeyance until his array of experience is exhausted, exposing his patient to no risk from untried or unestablished means, but rather awaiting the results of their trial by others, well knowing that such trials will be made abundantly, even to the extent of hazard and rashness. He should never forget that his first duty is to his patient, and that the promotion of science is secondary, and not to be sought at the risk of those with whose health and life he is charged.

Since the legalization and multiplication of specialties in practice, general medicine has lost by specialists more than it has gained. The concentration of the mind in one direction cannot fail to warp the judgment in other directions. When the chemist takes up therapeutics independently of clinical experience, he can scarcely avoid giving undue weight to chemical laws. The history of medicine is full of illustrations of this error. Microscopy, when pursued apart from personal inspection of disease—in other words, when cultivated as a specialty by scientists not familiar with disease and not trained in medical practice—is liable to beget false theories and to lead into error. In years long past microscopists asserted the discovery of the specific germs of cholera, of malarial affections and other maladies. Latterly, other organisms have taken the place of the former, and captured the professional mind. Phthisis, pneumonia, cholera, yellow fever, malaria, typhoid, and typhus and relapsing fever, each claims a parentage in the micro-organic world, and we appear to be verging towards a general belief that microscopic germs are universally the seeds of disease and death.

It is probable that the reign of the germ theory, or at least its

range, has culminated, or is near its culmination. In the revolving cycles of medical science, some other cause will before many years invite the footsteps of inquiry, and fashion will popularize some other theory.

The discovery of the bacillus in tubercular sputa has not led to any improvement in treatment. Every passing year confirms the preventive, hygienic, and sustaining method. Change of dwelling place, perhaps, repeated again and again, equitation, an out-door life, climates selected to fit each person as you would a garment, good nutrition—these are the elements of most promise in protecting from consumption, and arresting its early stages.

It appears to be established as a fact, that the Irish people in America are more prone to pulmonary consumption than any other race. The drier climate of our country, the change from a diet mainly vegetable to a more nutritious diet largely composed of animal food, the better clothing, and the vastly superior comforts of their new home, ought to have the opposite effect. And if whisky have any prophylactic virtue in this disease, their immunity should be further increased. In other nationalities, men are the principal drinkers. But in our Celtic population the two sexes enjoy equal privileges in this respect. How far does the common use of alcohol by females of that nationality favor the development of tubercle in their offspring? Possibly the improvement in modes of living just described is an agent of mischief. It is a well known fact that the change from a rugged out-door life, with its discomforts and hardships, to the ease and luxury of a good home, is often followed by some illness.

Typhoid, or more properly enteric fever, continues its sporadic visitations from year to year, occasionally infecting a dwelling or a locality so as to give the appearance of contagion. In the Atlantic States and in Europe, physicians are generally united in regarding it as contagious. But during the thirty-four years of my California experience, including both hospital and private practice, I have never seen the slightest evidence of its communication from one person to another. In St. Mary's and in the City Hospital, typhoid patients have always been placed in the common wards with others, and I have never known a single instance of the disease attacking another patient or a nurse. Such is the almost universal testimony of those practitioners throughout the State whose opinions I have ascertained.

Among the alleged causes of enteric fever, sewer gas is the fa-

vorite, but the disease appears very often in rural localities and in hilly places where there are no sewers, where drainage is complete, and where all the topographical elements of health would appear to be concentrated. Even in our cities, the propinquity of foul sewers, which give rise to most offensive emanations, is no more liable to its visitations than other parts of the city where the atmosphere is apparently pure.

I cannot say that any progress has been made during the year in the management of enteric fever. The cold bath cure, which was in vogue a few years ago, though still employed by some European practitioners, has not grown in favor, nor has the anti-pyretic quinine treatment, which once promised so much, maintained its ground. To support the strength by nourishment, reserving alcohols for the exhaustion of the advanced stages, and to guard against local determinations, are the two leading indications. A few large doses of quinine in the early stage, as an anti-periodic, especially if a malarial taint exists, may be of advantage.

A few districts of the State are subject to intermittent and other malarial fevers. The southern portion of the great San Joaquin Valley and the northern part of the Sacramento Valley are the principal malarial districts. Quinine in anti-periodic doses is the universal resort in intermittent fever, and the paroxysms being thus arrested, the patient is dismissed as cured, only to encounter a return of his chill in a week or a fortnight. The same course is repeated with the same unsatisfactory result, until finally the subject of this patchwork turns his back on the faculty, as well he may, denounces the inefficiency of regular treatment, and resorts to some nostrum the basis of which is quinine, and is cured by its prolonged use.

In the treatment of intermittent, the two-fold indication should always be kept in view: first, to arrest the paroxysms, second to prevent their return. I need not describe the details of this treatment, but it is a matter of importance to avoid the mischief that may arise from a frequent and lavish use of quinine. Though its immediate effect in arresting the paroxysms is beneficial, its prolonged use stamps the malarial condition more deeply on the organism. This effect is well illustrated by patients from malarial districts who enter the city hospital. Their sallow and almost jaundiced complexion and their dejected look tell the story at a glance.

The ancient practice was much more efficient in these cases than

the modern. Before the introduction of quinine and for some time after, the old doctors began the treatment with an active mercurial cathartic, to which an emetic was sometimes conjoined. This rendered the system much more susceptible to the influence of the anti-periodic. Perhaps a blue pill nightly for a short time was conjoined with the quinine. By this means the liver and spleen were disengaged, and the blood cleansed of malarial pigment.

Nothing in the history of medicinal agents is more extraordinary than the wide range which quinine has secured in the treatment and prevention of disease. Scarcely a malady in the nomenclature but draws upon it. Quinine has become almost a universal remedy. Beyond a doubt, it is too often prescribed empirically and from habit. It is capable of doing mischief in febrile and inflammatory affections, especially in children. I have seen cases of supposed meningitis in children, in which all the brain symptoms vanished within twenty-four hours after its withdrawal.

Several years ago I published the result of the iodine treatment of intermittent fever in patients under my charge in the San Francisco City Hospital. These patients came mostly from the malarial districts already mentioned, and were saturated, so to speak, with malarial poison, and mostly with quinine also. After a mercurial purge, they were given ten drops comp. tinc. of iodine three times a day, increased sometimes to twelve or fifteen drops. The result was uniformly gratifying. In some instances the arrest of the paroxysms was as prompt as possible from quinine. Seldom was there more than one paroxysm after the initiation of the treatment, which was continued several weeks, no recurrence of the disease taking place.

Similar testimony in favor of the iodine treatment has appeared from various sources. But a different experience was narrated in the *American Journal of the Medical Sciences*, for July, 1883, by Prof. Atkinson, of Baltimore, who had initiated the iodine treatment in the Bay View Asylum, in his charge. His observations were so carefully made and so precisely reported as to entitle them to full credit, though it is difficult to reconcile the results with the experience of others. Possibly the great change which my patients enjoyed in escaping from a malarial region where they had no good nursing and no hygienic means, and entering a comfortable hospital, where they were surrounded with circumstances favorable to health, affords some explanation of the problem.

In a few instances, perhaps in four or five per cent., the toxic action of iodine appeared in the form of gastric and intestinal irritation, loss of appetite, and general deterioration of health. These conditions soon vanished after a suspension of the medicine.

The frequent high price of quinine, and immense quantity consumed, involve such a vast annual expenditure as to render a substitute desirable. Other active principles than quinia contained in cinchona have been resorted to. The sulphates of cinchonidia, cinchonia and quinidia are employed by many practitioners, who find them efficacious as anti-periodics when given in larger doses. Other preparations combining all the active principles of cinchonia, under the names of cincho-quinine, dextro-quinine, quinquinia, etc., have been found useful. But sulphate of quinia, after all, must be regarded as the chiefest of anti-periodics. The other preparations, however, hold an important place as tonics, and, I believe, are much better for prolonged and daily use than the sulphate, three or four grains daily being administered for this purpose.*

Attempts have been made to produce quinia from its chemical constituents. The nearest approach to success in this endeavor is the manufacture of *kairin*, which is reported to possess all the qualities of quinine. At present, however, it costs more than the latter, and can only take its place when it can be made cheaper, and when it proves itself as valuable in therapeutics. Some of the latest experiments with *kairin* have thrown doubts on its efficacy, and its position is by no means established. If the ingenuity of chemists shall devise a cheap formula for the production of quinia by synthesis, the discovery will be a blessing to humanity in more than one direction.

In some months past *whooping-cough* has prevailed as an epidemic in various sections of the State, particularly in San Francisco. It has been attended with considerable fatality. Nothing new has been elicited in the treatment, unless it be a confirmation of the value of that mysterious agent, ozone. The "ozone generator," so called, is an apparatus for the slow combustion of phosphorus, which is placed at the bed-side of the patient. Its effect is extraordinary in preventing the paroxysms of cough. I have known more than one instance in which the rest of a child had been disturbed by repeated severe paroxysms during the

* I have found "quinquina" very valuable in this connection. It combines all the active principles of the bark.

night, and when this apparatus was evidently the means of reducing the paroxysms to one or two, and securing to the sufferer a night's repose.

It may be that the benefit derived from taking a child with whooping cough to the gas house arises from the inhalation of ozone. Were the good effect dependent on carbureted hydrogen alone, nearly the same object might be attained by allowing a portion of illuminating gas to escape from the jet into the chamber at the patient's home. In the production and purification of gas a large quantity of lime is employed, to neutralize and absorb the acids and other products of coal distillation. When passing a gas house one may see piles of refuse from retorts, resembling somewhat sulphate of iron, which is carted away to pack under sidewalks and walks as a protection from rats. I have often thought that the exhalations from this material contained ozone, and was the chief agent in allaying the spasms of pertussis.

Our homes have been favored during the year by a comparative exemption from scarlatina and diphtheria. Sporadic cases of these scourges of the nursery have occurred throughout the State, and in a few localities one or the other has been endemic. Nothing new in their treatment has transpired. Iron, in the form of muriated tincture, freely administered, maintains its supremacy, especially in diphtheria, whilst the great weapon of defense is preventive hygiene.

For the first time in the history of the Pacific Coast, our latitude has been threatened during the past year by an epidemic fever of a malignant type, generally regarded as yellow fever, approaching from the South, and attended with much fatality in some portions of Mexico. Among physicians familiar with yellow fever in other places, and who witnessed the Mexican epidemic, a marked difference of opinion existed as to its character; not a few experienced observers regarding it as a pernicious malarial fever, dependent on local, unsanitary conditions. The same form of fever has been prevalent, sporadically, in Panama for several months past, if not ever since last Autumn; but, although no special provision has been adopted to prevent its dissemination, it has shown no tendency to become epidemic there, nor to extend to other parts in constant communication with Panama. This fact does not accord with the general history of yellow fever.

Meanwhile, false reports have been circulated from time to time alleging the prevalence of yellow fever at Guaymas and other

points adjacent to our borders, keeping up a needless alarm among sensitive and credulous people. Judging from the history of yellow fever, and from past experience, there is no reason to apprehend its extension to California, even if it should advance northward on the coast beyond the tropical zone. Our State Board of Health has constant supervision of the subject, and will adopt whatever means are required for the protection of our territory. But it will be a much better policy to consider this and most other malignant epidemics as originating from local causes at home, rather than by introduction from abroad.

Cholera and Leprosy are two other bugbears with which some of our newspapers delight in alarming sensitive people. As to cholera, its existence in China, Japan, and the East Indies is no menace to the Pacific Coast. Epidemics in general do not cross the ocean from Asia. Their ordinary course is from east to west. For many years San Francisco has been in constant commercial intercourse with parts in the Orient where cholera prevailed. Should it ever visit us again, we may look for its gradual approach by land.

More groundless still is the fear of leprosy. In no proper sense is leprosy infectious. It cannot be conveyed in the air. Like syphilis, it is communicable only by contact, and its diffusion in this way is difficult. In the third of a century since California has had a large population of Chinese, among whom that disease is alleged to exist constantly more or less, I have heard of but one instance of an individual of the white race contracting leprosy in San Francisco; and that one instance is not well authenticated.

To judge from the notes of alarm habitually issued by certain newspapers in San Francisco, California must be a dangerous home for immigrants. A stranger might find a leper in every Mongolian; he could hardly escape infection with mortal diseases from the Chinese quarter; and he will be liable at any time to cholera and small-pox imported from the East. If it were the intention to deter persons from coming among us, and to prevent immigration by representing the dangers from diseases in California, no better plan could be employed.

But the people of this Coast have another foe much more to be dreaded than leprosy, yellow fever and cholera, conjoined. I allude to small-pox. The epidemic visitations of this destroyer and deformer of mankind are irregularly periodical; the periods, how-

ever, being seldom less than seven years. That term is now passed, and we are liable at any moment to encounter an invasion. Such an invasion would find our population more unprepared than ever before. They have been lulled into a sense of security by the long period of exemption, and a very large proportion of the children born within three or four years past are unvaccinated. Besides, the foreign immigration adds greatly to the unprotected number, not only through their children, but through adults who have not been subjected to the protective agency for many years. Experience has proved that this latter class are almost as susceptible to small-pox as if they had never been vaccinated, and that, although most of them will have the mild form, or varioloid, no small proportion suffer severely, if not fatally.

With such an immense amount of inflammable material, an outbreak of small-pox would sweep through our borders with terrible destruction. Time is required to secure protection. In emergencies it has been found impossible to obtain sufficient supplies of good vaccine virus. Hitherto the attempts to cultivate it from the cow on this Coast have failed. When sent from the East, even from the most noted vaccine farms, it is so often inert that many of our physicians have lost all confidence in it. The opinion has gained ground that the virus taken from the arm of a healthy child, under the immediate inspection of a competent physician, or the crust so obtained, is equal in every quality to bovine virus; and that it is better to resort to it when it is at hand, than to suffer the delay and uncertainty often attendant on procuring the latter.

As to the enemies of vaccination, arguments are lost on them. Ignorance, prejudice, baseless notions and absurd theories will always pervert the judgment of an indefinite proportion of men, especially if they are crooked by nature. With the history of small-pox and vaccination before their eyes, those persons who persist in rejecting the protective agent would not be convinced of their error though one should rise from the dead.

From time to time, the State Board of Health, through their Secretary, have done what they could, when occasion presented, to bring about a general vaccination. They have distributed circulars, and kept on hand a supply of virus for distribution. But having no power other than advisory, and no funds provided by the State, they can do but little. It is only when small-pox really invades a community, that the inhabitants awake to a sense

of their danger and cry for protection. And when the pestilence has once taken root, it is too late for a complete defense.

Our people have two sources of protection against pestilence besides their individual labors: First, the action of local authorities legally enforced; second, the voluntary efforts of physicians as guardians of the public health. In no point of view is the attitude of our profession so honorable before the world as in its philanthropic aspect, by which physicians become the self-constituted guardians of the public welfare. The uncompelled and unrewarded labors performed by them in the direction of preventive medicine are not appreciated either by governments or people. Both governments and people appear to regard it as the natural duty of physicians to prevent disease by organizations and publications conducted at their own expense. What if the lawyers in the United States should summon conventions, State and National, and travel hundreds and thousands of miles to attend them, at their own cost, and all for the purpose of devising means to prevent people from engaging in law suits? And this is what physicians are doing continually against their regular occupation, besides giving their services gratuitously to the vast army of indigent who crowd the land in all directions.

For many months past the climate of the Pacific Coast has been exceptional in character. The same is true indeed of the Atlantic slope, and to some extent of the trans-Atlantic region. This disjointed climatic condition was about concurrent with the remarkable red sky of sunrise and sunset, and with the extraordinary volcanic eruption in the South Sea, which has been pronounced the most violent and extensive recorded in the history of the world. It began in April and reached its acme in August, when the red sky made its appearance. This commenced near the volcanic center, and gradually extended over a great portion of the globe, thus rendering it highly probable, to say the least, that it was dependent on the immense amount of vapor projected from the earth into the upper strata of the atmosphere by volcanic action.

Prior to the redness, which appeared only when the sun was beneath the horizon, the sky assumed a bright yellow hue. These phenomena admit of a ready explanation in accordance with the laws of refraction of light, if we suppose a stratum of vapor not less than fifty or a hundred miles above the earth's surface acted on by the sun's rays. The red sky is still visible occasionally

(April 10th), and the appearance of the sky at sunset nearly always gives the idea of an excess of vapor in the upper air though there be no clouds.

As early in the year as April, before the volcanic outbreak in the Moluccas, an unusual amount of fog enveloped the Pacific Coast to the north, and extended southward as far as Los Angeles. A number of valuable vessels were lost in consequence off the coast of Washington Territory and Oregon. At Los Angeles, it was remarked that the "oldest inhabitant" had never known so much fog at that period of the year. This was previous to the volcanic commotion referred to, and could have had no connection with it. But the volcanoes of Alaska were in action at the time, and had been so previously, and may have had some relation to the excess of fog.

Besides the early fog, or more properly mist,* there were other unusual climatic conditions during the season. Through the Winter, or rainy season, the southern section of the State was visited by rain storms beyond all precedent. Instead of the rain belt moving from the north southward, as is the rule, it advanced in the opposite direction. In some of the southern counties which usually have but half the quantity falling at San Francisco and northward, the proportion was reversed. For the first time since the American occupation, the rainfall in the South was greatly in excess of the North. Another climatic peculiarity was the close relation of the sun to atmospheric precipitation, giving to the production of cloud and rain a diurnal character much more marked than usual. The sky was seldom clear for twenty-four hours at a time. At night, in the absence of the sun, rain might suddenly follow a perfectly clear evening.

Our Winter and Spring seldom pass without several severe wind storms from the North, which sweep over the State from one extremity to the other—always dry and desiccating, and in the Spring hot and blasting to vegetation. They also exert an unkindly influence on human health, aggravating many diseases, and producing a general sense of discomfort. All through the Winter and Spring months they were entirely wanting, not a single norther occurring during the usual period of their visitation.

Believers in planetary influence will attribute these atmospheric

* It were well to restrict the term *fog* to the impalpable vapor which condenses in the atmosphere, mostly on land, and to apply the term *mist* to the cloud forming on the ocean, and driven inland by the wind, and which consists of minute rain drops, sensible as such on contact with one's face.

irregularities to the concurrent perihelion of the great planets which occurred at the time. The violent storms which visited Great Britain and the European Continent in the same period, and the violent earthquake in England which followed a few months later, will confirm them in their opinion.

I have introduced these remarks on climate with the design of illustrating the slight effect, if any, of such climatic changes on the public health. The problem of climate in relation to health is extremely obscure. The greatest vicissitudes in regard to temperature, moisture and rainfall can scarcely ever be traced to the causation of disease. There was nothing observable in this respect during the period in question. In the driest seasons the rainfall at San Francisco, and generally throughout the State, is only seven or eight inches from Summer to Summer. In the rainiest it is from thirty-five to forty inches; and yet, no difference in the bills of mortality can be traced to such climatic opposites.

To a great extent the same may be said with regard to the climates of different sections and countries. The attempt to cipher out the sanitary relations of a climate by taking into calculation temperature, moisture, and other conditions is futile, except as to very general and remote conclusions. Nothing short of personal experience will ensure positive results.

SAN FRANCISCO COUNTY MEDICAL SOCIETY

The regular meeting of the San Francisco County Medical Society took place July 22nd, Dr. Whitwell, the President, being in the chair.

Dr. Gibbons, Sr., read an interesting paper on his personal experiences with cholera epidemic since the year of 1832.

The Doctor witnessed the one of 1832, which made its appearance first at Quebec, and later at New York.

The treatment during this epidemic consisted in the use of opium, brandy, calomel, salt water injections, and intravenous injections.

In 1847 and '49 the Doctor again witnessed epidemics in Philadelphia.

During these epidemics indulgence in tobacco and liquor were found to render the individual prone to the disease.

On a journey to California, made in 1850, on the vessel Ohio, which was overcrowded and extremely filthy, he first came in contact with cholera at Havana, again at Panama, and once more at Acapulco.

Although the surroundings of the vessel were particularly favorable to an epidemic, none developed itself, and no death occurred.

The Doctor found the disease raging in California on his arrival, and dealt with it in Sacramento, where one thousand inhabitants succumbed out of a population of eight thousand; as well as in San Francisco, where the epidemic was less violent. In this instance cholera traveled overland, and arrived in California from the Valley of the Mississippi.

In 1853 another epidemic appeared in California, brought by a ship from Panama, with twelve cases on board.

At that time the Doctor had charge of the city hospital.

Remarkable about all these epidemics was, that the cases were isolated, and did not occur except where the surroundings were specially favorable for the propagation of the disease, and that none of the attending physicians and nurses died, except when they were given to some excess.

Dr. A. Chase remarked that he had gone through a similar experience at Acapulco, a few weeks after Dr. Gibbons had visited that place, and also found that physicians did not believe in its contagiousness.

Dr. J. F. Morse remarked that he considered the subject very interesting, especially in regard to etiology, danger and manner of contagion; also in regard to the subject of quarantine regulations; and called attention to the report that the French Government had given up its quarantine in its present calamity.

Dr. J. D. Arnold stated that, according to modern pathologists, the disease was contagious.

Its epidemic character and first occurrence at sea-port towns would indicate such to be the case.

Burdon-Sanderson had proven conclusively by his experiments on animals that cholera was infectious. He had, moreover, ascertained that strips of paper steeped in the urine and feces of cholera patients were much more violently infectious after being exposed for a variable period.

Klebs has even asserted the existence of a specific organism as the cause of cholera; and Koch had recently found a bacterium;

besides such men as Bristow, Blank, and Aitken distinctly speak of the disease being infectious.

Dr. W. S. Whitwell asked whether Dr. Arnold made any distinction between contagion and infection.

Dr. Arnold believed it extremely difficult to draw a line between the two.

Dr. H. S. Baldwin concurred with Dr. Gibbons in everything he had said. Earlier writers considered cholera contagious. He would like, furthermore, to have Dr. Gibbons tell him whether it was possible to differentiate between cholera morbus and cholera, when the latter disease prevailed.

Dr. Chipman corrected the statement made by Dr. Gibbons, that it did not prevail in winter time; it did occur in winter at Moscow. It would be an interesting thing to ascertain what degree of cold would kill the bacteria: would a frost be sufficient?

Dr. Arnold said that cholera morbus raged in the Eastern States during certain seasons, and many cases are reported resembling Asiatic cholera more than cholera morbus.

Dr. Whitwell believed it impossible to distinguish between the two when the cholera is raging.

The idea that the disease is not contagious is not at variance with the opinion of today; it is now maintained that the disease is infectious, and that the infection takes place from the dejections of cholera patients. It is difficult to distinguish between contagion and infection. Nevertheless, he thought it unwise to let the idea go out of this Society that an unsanitary condition was a matter of indifference, for the reason that we should, in all probability, soon have the scourge amongst us.

Dr. Gibbons remarked that he would not attempt to answer in detail all the questions that had arisen. In offering his paper, he had advanced no opinions, but merely given facts; and he did not believe the disease, under all circumstances, infectious; it tends, however, to contagion. The distinction between the two expressions is very clear to his mind. Some diseases are both contagious and infectious. He is inclined to repudiate the whole germ theory. It was prevalent fifty years ago, and died out, to be revived again at present. He also believes there is no distinction to be made between cholera and cholera morbus, when the former exists. He thinks that some general condition of atmosphere, earth, and bodies of people is to blame for epidemics. He was of the

opinion that the cholera of 1832 was endemic, and not imported from Europe.

Dr. Whitwell would like to have Dr. Gibbons tell him whether the first case of cholera at Quebec was in a native born or in an immigrant.

On motion of Dr. Plummer, further discussion of the subject was postponed until the next regular meeting. No further business coming before the Society, a motion to adjourn prevailed.

JOHN F. MORSE, M. D.,

Rec. Sec'y, pro tem.

Aug. 12th, 1884.

The regular meeting of the Society was held August 12th, 1884, the president, Dr. Whitwell, in the chair.

Dr. Edward Storrer read an interesting paper on "The Oriental Plague." He stated that he was present during several cholera epidemics in Saigon. In India, cholera was a constant attendant during religious festivals, and would disappear on dispersion of the crowd. The gathering of pilgrims at Mecca, of the followers of Mahomet, is another place where many deaths occur from cholera. The pilgrims, accompanied by their families, are gathered in vessels from various parts of the Philippines, Java, Siam, Birmah, and other countries of the China Seas and Indian Ocean. The vessels are overcrowded; sleeping and cooking facilities are meager; the food composed of poorly cooked vegetables, ripe and unripe fruits, with scarcity of water. Daily ablutions are a rarity. Skin diseases, fevers, diarrhoeas, and dysenteries afflict the traveler, and death frequently occurs at the commencement of the journey. The pilgrim, arriving at Jiddah, on the Red Sea, broken in health, and in a condition to accept disease, travels, with a scorching sun overhead, sixty-five miles to Mecca, over a desert strewn with the dying and dead pilgrims and animals of all kinds, and the atmosphere tainted with the decomposing animal matter; and the water drunk is also defiled with the same.

The city of Mecca has no sewerage, nor are there any sanitary laws. The water supply is from the wells of the city, and is unfit to drink, as it is polluted with granular matter. The city being greatly overcrowded, the streets and fields soon become impregnated with the stench of decomposing excrement and urine. The pilgrim's food is composed of a little rice, dates, and bananas, and

he shelters himself as best he can; but he soon feels uncomfortable and restless; he becomes afflicted with colic pains, purging, vomiting, cramps, which are repeated until death ends his sufferings. The one who buried the deceased and who stole his clothes, and his intimates, soon become afflicted and die. The cases are at first isolated, but soon spread, and the rich and poor die rapidly, causing consternation and terror, and the people flee in fear from the place. Cholera here is endemic.

The Doctor also stated that these people are not educated, nor subjected to those influences that govern the laws of health in Christian countries. The absence of sanitary laws and hygienic measures, their mental and physical condition, their mode of life, variety of food, atmospheric surroundings, unwholesome quality of water, all aid to furnish elements required to create disease. It is from these centers that the terrible disease radiates, the infecting agent being conveyed by prevailing winds, by the baggage and persons of travelers, and by the shipping and transporting of merchandise.

In Saigon the disease is usually epidemic. It is sporadic and epidemic in Bangkok, Sumatra, Borneo, Amoy, and other ports. The disease is usually traced to vessels coming from an infected port; and the doctor witnessed where a Coolie stevedore, assisting in loading a ship with rice, was suddenly seized with purging and vomiting, and the sacks of rice polluted by his discharges not destroyed, but placed with others into the ship's hold. This, the Doctor stated, can occur with other merchandise; and it is not necessary for a ship's crew to be infected to carry a disease from one port to another. He also stated that the disease is not contagious, but it is infectious and portable, the germ requiring suitable conditions for its development.

There are three stages of the disease; first, diarrhœa and vomiting; second, spasms, cramps, and coldness of the body; third, collapse. There is a copious vomiting and purging of a rice-water colored fluid, followed by cramps of the abdominal muscles and those of the lower extremities, accompanied with terrible pain. The urine is suppressed, thirst great, with demands for cool drinks; respiration rapid, circulation diminished, skin lead gray color, prostration great; the surface cold and clammy, although the patient complains of great heat; voice shrill and squeaky, intellect clear, and there is a shrinking of the whole body; complexion is muddy, features pinched, and eyes sunken; respiration soon decreases;

threadlike pulse, followed by death. No pathological lesion is found in the viscera. Koch finds the alimentary canal filled with "cholera bacillus." In conclusion, the Doctor stated that he found the following treatment to be the most successful in his practice :

A hypodermic injection of a half a grain of morphine, as soon as vomiting and purging begins; chloroform or ether and massage during the stage of cramp; dry heat, and hot bags of salt, or rubber bags of hot water, to the body and spine; and give freely of water, ice water, or cold weak tea. Stimulants are of no use.

Recovery is governed by the length of time purging and vomiting had been present. Favorable signs of recovery are the arrest of purging and vomiting, cessation of cramps, a reaction from collapse, and the return of the bodily functions.

Dr. James Simpson moved that a vote of thanks from the Society be tendered to Dr. Storrer for the very excellent paper he had read. The motion was duly seconded and carried.

Dr. James Blake remarked that cholera is infectious, and it requires some peculiar condition of the system to take it.

There must be some telluric condition that affects a whole population.

In crossing the plains in 1849, he found a number of Indian lodges full of dead Indians, who had died of cholera, and only two or three had escaped.

What was the predisposing cause of the disease amongst these people, who were surrounded by sand and water?

He received from the tribe some buffalo robes, in which he slept, and he was not afflicted with the disease.*

The treatment is opium in moderate doses, inhalation of ether, and good nursing.

Dr. James Simpson remarked that in 1854, during September and October, New York was visited with cholera, and the favorite treatment in the first stage, Tr. Opii, Tr. Camph, and Tr. Capsici; second stage, inhalation of ether, warmth to the body, and mustard to the epigastrium; in collapse, gave stimulants.

In those days it was difficult for the patient to retain any medicine in the stomach; but at the present day, the hypodermic syringe overcomes that trouble.

The Doctor remarked that we should profit by the past; and to prepare in case the cholera should come here, the city should

*Emigrants crossing the Plains in this year had cholera amongst them.—Ed.

be purified, and the people warned in regard to their food and drink.

He suggested that the Health Board should see in regard to the milk supply, as the water used on the ranches for cleansing the cans, etc., is taken from wells which are more or less contaminated. A sanitary committee should be appointed, to see to the plumbing, the cleansing of the sewers, cesspools, public bathing places surrounding the city, and to visit all vessels coming from the Mediterranean.

He also suggested that handbills be printed and distributed among the people, advising them to be careful of their food, drink, and cleanliness; and also giving the symptoms of the disease, so that they could be attended to in the first stage, as it is better to prevent than treat disease.

Dr. H. Gibbons remarked that if the premonitory symptom, diarrhœa, be checked, cholera will be prevented; and in most cases this can be done, if seen to in time.

In former years he met with good success by giving five drops of Tinct. Camph. with twenty drops of laudanum.

In many cases the attack came on like a thunderbolt, causing death in a short time.

Hygienic measures should be taken to purify the city. The people should restrain their appetites, and only eat wholesome food; and to inform the people that these means would not prevent the disease from appearing amongst us, but would mitigate it to a great extent.

In regard to the treatment, he agrees with Dr. Storrer; but large doses of opium should not be taken, as it would have a tendency to cause collapse and death.

Dr. W. W. Kerr remarked that two forms of treatment of the disease were not mentioned in the discussion. One was a series of cases where Dr. Hodder, of Toronto, had obtained considerable benefit by the injection of fourteen ounces of fresh, warm milk, repeated if necessary.

The second was introduced by a surgeon in the Indian army, who administered subcutaneous injections of chloral hydrate, the treatment being based on the hypothesis that the collapse of cholera was produced by the irritation of the sympathetic-producing vaso motor spasm, this being borne out by the pathological condition of the arterial system.

Dr. W. S. Whitwell remarked that he believed in the germ theory in this disease, and he hoped that some member would take up the subject at our next meeting.

Dr. M. M. Chipnan offered to read a paper on cholera at our next meeting.

Society adjourned.

HENRY H. HART, M. D.

Rec. Sec'y.

Licentiates of the California State Board of Examiners.

At the regular meeting of the Board of Examiners, held Sept. 3, 1884, the following physicians, having complied with the law and all the requirements of this Board, were unanimously granted certificates to practice medicine and surgery in this State.

PAGE BROWN, San Francisco; Jefferson Medical College, Pa., 1879.

WILLIAM H. BRUNER, San Francisco; Jefferson Med. Col., 1848.

ZACHARY T. DODSON, Anderson; Med. Dept. Willamette Univ., Or., 1877.

SAMUEL R. GERRY, San Francisco; Harvard Med. Col., Mass., 1838.

CARLOS C. GUZMAN, San Francisco; Harvard Med. Col., Mass., 1870.

CHARLES A. V. LUTZ, San Francisco; Univ. of Pennsylvania, Pa., 1877.

EDMUND J. OVEREND, El Paso de Robles; Jefferson Med. Col., Pa., 18

ALBERT F. SAWYER, San Francisco; Harvard Med. Col., Mass., 1852.34.

GEORGE W. SEIFERT, Santa Clara; Jefferson Med. Col., Pa., 1883.

G. A. SPRECHER, Colton (*Duplicate*); Med. Col. of Ohio, O., 1882.

JAY H. UTLEY, Los Angeles; Bellevue Hosp. Med. Col., N. Y., 1883.

EUGENIA A. WATTS, San Francisco; Woman's Hosp. Med. Col., Ill., 1880.

Parties desiring to make application for a certificate to practice medicine are informed that blank affidavits can be had at this office for that purpose, and they are earnestly requested to fill out their applications *promptly* and *properly*, thereby saving time and trouble.

R. H. PLUMMER, 652 Mission St.

Sec'y, per B.

Selections.

EXTIRPATION OF THE KIDNEY.

By PROF. THEO. BILLROTH.

[Abstract of Lecture delivered before the Medical Society of Vienna.]

We are familiar with the fact that a man can survive the loss of one kidney, but it was only fifteen years ago that Simon ventured to act upon this knowledge, and remove a diseased kidney. Simon's method remains the model operative procedure; his preparatory experiments and anatomical studies are of such exactness that present extirpations are but demonstrations of their correctness. The subsequent advance in antiseptic methods has been of great assistance in furthering success. The difficulty of making a certain prognosis will hardly ever be entirely removed, since all depends, naturally, upon the condition of the remaining organ; a moderate degree of sepsis, that could readily be eliminated by two normal kidneys, may prove fatal when there exists but one, and that possibly not normal in structure. Disease is rarely limited to one kidney; hence, extirpation cannot be thought of as an operation frequently indicated. Consequently, the work of Simon was regarded at the time rather as a *curiosum* even by those who granted the most praise, and few of us could have anticipated that within fifteen years nearly one hundred and fifty extirpations of the kidneys should have been published.

The operation is still too novel to afford sufficient statistics as a basis for formulation. Besides, operations on the kidneys, surgically speaking, are much too varied in character to allow statistic generalization to be of value as a guide to prognosis in any given case. Whether we shall remove a sound kidney on account of ureter fistula from the lumbar region, whether a large or small renal tumor by laparotomy or lumbar section, etc., there is a vast difference both in respect to method and the consequent loss of blood, as well as in respect to other important circumstances.

It is to be noted, also, that in novel operations, before the indications and methods have been established by experience, the surgeon is justified in taking such hazardous measures only when the disease is already far advanced, and the patient in a desperate condition. Again, every bold operation exercises a fascination

upon the public and medical men. Had I been willing to operate upon all the unfortunates with gastric cancer that have come to me for that purpose, I should have certainly ten times as many cases to record as have been recorded; but then I should have myself lost confidence in the operation even in suitable cases, and *should have prostituted* it in the eyes of my colleagues.

All these matters make it comprehensible why the beginnings of the statistics of novel operations can give no available ground for prognosis and estimation of their real value. Still, if the statistics collected make out that of one hundred patients subjected to a new operation all recover or all die, something assuredly is signified.

Of one hundred and thirty-two recorded cases with known results, the mortality has been 47 per cent; this merely indicates that, taking all in all, more than half of those operated on may recover, and that in consequence the operation appears at least allowable; as to prognosis in individual cases, it is of no value at all.

Omitting at present details of method, I will take up the consideration of the indications for the operation and prognosis. We must exclude, properly, from the list of cases recorded such as were accidental extirpations, such as were performed under the mistaken diagnosis of ovarian tumor or uterine fibroma, etc., only to be recognized at the end of the operation. Such cases are not few in number; I include, however, removals made necessary through adherence of a normal kidney to an abdominal tumor, the removal being required because of the impossibility of stopping the great hemorrhage from a torn kidney. This complication has befallen several English surgeons, and myself once. All such patients have died, either from collapse or peritonitis. In these several cases of laparotomy, the renal extirpation either had no consequence at all, or only indirectly, since there was left but one kidney for elimination of septic matter.

Concerning the removal of healthy kidneys we have three indications:

1. Removal of an exposed kidney upon injury of the abdominal wall. This has been made three times and successfully.
2. Removal of healthy kidneys on account of incurable fistula of the ureter. This operation was first made by Simon. These cases may be grouped in three classes:

Fistulæ in the abdominal walls due to injury three cases (stabs*

and surgical wounds); uretero-vaginal fistulæ in cancer of the uterus and vagina, two cases; uretero-utero-vaginal fistulæ, four cases. Of these nine cases, six recovered; two died within twenty-four hours from collapse; one died after eleven days, of marasmus and anemia, the remaining kidney being diseased. The removal of so necessary an organ as the kidney is so serious a loss that we should be most particular in avoiding injury to the ureter in operations, and strive to relieve ureter-fistulæ when they do occur by less radical measures.

3. Removal of a healthy movable kidney. In the greatest number of cases of floating kidneys, women are the sufferers, and the right kidney is the one affected. Much distress is occasioned, which, in most, may be relieved by a bandage; but in some cases the organ, falling downwards and forwards, drags so heavily upon the stomach, and occasions such severe nervous symptoms, that gradually extreme marasmus and inanition supervene; gastric catarrh, nervous dyspepsia, even gastric cancer is diagnosed.

I have extirpated a movable kidney which I now publish for the first time. A woman aged twenty-eight years came to me with gastric cancer, as diagnosed by her physician. In the course of about three years a continually increasing dyspepsia had developed; previously her health had been good. She had now become extremely emaciated, and so feeble as to be scarcely able to stand. For some weeks almost all food was vomited. A very movable tumor could be felt in the pyloric region, painful on pressure. But, in re-examining under narcosis, I became doubtful as to the diagnosis of cancer; the tumor could be replaced, and was in all probability the displaced right kidney. Still, at that time I could not well believe that merely a movable kidney could cause such profound disturbance of nutrition, and at the same time the persistent vomiting. I suspected, in addition, stenosis of the pylorus. August 17, 1881, I incised the abdomen, as for resection of the pylorus, and found all normal but the loosened kidney, which, apparently by dragging on the pylorus, had excited the symptoms. I therefore removed the kidney, and closed the abdominal wound in the usual way. The operation did not require much time, neither was there much loss of blood; nevertheless, the greatly weakened patient fell into profound collapse, but recovered under stimulation. After eight days she died with retro-peritoneal suppuration in the right lumbar region and consecutive peritonitis.

Out of fourteen cases of extirpation of movable kidneys, eight recovered. The deaths were due partly to inanition, partly to peritonitis; two were removed through the lumbar section; twelve after laparotomy.

Unfortunately, so far the operation for fixation has no lasting good results.

We next pass to extirpation of diseased kidneys, cases of renal suppuration, hydro-nephrosis, renal tumors. Suppuration of the kidney is known to be specially dangerous to life, and very often both kidneys are affected. I have made a few operations in pyo-nephrosis calculosa and peri-nephritic abscess, but have never felt justified in extirpating the kidney in these cases; hence I must refer to others. Czerny has informed me that he does not think one-sided kidney abscess infrequent. He opens the abscess in the lumbar space, cleans and drains the cavity most thoroughly; if then there is no more pus in the urine from the bladder, it is most probable that the other kidney is sound. In women, by direct sounding of the ureters, it can be determined whether pus comes from both or only one kidney. While this method is the only one for such determination, it is not absolutely reliable: it may be that the abscess is cut off from the ureter by a sort of valve. It should be borne in mind, that if, after having laid open an abscess, pus is found to flow from the other kidney, a lumbar fistula has been added to the patient's disorder.

In spite of the difficulties attendant upon the operation, firm adhesion of the kidney with surrounding structures and escape of the pus over the fresh wound, it has been performed twenty-two times with good results; only eighteen have been followed by death. Of those dying, many survived several weeks, death being due to inanition or disease of the other kidney. The cases were pyo-nephrosis, with or without calculus, and tuberculous pyo-nephrosis; the lumbar section was chiefly adopted.

2. Hydro-nephrosis. The indication is debatable since the disease of itself is rarely fatal, and since it can sometimes be cured otherwise than by extirpation (injection of iodine, incision). To be sure, these measures are not always radical; relapses may occur; still, if the sac remains for years greatly reduced, that is a good result. The great difficulties of diagnosis, I will not detail. Most of the extirpated renal dropsical sacs were operated upon under the mistaken diagnosis of ovarian cysts. Nine such renal

sacs have been removed, most of them diagnosed as retro-peritoneal ovarian cysts; of these six patients recovered, three died. The fortunate outcome may be due to the fact that the system had already become accustomed to the activity of but one kidney.

3. Nephrectomy, on account of neoplasms. Thirty-three cases—twenty deaths, thirteen recoveries. This is the only class in which the fatalities exceed in number the cures; but one ceases to wonder after reading of the frightful perils incurred; tumors double the size of a man's head in feeble elderly people, enormous medullary cancers in miserable children. Some did not survive to leave the operating table.

Here, two were errors in diagnosis. It seems to me that in this field too much has been ventured. I will publish for the first time two cases of my own—both fortunately recovered. In all, I have six times removed the kidney, with four fatal issues:

CASE I. A woman *æt.* 38 years, five years previously, by a slight but constant pain, became aware of a tumor in the right abdomen; latterly, the tumor, having reached the size of a man's head, the discomfort rendered her incapable of labor. I believe, after careful examination, that it was a retro-peritoneal fibroid tumor, originally springing from the uterus, or right ovary, but now distinct; of such I have seen several. It would take too much time to enter into the full particulars of the grounds of diagnosis. The possibility of a renal tumor was suggested, but such a slowly growing renal tumor is a great rarity, and it is always unjustifiable to allow the unusual to affect materially the diagnosis. Some albumen was in the urine, but no casts; that is often enough found in retro-peritoneal tumors, and has a mechanical explanation. No foreign elements were in the urine, nor had it ever contained blood. January 5, 1883, the abdomen was opened and tumor laid bare. Its smooth surface displayed a frightful number of large veins, some of which were torn in freeing the growth.

A rubber ligature was thrown about the pedicle and the mass cut off, when I found that a smooth-walled cavity had been opened, out of which some clear liquid escaped. In the pedicle, to our astonishment, we recognized the dilated kidney pelvis; the extirpated tumor was the degenerated right kidney. The pedicle was compressed close above the ligature with a clamp forceps; several ligatures were applied and then removed with

thermo-cautery. The abdominal cavity was cleansed, drainage tubes were introduced, and the external wound was closed. In six weeks the patient was discharged cured.

CASE II. A man *æt.* 33. Up to time of disease of left kidney, he had been strong and well. The kidney was about three times the size of the fist, and was removed by lumbar section. The growth was an interstitial papilloma. The wound healed favorably.

As to method of operation in nephrectomy, that through the the lumbar space is to be preferred. The cut is made from the edge of the quadratus lumborum muscle, forwards and downwards, about two fingers above and parallel to the crest of the ileum, even as far as the spermatic cord, if necessary; thus room is gained for removal of very large tumors. The cut muscles and fascia unite very well with appropriate ligation. In the extirpation of suppurating kidneys, and when there are tumors, much caution much be exercised; the whole kidney must be swept around and freed, until its hilus and entering structures are exposed. The ligatures must be surely applied; that is the supreme element in the operation. Should the artery or vein be torn, the bleeding is enormous, and life is in peril. The large cavity left after removal of the kidney is quickly closed by the pressure of the adjacent viscera. Two large draining tubes usually suffice. It often happens that an abscess forms about the stump, which opens either into the colon, or bursts through the cicatrix; this usually is without serious result.

Much more complicated is nephrectomy with laparotomy. The bloody serum, which is speedily exuded, is a particularly favorable medium for the growth of bacteria and intensely septic matters. To get rid of this serum out of multiple cavities formed by the viscera is of the utmost difficulty; we should, therefore, observe the strictest antiseptis, and stop all bleeding. If the peritoneal covering of the kidney tumor has been split, after operation, the abdominal walls should be pierced backwards or laterally, and one or two drainage tubes inserted; if this is not practicable, drain through the anterior wound, only the peritoneum should be closed carefully close upon the tubes. — *Weiner Med. Wochenschrift*, Nos. 23, 24, 25, 1884. — Trans. for St. Louis Courier of Medicine.

A NEW THEORY OF FETAL NUTRITION.

By JEROME A. ANDERSON, M. D.

I desire, in this brief monograph, to call attention to a new theory of fetal nutrition, to which I have been led, after four years' investigation of the physiology of intrauterine life.

Briefly stated, this theory is this :

That, once conception is fairly accomplished, the fetus is nourished by endosmosis and absorption from external sources ; and not through the placental circulation, as heretofore taught. This endosmosis takes place primarily from the engorged tubal and uterine walls ; later, the amniotic fluid furnishes the necessary nutriment, and is absorbed at all times not only by the external surface of the embryo, but after the first month it enters the intestinal tract, and is assimilated and distributed to the fetal tissues in a manner identical with the same processes in post-natal life. As a necessary corollary, it follows that the office of the placenta, or at least of the placental circulation, is entirely respiratory, or that of an oxygen carrier and carbonic acid remover.

There are many facts which support this theory, both directly and indirectly, the principal of which are these :

1st. The constant presence of nutritive substances in the amniotic fluid during the whole period of gestation.

2d. The certainty of the absorption by a growing, almost skinless, fetus of any nutritive material in which it is constantly bathed.

3d. The permeability of the digestive tract at an early period, and the necessary entrance therein, according to the laws of hydrostatics, of the albuminous amniotic fluid.

4th. The presence of, as it seems to me, *bona fide* débris of digestion, or meconium, in the lower intestine.

5th. The presence of urine in the bladder, and bile in the upper intestine ; their normal locations.

6th. The mechanical difficulties opposing direct nutrition through the placenta, and the impossibility of nourishment by this method during the early stages of embryonic life previous to the formation of the placenta or umbilical vesicle.

I have indicated these facts in what I consider their respective ratios of importance. The most prominent, therefore, is the constant presence of albumen in the amniotic fluid. Since beginning

this investigation I have examined every specimen of amniotic fluid it has been possible for me to secure; and, owing to the prevalence of criminal abortion in this city, the clinical material has really been ample. In the earlier periods of gestation I have taken only the fluid secured from unruptured sacs. Later, when this was no longer practicable, I used a very clean sponge at the moment the membranes ruptured, taking care to avoid admixture with blood or mucus to any appreciable extent. I have thus been enabled to secure samples at nearly every stage of fetal development, from thirty days to term. Of these I have made quantitative analyses for albumen and albuminoids, with the result of finding them invariably present, but in variable quantities. I may here mention that Mr. Adolph Sorrer, of the University of California, very kindly made several analyses for me, which entirely corroborated my somewhat cruder methods. These examinations gave the following results as the amounts of albumen for each period of gestation mentioned. From two to ten samples are represented at each division of the table; the specimens being most easily secured before the fourth, and after the seventh, month of pregnancy.

At 4 weeks from $\frac{1}{2}$ to 1 per cent of albumen.						
" 6 "	"	" 1 "	" $1\frac{1}{2}$ "	"	"	"
" 8 "	"	" 1 "	" 2 "	"	"	"
" 3 months	"	" 2 "	" 3 "	"	"	"
" 4 "	"	" $2\frac{1}{2}$ "	" 4 "	"	"	"
" 5 "	"	" 3 "	" 5 "	"	"	"
" 6 "	"	" 3 "	" 6 "	"	"	"
" 7 "	"	" 2 "	" 4 "	"	"	"
" 8 "	"	" 2 "	" 3 "	"	"	"
" 9 "	"	" $\frac{1}{2}$ "	" 1 "	"	"	"

Now this constant presence of albumen means something. If we accept the water-cushion theory of some physiologists in explanation of the presence and use of the amniotic fluid, we find nature furnishing—for the mother—a very costly, exhausting, and useless ingredient; an anomaly in physiology. If we concede the urinary origin of the fluid, claimed by other observers, we are driven to the necessity of presupposing an universal benignant Bright's disease, which shall drain away as high as six per cent. of albumen without injury to the fetus. And, besides, this theory does not account for the fluid found previous to the develop-

ment of the urinary organs. Its advocates also claim that most of the amniotic fluid is secreted toward the end of pregnancy. This is at direct variance with the facts. I have found that the weight of the amniotic fluid bears a pretty constant ratio to the weight of the embryo. At the end of the first month, it is greatly in excess; but, though increasing in positive amount during gestation, relatively it decreases, until at birth the total amount bears no proportion, taking the weight of the child as a standard, to that of the earlier months. As a matter of belief, I fancy that but little amniotic fluid is secreted towards the close of gestation, and that it is not so rich in albumen. Either this, or the albumen is more rapidly and completely removed by the relatively great increase in the weight of the child at this time.

In short, the farther we search for the source and uses of this fluid, the wilder our hypotheses become, unless we accept the simplest explanation — almost invariably the best — to the effect that it is secreted by the fetal surface of the placenta, and exudes into the amniotic cavity for nutritive purposes. That the fetus is nourished by means of the placenta is self-evident, but I deny that albuminous and other formative material passes directly from the blood of the mother to that of the fetus, and is thence distributed to its tissues. Oxygen is thus carried and carbonic acid removed, but nutritive material takes another channel. There is a fine network of capillaries on the placental surface of the chorion, which appear to be the direct agents in the secretion of amniotic fluid.

After about the sixth week of embryonic life, the digestive tract is pervious, and invariably full of amniotic fluid. This becomes more and more consistent as it descends the intestine, and as fetal life advances, until it assumes first a gelatinous appearance, and later merges into true meconium. Now, although I have already stated my conviction that meconium is a residue of absorption and digestion, the early secretion of gastric and intestinal juices does not necessarily follow. The amniotic fluid furnishes food in an easily assimilable form, and places it in the stomach and intestines, where there is no reason why the fetal lymphatics should not select and absorb it as actively as at any time during the post-natal life of the individual. Undoubtedly, the primary action of *primæ viæ* is absorption of a merely mechanical nature, like that of a sponge, for instance. I do not believe gastric juice proper is secreted before the sixth or seventh month, and then in very limited quantities. But of this I have

no proof at present, either for or against. I only claim that it is against all analogy to suppose the major part of the vital processes of a fetus are held in abeyance, and begin suddenly with the first breath, much as a newly constructed engine starts under its first pressure of steam. Or in other words, that a fetus is a kind of admirably timed infernal machine, whose "going off" occurs exactly at birth. This is too loosely reasoned. There is no vital process entirely inactive until birth. Only that placental breathing is substituted for lung breathing, because of physical obstacles of a purely mechanical nature, which are not encountered in such functions as digestion, assimilation, secretion, and circulation of the blood.

Physiologists admit that primarily the impregnated ovum is nourished from the tubal and uterine walls; but as soon as a respiratory apparatus is provided, they lose sight of the fact that absorption may, and does still go on, and claim that this apparatus assumes all its functions. If nutrient baths will assist in nourishing an adult through his horny cuticle, surely the same process can go on with vastly superior results when both skin and intestinal tract are bathed continuously in a highly nutritious fluid.

The presence of meconium is also strong proof that stomachic and intestinal digestion has taken place; or, if not digestion proper, at least elective absorption, which leaves a residue. This residue contains a quantity of epidermis cells and lanugo, substances which could only enter by the mouth after becoming assimilated through the fluid surrounding the fetus. The bile and intestinal mucus present also point to actual digestion.

Meconium appears in small quantities about the fifth month, and increases slowly in amount to term. To hold that it is anything else than a residue of amniotic absorption, is to suppose the fetal intestine to be an excretory organ until birth, and then to suddenly reverse its functions and become absorptive in its action.

There is too much meconium in the fetal colon and rectum to account for its presence in any accidental manner. We may suppose it "exudes" from the intestinal walls, just as a late writer on the subject supposes that the earlier amniotic fluid exudes from the fetal tissues; but neither supposition is very creditable to our powers of close observation or scientific reasoning. We may also assume that nutritive material passes directly from the maternal to the fetal blood; but here, also, all analogy discountenances such.

assumption. In adult life the blood is a common carrier from whose stores each tissue seizes and transforms material suitable for its use. To directly nourish tissue is an office it never performs, and, indeed, nothing is more disastrous to nutrition than for blood, as such, to break out of its proper channels. Absorption is the great agent of nutrition from the moment of conception, until death. I believe the importance of the circulation from a nutritive, not a mechanical, standpoint has been greatly overestimated. The power which enables bone to select bone-material, and brain, brain-matter from a common stock, is one infinitely higher in the human economy than the merely mechanical work performed by the circulatory apparatus. It is as though we were to prostrate ourselves in admiration of the vast and varied capacity of a freight train, and lose sight entirely of the superior intelligence which directs it.

There are some tissues, like the cornea, which depend entirely upon absorption for nutrition through life, being without direct blood supply. This is admittedly the case with the fetus previous to the formation of the umbilical vesicle and placenta. That this condition obtains throughout fetal existence I respectfully submit has been proven by the facts I have adduced, and with the above brief statement of them I beg leave to "rest" my case with the profession.—*Am. Jour. of Obstetrics.*

Pharmacy and Materia Medica.

FEVER AND KAIRIN : PLETHYSMOGRAPHIC RESEARCHES.—Under the direction of Professors Maragliano and Mosso, Dr. Queirolo, of Genoa, has made some researches on the conditions of the peripheral blood-vessels in fever, and on the changes produced in them by the administration of kairin in healthy individuals and those suffering from pyrexial affections. The researches, which appear to have been carefully conducted, gave the following results :

1. Rise of temperature is accompanied by narrowing of the peripheral blood-vessels.
2. The contraction of the blood-vessels precedes the initial rise of temperature, and dilatation of them precedes the fall.

3. The narrowing of the blood-vessels is greater in proportion to the height and rapidity of rise of temperature.

4. The defervescence of the fever is accompanied by dilatation of the peripheral blood-vessels.

5. The dilatation of the blood-vessels slightly precedes the defervescence.

6. Any interruption to the dilatation of the blood-vessels corresponds to an interruption in the fall of temperature.

7. These facts are observable in fevers of various kinds.

With regard to kairin—

1. Kairin administered to healthy individuals causes slight dilatation of peripheral blood-vessels.

2. In individuals suffering from fever, kairin produces diminution of temperature, and at the same time dilatation of vessels.

3. The dilatation of blood-vessels slightly precedes the fall of temperature.

4. Subsequent rise of temperature after kairin has expended its force is accompanied by contraction of blood-vessels.

5. The rise of temperature is slightly preceded by dilatation (contraction?) of the blood-vessels.

If these observations prove to be correct, it will be difficult to overestimate their value, as they may possibly lead the way to more clear and correct views as to the origination of fever.—*The Medical Press.*

Correspondence.

DR. W. S. WHITWELL,

Dear Sir: I am well aware that the treatment adopted in the case described in the accompanying paper is not in accordance with the senior editor's well known views in reference to the use of alcohol stimulants; but I have too much respect for a physician of his age to suppose that a simple matter of fact, and literally true description of a case in practice, would be excluded from the paper on this account. As to the metrical form in which it appears, it may be said that a medical journal is no fit place for poetry. Now, this is not poetry, at all—it is a simple condensed description of the case and its surroundings.

It is a simple truth that I can express myself better in this way

on prosaic matters that do not call for an elevated style of prose, than I could in the ordinary way; besides, it admits of a little quiet humor that would be intolerable in plain prose.

The only remaining question is—Is the paper worth publishing? If so, you can do so. If not, I request the return of it in the enclosed addressed envelope.

JAMES PHILPOT WEBB.

ALCOHOL IN DESPERATE CASES OF PNEUMONIA.

By JAMES PHILPOT WEBB, Physician, (R. C. P., Edinburgh).

An exile of Erin came to me inquiring,
 Some three years ago, if I'd visit his friend,
 Who was dying of pneumonia, and sadly requiring
 A doctor whose brains were not at the wrong end.
 How long is he sick, Sir? he answered me gravely—
 Six days—And no doctor? Oh yes, till today;
 Then I wont take the case, Sir—he looked at me naïvely—
 Why, doctor, I hope you aint scared for your pay.
 Sir, I keep a grocery and take in pelf there—
 On the corner where Fifth and Natoma streets join.
 One visit or fifty I'll pay you myself—there—
 You need not be thinking at all about coin.
But about your own doctor. Did you worry or tease him?
 Say plainly—if you've been offensive to him?
 'Tis nothing like that, Sir, we'd go far to please him,
 And tomorrow would trust him with life or with limb.
 But this morning he went there, and left us declaring
 All the doctors in 'Frisco could not cure that man;
 But poor folks wont believe it, so sad and despairing,
 And they've sent me to hunt up some doctor that can.
 So I went and found a man barely alive, Sir,
 His face was flushed, duskily, down to his neck,
 His gasping was sixty, pulse, one forty-five, Sir,
 His age fifty-five, weak, delirious, a wreck.

SIXTH DAY. 24 OZ. WHISKEY.

With 24 oz. of whiskey, a mixture
 Was made into eggnog—I showed them the way—
 And ordered every drop of that "fixture"
 Should be swallowed before I arrived there next day.

I made no proviso that he'd live to consume it,
 Though that was the stumbling-block right in my way ;
 But I thought it consistent to boldly assume it,
 For to drink all that whiskey would take till next day.

SEVENTH DAY, 24 OZ. WHISKEY.

His state slightly better—the pulse was much stronger—
 “Continue the eggnog, with Essence of Beef” :
 I said if he could hold out two days longer,
 The tenth day might possibly bring him relief.

EIGHTH DAY, 36 OZ. WHISKEY.

He showed failure today—above all, the pulsations
 Were weaker. His eggnog was strengthened by half,
 Without hesitation, by pulse indications
 I gave him that medicine, like milk to a calf.

NINTH DAY, 36 OZ. WHISKEY.

The pulse was restored, he was now somewhat stronger ;
 “Continue the eggnog, and give him meat tea” :
 Thank God they all cried, the suspense is not longer ;
 Tomorrow we all shall see—what we shall see.

TENTH DAY.

I found him quite conscious, and peacefully resting ;
 He had slept all the evening and night, like a child ;
 I asked him some questions, his sanity testing,
 Like Milton's Archangel, he, too, “answered mild.”
 A few visits more to see pulse beat, and breathing,
 And appetite quickly improve, and to tone
 Down his medicine, and substitute quinine, and feeding
 The best he could get, and I left him alone.

Post Scriptum :

God bless you, Hughes Bennett, strong man of Edina,
 Whose fearless, whose honest and unerring glance
 Has seen through the cobwebs, and aided to screen a
 Poor sick man from tartrate, and blister, and lance.
 But if I could catch old Rasori, and choke him
 With his teaspoonful doses of emetic stuff,
 Or build slow fire, and complacently smoke him,
 I'm sure that my mind would rest easy enough.
 But since he has gone to his own last rewarding,
 And, doubtless, is stewing now in his own fat,
 With old Satan a-waltzing around him and guarding,
 I suppose that I ought to be contented with that.

Editorial.

Cholera Discussion at New Orleans.

At a meeting of the New Orleans Medical and Surgical Association, recently held in New Orleans for the purpose of discussing the subject of Cholera, the following are some extracts from the proceedings, which were formulated :

“There are several definitions of cholera, but the one according best with present doctrines is that ‘cholera consists in the sum of the changes and symptomatic phenomena produced by the presence of the cholera poison in the human system.’

“It finds access to the human system principally by means of drinking water, or other fluids and foods. Therefore, neither mixing it with water, nor subjecting it to stomach digestion, deprives it of its noxious qualities.

“The atmosphere is also a vehicle of transportation of cholera infection; but whether in such instances it is carried by the saliva from the mucous membrane of the mouth and pharynx into the alimentary canal, or enters the blood through the respiratory apparatus, is not known.

“Cholera is eminently a disease for whose prevention quarantine measures should be enforced.

“The incubative period of cholera may be reckoned as extending from a few hours to three days. In all instances in which the time of incubation is found to be longer than one week it is reasonable to suppose that the patient has been exposed to a fresh infection within that period. It therefore follows that persons detained in quarantine on account of exposure to cholera may be released with safety after one week’s detention, provided only they be absolutely rid of all fomites and be in perfect health.

“No quarantined person should be released while suffering from any form of diarrhœa. Cholera may continue for a number of days before merging into cholera. Recovery sometimes takes place from this precursory stage, but the stools of true cholera contain cholera germs.

“International or interstate quarantine can never reach its highest attainable success without a system of mutual notification which shall be prompt and unreserved.

“Authority to incinerate the bodies and effects of cholera vic-

tims should be vested in Boards of Health, to be exercised whenever in their opinion the exigencies of public health call for such action.

“An attack of cholera was stated to include four stages: invasion, development, collapse, and reaction or restitution. The symptoms and pathological changes of each stage were given, and then the general principles of treatment detailed.”

The best suggestions as to treatment were:

“Chloroform internally, or by friction externally, is the best agent for cramps.

“Fluids, excluding alcoholics, should be allowed in small quantities. The sulphuric acid lemonade of London Hospitals proved of value.

“Patient should resist the desire to go to stool.

“Drugs are contra-indicated in collapse, except chloroform for cramps. Small quantities, frequently repeated, of liquid nourishment should be given, by mouth or rectal injection.

“Venous injections have lost favor but may be justifiable.

“Boracic acid, ten grains every two hours, combined with bicarbonate of sodium, was highly recommended by Dr. W. J. Butler in 1873.

“Dr. Eugenio Papa modified the plan of Prof. Cantani, by adding salt, quinine and carbolic acid to the injection, which was thrown in very slowly.

“The use of morphia and atropia hypodermatically, early, to relieve cramp and colic.

“Early in the premonitory stage an emetic of tartar emetic and ipecac with warm water. To be given only very early.

“Complete rest and cleanliness.

“Boracic acid and bicarbonate sodium, as recommended by Dr. Butler, and the enemata of Dr. Papa.

“Careful attention to diet: only very digestible nutriment given frequently in small quantities.

“General friction and warm external applications.”

The indications are to destroy the activity of and remove from the body the bacteria, which are the cause of the symptoms of cholera, and to relieve the excessive pain and oppose the rapidly failing temperature of the body by artificial heat.

The emetic in the early stage may be useful in removing some of the germs in the stomach and upper portion of the duodenum. The administration of boracic acid, salicylic acid, or phenic acid

internally may destroy them in the intestinal canal; at any rate, the presence of either of these chemicals is unfavorable to the development of all forms of lowly organized life.

The chloroform will alleviate the pain far better than opium, and leave no after and undesirable effects. It may be administered by inhalation, which is also an advantage.

General friction and artificial heat, in a dry form, experience has proved to be invaluable in the treatment of cholera. Nothing is more urgently needed, especially in the later stages of the malady, than the maintenance of the temperature of the body.

International Medical Congress.

Americans will be pleased to learn that the International Medical Congress has accepted their invitation, and will hold its ninth session at Washington, in August, 1887. This is an honor which America may appreciate not only as a tribute to the faithful and earnest work done by her sons in the fields of Medical Science, but also as a recognition of the high place that she, the youngest among the nations, holds in the scientific world.

Year by year, there has been an increased interest manifested in this Congress, until it was believed that a climax had been reached at the meeting held in London, in 1881; but the success attendant upon the eighth session, which has just closed, conclusively proves that, so far as medical men are concerned, success in the past is but a stimulus to new endeavors in the future.

The number attending the London meeting was 3,182, but of these only 1,100 were foreigners against 1,300 at Copenhagen; so that although the meeting of 1884 was numerically smaller, it was more representative than that of 1881.

Following the example of the British Medical Association, the Congress has appointed a committee to organize the work of collective investigation. We cannot imagine anything that is more likely to be productive of benefit to the general practitioner than the labors of this committee; such an organization, in our estimation, embodies within itself the greatest and best principles upon which any medical society can be formed.

The tendency of late years has been to monopolize the time and attention of the profession with scientific speculation and research, to the exclusion of those matters which are of daily importance to both doctor and patient. The pages of our journals swarm

with bacteria and the means to procure their destruction, while we receive but little additional information that enables us to fight existing disease with any greater prospect of success than we had ten or fifteen years ago. Let it not be understood that the work done by the elaborators of the germ theory of disease is undervalued by us. It has produced great and will produce still greater results in the field of preventive medicine; but we hope that, amidst the fascinations attached to this particular line of study, the medical man will not forget that the more prosaic subject of curative medicine still has some demands upon his attention.

In addition to the purely scientific work done during the session, part of the time is always devoted to amusement and recreation. There are some growlers who regard this as beneath the dignity of the Congress, and inconsistent with a proper performance of its more serious duties. We are of a different opinion, and believe that the cultivation of social habits by the members is almost of as great importance as the cultivation of germs. One of the greatest aids to progress is the power of viewing and criticising with an impartial mind the opinions and works of other men engaged in the same pursuit; the ability to divest ourselves of all prejudice, to adopt new modes of thought for the time being, and to look at things from the standpoint of the writer. Nothing can break down the prejudices of nationality and early training but social intercourse with representatives of other countries. The sociability and hospitality of Americans is of world-wide renown, and we feel certain that they will maintain their reputation at Washington, in August, 1887.

Cholera Epidemic of 1832.

At one of the recent meetings of the San Francisco Medical Society, there was considerable variance of opinion as to the origin of the cholera epidemic of 1832, which first broke out in Quebec, several of the members stating that they believed it due to a telluric influence, and that the outbreak was endemic to Quebec, although the authorities are unanimous in the declaration that cholera is endemic in India alone. The facts are as follows.

The epidemic of cholera in America in 1832 was traced to the brig Carrick, which brought emigrants from England to Quebec, in Canada. Forty-two passengers died of cholera on the voyage, and subsequent to the arrival of the vessel at Quebec. Cholera'

made its appearance in Quebec on the 6th of June, traveled up the St. Lawrence to Montreal on the 10th, and soon reached Detroit. A few days after the outbreak at Quebec, cholera ships arrived at New York, and constituted a new focus for the disease. The cholera, rapidly spreading upon the routes of travel, soon met the Quebec outbreak, which was traveling in an opposite direction.

Temperance in Denmark.

A correspondent at the International Medical Congress in Copenhagen writes to the "Medical Press and Circular," respecting the temperance of the people of Denmark, notwithstanding the fact that wine is freely used and obtainable everywhere.

"I was very much struck here by the great temperance of the people. Wine is taken. At Kronsborg 'there was water, water everywhere,' but not a drop to drink. The tables were lined with wines, clarets, hocks, and champagnes, but there was not a single water carafe. Though this was the case, and though only wine was to be obtained to quench the thirst, yet I did not see a single person out of the 2,000 in the slightest degree with signs of elevation. I watched the people at Tivoli. There was the same moderation; wine was taken, intoxication was absent. On this occasion it might have been expected that the bounds of sobriety would have been passed."

We compliment Dr. Webb on his sagacity in offering his "alcoholic" paper for publication on the day after the senior editor had taken his departure for the East on a prolonged visit, which is to combine business with pleasure. Having no scruples ourselves, we willingly publish it, and we believe that our readers will agree that certainly, as far as their pleasure is concerned, we have acted wisely.

We reprint in this number an article by Dr. J. A. Anderson, on what he terms "A New Theory of Fetal Nutrition."

Cazeaux, in writing on this subject, says that many writers on fetal nutrition have maintained, 1st, that the amniotic fluid is derived from the mother; 2nd, that it contains nutritive matter; 3rd, that it may enter the embryo in several ways.

He then goes on to show that while the amniotic fluid is some-

times found in the stomach and intestines of the fetus, the existence of monsters and anancephalus fetuses with closed mouths disproves the theory.

While thus showing that the theory is an old one, we are pleased to see any tendency to original investigation.

W. H. Schiefellin & Co., of New York, announce that they are ready to supply a sublimate soap which is prepared according to Prof. Bergmann's formula, and which has been used with excellent results in all cases of parasitic disease. The soap is carefully prepared, and contains one-half per cent. of corrosive sublimate. It is used as ordinary toilet soap.

Abstracts and Extracts.

"IS HOMEOPATHY BECOMING EXTINCT?"

"What though on me they pour their spite:
I may not use the gloser's trade,
I cannot say the crow is white,
But needs must call a spade a spade."

It is the universal history of great false doctrines that, at first sustained by the genius, passion, and self-deception of their prophets or immediate apostles, they attain in a short time amazing size, spreading themselves far and wide; but in time, this first impulse fallen slack, the all-too-bulky growths begin to droop and die, and soon become the home of quacks and charlatans, who cant and chatter midst the fallen branches. Religion, history, art, alike present us with glaring illustrations, and medicine is far from proving an exception. Look at the noble science of phrenology, which, sprung from the brains of Gall and Spurzheim, and cherished for awhile by kindred spirits, seems today under the mysterious influence of that potent law—extremes will touch—to be indissolubly linked with the fine art of chiropodism.

Thus it has been and thus it is with homeopathy. Let us listen to the mournful confession as it falls from their own lips. In an excellent paper, from which we borrow our title, published in the *Cincinnati Lancet and Clinic*, July 12, Dr. E. C. Brush makes

the following remarks, and brings together the accompanying homeopathic expressions of opinion :

“In 1825 Dr. H. B. Gram, of Boston, introduced homeopathy into the United States, since which time factions have arisen in the ranks, styled ‘rational’ and ‘liberal’ homeopaths, and these two have made a third which is supposed to have existed already, viz., ‘pure Hahnemannians.’ The latter are the consistent ones, and profess to believe and practice according to Hahnemann’s teachings. The ‘rational’ homeopaths adhere to ‘*similia similibus curantur*,’ but take their materia medica from the rest of the profession, and also reject some of the side issues of homeopathy. The ‘liberals’ claim that medicines cure because of their alterative powers, and not by virtue of their similarity; they cling, however, to the minute dose. In short, the rationalists reject the small dose theory, and the liberals go back on *similia*.”

“The following letter from Dr. Geo. Wyld, at the time of its writing Vice-President of the British Homeopathic Society, is intensely interesting. The letter is directed to Dr. Richardson of the regular profession.

“12 Great Cumberland Place,

May 25, '77.

“Dear Dr. Richardson :

“With reference to the conversation recently had with you concerning the advantages which might result if it were possible to abolish all sectarianism and its accompanying heart-burns, from the profession, I now at your request submit my views in writing; feeling convinced that you will in a friendly spirit give the subject your serious consideration.

“In the first place, I must state that Hahnemann, in 1806, published in the pages of *Hufeland's Journal* his essay entitled “The Medicine of Experience.” No mention was made of homeopathy in this essay, and the doses he recommended were tangible, not infinitesimal. The violent opposition this essay met with from the profession induced Hufeland to decline further communications in his journal from Hahnemann; and the effect of this treatment was to drive Hahnemann deeper and deeper into his peculiar views, until at last in his old age he held extreme and intolerant opinions regarding the profession generally, but especially in relation to the question of the dose. Unfortunately, many of the converts to the new system imitated the master

more in his tolerance than in his genius; and this naturally led to those reprisals on the part of orthodox medicine, which in this country culminated in 1851, when the British Medical Association met at Brighton, and passed a resolution that it was derogatory to its members to hold any intercourse with homeopaths. From that time to this we have been ostracised by the profession, and branded as aliens, to whom no professional countenance could be shown.

“ Since 1851, however, great changes have taken place in this country on both sides of the medical profession. Many men have arisen in the ranks of medicine who have renounced all the heroics of the past in the treatment of acute diseases; while the homeopaths on their side have almost entirely abandoned the use of globules, and have substituted doses in a tangible form. Further, we find that whereas the earliest homeopaths denounced all auxiliaries in the treatment of disease, it is now the practice to make frequent use of all remedies of a simple kind. In short, we define our practice as rational medicine, including the law of contraries, but *plus* the law of similars.

“ The abandonment of heroics on one side and the adoption of tangible remedies on the other side, has, to common observation, brought the two schools into very close juxtaposition; and the question therefore presents itself, Can that ostracism, which might have been justifiable in 1851, hold good under the present altered circumstances? To this you reply, that you do not ostracise us because we prescribe medicines according to a specific rule, nor because we prescribe them in an unusual form; but you deny us professional intercourse because we proclaim ourselves sectarians, and by means of books, journals, societies, and hospitals, we advertise ourselves as homeopaths.

“ To this we answer that we do not desire to publish ourselves; we do not write the word “homeopathist” on our door plates (?); many of our books eliminate the name homeopathy from the title page, and a large number of our body have objected, in a recent memorial, to the title Homeopathic School.

“ We say: Admit us on equal terms to your medical societies, and to the pages of your journals, and all sectarianism will from that day begin to decline; and this, I believe, will ultimately lead to the abandonment of all sectarian societies, journals, and hospitals.

“ To recapitulate: We admit—1st, that the views expressed

by Hahnemann are most extravagant and incorrect; 2dly, that Hippocrates was right when he said "Some diseases are best treated by similars, and some by contraries," and, therefore, it is unwise to assume the title "homeopathist"; 3rdly, that, although many believe the action of the infinitesimal can be demonstrated in nature, its use in medicine is all but abandoned in this country.

"On these grounds, and claiming that we are legally qualified medical men and gentlemen, we claim the right of admission to your medical societies, and to professional intercourse with the entire medical body.

"In conclusion, I must remark, although this letter must be regarded as non-official, the sentiments it expresses are held by a large number of our body.

"Believe me, yours sincerely,

"G. WYLD, M. D."

* * * * *

"Now let us turn to our own country, and see what the homeopaths think of themselves.

"At a meeting of the Homeopathic Medical Society of N. Y., at Saratoga, July, 1878, the following preamble and resolution were adopted:

"WHEREAS, the theory of dynamization, set forth in the Organon, has in the past few years developed in the homeopathic school a peculiarly extravagant and extremely questionable method of preparing homeopathic remedies, which seems to be clearly without explanation upon any known principle, other than that derived from magnetic or psychological forces; and

"WHEREAS, The accumulated experience of the past half century has demonstrated that the process of dynamization of medicinal substances, described and recommended in the Organon by Dr. Hahnemann, is neither consistent with the principles of the homeopathic school, nor reliable or satisfactory in practice; and

"WHEREAS, It would appear that sufficient time and abundant opportunity has been afforded for furnishing conclusive evidence, showing the scientific practical value of dynamization of medicinal and non-medicinal substances, if any such curative power existed therein; and

"WHEREAS, No satisfactory reasons have been adduced in support of this fanciful theory, and no trustworthy evidence of its claim for homeopathic endorsement has been furnished; therefore,

“*Resolved*, That we deem the theory of dynamization to be essentially non-homeopathic; and while occasionally, from a psychological point of view, it may be appropriately applied in practice, in the opinion of this society it is still so obscure as to its origin and development, so uncertain as to its application, and has so little apparent connection with the proper application of similia as to warrant the conviction, after repeated and carefully conducted trials continued through many years, that it is unworthy the confidence of the homeopathic profession, and being non-homeopathic should not receive the endorsement of the homeopathic schools.’

“Poor old dynamization! after being a tried and true friend for nearly three-fourths of a century, you are thrown aside; but should you be needed ‘from a psychological point of view’ you will be used, no matter if you are ‘non-homeopathic’ and cannot be endorsed by the homeopathic school.

“*Resolved*, That in accordance with other existing associations which have for their object investigations and other labors which may contribute to the promotion of medical science, we hereby declare that, although firmly believing the principle “*similia similibus curantur*” to constitute the best general guide in the selection of medicine, and fully intending to carry out this principle to the best of our ability, this does not debar us from recognizing and making use of the results of any experience! And we shall exercise and defend the inviolable right of every educated physician to make use of an established principle in medical science, or any therapeutical facts founded on experiments and verified by experience, so far as in his individual judgment they shall tend to promote the welfare of those under his professional care.’

“Dr. Samuel Swan, one of the members, said that ‘that resolution was a death-blow to homeopathy, a lowering of the flag
* * *

“In this connection, it would be well to mention that homeopaths of Michigan asked the Legislature of that State for the removal of the homeopathic branch of the State University, saying it ‘was a failure, because the allopathic department was old and well established, and monopolized the best sentiment of the place.’ Some time since essentially the same thing occurred at the University of Vienna. The conclusion, says the *Medical Record*, ‘to be drawn from these facts is, that wherever homeopathy is allowed to come out and display itself to intelligent stu-

dents by the side of regular medicine, it very soon attenuates and collapses. On the other hand, it is denied the opportunities that have been furnished it for the cry of intolerance and persecution, which have assisted it so materially hitherto.' We all know how they have played the baby act and posed before the public as martyrs, and we also know that they have thrived by it. The way to kill off homeopathy is to give it an equal chance with allopathy. Had this been done two years ago, the corpse would now be moldy."

Assuredly, then, the vast majority of those men who chase the nimble shilling under the flimsy pretext of practising homeopathy stand convicted out of their own mouths of obtaining money under false pretenses, and are entitled to no more consideration or respect than the confidence man or thimble-rigger.

Finally, it may not be amiss to ask here, since what has gone before casts so strong a light upon the subject: How can any honest member of our profession allow himself to be persuaded that consultation with homeopaths is forbidden by the conventional fiat of professional etiquette alone? In such consultation the diagnosis once determined—for which *two* schools are unnecessary and superfluous—the regular physician can never consent to trifle away the life of the patient by the administration of sugar-coated pellets. The "pure Hahnemannian" alike remains firm and the consultation is absolutely fruitless. On the other hand, if the latter, yielding, declares himself of little faith in all that constitutes the essence of homeopathy, he brands himself at the same moment sneak and hypocrite—a creature to be shunned by every honest man.

Poisoned by Strychnine Pills.

Not long since we noted a case in Philadelphia where some strychnine pills were "swallowed for fun," with fatal results. The pills were dispensed on a physician's prescription, and, although plainly labeled, were not marked "poison." The deputy coroner held the drug clerk responsible for the death, because he had not used a poison label. At a recent meeting of the Trade Association of Philadelphia druggists, held for the purpose of protesting against this decision, a letter from a physician was read, stating that the physicians of Philadelphia heartily supported the pharmacists in their protest, claiming that a druggist had no right to label medicine, put up on a physician's prescrip-

tion, "poison," as many patients would refuse to take medicine so marked. The views of the writer were endorsed by other physicians present, one declaring he would put up his own prescriptions before he would allow them to be labeled "poison." It would seem that, as a rule, people who take a sensible view of the poison label would be the ones who never take medicine in a careless way, while those who refuse to take medicine marked "poison," would probably be the ones most needing the warning. The spirit, if not the wording, of the law regulating the sale of poisons in Philadelphia, is evidently to prevent suicides and accidents from poisons not dispensed on prescriptions; and it is probable that, if it is decided that the law compels druggists to use the poison label on prescriptions containing poison, it will be so altered as to remove such requirement. A Philadelphia paper, in commenting on this subject, suggests "that there are few so ignorant as not to understand that poison refers to the quantity as well as to the quality of the drug," and that the "poison" simply means that an overdose will kill, and will be regarded with no more alarm than the "arsenicum" label of the homeopathic school. However, we think there are cases where a druggist should not be compelled to use a label revealing the poisonous nature of a prescription.

Milk Diet for Five Years.

Dr. G. Johnson, in introducing the treatment of albuminuria for discussion before the British Medical Association, narrates a case of a man of 55 years, whose exclusive diet for nearly five years, till he was sixty years of age, consisted of milk alone. He never took even a cracker or bread, except when he happened to be traveling, and could not get milk. His usual allowance was a gallon of skim milk daily. The albuminuria is said to have been brought on by a too generous diet, and the recovery is said to have been complete, and a gradual return to a mixed diet was allowed.

PACIFIC

Medical and Surgical Journal

— AND —

WESTERN LANCET

VOL. XXVII.

NOVEMBER, 1884.

No. 5

Original Articles.

THE VALUE OF DRUGS IN THE TREATMENT OF DISEASE.

By WM. WATT KERR, M. A., M. B. C. M., Edinburgh University.

Members of this Society who have listened to the recent discussions upon clinical cases, or those who have been accustomed to converse with their professional brethren upon these topics, cannot have failed to notice the existence of a tendency to underrate the advantages gained from the administration of drugs in the treatment of disease. Medical journals are full of articles tainted with the same form of scepticism; in short, it is fashionable at the present time for men to profess to the outer world the possession of curative powers, but when in the presence of their professional brethren, to pooh-pooh the whole healing art as a gigantic humbug. Yet these same men, with what appears to me remarkable inconsistency, are loud in their denunciations of quacks and quackery. It is true that the ordinary common-place quack professes to cure some disease by means known to himself alone; in addition to this, he often is an ignorant, vulgar fellow, and therefore a dangerous man: but the high-toned medical quack is a being of a different order; he examines his patients, prescribes some drug of reputed value in the disease, but in the efficacy of which he himself does not believe, pockets his fee, and tells some profession-

al brother that in his opinion the patient would have done just as well, and very probably better, had he been left to himself. He confesses that he has been recompensed for imaginary services, or in other words, that the sick man has been juggled out of his money; that, like the *vulgar* quack, he has taken advantage of a fellow creature's credulity. What he insists is, that if the patient is to be duped, the process must be conducted with due decorum and professional dignity.

Notwithstanding the talk of these men about the worthlessness of drugs, I do not think that many of them desire to be understood literally.

Two classes of men are affected by this scepticism. One of these is the medical puppet, a man who has unbounded confidence in his own powers; who has for himself discovered, tried, and rejected every theory and remedy long before the person claiming to be its originator has given it to the world; who, whenever he hears an exceptional cure described, can always recall one exactly similar that occurred in his own experience, and was by him conducted to a successful termination; a man whose practice gives him but little anxiety, and whose brains trouble him still less. We need not waste time over his case: it is a hopeless one, drugs won't cure him: doubtless the sage King Solomon, when with prophetic vision he looked down the avenues of space and time, discerned this order of being, and the discovery evoked from him the ever memorable words: "Though thou shouldst bray a fool in a mortar among wheat with a pestle, yet will not his foolishness depart from him."

The second class embraces those who are doubters rather than unbelievers: men whose expectations from therapeutics have been disappointed, and who in consequence have become soured and disgusted with the subject.

Now, whilst it must be conceded that we are often disappointed in expected results, this therapeutic unbelief is unjustifiable so long as we have one single instance of a cure being wrought or suffering alleviated by the exhibition of a drug, because this one instance is sufficient to prove that curative agencies do exist, and therefore all failures and discomfitures must be attributed to our own want of thought, and ignorance of the true principles of medicine and therapeutics, rather than to the inefficacy of our *materia medica*.

One cause of our want of success is the tendency to routine in

practice, to treat each disease after a particular method, with little or no regard to the individuality of the case ; to treat the disease and not the patient ; or what the late Dr. Anstie described as the "habit of labeling a disease with one name and a drug with another, and then pitching the latter at the former, as one might pitch a stone with a catapult."

Among the millions of men scattered over the face of this globe you find that each one has some mental or physical feature peculiar to himself alone, and so it is in the medical world ; for here you find that each one has some peculiarity of constitution or diathesis that modifies not only his susceptibility to disease and the course it runs, but even the form in which disease presents itself.

To illustrate the meaning and truth of this statement it is only necessary to mention the usual results of exposure to cold in three persons of rheumatic, gouty and bilious constitutions, respectively. In the first, it is followed by those inflammatory changes in the joints, fibrous tissues and serous membranes which constitute rheumatism ; in the second, the disease manifests itself very much in the same parts, but in the form of gout ; and in the third are developed hepatic disturbances and other disorders of the alimentary system that constitute what is generally described as a "bilious attack." So much for the various *forms* of disease which the same cause produces in persons of different diathesis ; and now let us notice the different *courses* the same disease will run in persons of different constitutions.

Pneumonia in a nervous subject is generally associated with considerable fever and cerebral excitement, but runs its course rapidly with a tendency towards complete recovery of the affected lung. In the strumous diathesis the general disturbance is not nearly so great, and the disease, which soon becomes or it may be never was more than sub-acute, gradually passes into a chronic form and leaves the lung permanently injured.

If the same cause produces such different results and the same disease runs such different courses in different people, surely we need not be surprised to find that some modification of our treatment is found necessary in every case.

Within the last forty years the study of medicine has advanced rapidly, and during that time pathology, experimental physiology and therapeutics have done much to establish our profession upon a scientific basis. Yet there are many men who sneer at all such progress as consisting of mere theories, curious in themselves, and

even interesting to the medical man in his leisure moments, but of little or no great value in the sterner duties of practice.

We do not deny that there may be some show of reason for this want of confidence, because most of these men have tried some treatment, endorsed by experimental therapeutics as likely to give good results, and have been disappointed; but in nine cases out of ten the grounds for dissatisfaction are more apparent than real, and a little impartial reflection must convince them that they had expected more than was promised; that they had looked for a panacea or the Elixir Vitæ, and only found an every-day remedy.

There is an impression that physiology and therapeutics should reduce the treatment of disease to an unvarying list of specifics, so that the practitioner need never again rack his brain to find a reliable remedy. But this never will be, for increased knowledge only brings with it additional matter for thought, new factors to be considered; and to the end of time the successful practitioner will be that man who, drawing his conclusions from physiological and clinical data, can for himself select the remedy best suited to the case before him.

Is it then really true that the experimental therapist is a mere theorist and dreamer of dreams? Is a pure empiricism, a system based entirely upon clinical observation without any explanations of the why or wherefore, always to be our only guide in the treatment of disease?

Researches in therapeutics have not for their object the discovery of universal remedies and infallible cures, but rather the revelation of the active principles in drugs, most of which are already in use; and it remains for the reasoning powers of the physician, and the results of clinical observation, to demonstrate the diseases to which they are best adapted.

When the inquirers into the physiological action of drugs first began to give the result of their labors to the world, there was a rush from the school of empiricism, its teachings were rejected as dangerous and untrustworthy, and the new doctrines were accepted with as blind a confidence as that with which one sheep follows another into the cattle-pen. There was the usual result of such panics, *i. e.*, disappointment and an extreme revulsion of feeling. They diagnosed the disease, and, *without any regard to the individuality of the case*, administered some drug whose physiological action seemed to be called for by the organic lesion.

It should be mentioned that when we contend for the individuality of each patient, we do not mean that the morbid anatomical lesion is different in each case; but we do maintain that the same organic lesion is capable of producing different pathological processes or effects upon the system, in different constitutions.

The anatomical lesion does not *per se* constitute the disease as the exclusive soup-plate pathology of the post mortem room would lead one to believe; it is only important according as it disturbs natural physiological action; and strictly speaking, it is these disturbances that constitute pathology, or the physiology of disease.

I ask, When have you most anxiety about a pneumonic patient? Is it not in the earlier stage of the disease, when the exudation is being poured into the air cells, and the process of hepatization is advancing? And when the stage of hepatization is complete, and the organic lesion therefore at its maximum, does not the temperature suddenly drop almost to the normal standard, all other bad symptoms abate, and the patient feel calm and comfortable with only extreme prostration to remind him of his sickness?

If the anatomical lesion alone constituted the disease, the symptoms would not abate when the former attained its maximum; but this improvement is due to the fact that when the process ceases to extend, the system has time to regain its balance, to accommodate itself to the additional strain by calling into play residual air space and regulating the circulation, so that the aëration of the blood is accomplished sufficiently well to meet the demands of the body.

Let us take an example of this variety in the type of a disease: A physician has two cases of pneumonia under his charge.

Mr. A—, aged 25. Complains of pain in the right side, increased upon deep inspiration or coughing; also of headache and a feeling of general discomfort; the face is flushed, and the skin hot and dry.

On percussion there is dullness over the base of the right lung, and auscultation reveals fine crepitations at the end of inspiration, together with prolonged expiration and increased vocal resonance. The respirations are 26 per minute, the pulse 100, full and incompressible, and the temperature 103°.

In addition to general treatment, small doses of *Veratrum Viride* are prescribed, with the result that the cutaneous vessels dilate, the surface of the body becomes moist with perspiration, and

the temperature falls; the frequency of respiration and pulse is diminished, and the latter becomes soft and regular. Altogether, the patient experiences a feeling of relief, and the physician a sense of satisfaction from the action of the drug.

Briefly stated, the physiological action of *Veratrum Viride* is to reduce the body temperature—we do not know whether directly or indirectly—and to depress the circulation by paralyzing the cardiac muscle, stimulating the inhibitory branches of the vagus, and producing general vaso-motor paralysis.

Mr. B— also presents the physical signs of pneumonia, but in all other respects the cases are entirely different.

The physician finds him lying on his back, breathing rapidly, and answering all questions with a gasping utterance. The face has an anxious expression, is of a dusky or earthy hue, flushed over the malar bones, and the lips are livid. The respirations are short, shallow, and number 40 per minute, and the alae nasi are in continual motion. The pulse is rapid, soft, and sometimes dichrotic, and the heart-sounds are quick and feeble. The temperature is 104.6.

Both of these patients have pneumonia, and in the event of a fatal termination, the same pathological conditions would be seen in each case. The disease is the same in both men: is the treatment to be the same? Is Mr. B—'s weak circulation to be still further depressed by cardiac depressants, merely because such treatment produced the most satisfactory results in the case of Mr. A—? The physician might be treating the disease, but most assuredly he would not be treating his patient.

There are other cases, however, in which the necessity for different treatment is not so apparent from the outset, because it is called for, not by some peculiarity in the type of the disease, but by a variation in the average constitutional resistance to disease, and also to the action of certain drugs. It is a notorious fact, even among the laity, that some members of the community who are continually exposed to infectious and contagious diseases never suffer from them, while others never appear to miss a chance of becoming affected. I know of no other cause to which this can be attributed than to a difference in constitutional resistance.

We find the very same cause operating for or against in the action of drugs. Who is not aware that one patient will take mercury of weeks at a time without any but the most beneficial results, while another is salivated by the first dose? Or who has not

experienced the fact that, as a rule, people of a phlegmatic type tolerate opium without the production of any disturbance, while in those of a nervous type it is very much inclined to produce great cerebral excitement?

I hope sufficient evidence has been adduced to show that in the treatment of disease something more is needful than simple diagnosis of the organic lesion, and the administration of a physiological opposite. The study of physiological therapeutics and clinical therapeutics must go along side by side, the object of the former being to discover the effects of drugs upon the system, and of the latter to demonstrate the cases in which it is best that these effects should be produced.

It is only constant observation at the bedside that enables the physician to recognize the various constitutions and the different types of disease. It is this that gives to the man of clinical experience his superiority over the mere book-worm; for, while the latter is speculating and theorizing over his treatment, the former has already decided upon and endeavored to produce the physiological action demanded by the exigencies of the case.

The prominence given to the scientific departments of medicine during the last twenty years has caused the student to underrate, or rather to misinterpret, the great value of clinical experience; he is too much inclined to regard the patient as a constant quantity upon which he can verify his physiological and therapeutical theories; utterly ignoring or oblivious of the fact that men have their peculiarities of constitution as well as their differences in physical appearance, and that each of these generally demands some modification in treatment.

It will also be noticed that although we may regard disease as a disturbance of the system, there is a tendency to treat it as if it were an entity or substance that must be removed from the body. This is probably a result of the too exclusive study of a post mortem pathology, and of the great interest which attaches itself to the germ theory of disease.

On account of the greater impression made upon us by things that appeal directly to our senses, we are apt to give our attention too exclusively to the organic lesion and not to its effects upon the system, when in reality it has no importance whatever except when it destroys or interferes with physiological function.

We know that good health often is compatible with the existence of a diseased organ in the body, as cases of permanent pul-

monary consolidation frequently prove ; indeed, an entire organ may be destroyed or extirpated without injury to the general health—a fact that the results of ovariectomy and nephrectomy place beyond all doubt. The only result of such abnormalities is that the general constitutional resistance to noxious influences is lowered, and consequently the balance of the system more easily disturbed.

The word pathology to the minds of some men only calls up visions of soup-plates laden with cancerous livers, waxy kidneys and phthisical lungs ; to them pathology and morbid anatomy are synonymous, and there is no disease unless it is capable of being demonstrated by means of this miserable soup-plate system.

Need we be surprised at the tone of utter hopelessness pervading the writings and conversation of men holding such a belief ? They have not yet discovered a drug that will eliminate diseased organs from the body, or replace them with healthy ones ; and as anything savoring of symptomatic treatment is, in their eyes, quackery and charlatany, they can do nothing but make their diagnosis and await results.

It is hardly necessary to say that there is a great difference between treating symptoms as constituting the disease, and treating symptoms regarded as the result of a known morbid process. The strict meaning of pathology is the physiology of disease, and it is therefore apparent that to combat abnormal physiological processes is a form of treatment as truly based upon pathological principles as the endeavor to destroy any germ or neutralize any poison that is injuriously affecting the system.

Certainly our treatment, if possible, should always be directed to removing the cause ; but very often some symptom becomes for the time more formidable than the disease itself, and requires immediate attention to prevent a fatal result. When a general is so situated that he cannot dismount his enemy's guns, he will not be regarded as ignorant and unskilled in the art of war if he so fortify his position with earth-works as to render the shot from the opposing battery ineffectual.

Suppose we have a case of typhoid fever where hyper-pyrexia occurs, and the temperature runs up to 106°. We are aware that what we have to fear most in an uncomplicated case of typhoid is cardiac failure and death from exhaustion ; we know that at this temperature assimilation of food is greatly impaired if not entirely arrested ; that excessive combustion is going on in the

body, and therefore that more than the usual amount of tissue is being destroyed and none formed to take its place. Let us hope that we shall not be sneered at as unscientific, because we stop all other treatment for a time and devote our whole energy to combating the hyper-pyrexia and its results, instead of dosing the patient with supposed germicides, in the hope of destroying the typhoid germ, and thereby removing the cause.

Again, there are many diseases the cause of which we cannot remove, but where we can so successfully combat the pathological results that life is often prolonged, and tolerably good health enjoyed for many years. In no case is this more prominently brought before us than in the treatment of valvular disease of the heart, where the judicious use of cardiac tonics, diuretics and the regulation of everyday life has spared hundreds of men to be a joy to their families and a blessing to society. What are the dyspnœa, the indigestion, the impaired brain power from deficient oxygenation, but symptoms of the valvular lesion? Certainly, they are pathological results, but so are all symptoms; and, indeed, that is the only light in which we are entitled to view them.

In conclusion, let us therefore bear in mind that our treatment must be directed not only against the organic lesion, but also towards counteracting the pathological processes produced by that lesion.

These remarks have reached a greater length than was originally intended; but I trust they may have indicated where the cause of our failure in prescribing is often to be sought for; also, that the treatment of symptoms is often an important and legitimate line of practice; and, finally, that there is not so much humbug in the practice of medicine as some of its votaries imagine.

THE PREPARATION OF SPONGES FOR SURGICAL USES.

By CLINTON CUSHING, M. D.

In these latter days, when the antiseptic treatment of wounds has been followed by a success that was not dreamed of twenty years ago, it is of the first consequence that whatever touches the newly cut or injured surface should be absolutely clean, or antiseptic, if possible.

I use the terms clean and antiseptic synonymously, for perfect cleanliness *is* antisepticism.

Of all the things that are brought in contact with freshly made wounds, such as the hands, surgical instruments, sutures, bandages, dressings and sponges, the last named are more likely to contain in their meshes, particularly if they have already been used, or have not been carefully prepared, substances which not only tend to prevent healing by the first intention, but may infect the wound with septic matter and destroy life as a consequence.

To fully understand the power of a sponge for taking up and retaining most tenaciously whatever it may come in contact with, if in a fluid form, one must understand the anatomy of the article.

Professor Carpenter says that the sponge undoubtedly belongs to the animal, and not, as formerly supposed, the vegetable kingdom. It consists of a mass of *Sarcodæ*, or jelly-like material, through which runs in every direction canals with external openings, and through which the sea water is made to pass by alternate contraction and expansion.

Now this animal has a skeleton which varies in different varieties; in one case being of calcareous matter, in another of pure silica, and in still another of a fine laminated, horny tissue, interspersed with spicates or needles of pure silica. This last variety, which is obtained from the Mediterranean Sea, is the finest, and is the kind used by surgeons; and it is this reticulated web-like mass of extremely delicate horny fibers, running in every direction and attached to each other, that make up the mass of the sponge, and that make it so elastic, so absorbent, and so useful.

In most of the fine sponges there are scattered through their interior numerous long needle-like spicules, that are attached to the horny tissue.

When the sponges are gathered from the bottom of the sea they are piled upon the beach and partially covered with sand, where in the heat of the sun they undergo putrefaction.

This is done in order to get rid of the jelly-like *Sarcodæ* that surrounds and infiltrates the horny frame-work; and it is said that the stench of the decomposing mass is something horrible. They are afterwards thoroughly washed, dried, and placed in the market, containing, doubtless, more or less of the decomposed animal matter in their meshes.

One of the most beautiful objects to examine under the microscope is a very thin section of a fine sponge placed upon a black

background, examined with a low power and with a good light shining directly upon the specimen; the reticulated character of the fibers, semi-transparent, of a beautiful amber color, glisten in the light like fine gold threads.

I had occasion recently to prepare a set of sponges for an ovariectomy; and as I never trust such a duty to any but myself, I pursued the following plan:

I first had them beaten while dry to separate the sand, then placed in water over night containing five per cent. of muriatic acid to remove calcareous matter; they were then thoroughly washed in hot water, and afterwards left for twenty-four hours in a solution of corrosive sublimate and water, one part to the thousand. They were then tied up in a muslin bag and allowed to dry by the stove; and I afterwards used them in a successful case of ovariectomy where both ovaries were removed, the patient recovering without any bad symptoms.

These sponges were then carefully washed in hot water and caustic soda to remove the fibrin; were then again left over night in the muriatic acid solution, and subsequently the corrosive sublimate solution, and have been since that time used in two other cases of ovariectomy (both cases of cancer); and still I find that in spite of all my care, if I now take one of these dry sponges and beat it over a polished surface, I succeed in getting sufficient dust for a microscopical examination. This dust is made up of needles of pure silica that are not acted upon by acid, and minute fragments of quartz of different colors that glisten under the microscope like uncut jewels; being, in fact, the fine sand that has remained in the meshes of the sponge in spite of all the efforts to get rid of it. The needles of silica were some of them sharp-pointed at one end, with a head like a pin at the other; some were sharp at both ends, while some were merely fragments. I relate the above to show the great tenacity of the sponge for whatever may once pass within its meshes.

I am not aware of anything that will remove the spicules of silica or the fine sand, that will not also at the same time injure or destroy the fiber of the sponge; and I know of no better method than to wash them carefully three or four times, and between each washing to dry thoroughly and beat over a polished surface, until no dust can be obtained by further beating.

It might be said with truth that silica and sand are not poisonous and not irritating; but it is also true that a wound is more

likely to heal by first intention if perfectly clean, than if bits of foreign matter are scattered over its surface. As to the plans pursued by me for rendering the sponges antiseptic, probably the treatment by the muriatic acid, the repeated washings in clean boiled water, and the final soaking in the corrosive sublimate solution, will commend themselves to those who have given the subject any thought.

I think it probable that too little attention is given to the preparation and care of the sponges used in surgery. Mr. Lawson Tait of England, one of the most, if not the most successful surgeon in Abdominal Surgery who has ever lived, says, in writing on this subject: "Of the sponges to be used it is almost impossible to speak with too great emphasis, as I distrust them more than anything else about the operation." "I never let them out of my sight, and I will not permit any one but the nurse in charge of them to touch them."

Mr. Tait, while not a believer in the use of antiseptics in abdominal surgery, is a strong believer in absolute cleanliness.

A THERAPEUTIC NOTE.

Having received a very favorable report of the hypnotic effect of Paraldehyde, I commenced its use in June last, and having given it some three or four hundred times, I am able to speak of its value in many cases where opium and chloral are contraindicated.

I first gave it in two cases of insomnia during the last weeks of pregnancy. Fifteen minims were dissolved in a little whiskey flavored with lemon syrup. The dose was taken at bed time, and repeated in an hour if required. Much seemed to depend upon the condition of the nervous system. A single dose was often sufficient to procure a good night's sleep, and two never failed to give a longer sleep. In a case of cardiac asthma, in which the tincture of convallaria has been extremely beneficial, the greatest comfort was derived from a twenty-minim dose of Paraldehyde, on going to bed. It is not taken every night, but when from any cause there is a condition of restlessness and insomnia. In a case of acute dropsy, complicated with a mild form of delirium, the result of prolonged alcoholic excesses, it acted most favorably where

chloral had failed, and opium seemed contraindicated; it was given in whiskey in a dose of twenty minims. In a case of cancer of the stomach in which there had been no sleep for many nights, it was given by the rectum, mixed with mucilage, and uniformly gave a long sleep. In two cases of epithelioma of the cervix, in which there was simply great nervous prostration and sleeplessness without acute pain, from twenty to thirty minims uniformly gave a good night's repose.

In a case of typhoid fever with prolonged insomnia, the use of Paraldehyde was commenced on the tenth day, and continued for upwards of a fortnight. The patient is now convalescing in the sixth week, and sleeps well without the remedy. He usually required two doses of fifteen minims each. In a case of insomnia in advanced albuminuria, it has been given almost nightly with great advantage.

Paraldehyde is a pungent, ethereal liquid, a derivative from alcohol and acetic acid. It should be dissolved in some form of alcohol, either whiskey flavored with lemon, or an elixir rich in spirit. It produces no depression of the circulation. It is never followed by sickness nor by headache. It does not constipate the bowels, nor does it destroy the appetite. The effect is somewhat more permanent than that of the more common ethers. The odor is perceptible in the breath, and in one case it was still noticed sixteen hours after the exhibition of the remedy. In that case the patient had taken half a dram, and slept well on the second night without a further dose.

There is no difficulty in leaving off the remedy.

I have not given Paraldehyde for the relief of acute pain, for which it seems to me unsuitable, as the sleep produced is not very profound, and at any time the patient may be aroused without difficulty. It seems to me that Paraldehyde possesses all the advantages of a moderate dose of chloral without its disadvantages, and I am satisfied that it is a very valuable addition to our list of hypnotics.

J. H. STALLARD,

M. B. LONDON.

632 Sutter St.

P. S. The Paraldehyde was supplied by Mr. E. W. Joy, of Market Street.

SAN FRANCISCO COUNTY MEDICAL SOCIETY.

SAN FRANCISCO, Aug. 26th, 1884.

Dr. M. M. Chipman read a paper on the "Etiology of Cholera," giving a brief history of the disease from the year fifty of the Christian era, showing that anciently it was only an occasional visitant, even in India, but it increased in frequency, and in 1756 was the commencement of the periodically returning epidemics in India.

The first epidemic extending over Europe originated in the Delta of the Ganges, in May or June, 1817, and continued over twenty consecutive years, visiting all parts of the world, excepting South America, and terminated in Algiers in October, 1837. The second epidemic occurred in Europe in 1848 and '49, and in the United States in 1849, and the third epidemic in 1853-'54 and '55, and in the United States in 1853 and '54.

The Doctor quoted from Dr. G. B. Wood, favoring local miasmatic origin of the disease. He also quoted from Dickson, Niemeyer, Lebert and others, supporting the theory of infectiousness.

In 1874 Drs. Woodworth of the United States Marine Hospital Service and Ely McClellan of the Army, formulated a report to the United States Executive Department, on the cholera epidemic in the Mississippi Valley in 1873.

Their conclusions were, that the disease was Asiatic cholera of foreign origin, and the germs were brought by emigrants, and in the cargo of a vessel, from an infected port in Europe.

The Doctor stated that the specific cause of cholera is an organic poison, emanating from dejections of cholera patients; and it originates only in India, and is only brought to the North American continent by travelers, emigrants, or by means of fomites during an epidemic in the eastern world.

The Doctor agreed with Dr. Flint in his last edition, that the disease is disseminated by the alvine dejections of cholera patients, as taught by Pettenkofer and other believers in the contagiousness of the disease; and this is now the received doctrine in all countries.

The non-believers of this theory may think that millions of money have been unnecessarily expended, great obstruction to commerce, and personal discomfort occasioned; yet the fact of but two epidemics of pandemic character having occurred in Eu-

rope since 1855, neither of them spreading beyond the boundaries of the country in which the disease first appeared; and the small number of deaths, as compared with the great mortality during the twenty-five years after its first invasion, ought to be sufficient vindication of the policy pursued.

Dr. W. W. Kerr corrected Dr. Chipman's statement that the contagious nature of cholera is supported by Pettenkofer; and in the course of his remarks, explained the latter's position as the great exponent of the localistic theory.

Dr. C. G. Kenyon remarked that the paper just read was very interesting. Professionally, he had no experience with cholera.

He was a firm believer in the contagiousness of the disease. When he was quite a lad cholera was in his neighborhood: a servant girl in his family had the disease; he took it, and was given crude opium, and recovered; his parents then took the disease, and both died in a few hours.

Dr. J. F. Morse referred to a paper by Koch, on his experiments in relation to cholera in India.

This observer found the dejections more of a gruelly substance than like rice water in character.

He found in many cases the mucous membrane in the intestines congested; in others there were ulcerations, and in others a diphtheritic membrane.

The congestion was well marked near the Ileocecal valve, and extended upwards, and was due to the presence of bacteria penetrating the epithelium of the membrane.

The microscope showed the bacilli resembling a comma; some were comma and S shaped.

There were large numbers of bacilli found in the dejections and in the diphtheritic membrane.

The Doctor also related the various experiences made in the development of the bacilli, in gelatine, potato, fleish brie, etc.

The bacilli can live better in a temperature of 30° to 40° Cg. They can live, but grow slowly, at a temperature of 16° Cg. They usually reach the full growth in twenty-four hours. When kept moist they will live, but if left to dry will die in three hours; they also require the presence of oxygen to live.

No further business coming before the Society, a motion to adjourn prevailed.

HENRY H. HART, M. D.,
Rec'd Secy.

SAN FRANCISCO, Sept. 9th, 1884.

In the absence of the President and Vice Presidents, Dr. R. Beverly Cole was called to the Chair.

Dr. B. R. Swan then read a paper on cholera, with special reference to the epidemic of 1866, as it affected Randall's Island.

The Doctor described the general surroundings and natural features of the Island, to show how far it was isolated from communications with adjacent towns, and also said that it was free from all malarial diseases.

In 1866 the health of the Island had been as good as in former years until the 29th July, when a child in the Girls' Nursery was attacked by cholera.

The disease began with the usual diarrhœa, which could not be checked, and was followed by the usual train of symptoms, until the child succumbed to the disease on the evening of the second day.

Selections from fifty-four cases were read, and then the Doctor summarised the treatment as follows: All of these cases had diarrhœa, leaden color, cold surface, husky voice and feeble pulse.

In treatment absolute rest was enjoined, dry heat applied, and the various anti-choleraic medicines in vogue at the time administered.

PREVENTIVE MEASURES.—The department was isolated from the city, no visitors being admitted except the clergy and medical men; and disinfection of all buildings, especially of the privies, was vigorously carried on.

Diarrhœa mixtures were freely used among both adults and children, to check the diarrhœa that occurred in all the inhabitants of the Island. The clothing of the patients was disinfected by means of steam and chemicals; the bed pans and closets by means of chlorine and free irrigation.

The last case occurred August 25th, and the epidemic subsided as rapidly as it occurred.

It should be mentioned that quarantine had been established by the authorities for some days previous to the appearance of the cholera, to guard the Island against the disease that was raging in the adjacent towns. Also, that within a few hours the disease appeared at three different parts of the Island, widely separated from each other, and without any inter-communication between the places.

The conclusions drawn from this experience are: First, That

the disease is due to a special poison, which prevails in the air during epidemics.

Second, Those who are debilitated are more easily affected than those who are healthy.

Third, The disease is not contagious, as no sickness occurred in the attendants, and it spread altogether in a different way from that in which contagious diseases spread.

In the Doctor's opinion, contagion is spread of the disease by being in contact with or near the patient.

Infection is spread of the disease by the presence of some poison in the air, without any reference to the proximity of the sick.

Fourth, Prophylaxis, Keep up the general health; do not make fundamental changes in diet; check diarrhœa at once by means of decumbent position, aromatic opium mixture, or any astringent.

If collapse should approach, use dry heat with small doses of calomel and opium, and a stimulant, such as some chloroform mixture.

In rallying, the first favorable symptom is the return of warmth to the tongue and breath; at this time opium suppositories are useful during the night to keep the bowels at rest.

As a rule during the disease, the medicines used must be given in extra large doses, to produce any effect.

When collapse is fully established there does not seem to be any remedy.

Dr. Perry suggested that the benefit derived from the aromatic opium mixture was possibly due to the presence in it of essential oils, which are known to be fatal to low forms of life. On the same ground, he would recommend as a beverage for cholera patients, water containing about 1-25th grain corrosive sublimate to the glass.

He believed that in the stage of collapse the best results were obtained from hypodermic injection of morphia and atropia.

Dr. Arnold inquired if any attempt had been made to find how cholera was introduced into the Island.

Dr. Swan replied that he believed it was introduced in a wave of air, as this was the only theory compatible with the outbreak of the disease in three parts of the Island at the same time.

Dr. Cole expressed regret that he had not been able to learn anything new about cholera. During the epidemic of 1849 he had seen three thousand cases of cholera, and made more than one hundred and fifty autopsies on choleraic cadavera.

On these grounds he must contradict "Koch's" statement that inflammation plays any part in the disease; any signs of inflammation which the latter saw in the intestines must have been reactionary. The intestines may be lined with a grumous matter, like gelatine; but this is only mucous, and any congestion is passive and due to paralysis of the vaso motor nerves.

When this mucous covering is removed, the villi are seen to be intact, and not even deprived of their epithelium.

In the epidemic of 1849 small doses of calomel were used with some good results; but later on he found that fifteen-grain doses, every two or three hours, arrested the vomiting and purging. Quinine was of no use.

There being no further business, a motion to adjourn prevailed.

W W KERR, M. D.,
Rec'd Secy, pro tem.

Licentiates of the California State Board of Examiners.

At the meeting of the Board of Examiners, held Oct. 1, 1884, the following physicians having complied with the law and the requirements of this Board, were granted certificates to practise medicine and surgery in this State.

WALTER E. BATES, San Francisco; Med. Dept. Univ. of California, Cal., 1881.

EDSON K. CALDWELL, Madison; Med. College of Ohio, O., 1883.

MORDECAI M. COOK, Durham; College of Physicians and Surgeons at Keokuk, Ia, 1873.

WILLIS W. DAY, San Francisco; Rush Medical College, Ill., 1884.

CLIFFORD L. DE VINNY, Stockton; University of Michigan, Mich., 1876.

FRANK W. MITCHELL, Middletown; Col. of Physicians and Surgeons, N. Y., 1880.

JAMES M. SHARKEY, San Francisco; Harvard Medical School, Mass., 1849.

BENJAMIN R. SWAN, San Francisco; Col. of Physicians and Surgery, N. Y., 1868.

WM. E. TAYLOR, San Francisco; Winchester Medical College, Va., 1859.

Attention is called to the fact that the time for the issue of the new "Medical Register" is drawing near. We earnestly request that all changes of residence and deaths in the profession be reported at this office before the 1st of December, 1884.

R. H. PLUMMER,
Sec.

Correspondence.

LETTER FROM THE SENIOR EDITOR.

NEW YORK, Sept. 17th, 1884.

I left San Francisco on the 5th of September for a brief visit to my relatives and friends on the Atlantic Coast, and to the scenes of my early life. There has not been time thus far, since my arrival, after a journey by rail of six days, to gather much information of a professional nature; but possibly the readers of the *Journal* will take an interest in the recital of some incidental events and observations coming under my notice.

The weather at first was delightful. We were spared the "horrid alkaline dust" of Nevada, by a heavy rain which had fallen in the night and filled all the pools in our track for several hundred miles. The rarified air of the elevated region towards the summit disturbed the heads of a number of passengers, particularly those who were looking out for mischief. I was conscious of a slight sense of confusion and discomfort in the head. The third day out wound up with an afternoon so cold as to call for artificial warmth in the sleepers. On the fourth day, descending the eastern slope, we entered a hot atmosphere, which grew more and more torrid and insupportable until we reached New York. It was what everybody here calls a hot wave, which had covered the Atlantic slope for more than a week, and which ended with a cold wave the day after our arrival. People say it was the hottest weather of the entire season. In California we are wont to regard the excitements of life and business as exceptionally great, and to ascribe to this cause much disturbance and disease of the nervous system; but after a glimpse at the large Atlantic cities, I have failed to perceive any difference in this respect. In the movements and countenances of people here, one observes quite as much hurry, eagerness and absorbing pursuit as in California. At the railroad stations you are given a shorter time for meals; and where a change of cars is necessary, you are ejected, together with your baggage, almost as quickly as a cart could be dumped, and as if a second of superfluous delay might have fatal results. Unless you are vigilant, you are sure to lose something in this rough-and-tumble transfer.

One is struck with the prodigious growth of the principal cities

on the route. Having passed through them eight years ago, they had so changed that I could scarcely recognize them. Manufacturing industries have assumed enormous proportions. Among other places Detroit has taken a forward rank: it is lighted by electricity. An extensive and handsome pile of buildings attracts your attention, and you are informed that it is the chemical and pharmaceutical establishment of Parke, Davis & Co. You might think it large enough to turn out sufficient medicine for our sixty millions of people; but perhaps there are scores like it in other places.

A new remedy for whooping cough is announced in a newspaper published in a city of 50,000 inhabitants, and noted for the general intelligence of its population. The writer has observed with surprise the small number of deaths from that disease, and finds that it is owing to the extensive use of his remedy. Here it is: "Take a live catfish, and when the child begins to cough place the mouth of the catfish in the child's mouth; keep it there until the child stops coughing. The breathing of the catfish is what does the work. It requires only a few applications to effect a cure." As the catfish has been introduced in the waters of California, and is now abundant there, this information may be valuable. With more plausibility a newspaper writer in the oil region proclaims the virtues of petroleum as a protection from disease. The oil-city of Titusville is adduced in evidence as one of the healthiest cities in the world. He thinks that cholera will not invade an atmosphere strongly impregnated with the fumes of petroleum, and that these fumes may prove fatal to the germs of other plagues.

There appears to be no fear of cholera among the people in the East, nor much talk about it even in professional circles, as far as I have observed. From present indications, the epidemic will not reach the extent of former visitations. The season is growing late for its invasion of America. It will reach us not before next spring and summer, if at all. Its terrible mortality in Naples, viewed in connection with the small mortality almost everywhere else, is phenomenal. The number of deaths in that city appears to be greater than in all Europe besides. I question if the history of past visitations of cholera will exhibit a greater proportionate mortality in any large city of Europe or America. Destitution, filth and panic have been the principal factors in this slaughter-panic, more than all besides. A certain class of san-

itarians and closet philosophers and theorists make a fatal mistake in directing the attention of people from their own immediate surroundings, and leading them to depend on remote protective agencies for the exclusion of the pestilence. At the moment when the advanced forces of the enemy break through the barrier of defense, consternation seizes on the multitude, and they are consigned to indiscriminate slaughter.

A published letter from Naples well describes the condition of a people given over to the mastery of panic. Proper precautions to prevent the spread of disease were impossible, as families and friends united to frustrate the regulations of the authorities. Deaths were concealed, and dead bodies kept hidden until opportunity for private burial should occur, so that the soul should have the benefit of a proper ceremonial outfit. The streets were crowded with religious processions, singing hymns and litanies, and bearing lighted torches, crosses and banners. Women paraded the public places, carrying flower-decked statuettes of St. Genaro, the patron saint of Naples. Even the lives of physicians were not safe from the frenzy and fanaticism of the populace. Food was scarce, owing to the fear of entering the city from without. The supply of fruit, which is stated to be the principal dependence of the poor, was wanting. Persons familiar with cholera can easily imagine what ravages the disease may accomplish among a population depending on fruit for support.

Cremation is likely to find a starting point in this part of the world, by its application to the paupers of Brooklyn. The number of paupers burned at the expense of the county is about 100 a month, the expense of coffins \$3,000 a year, and the cost of a crematory \$5,000. Cremation is talked of as a sanitary measure. I notice that a doctor in Buffalo died lately, having left instructions that his body should be carried to Washington, Pa., and there cremated. He is described as a crank.

The *Philadelphia Press* is authority for the statement that a craze is prevailing for amputation of the great toe, so as to adapt the foot to a sharp-toed boot which is coming into fashion. Professor Pancoast of Jefferson College declares, according to the *Press*, that a number of persons have come to that college to have their toes amputated. Most of the applicants were men. One was a farmer. The Professor said it was a common thing for persons to apply for the eradication of meeting eye-brows. In these cases, said he, "we remove the hair by the roots and then

apply electricity, which gives the person a sharp, stinging pain. After this treatment the undesirable brows never return. Ladies who are so unfortunate to have mustaches are treated in the same way, but it is so painful that they can only have half a mustache removed in a day. They go away looking very funny. It is getting quite common to do away with defects in the ear or nose. All these items are parts of a physician's regular routine ; that is, all excepting the big toe treatment, which I would never perform for any one. I call it flying in the face of nature. The big toe is not a superfluity ; in fact, it has a very decided use, and the profession should discountenance any attempts to abolish it.

Photography is now turned to new uses in Paris courts in cases of alleged adulteration of pepper, farina, and other articles of commerce. Hitherto the evidence of experts who have examined such commodities with the microscope has been accepted as conclusive ; but the new system introduced by the chemists of the municipal laboratory has changed the measure of procedure. They now conduct their analysis of minute samples of commodities under a strong light, which permits the use of a photographic microscope. The photograph thus taken is sufficiently large to be easily inspected by the court, and thus the judges are able to verify the investigations, and also give to the prisoner the benefit of any mistake which may be discovered in the expert testimony.

The annual meeting of scientists of the United States took place in Philadelphia last week. I regret having arrived too late to attend the sittings. Many interesting papers were read, among them one by Thos. D. Lockwood on Telephony, which contained the following points :

Long telephone wires are much noiser than short ones. Sometimes one end of a long line, say 200 miles, will be perfectly quiet, and the articulations transmitted from the distant station are reproduced with the most emphatic clearness ; while at the same time the opposite end of the line is very noisy, and the attendant there finds the utmost difficulty in receiving the messages by reason of the noise, which drowns the articulation. Lines running North and South are much more subject to disturbance than the lines of equal length running East and West. The sounds heard in a telephone on a noisy line are much intensified at or about midday and midnight. Lines constructed along the sea coast are, as a rule, much less subject to disturbance by induction than those

inland. Lines constructed on high land, or in mountainous districts, are subject to periodical storms; that is, at certain hours each day the noises reach a maximum intensity. A line of large wire is invariably much more subject to inductive disturbance than a line of small wire of the same length and strung in the same location. A line of comparatively low insulation is not so noisy as a well insulated line of the same length, size, and in the same location. A line consisting of a continuous metallic circuit is almost as noisy as an earth circuit between the same points, except when the two wires of the circuit are parallel to one another and equidistant from disturbing wires.

H. G.

A LETTER FROM MEXICO.

GUAYMAS, SONORA, October 4th, 1884.

H. GIBBONS, M. D., San Francisco, Cal.

Dear Sir I hoped to send you my August report at the end of that month or shortly afterward, but the Civil Judge was unable (*from certain causes*) to make it out. I now inclose you a report of August and September, and have only to say that the theory I have advanced in my articles has been more than sustained.

After my letter of August 13th the rains came, and as a matter of course, acted as nature's scavengers to this dirty town. This is fully evinced by the report of the prefect, city physician, and our incompetent Board of Health. The death-rate for September, 1883, was 146, principally adults: for 1884, the rate is 19, of which, as you will readily perceive, 16 are under 3 years of age. Reports from the lower coast are not so good. There the rate of the deaths from what they call yellow fever is heavier. In Colima this malarial fever seems to have been particularly active, the percentage of deaths reaching (by reports) 20 to 25 per cent. As this point is in the interior, and no *reliable* news can be obtained thence, I only give you *reports*, not facts. I have written to Dr. Richardson on that point, and when I get his reply will inform you more fully.

Now again, at the risk of seeming tiresome, I would ask that this question of interments without medical certificate be thoroughly ventilated through your valuable monthly. As this matter is at present conducted, no true record of disease, nor of the

true cause of death can be obtained of the Civil Judge of this country, thereby entailing on any point a reputation for contagious diseases not merited.

In spite of all newspaper articles, I still maintain that there has not been a well accredited case of *yellow fever*, as laid down by the authorities, ever occurring in Guaymas or the interior of Sonora.

The laity take issue with me on this, and claim that as a permanent resident here I would, and do, do all I can to increase immigration: to such as these you know it is vain to reply. ("Cast not thy pearls before swine," etc.) Some of these days in the near future I hope to have the pleasure of meeting you, and then I trust to prove to you, and whosoever of our profession who cares to hear me, what I have seen and why I have formulated the opinions I have heretofore so frankly expressed to you. Since the appearance of my article in December number of the *Medical and Surgical Journal*, I have received innumerable letters from parties in regard to the question of *fever in Guaymas*; more, in fact, than I have been able to answer.

Now comes a second question, and you will, I know, excuse me if I urge on the Honorable Board of Health its importance; and it is this.

Newspaper correspondents, travellers ("*et id omne genus*") since the advent of the epidemical fever of last year, have rushed into print, each and every one of them (perhaps) unknowingly prevaricating, if not absolutely lying, as regards the facts. The public has become alarmed, and justly so, too. And I might say, daily, I am asked this question: "Why, (if the State of California with a duly organized Board of Health), while she sends quarantine officers to Yuma and Nogales, as does also the National Board of Health, does she not expend a few dollars to send a commission of even *one* medical man, duly qualified and known to them, to visit Sonora, examine for himself, and report the true facts? If the State and the Government, (so say these parties) are desirous to protect themselves alone, perhaps their late action is right; but on behalf of pure humanity they should know well why, before they ostracize a people, and designate a town or country as being subject to any contagious disease.

Should such action be taken, I will, with the greatest pleasure, afford the commission all the information at my command, or obtainable here. To avoid delay I have not drawn out my report

for September in full, giving only total number, sex, age and general disease.

I am at work in my leisure hours on the predisposing causes of fever in this latitude as affecting new comers, showing the ratio of Anglo-Saxon to the native of other parts of Mexico outside of this coast, which I will send you when fully written up.

Thanking you for your kindness to me again,
I remain as ever, yours truly,

A. A. MIX, M. D.

Mortality report of Guaymas, Mexico, for August, 1884, shows a total of 23 deaths, 8 being males, and 15 females. The number of deaths below five years was 13, between ten and twenty years 3, and above twenty years 7. Yellow fever claimed 7 victims, other diseases 16. Of the 7 cases of yellow fever, 4 occurred among Indians.

Mortality report of Guaymas, Mexico, for Sept., 1884, as taken from Register of Civil Judge: No., 19; Male, 13; Female, 9; Ages, 1 to 3, 13; Adults, 6; Diseases, yellow fever 2, other diseases 17; Nativity, Mexico. Remarks, of all of these, 13 were children, and one was drowned, an adult, and one a Chinese, the first in some years who has died in this port. Total deaths, Sept., 1883, 146. Total deaths, Sept., 1884, 19.

Selections.

UMBILICAL HEMORRHAGE.

By **JULIA INGRAM, M. D.**

[Read before the Louisville Med. Soc.]

The subject of umbilical hemorrhage is one on which as yet the physician is much at sea. Its intractability and its general fatal result render it a much dreaded as well as an interesting disease. In order to bring the subject before you, I shall report some cases which have come under my notice, and I hope from remarks elicited by my paper to gain, instead of imparting information. The first case which I shall mention is recalled from memory. Labor

slow; delivery instrumental. There was a slight abrasion made by the forceps on the inferior maxilla. During the ensuing night there was some hemorrhage from this abrasion and from the cord, which, according to the rule of the hospital, was not ligated. The hemorrhage ceased during the next day. The fourth and fifth days there was hemorrhage at the base of the cord, which was detached on the night of the fifth. The hemorrhage still continued from the umbilicus, and there was slight hemorrhage from the bowels. Compression, tannic acid, Monsel's solution, and needles were successively used without material influence. The child died on the seventh day. No autopsy.

While in charge of the Maternity Department of the New England Hospital, three cases occurred in unusually rapid succession.

Case 1. A primipara, aged 25. Labor began 5 P. M., October 13, 1882; child expelled 7:45 P. M. A short, easy labor, no hemorrhage, child a male, weight nine pounds, seemed strong and healthy. Nothing abnormal noticed until the morning of the third day, when a fluctuating tumor became perceptible on the posterior upper border of each parietal bone. October 17.—The tumors have increased in size. The larger one, that on the right, measures 11 cm. in the longer and 7 cm. in the shorter diameter. The mouth shows great congestion, especially at the back part of the hard palate, and the blood oozes from the surface in the act of sucking. Spots of extravasated blood are seen on the under part of the jaw and about the inner malleoli. October 18, the hemorrhage still continues. There is bleeding from the umbilicus, and blood in the evacuations.

R.	Tinct. ferri. chlor.	0.06.
	Acid. sulph. (dil.),	0.12.
M.	S. To be given every four hours.	

Tannic acid applied to the umbilicus having failed to stop the bleeding, ferri subsulphate is applied under a compress. The child still continues to eat when fed, but is not allowed to nurse on account of the pain and flow of blood from the buccal cavity. The bleeding from the bowels and umbilicus still continues. Faint lines of congestion are seen at the margin of the nails. A decided icteroid hue has appeared. October 19.—Child died at 3 A. M. No post mortem.

Case 2. Primipara, aged 17. Labor began October 13, 11

P. M.; child born October 14, 8:30 A. M. No hemorrhage. Child a male; weight eight pounds. October 15.—Baby's left eye congested, and some pus. Treated with zinc sulph. O. 25-30. October 17.—The eye is still congested. The baby does not nurse well, and has little desire for food. October 18.—Stump of cord separated today. October 24.—There is slight bleeding at the umbilicus. Acid tannic was applied, and compression used. October 25.—There is still some bleeding. The application of yesterday is repeated. Baby nurses well; P. M., the bleeding continues; ext. ergotæ fld., 1.20 given per rectum. October 26.—Dose of ergot repeated at midnight. It was not retained, and in one-half hour was again repeated. Another injection was given at 6 A. M., to be repeated every six hours. Compresses were changed at intervals of two hours during the night. They were saturated with blood. Spts. turpentine was applied to the umbilicus on absorbent cotton; compression is constantly kept up. There is a marked icteroid hue October 27. The baby does not nurse well. Interjection-per rectum of milk and brandy are ordered to be given alternately every fifteen minutes. The finger is held on the umbilicus constantly to exert compression. October 28.—Baby died this A. M. During the night it vomited blood four times, and during the morning three times. Nothing but brandy was retained by the bowels. October 29.—*Post mortem*. Tissues and organs very anæmic. The heart of normal size, but the right ventricle very small. No septum between the auricles. Two stomachs were found, the first of normal size, the second smaller, but otherwise the exact counterpart of the larger. Both were filled with a dark liquid which appeared to be disorganized blood. The other organs were apparently normal.

Case 3. Primipara, aged 25. Labor began October 22, 5 P. M. Child expelled October 23, 6 A. M. Labor normal. Hemorrhage not excessive. The child a male, unusually large and well developed; weight, ten pounds. The head greatly moulded. October 25.—The child has a peculiar whining cry. The left side of the face is partially paralyzed. It nurses well. October 27.—There is a slight umbilical hemorrhage, and some redness at the base of the cord. The paralysis of the face is more marked. October 28.—The stump of the cord detached. There is still some hemorrhage. October 29.—Child has two convulsions during the night. The anterior fontanelle is slightly bulged. The hemorrhage from the umbilicus still continues. The child

eats when fed. It is much blanched. October 30.—Child died in convulsions this A. M. The hemorrhage continued up to death, in spite of compresses and styptics. No post mortem. So many cases occurring in so short a time, and in the same ward, gave rise to close and careful scrutiny of all surroundings and possible mechanical causes bearing upon them. Nothing could be discovered in the sanitary condition or nursing that could even indirectly influence such a result.

One case of lacerated perineum operated on and placed in the same ward healed perfectly by first intention, showing that there could scarcely be any unfavorable sanitary condition.

The mothers of these infants were primiparæ, and all made rapid recovery. They gave good family history. No trace of hemorrhagic diathesis could be found. Their condition during pregnancy was good. In two of the four cases icterus appeared after hemorrhage began. In one case there was rather obstinate constipation. In three cases the bleeding began before the complete detachment of the cord. In the one case of post mortem nothing abnormal was discovered about the liver. In no case was there any tendency to the formation of a clot. Some of the blood caught and exposed to the air showed no coagulum. These cases were all male infants.

Hemorrhage from the umbilicus may occur either before or after the natural separation of the funis. If before, it usually arises from accidental or violent separation of the cord, or improper ligation. If it occur at the time or after the separation of the cord it is more serious, and in the majority of cases a fatal malady. Cases have been reported where, when the cord had separated, the blood vessels had failed to close, and alarming and even fatal hemorrhage occurred. In others, the normal contractility of the vessels has been lost, in consequence of some inflammatory condition. Again, abscesses may form here, which, on their discharge, are accompanied by blood. But far the greater proportion of these cases, apparently, depend upon some morbid condition of the blood itself, due to different causes. In some cases this impoverishment may be traced to syphilitic origin; in others to improper hygienic conditions during gestation. Yet it is not confined to puny infants. In these cases reported each was over average weight and size. In a number of cases which have been reported mothers gave history of hemorrhagic diathesis, shown in menorrhagia, excessive loss of blood in parturition or on slight injury.

Hereditary predisposition is quite marked in some cases. Mr. Ray reports a case which was the third male child of the same mother, who had died of hemorrhage from the umbilicus, and speaks of one where four male children of the same mother had died from this cause. Dr. Minot also mentions one case of a woman who had lost four children, and of another who lost two in the same way. Dr. Bowditch reports two cases of the same mother. The first a female; cord fell off the third day. Hemorrhage began on the fourteenth. Styptics, compresses, etc., were tried ineffectually, when hare-lip needles were used with temporary success. On the eighteenth day bleeding returned; on the nineteenth hemorrhage from the bowels, and on the twentieth death occurred. The mother, after being delivered of two children having no tendency to hemorrhage, gave birth to a male infant. The cord fell off on the fifth day, and on the tenth hemorrhage began. The child died on the fourteenth day, in spite of all means, the cautery included. Jaundice occurred during life, and the liver was found much diseased in this case. The character of the labor, apparently, has no bearing upon this condition. Short and easy labors are as prone to usher in a hemorrhagic infant as a long and difficult one. Jaundice is one cause given for this hemorrhagic condition. It is claimed that, whether due to malformation of the liver or icterus neonatorum, it results in an impoverishment of the blood, and diminishes coagulability. Dr. Minot mentions that in three or four out of seven cases the liver presented deviations from the ordinarily healthy appearance. Organic disease of the liver has not been found in the majority of cases, and these deviations spoken of by Dr. Minot may be secondary. In the cases where icterus has occurred, it is not found oftenest to precede, but to follow hemorrhage. May the discoloration of the skin be, at least in many cases, hæmatogenous, and this diminished coagulability be due to other causes than a morbid condition of the liver? I know of no treatment that is relied upon for any good permanent result. Compresses of various materials, styptics, needles, and the actual cautery, have been used with temporary relief, but with exceptionally permanent success.

Theoretically, constitutional treatment of the mother during the period of gestation would afford best results; but this would apply only to cases of hemorrhagic history, and I know of no reports of supposed success in such cases.

DISCUSSION.

Dr. Frank Wilson had met with but one case of umbilical hemorrhage, and this, as usually happens, was fatal. He had frequently seen oozing of blood from the umbilicus after the cord had dropped off, but this had usually ceased by the application of the simpler means for controlling hemorrhage. In the fatal case use was made of most of the means suggested in the paper just read. In fact, they comprise about all we can make use of in a medical sense. Beyond those mentioned, surgical procedures, it appears to me, might be resorted to, by cutting down upon the cord and religating.

Dr. Edward von Donbuff said: "I intended to say nothing upon this subject until Dr. Wilson's suggestion concerning the surgical aspects of these cases reminds me of an experience which I published within the time of Dr. Gailliard's residence in this city. I saw a case in consultation in the person of a boy three days old. The cord was apparently diseased, and from the base of it considerable blood had been oozing since its birth. The means as suggested in the paper having been used, I suggested the propriety of putting a ligature on the cord submurally. For the purpose of doing this I passed a short needle down around the cord, and endeavored to bring it out at the same opening as far as possible. In this I succeeded to that extent that the boy is still living, and is now some ten or twelve years old.

"This subject was discussed at the medico-chirurgical society, and the conclusions arrived at were, that this cause of infantile fatality is largely associated with mechanical derangements of the cord, and often enough, though it is not possible to discover clearly syphilitic history, yet it is possible frequently enough to justify the inference that this constitutional infection is largely causative.

"I do not think that structural defectiveness is determinable without dissection of the cord. In the case to which I have referred, the bleeding was general throughout the entire length of the cord, and when a piece of it was removed after applying this second ligature, its structure presented a soft, loose, spongy appearance. To say that these cases are associated with the hemorrhagic diathesis, however, letting the matter rest there, is saying little or nothing. To constitute the hemorrhagic diathesis there must be a mal-organization of structure, and at the same time defective blood properties. There is defect of fibrin or of the albuminoids in the blood, as was apparent in one of the cases re-

ported. The hemorrhage is but a factor even in the hemorrhagic diathesis, and the trouble against which it would appear impossible to do anything is the structural defectiveness. In the case which I reported, if that factor had been present the ligature would probably have amounted to nothing. I have no doubt that most instances are associated with immaturity at birth, although the cord may appear to be perfectly healthy, and yet be unfitted for the collapsing process which in the normal condition of things takes place readily.

“Syphilis is so fruitful of everything that can militate against the life of the child, that it is certainly important to notice the history and the evidences of its inheritance. In the case I have referred to, the child was the offspring of a mulatto woman and a white father, and presented an appearance such as might be expected of a child of such parentage, yet it was by no means cadaveric. Since that time the child has exhibited signs of inherited syphilis.”

Dr. J. H. O'Reiley said: “The reader of the paper has so thoroughly canvassed the subject with reference to the causation and mechanical measures to be adopted for the relief of this condition, that but little remains to be said, and that only in a general way, upon the subject. Most of these cases reported struck me as being clearly of that diathesis known as the hemorrhagic.

“I have not infrequently seen umbilical hemorrhage occur from loosening or slipping of ligature, and I have occasionally brought it about purposely to relieve congestion. I have never had, however, a case of hemorrhagic diathesis in this connection to deal with. In these cases reported the father's condition has not been ascertained. There may have been syphilis at the bottom of the blood dyscrasia.

“It occurs to me that there can be no better field for the application of the principles of prophylaxis than is presented in these very cases.”

Dr. Leber thought it a matter of importance to consider the source of hemorrhage in these cases. Shortly after birth it is most likely to have as its source the hypogastric arteries, and later, the umbilical vein; and again it may occur from the capillaries extending with cord into the abdomen. In these cases bleeding is never violent, but constant oozing takes place. Of this variety I have never seen but two cases, both of which proved fatal. If the hemorrhage is due to traumatism, then you may succeed in

arresting it by religating. I believe that in every case some diathesis underlies this process. Icterus sometimes precedes, sometimes follows, the hemorrhage. It is evidently due to some faulty condition of the blood, or to some diseased condition of the walls.

Dr. Preston Scott said: "There is much that is accidental; something of good and bad luck in medicine. For instance, one speaker has referred to his rare observation of placenta previa. In an experience of over twenty-five years it has been my good fortune not to have had one case. Nearly so in regard to the subject before the meeting. Only one time has the accident, umbilical hemorrhage, occurred to me. That is now so long since I can only recall that the subject was icteroid, and the event fatal despite styptics and the ligature. There must be some dyscrasia, or some congenital deficiency, to favor this accident. Were struma or syphilis or jaundice the predisposing conditions, I have had ample opportunity to observe the event. That the question of tying or not tying the cord, or the manner of tying, has but little bearing on this event, is seen in the fact that it occurs as infrequently in the skilled and unskilled.

"The experience of the leader of this discussion is assuredly a rare one. The report is interesting in its accuracy and authenticity. It is to be noted that, with one exception, there is no appearance of any constitutional state, hereditary or otherwise, to account for the event.

"In illustration of the rarity of the occurrence, the Vienna Foundling Asylum reports thirteen cases in fifty thousand. Vogel reports only one case in ten thousand children."

Dr. Dudley S. Reynolds said: "I have been much impressed by the reading and discussion of this paper. It opens up a very important question in this connection, and that is the question of development, as well as the question of the classification already suggested in the discussion. One kind of hemorrhage comes on in undeveloped creatures as a result of structural deficiency. This is the class to which belong the case cited in the paper as having hemorrhages from the buccal mucous membrane, the abrasions wherever occurring on the body; the tumors about the funis from which the blood oozed away, and that general condition characteristic of undeveloped, incomplete structural organization.

"In the case reported by Dr. Donhoff, it is quite certain that that structural deficiency did not exist.

“ Hemorrhage may be due to mechanical injury; it may be due to sudden and severe contraction of the abdominal muscles of the child; but those are entirely different things from that hemorrhage which is due to malnutrition of the mother.

“ A long time ago the hemorrhagic diathesis was an interesting problem to me for study. It was equally interesting with the study of that other great problem of ‘taking cold,’ or ‘diseased or disordered liver,’ and kindred mysterious subjects. Thus I arrived at the conclusion that the hemorrhagic diathesis means simply incomplete or imperfect form or structure of the vessels, or tissues in which they ramify. It is not proper to ascribe this condition to syphilis, unless other evidences of that disease are present. Syphilis is a disease which, whether acquired or inherited, has distinctly marked characteristics in very many of its stages, and it ought to be discerned and is recognized by astute practitioners of medicine by these characteristics.

“ As to the cases detailed, these children were most likely the illegitimate offspring of people in indigent circumstances. So, too, a vast majority of cases will be found to occur among the unfortunate classes of people. From these classes come the mothers who give birth to children who die of umbilical hemorrhage.

“ The question, then, it appears to me, resolves itself into this conclusion, viz, umbilical hemorrhage purely local in character can and ought to be controlled; but when associated with general hemorrhages are fatal by virtue of necessity, on account of imperfect development, and are beyond the reach of medical agents.”

THE CAUSES OF THE INCREASED DEATH-RATE OF NEWCASTLE.

The death-rate of this important city having shown a considerable increase over that of the corresponding period of the previous year, it was thought to analyze the causation of this. Deaths from measles and respiratory diseases were seen to have risen considerably, whilst those from small-pox and diarrhœa showed a diminution. The mortality from wasting diseases was above the average, and that from nephritis markedly so, this being probably connected with antecedent scarlet fever. The increase of mortality thus observed was found to be chiefly amongst children under

five years. Mr. Armstrong notes the recurring prevalence of disease in certain localities of the city, which he terms "fever dens." The population was estimated by adding to the 1881 census the rate of increase between the two last censuses, and not by the more accurate logarithmic method, so that the rates of mortality cannot be considered as more than approximative. The social character of the population is compared with its state in 1871, it being found that though the number of poor laborers had diminished, the large proportion of children and of native (fever-susceptible) Irish still existed. Depression of trade and intemperance are alluded to. The chief predisposing causes of disease in Newcastle are found to be filth, contaminated water, dampness, ground-crowding, sanitary defects, unhealthy occupations, unwholesome food, and facilities for burial of uncertified deaths. Under the heading of filth, a formidable list of trade nuisances is given, amongst which the slaughter-houses appear to be the chief offenders; the erection of public abbatoirs is earnestly recommended, and also the classification of meat. The cow-houses are also condemned, and attention drawn to the fact that several of the principal fever-dens are in cow-house areas.

Mr. Armstrong recommends a power of fixation of locality, and supervision of these various trades by authority. He also draws attention to the smoke nuisance, advising smoke-consuming furnaces, and connects generally public nuisances and the position of the fever dens. Want of uniform system of drainage is commented on, as well as the improper position of water-closets, and the non-ventilation of the soil-pipe. Cistern waste-pipes open commonly into the drains, which again are badly constructed and laid, not disconnected or trapped. A similar want of system in the removal of solid filth is noticed, and the existence of the numerous badly-constructed middens deprecated, leading, as it does in many cases, to the spread of enteric fever. The dry method by ash closet is recommended for tenement houses, the Nottingham plan being extolled; the pail system for domestic refuse is also suggested. The almost hopeless task of preventing filthy deposits in public places by any action on the part of the sanitary authority is lamented, and we can only suggest that education of public opinion might possibly effect the result. Treating now of water, its insufficient use is complained of, this being often due to want of ready access and of provision of taps. Contamination is found to be caused by dirty cisterns, use of one cistern for closet

and drinking purposes, direct connection of cistern waste with drain, and prolonged use of filters. Under the heading of Dampness, the excessive rainfall during the quarter under discussion is noted, as well as the increased hygeometricity, which is ascribed to evaporation from clayey subsoil, from vacant unbuilt sites, and uncemented yards and courts. The ground-crowding was found to be greatest in the fever areas, the incidence of scarlet fever and wasting diseases varying directly with the density. The filling up of quarries with rubbish, and formation of so-called "made ground," are forcibly deprecated, and the necessity of proper covering of the latter with concrete shown. The sanitary defects of schools are thoroughly indicated, *e. g.*, the want of proper ventilation, the over-crowding (the cubic space per head in one case amounting to only 41 feet), the deficient window light, and the insufficiency of the lactrines and the urinals. A house to house inspection of private dwellings revealed many sanitary omissions and defects, especially in the matter of building regulations. Mr. Armstrong is very strenuous on the necessity of the Corporation laying house-drains. Tenement dwellings, again, need more frequent lime-washing, reconstruction of staircases, improvement of ventilation and of yard-paving, abolition of privies and middens, and closure of cellar-dwellings.

Transference of the inspection of common lodging houses from the police to the sanitary authority is recommended. The question of over-pressure in schools is entered into at length, and the conclusion arrived at that both the teachers and scholars of the elementary schools are mentally over-exerted, the anxiety attendant upon the responsible post of teacher being prone to cause attacks of neurasthenia. The proper length of study suited to various ages is given, and the "half-time" system praised. Last among the predisposing causes of disease in Newcastle is the facility of disposal of the dead, owing to the large number of uncertified deaths, this amounting in 1882 to 10 per cent. of the total deaths under one year. Turning now to the exciting causes of disease, we find—first, direct infection fostered by deficient isolation of cases of sickness amongst the better classes, and by school attendance of children from infected houses. Infection by fomites and by milk are then alluded to, and particulars given of an outbreak of scarlet fever in a milk walk. Atmospheric infection by hospital influence is set aside, whilst ground-crowding is said to have spread disease in this manner. The incidence of

enteric fever and diarrhoea is connected with exhalations from midden-privies.

Mr. Armstrong, as a result of his examination of the causes of the increased death-rate, advises greater attention to cleanliness, and increase of the regulation room-space to 500 cubic feet. He also urgently insists on more ample hospital accomodation, coupled with compulsory isolation of zymotic disease occurring in tenements.

Interesting tables are appended, from which it is seen that the zymotic death-rate during the quarter under investigation was as high as 6.7, the increased mortality being chiefly in measles and whooping-cough. A map of the principal fever dens of the city, showing the recurring incidence of certain diseases in certain localities is also given.

Pharmaceutical Notes.

DURING the past two years the demand on Messrs. Parke, Davis & Co., for their fluid extract of corn-silk (*stigmata maidis*) exhausted their stock, and rather than supply, as some manufacturers have been in the habit of doing, a preparation of the dried material, which they maintain is inert, they declined orders. This year they have taken time by the forelock, and have, during the season which has just about closed, laid in and properly preserved for future use an immense stock of the green material. The profession who may have occasion to prescribe this demulcent diuretic in the vesicle troubles for which it is so highly extolled, may therefore depend on Messrs. Parke, Davis & Co. for a supply of a reliable preparation of it.

HYDROLEINE.—This preparation to which the distinctive name of *Hydroleine* (*Hydrated Oil*) has been given is not a simple emulsion of oil, but a permanent and perfect saponaceous emulsion of oil, in combination with *pancreatin* soluble in water, the saponification producing a cream-like preparation possessing all the necessary qualities of chyle, including extreme delicacy and solubility, whereby a ready and perfect assimilation is afforded.

The use of the so-called emulsions of Cod Liver Oil during the extremely sensitive condition of the digestive organs always ac-

companying consumption, does not usually afford beneficial results.

Those of the profession who have under their care a case of consumption, diabetes, chlorosis, Bright's disease, hysteria, and in short any disease where a loss of appetite is followed by a breaking down of the tissues of the body in its effort to support the combustion supplying the animal heat, are urged to give this preparation (Hydroleine) a trial.—*Clin. Clinic and Lancet*.

PARALDEHYDE AS A HYPNOTIC.—Dr. C. Rank formulates the following conclusions based upon a number of experiments with this remedy: 1, On account of its unpleasant odor and burning taste, paraldehyde is unsuited for general use, especially in private practice; 2, in physical diseases it exerts no hypnotic effect, at most its action is only sedative; 3, paraldehyde is efficacious in nervous insomnia, in mental excitation, and especially in delirium tremens; 4, this drug cannot replace chloral or morphine, at least in the treatment of physical disorders.—*Deutsche Medicinal-Zeitung*, August 11, 1884.

Editorial.

San Francisco Directory for Nurses.

For the past two years the endeavor has been made to give the profession and the public of San Francisco the opportunity of using a Directory for Nurses, where they could obtain a list of well recommended nurses, who were at the time of application disengaged. By this means, a properly qualified nurse, who was particularly fitted for the case, could be obtained with the least amount of delay. Although it has not been as successful as could have been wished, still the very great convenience that it has proved to be in many cases of emergency, has encouraged the managers to continue. The experience of the Committee on the Directory for Nurses in Baltimore is so similar to that of the managers of the San Francisco Directory, that we publish an extract from their last report, and hope that the profession of San Francisco will take it somewhat to heart, and strive during the coming year to give their home Directory some further encouragement than they have in the past.

“When one considers the amount of nursing necessarily done in a city the size of Baltimore, and the number of times nurses have been engaged through the Directory, it is evident that this institution has not fulfilled the part that its projectors intended. Your committee thought best to appeal simply to the profession, to support what is so obviously designed to be of service to themselves, the public and the nurses. They were not asked for money, nor even to take any appreciable trouble; simply to recommend good nurses to register, and then send their patients to the Directory for them, in order that both physicians and patients may be saved time and trouble. One would suppose that *self-interest*, if not *public spirit*, would have prompted such small effort. It was *expected* that, at least, this Faculty would have fostered its own offspring, not only because it was its own, but because it had never cost the parent anything, having, on the contrary, contributed to the parent's support since birth; and, inasmuch as all the Directory's surplus funds go to the Library of the Faculty, the more healthy and vigorous the growth of the child, the more it contributes to the parent's support. Your committee can only say that, in its expectations and hopes, it has been grievously disappointed.

“It is a noteworthy fact that the comparatively young members of the profession have made much more use of the Directory than have the older ones. Indeed, those who presumably have most need of the services of nurses are, almost without exception, those who have most ignored the Directory. As to the cause of this, your committee has been much exercised. We know that “not even the youngest of us is infallible,” but we also know that, with increasing years, comes a conservatism that would rather tread in long and thorny paths that are familiar, than venture on the smooth and straighter ones that are of recent date.

“*Why* physicians should *scour the town* to hunt nurses or send their patients to do so, when, for a small fee paid to the Directory (probably less *in money* than the hunt costs), they can select one from a list of nurses known to be disengaged, or have a nurse deposited at the patient's door, passes the comprehension of your committee.

“But *indifference* is not the only thing with which the Directory has had to contend. Some months ago one of the physicians of this city, who has a very large practice and is a prominent member of this Faculty, had occasion to need the services of a nurse very urgently, and sent some of the relations to hunt up one, furnishing them at the same time with a list of names. One of these relatives, who had a grateful remembrance of a good nurse easily and quickly obtained through the Directory, asked if it would not be well to send there, and was told that it would not; and this was said in spite of the fact that this physician had, very kindly, furnished the Directory with a list of nurses whom he considered to be the best in town.

“Another instance may be cited where one of the most prominent of our city physicians, also a member of this Faculty, sent to the

Directory to obtain the address of a certain nurse, which was furnished him, and the nurse not having reported herself engaged, an application was shortly afterwards made for her through the Directory, when she told the applicant that she could not take any engagement without the consent of this physician, because she regarded herself as subject to his orders. Furthermore, your committee, wishing to supply the demand made upon it for wet nurses, sent several hundred postal cards to physicians in the city and the neighboring counties. The response to this was, that *one* wet nurse registered during the year."

If physicians would see that the nurses whom they usually employ are registered at the Directory, and then when a nurse was required would supply the applicant with a list of their nurses, and advise them to go to the Directory and ascertain who was disengaged, much time, trouble, and often expense would be saved, and the physician would still be employing the nurses whom he preferred. Much trouble has been experienced in getting the nurses to appreciate the absolute necessity of reporting engagements, and any sickness which prevents them from taking an engagement, and very provoking delays have in consequence occurred; but it is hoped that, as the work increases these delays and failures to obtain a nurse will become less frequent.

Preliminary Medical Education.

In our foreign exchanges for this month we find that considerable space is devoted to the subject of examinations in general knowledge, preliminary to entrance upon a course of medical tuition. The necessity of this is becoming more apparent every day; without a good general education as a ground-work for the rest of his learning, it is impossible for a man to practice medicine in any but a hap-hazard way: he has not been trained to think methodically, and his ignorance of ordinary subjects is repulsive to a patient of refinement; without a wide general knowledge he is unable to awaken in all classes of patients those feelings of sympathy and confidence which are so essential to success in the practice of his profession.

The medical schools of the Pacific Coast have not failed to appreciate the necessity for higher medical education, and have extended their term of study to a period that might shame many of her sister colleges in the Eastern States, who still adhere to the two years' system, and whose faculties appear to be more desirous of pocketing the students' fees than of diffusing knowledge.

We would now advise them to turn their attention to the preliminary education of their students, the standard of which might be materially raised without anything but benefit accruing to all parties concerned. Every month the editors of this journal receive reports of cases containing material that would be useful to the profession, but so full of errors in spelling, and so devoid of all attempts at composition, as to render them unavailable for publication.

In justice to Californian graduates, we state that many of these rejected papers are the productions of men who have been educated in other schools.

We would suggest that, instead of the interview with the Dean of the Faculty, written examinations should be held regularly before a properly constituted committee, or at which all candidates for admission to the ensuing term must present themselves: and to give our readers some idea of what is required by other schools, we append a list of the subjects in which the student must show himself proficient before he is admitted to the examinations for the degree of Doctor of Medicine in the University of Edinburgh:

1.—English, including Dictation, Composition, Geography and History.

2.—Latin: Translation from some easy writer, such as Livy; and Latin Prose Composition.

3.—Arithmetic.

4.—Elementary Mathematics, Euclid Books 1 to 3, and Algebra including simple Equations.

5.—Mechanics.

6.—Greek: Translation from easy authors, and Greek Prose Composition.

7.—Logic, or Moral Philosophy.

There are also several optional subjects, such as French, German, Higher Mathematics, and Natural Philosophy.

Munich Abattoir.

In an address published in the *WESTERN LANCET* of November, 1883, the abolition of the present San Francisco Slaughter House System, if indeed it may be called a system, was strongly urged, and the adoption of Public Abattoirs, with their thorough method of market inspection, as warmly recommended.

The profession in this city was so convinced of the necessity

for some steps being taken in this direction, that the Medical Society sent the paper mentioned to the Board of Health, and other civic authorities, in the hope that they would exercise their influence to mitigate the evil: but despite complaints from citizens, protestations from medical men, warnings from sanitary journals, and the fiercer attacks by the daily press, old Butcher Town still flourishes in all its filth and stench.

We would call the attention of those who are still interested in our endeavors to remove this plague spot from our midst, to the annual report of the Munich Abattoirs for 1883, which states that during the past year four thousand six hundred and twenty-four animals were condemned for disease at that establishment. This, in our opinion, is a very satisfactory proof of the efficiency of the system advocated.

New Medical Register.

A new Medical Register is to be issued, and in order that the correct address and office hours might be obtained, postals were sent from the office of the Board of Examiners to every regular physician in the city whose name was known, and when the correct address was not known, postals were sent to the general delivery office, asking for professional cards. It is to be hoped that all physicians will take an interest in this matter and be careful to respond promptly, for the work of publication cannot be delayed beyond December 1st.

Notices of Books, Pamphlets, &c.

The Lock-Jaw of Infants. By J. F. HARTIGAN, M. D., pp. 123. Birmingham & Co., New York.

We have great pleasure in recommending this little work to the notice of medical men. It treats of a disease eminently fatal to children, and regarding the nature of which the profession is comparatively ignorant. Dr. Hartigan has given a very full history of the diseases comprising the various views held regarding its etiology; but his chief purpose is to support, by a narrative of

clinical cures and results of autopsies, the theory advanced by Dr. Marion Sims in 1848. The position assumed by Sims is, "That trismus nascentium is a disease of centric origin, depending upon a mechanical pressure exerted on the medulla oblongata, and its nerves; that this pressure is the result, most generally, of an inward displacement of the occipital bone, often very perceptible, but sometimes so slight as to be detected with difficulty; that this displaced condition of the occiput is one of the fixed physiological laws of the parturient state; that when it persists for any length of time after birth, it becomes a pathological condition, capable of producing all the symptoms characterizing trismus nascentium, which are relieved simply by rectifying this abnormal displacement, and thereby removing the pressure from the brain."

In cases of trismus nascentium, "one of two things *invariably* exists: either the occiput will be under the parietal, or vice versa, according to the position in which the child has generally been retained."

The treatment evidently suggested by such an etiology is a postural one that will relieve the pressure upon the contents of the cranium.

Dr. Hartigan criticises all other theories of the production of this disease, so that the reader has every opportunity to form his own conclusions; at the same time, he has advocated his own views so strongly as to convince any impartial reader that displacement of the cranial bones is an important, if not the only, factor in the production of trismus nascentium.

Allen's Human Anatomy, Section VI.—Organs of Sense, Organs of Digestion, and Genito-Urinary Organs. By HARRISON ALLEN, M. D.; Professor of Physiology in the University of Pennsylvania, etc. Phila., Henry C. Lea's Son & Co.

We are sorry that the section of this work now before us does not attain to that degree of excellence which former numbers entitled us to expect. At the present time the market is full of illustrated medical works which can merely be regarded as medical picture-books, and only approach accuracy sufficiently near to make them liable to mislead the student who examines them. One or two of the plates in Section VI. fall within this category. The organs depicted in the plate are numerically correct, but their relative size and position is quite wrong. We would refer particularly to Fig. 1, Plate c., and Fig. 3, Plate cix., both of which

represent a longitudinal section through the female pelvis. If the length of the uterus be three inches, then, upon the same scale, the conjugate of the pelvis containing this organ measures six inches. Again, in Plate c., the uterus is represented as vertical in the top of the vagina, as a cork is in the neck of a bottle, and the urethra as extending almost to the crest of the symphysis pubis. We hope that in subsequent editions these errors will be corrected, as they mar what might otherwise be a valuable work.

Encyclopedia of Medical Wit, Humor and Curiosities of Medicine.

The undersigned proposes to publish during the coming year a large volume under the above or a similar title.

In this undertaking he respectfully solicits the kindly aid of the profession. Witticisms, and anecdotes of a humorous or curious nature are solicited. There are numberless unpublished experiences that would prove a source of amusement and instruction, and all physicians, druggists, dentists, and others supplying original contributions will receive due credit in the work.

Information regarding suitable literature—home and foreign, ancient and modern—will be gladly received, and highly appreciated. The author is especially anxious to avail himself of every source, and would highly appreciate all information concerning publications likely to be useful for reference.

All letters, contributions, clippings, books and other matter should be addressed to JULIUS WISE, M. D., 806 Olive Street, St. Louis, Mo.

Osteotomy and Osteoclasia, for Deformities of the Lower Extremities.

By DR. CHARLES S. POORE, M. D., Surgeon to St. Mary's Free Hospital for Children. Memb. Surg. Soc. of New York, etc. Pp. 183. Appleton & Co., New York.

This volume contains a clear, concise resumé of the subject of Osteotomy as regarded by the most eminent surgeons at home and abroad; but in addition to this, it states in a distinct and conclusive manner the author's reasons for preferring certain methods and rejecting others, so that the student has something definite to lay hold of, and does not go away with his opinion undecided and his mind muddled by reason of a multiplicity of advice.

The clinical cases recorded by him must constitute a valuable addition to the literature of the subject, and of themselves are sufficient to insure a ready acceptance of the book by all who are interested in this branch of surgery.

Text-Book of Pathological Anatomy and Pathogenesis. By ERNST ZIGLER, Professor of Pathological Anatomy University Sub. Translated by Donald MacAlister, M. A. M. B., Member Royal College Physicians, London, etc. Vol. 2, pp. 365. Wood & Co., N. Y. A. L. Bancroft & Co., San Francisco.

These three volumes constitute the July, August, and September numbers of Wood's Library, and are well calculated to maintain the reputation that former numbers have gained for this series of works. All the volumes now before us are produced by men who are so well known to be peculiarly fitted for the task they have undertaken, that further recommendation is unnecessary to insure their careful perusal by members of the profession.

Text-Book of Medical Jurisprudence and Toxicology. By JOHN REESE, M. D., Professor of Medical Jurisprudence, University of Pennsylvania, Vice-President Medical Jurisprudence Society, Philadelphia, R. R. Pp. 606. Blakiston & Son, Philadelphia.

This work is adapted to the use of students and others who are interested in this study. It is not intended to supplant the more elaborate treatises which form our standard authorities for reference, but rather to give a preliminary knowledge that will enable the reader to comprehend more readily these larger works. We do not know of any similar work of its size that is more likely to repay the student for the time spent in reading it.

Hand-Book of the Diagnosis and Treatment of Skin Diseases. By ARTHUR VAN HARLINGEN, M. D., Professor of Diseases of the Skin in the Polyclinic, Philadelphia, etc., etc. Pp. 277. Blakiston & Son, Philadelphia. Bancroft & Co., San Francisco.

The general practitioner will find this little work of great value, as it is of easy reference, and concise in its descriptions of symptoms and treatment, without being superficial.

Henke's Atlas of Surgical Anatomy. Translated and edited by W. A. ROTHACKER, M. D., Pathologist to Cincinnati Hospital, R. Published by A. E. Wilde & Co., Cincinnati.

This atlas contains eighty-one plates and more than one hundred figures. We can recommend it both to the surgeon and student of anatomy, as a valuable addition to their library.

Wood's Library—Malaria and Malarial Diseases. By GEORGE M. STERNBERG, M. D., F. R. M. S., Major and Surgeon U. S. Army, Member of the Biological Society of Washington, late member of the Havana Yellow Fever Commission of the National Board of Health, Corresponding Member of the Epidemiological Society of London, R. R. Pp. 329. Wood & Co., N. Y. A. L. Bancroft & Co., San Francisco.

- Diseases of the Throat and Nose, etc.** By MORELL MACKENZIE, M. D., London, Consulting Physician to Hospital for diseases of the throat, etc., etc. Vol. 2, illustrated: pp. 400. Wood & Co., N. Y. A. L. Bancroft & Co., San Francisco.
- A New Method of Recording the Motions of the Soft Palate.** By HARRISON ALLEN, M. D., Professor of Physiology University of Pennsylvania. Pp. 34. Blakiston & Son, Philadelphia. Bancroft & Co., San Francisco.
- Removal of a Piece of Iron from the Vitreous Chamber by means of a Magnetic Needle.** By JULIAN J. CHISHOLM. Reprint from the Trans. of the Med. and Chirurgical Faculty of Maryland, 1884.
- On the Development of Physiological Chemistry and its Significance for Medicine.** By Prof. FELIX HOPPE SEYLER. Translated by T. Wesley Mills, M. A., M. D. Reprint from the New York Med. Journal.
- The Medical Graduate and his Needs.** By GEORGE C. WELLNER, M. D. Pp. 100. George S. Lewis, Detroit, Mich.
- Puerperal or Childbed Fever.** By T. GRISWOLD COMSTOCK, A. M., M. D., St. Louis. Reprint from New York Med. Times.
- Cryptorchidism, with an Illustrative Case** By ROBT. W. JOHNSON., M. D. Transactions of the Louisiana State Med. Society
Transactions of the American Otological Society.

Abstracts and Extracts.

Restorative Effect of Lightning.

A correspondent of the *New York Times*, writing from Port Jervis, N. Y., August 6th, after detailing the peculiar freaks of the lightning in Pike County, Pa., gives the following narrative, which, however, has not been scientifically verified, so far as we have learned.

“Abraham Cuddeback until a few weeks ago was a highly successful and much respected merchant of Damascus, Penn. Engaged in the general merchandise business, he won the respect of all his neighbors, and was doing a nice business. About three months ago, while attending church in his native place, he was stricken with paralysis, and had to be carried to his home. Ever

since that time he has been helpless, and many physicians from New York and Philadelphia have been called in and have striven to give him aid, but all to no avail. His wife has been untiring in her devotions to her husband, and everything that loving care or surgical aid could devise has been lavished upon the sufferer, and he has received no material benefit. About three weeks ago, utterly broken down in health and despondent, the family removed to Matamoras, Penn., directly opposite this village. A physician from this place has been in constant attendance upon Mr. Cuddeback since his removal to Matamoras. During the prevalence of a heavy thunder storm that visited this section of the country yesterday, a huge ball of lightning struck a house very close to the residence of Mr. Cuddeback, and entering the house through an open window, hurled Mr. Cuddeback to the floor from a chair on which he was sitting. He was alone at the time, and after lying on the floor unconscious for some time, his wife came in and helped him to a chair. Restoratives were applied, and Mr. Cuddeback was soon himself again, and the happy discovery was made that he who a few minutes before was almost bereft of all feeling in his limbs, had entirely recovered the use of those members, and was in apparent good health. Another peculiar phase of the case is that Mr. Cuddeback had no appetite a few weeks previous to this time, and after his strength and senses were restored he was taken suddenly hungry, and now has his accustomed appetite. The case is attracting considerable attention among the medical fraternity, and the many friends of the family in this vicinity are showering their congratulations on the happy pair for the recovery of Mr. Cuddeback's faculties and strength. The case is to be fully investigated by the physicians who have had charge of this most remarkable case."—*Electrician and Electrical Engineer.*

Treatment of Intestinal Obstruction by Electricity.

Bloch, in *Vratch (Jour. de Med. de Paris)*, gives the case of a patient, 24 years of age, who had not had an operation from the bowels for eight days, and presented an enormous enlargement of the abdomen, with vomiting and hiccough. Purgatives and injections were used to no purpose, when electricity was tried by introducing one pole high up in the rectum, and applying the other pole alternately to different parts of the abdomen. Each application was kept up for from ten to twenty minutes; they

were repeated ten times, four times at intervals of about three hours during the first day of treatment, and twice during the second day. The hiccough disappeared after the first application; the patient had a stool after the fourth application. Professor V. A. Manassein has frequently used this method with success for a number of years, in cases of habitual constipation resulting from atony of the abdominal walls and muscular coats of the intestine.

The Diagnostic Use of Questions.

The judicious use of questioning as an aid to diagnosis is an accomplishment not always easy for the physician to acquire.

We remember hearing an eminent clinical teacher, now deceased, ask a patient, before a class, regarding the possible hereditary nature of his disease. The colloquy was somewhat as follows:—

“What did your father die of?”

“Don't know.”

“Did he ever have shortness of breath?”

“Think he did.”

“When?”

“Just before he died.”

“Do you know whether he had consumption?”

“No, I don't.”

Several more questions were asked, with no success in elucidating the point of heredity. Finally, in despair, the professor said:

“How old was your father when he died?”

“One hundred and two.”

The Modern *Via ad Astra*.—A Medical Fable.

Once upon a time a poor but humane physician was riding along a road which led by a dark forest, when he saw by the wayside a sick and miserable dog which had lain down to die. Moved with pity he got down from his carriage, picked up the poor animal tenderly, and gave it some food and drink. Suddenly the dog vanished, and he saw standing before him a beautiful fairy.

“You have saved me from a miserable doom by your compassion,” she said. “Command now anything you wish and it shall be yours.”

The astonished physician replied, “I am a poor man. I should like to be rich.”

The fairy waved her wand, and extended to him a piece of pa-

per, and a bottle filled with a dark-colored fluid. "Here," she said, "is a prescription for an Infallible Compound Hair-Restorer. It will never fail, and it has been indorsed by all the leading clergymen on both continents. The world is yours! Do you wish more?"

"I am a quiet man," replied the doctor, "and little known. I should like to be famous."

"You shall be more; you shall be immortal." Waving her wand again, she presented to him a small, dark, and curiously shaped instrument. "See," she exclaimed, "it is a new and 'Unquestionably Perfect Pessary.' It radically restores every malposition. Your name is blown into the side. Generations of suffering women and successful doctors will read, and bless you. I have tried it myself," she added, blushing a little, and vanished.
—*Boston Med. and Surg. Jour.*

Decorations of Medical Men.

It must seem as if our foreign brethren *must* have decorations of some kind, to judge from the letter of a correspondent of the *Medical Press and Circular*, who tells us that one of the guests at the reception of the King of Denmark, at Christiansberg, during the meeting of the International Medical Congress, wore upon his breast the proud shield of "a bicycle club." The American delegate comes in for his share, however, in the retort said to have been made by the King, in reply to the assertion that "in America we are all Kings." "I am glad to meet a brother, all in the same business." Old, but still good and applicable.

Relations of Ovulation and Menstruation.

1. Ovulation and menstruation may each occur independently of the other.

2. Ovulation is an irregular but constant function of the ovaries; while menstruation is a rhythmical function of the uterus.

3. Graafian follicles mature and rupture at any time, without any necessary connection with menstruation.

4. Menstruation may persist regularly without interruption, or may temporarily suspend and resume its regularity after the removal of both ovaries.—*Dr. Reeves Jackson in the Journal of the American Medical Association.*

PACIFIC
Medical and Surgical Journal
—AND—
WESTERN LANCET

VOL. XXVII.

DECEMBER, 1884.

No. 6.

Original Articles.

**ANNUAL ADDRESS READ BEFORE THE SAN FRANCISCO
COUNTY MEDICAL SOCIETY, OCTOBER 28, 1884.**

By JOHN F. MORSE.

MR. PRESIDENT AND MEMBERS:

It is almost incredible that the earth has made its revolution three hundred and sixty-five times, since last we met to announce the commencement of another year of our existence, the beginning of another cycle of revolutions, at the end of which we are already standing, eager to pass on to the construction of the next link in the incomprehensible, endless chain of time. It is only when we try to count the memorable data, to add up the events of the year it is ours to recall nevermore, that we recognize, both the incapacity of the human mind to conceive the magnitude of time, except by means of objects placed at certain intervals from one another, and its helplessness in determining the awful meaning of eternity, which swallows up our little deeds, evanescent landmarks of time, and ultimately relegates them to oblivion.

In the laborious and time-consuming struggle of the medical man, not alone with disease but also with the unworthy members of his profession, and the prejudices, ignorance, bigotry, cruel misrepresentation—more than all, with the base ingratitude of a large

portion of the laity—few moments are spared him for a comprehensive review of the enormous field of study which has accumulated during the year. It is, perhaps, impossible for any practitioner of medicine, however gifted, brilliant or active he may be, to mentally encompass the annual contributions to a science which has, within the last decades, grown into such enormous proportions.

If we consider the subdivisions of medicine necessitated by a constantly tremendously increasing literature, and the evolution of elaborate systems of scientific laboratory work, demanding exquisite technical knowledge, we must own our inability to do it all.

Can we help but feel the most bitter disappointment, when we think of the utter and absolute impossibility for us to follow the smallest part of the literature, investigations, and experiments of modern physiologists!

We are with difficulty able to collect from the mass of theories, facts and discoveries, the most superficial axioms; so intricate has become this branch of our art. In support of these statements, allow me to recall to your mind the involved chapter of physiological chemistry, the one on physiological optics, the one on hæmodynamics, the fearful difficulty that is encountered in the mastering of the most trivial portion of the physiology of the brain and the nervous systems; and these all are only departments of the whole, but drops of water, but grains of sand when compared with the wide desert or the expansive ocean of learning of which they form a part.

Again, how many of us are able to spend the hours that are necessary to acquire and retain in our memories the minute anatomy of the body, or learn the elaborate mechanism of a modern microscope, the neat and laborious task of preparing, staining and mounting specimens for examination! There are certainly few of us who can afford to pass days in a dissecting room, enthusiastically seeking out anomalies, and tracing differences in the course of arteries, veins, and nerves.

How is it possible to understand much about pathology, without constantly accustoming the eye to the appearances of morbid tissues and growths, or without a complete knowledge of the art of cultivation of germs and animal experimentation! But a continuation in this direction would consume too much time, and enough has already been said, to render apparent the obstacles which must be met in an attempt to crowd into a short annual address, a resumé of the year's doings in medicine.

I will not make it, but will draw your attention to a few of the most prominent, perhaps the most important communications in a practical sense.

First of all comes Joseph Lister, who reports seven successful cases of wiring of fractured patellæ. He strenuously advises this method of treatment, of course, with accurate observation of the antiseptic procedure. The operation is not a new one, but an indorsement from such a source is of great importance. It is an interesting fact, that at the meeting in which this article was presented, the priority was granted to the late Dr. E. S. Cooper of this city, who was the first to make the operation.

In view of the wide-spread practice which has become current within the last few years, of resecting joints, especially the tuberculous joints, it is well to note the reaction which probably commenced with an article of Prof. Albert of Vienna, published in the "Wiener Presse," and culminated in Prof. Koenig's report to the last German Surgical Congress. He states that in a number of cases of tubercle of the joints, which are operated upon, general tuberculosis appears, either as a mediate or immediate result of the operation. He believes in an operative, infectious tuberculosis, and in view of the above thinks it not advisable in deciding whether to operate or not to operate, to disregard the question of the danger of a general infection, as possibly by resection we make more people tuberculous than we save from tuberculosis.

Koch's admirable work has been so extensively noticed, both in journals and medical societies (our own included), that it is unnecessary to enter into its discussion. If, after reading his report to the Kaiserliche Gesundheitsamt, there are any of us still too sceptical to allow him the honor of having fathomed the etiology of cholera, they must, at least, admire the courageous efforts of Koch, who, in the cause of science, voluntarily subjected himself to the dangers of three epidemics; not like King Humbert who took good care to profit by modern experiences, and have even his drinking water imported, whose wonderful deeds are extolled to the skies by a venal, ignorant press, and a still more ignorant rabble, which assaults the physicians in their endeavors to assuage the sufferings of the afflicted.

We must not neglect to speak of Pasteur. He has not ceased his labors, but has again aroused our interest by the results of his experiments with the virus of hydrophobia. Pasteur has finally succeeded, by successive inoculations of the virus of hydrophobia

in different species of animals, in obtaining a different, but for each species constant, period of incubation of hydrophobia. He obtained at the same time, by the passage of the poison from one species to another, either a stronger poison, that is one with a shorter period of incubation, or a lighter, with a longer period of latency. When the latter is inoculated into animals of the first variety, it makes them refractory to the poison belonging to them. Thus an inoculation can be made from the dog to the rabbit, and further successive inoculations from one rabbit to another, until a point is attained at which the poison for rabbits remains constant. It is then that an intensely acting virus, with a period of incubation of eight or nine days, is obtained. On the other hand, the period of incubation is prolonged by passage from the dog to the monkey. If, now, with the poison of the latter, a dog is again inoculated, he will not only cease to be mad, but has as well gained an immunity from the poison of his own species. For rabbits, the period of incubation, which for the first one inoculated lasts about fifteen days, becomes reduced to eight or nine days, when the constancy of the virus has been obtained by about twenty-one successive inoculations, from one animal to the other.

There is only one method of inoculation, namely, by trepanation of the skull and injection of the poison under the dura mater. All other injections, subcutaneous, intravascular, etc., give uncertain results.

The virus is situated in certain portions of the brain and spinal cord, especially in the medulla oblongata. A specific microbe has not yet been discovered. For more information in regard to this matter, I refer you to the reports of the proceedings of the late International Medical Congress held at Copenhagen.

This is the proper place to notice the reported discovery by Zoellner of an erysipelas, by Friedlander of a pneumonia bacillus.

The forced feeding in phthisis, introduced by Debove of Paris, should not be passed over without comment, because anything we can devise or discover that gives us the slightest cause to hope for a successful method of treating those poor individuals who are damned to lead the living death of a consumptive, should be the most welcome addition to our arsenal of weapons against disease.

The method consists in passing a stomach tube into the stomach and forcing it full of large quantities of meat, dried or pounded, butter, eggs, etc. It is claimed that the patients not only stand the treatment, but are greatly improved by it.

Finally, let us advise all mothers who have children born prematurely, to purchase one of Tanier's Incubators.

Before passing to local matters, of more direct interest to us, it is our duty to mourn the loss of five men, whose deeds have, to physicians, become as familiar as their own. As cosmopolitan Americans, we should cherish and reverence the names of all five; but, as countrymen, our hearts are filled with sadness at the death of our two most eminent medical men, J. Marion Sims, the father of modern gynæcology, and Samuel Gross, the greatest American surgeon.

With Germany we feel most keenly the loss of the great anatomist Reichert, and of the famous pathologist Cohnheim, whose writings on inflammation and theory of the etiology of tumors are far too well known to need mention here.

Not alone the Austrians, but the world, has suffered by the death of the celebrated ophthalmologist, Jaeger of Vienna.

To the mournful list of renowned physicians who have departed this life, it is no more than just to add the names of Dr. Willard Parker, a prominent surgeon and clinical teacher of New York, and Dr. Woodward, late United States surgeon, who has built for himself a lasting monument by his work on the "Medical and Surgical History of the War of the Rebellion."

Lastly, it befits us to pay an earnest tribute to the memory of the Scotchman, Alexander Wood, of Edinburgh, who will always be remembered as long as there exists a hypodermic syringe and a method of administering drugs by means of it.

Members, we have much to congratulate ourselves upon, when we consider the progress of the San Francisco Medical Society during the past year. This is particularly apparent, when we recall to our minds the doubts and fears with which we watched the approach and witnessed the arrival of the new year. Being one of the forlorn hope of physicians who pledged themselves to be regular in attendance, I may be justified in giving vent to the feelings of shame and remorse we all experienced, that in an organization composed of over one hundred members, some ten or more must give their word of honor to attend the meetings, in order that the society should not altogether pass out of existence! Yet such was the case! A medical society which has counted and still does count among its members the most well-known physicians of the city, a society with a treasury overflowing with wealth, could not, during five or six months of the year preceding the

last, arouse a sufficient number of members from their lethargy and selfish indifference to constitute a quorum.

In pleasing contrast to such a state of affairs, we are able to note that for the year past we have held more than twenty meetings. On two occasions there lacked a quorum, which was unavoidable. There have been as many as thirty members present at one meeting, and during the year we have added twenty-four to our list of membership, which is not materially affected by the loss of four members for non-payment of dues.

Through the very praiseworthy exertions of our secretary, and the kindness of our president, the proceedings of the society have been regularly published; and when we come finally to ascertain that \$937.70 has been collected, we may well ask what more is needed to fill our measure of joy. It may appear heartless to check the rising throb of just exultancy, but scepticism and criticism are the two greatest powers in the advancement of everything human. The statement may therefore be allowed, that progressing as we are, we are in need of the very essentials for progress, yes, for existence. There is a want of zeal and enthusiasm among the members, extremely discouraging to those few who have the welfare of the society at heart. It should cease; and probably the best manner of arousing the members would be the judicious expenditure of some of the funds of the society. We have accumulated something over two thousand dollars. It lies idle in the bank, and has, since I have had the honor of being a member of the society, never been touched except for the purpose of paying the debts of a kindred organization, contracted in a desultory and useless warfare against quacks and irregulars. Useless, because such puny efforts as we may be able to exert without the sanction and without the undivided assistance of the people, must fall like the blows upon Antæus, whose strength gained with each fall he received. How can we hope for it, after the example which has been set our credulous countrymen, by the illustrious prime-minister of the best regulated country in Europe! No, brethren; bear in mind the words of the temporary chairman (the late Dr. J. F. Morse) of the convention called to form a State Medical Society: "The principal object of the convention was the organization of a State Medical Society, embracing all of those details in its structure which, when executed, would tend to advance the true and legitimate interests of the profession. Of the necessity of such action on their part there could be no doubt,

but that the profession had been driven to it from a necessity to combine to override empiricism (as had been stated by portions of the press) was a position he, for one, could not admit. The object of the movement was to cultivate a fraternal feeling, and develop in the highest possible degree those scientific truths embodied in the profession. If, by so doing, they should bring up empiricism in unfortunate contrast, the fault was not that of the profession."

As long as the people are not educated enough to distinguish between true practitioners of medicine, homœopaths, and eclectics, who are worse than quacks, in that they prostitute their honest manhood by adopting a name, as a catch-penny, while they employ the methods of regular medical men, we are impoverishing ourselves for nothing, in maintaining a struggle from which we must finally retreat with our purses emptied and our snow-white banners of professional integrity dragging in the dust; laughed at and scoffed at by a victorious band of filthy wretches, robbing the blind and indifferent public.

I do not mean by all this to speak disparagingly of the gentlemen who have endeavored to suppress quackery. Their efforts are deserving of the very greatest recognition it is in our power to bestow. The intention is, to persuade the society from spending any more of its means in a contest which is sure to be crowned with defeat, while it is in need of many things to revive its ebbing vitality, and rescue it from an unseemly end.

The opinion has been repeatedly broached, that it is time to do something for ourselves, and there is no better place than this to renew the petition that we may have a home of our own, accessible to us at all times, a library of our own, and the principal medical journals of the world. It can all be done, and sustained in all probability without depriving our treasury of a farthing, simply by the proper administration of our annual income; and if we do not adopt some such course, we may assuredly look forward, if not to the downfall of the San Francisco Medical Society, to the same apathy in regard to its affairs.

**VALEDICTORY ADDRESS TO THE GRADUATING CLASS
OF COOPER MEDICAL COLLEGE, OCT. 31, 1884.**

By J. O. HIRSHFELDER, Prof. CLINICAL MEDICINE.

GRADUATES IN MEDICINE :

The Faculty of Cooper Medical College has honored me with the pleasant duty of addressing its parting words to you. During the years that you have been with us, we have striven to instruct you in the mysteries of medicine; and that we consider our self-imposed task to have been accomplished, is evinced by your presence here tonight as recipients of the highest gift it is our privilege to bestow. Your Alma Mater for three long years has nursed you in its loving arms, has lavished upon you its tenderest cares, and tonight she clothes you, her beloved children, in the toga of virility. With just pride she looks back upon the pathway over which she has led you, and upon the rich fields in which you have reaped with her aid the golden harvest that stocked the storehouse of the mind. Nor has the road over which we have traveled always been as pleasant as that which lies before us this evening; no flowers have been strewn over the path, and no applause of kind friends and sounds of sweet music have stirred you on. Silently you have labored; toilsomely have climbed the rugged steps that lead to the temple of medicine which tonight you are entitled to enter.

Tonight you become the consecrated priests of Nature, clothed in the garb of wisdom, about to set forth upon your mission of mercy. And as we extend to you the hand of farewell, we beg leave to give you some parting instructions to guide you aright in the unknown sphere you are about to enter. From this moment the hours of your tutelage are over; you become your own masters and your own teachers. No roll-call will register your fidelity, and no examination will testify to your diligence; but your remissness will be marked by the silent tomb, and your triumphs on the hearts of those you will have restored to health and happiness.

Forget not that, however much you may already have learned, you are, as the name of this occasion indicates, but at the commencement of your labors. The science of medicine is so vast that a single mind can barely grasp all its details. It behooves you, therefore, to work incessantly; to work with the ardor of

the devotee, not with the lukewarm heart of the bread earner. One little fact unknown may cost the life of him who, confiding in your skill, trusts to you; and if that ignorance have been avoidable, duty holds you morally responsible for the crime.

Minerva is a jealous goddess, and grants not her favors to those who give her but lip-service. Do not forget that the caravan of progress is hurrying unceasingly onwards; that he who loiters by the wayside will soon find that he has been left behind. It is your privilege to live in a century in which the most wonderful advances have been and are being made. The theory and the practice of medicine are no longer what they were when your ancestors went to school. No longer do we look upon disease as an external entity that enters the body and takes possession of the citadel of life. Disease is not a devil to be exorcised, but rather an inharmonious action of organs, which must become attuned to one another in order that health may return. We have learned to lift a corner of the mystic veil, and catch a glimpse into the wondrous human frame. We no longer search the constellations and the planets for the symbol that shall bring tidings of sorrow or of joy. We hear the ticking of the clock-work within us, we feel the pulsations of the blood current as the stream hurries on, carrying in its bosom the pabulum of health or the germ of disease. We listen to the songs of the air as it enters the labyrinth of the lungs, from the gentle murmur of health, like the rustling of leaves by the summer zephyr, to the hiss that reveals the lurking serpent of consumption. Our horoscope is drawn, not from the reading of the stars, but from the tracings of the sphygmograph, the rise and fall of the thermometer, the whispers of the stethoscope, the revelations of the magnifying glass and the test tube.

We have learned to question not only the living, but also the dead; have forced the reeking cadaver to tell us the sad story of human suffering and its cause. The revelations of the postmortem table have shown us what we can do, and what we cannot. They have destroyed our blind faith in the powers of drugs, but they have taught us where we may cure—where we can but alleviate—where we are powerless; and from the ashes of the dead has arisen the spirit of rationalism.

Much as we have been taught by the study of the dead body, it, alone, could never have carried medical science from the mires of ignorance in which it had wallowed for centuries. Not ages of

inquiry into the construction of the violin could have given us the faintest conception of the rhapsodies of a Paganini; and however much we might know of the anatomy of the body, that knowledge alone could never teach us how it acts. It remained for vivisection to solve the mysteries that anatomy had revealed.

Medicine of today owes its proud position to the secrets wrung from tortured frogs and dogs. The triumphs of the physiologist have become the triumphs of the physician, and every animal sacrificed on the altar of science has saved a suffering mortal from pain and death. The scientist, who reads the laws of life in the quivering entrails of an operated animal, is actuated by no feeling of cruelty. Brutality dwells not in the heart of the student of Nature; and in the groan of the animal he hears but re-echoed the cries of suffering mankind. Let blue stockings and sentimentalists turn their eyes from the laboratory of the physiologist to the hovels of their fellowmen. Let them wipe the tear of the suffering—let them feed the hungry, and clothe the naked; and when human suffering and human woe shall have been banished from earth, then may they grasp the arm that is raised to immolate an animal in order to rescue a fellowman.

The course of tuition through which you have successfully passed, has embraced three years of attendance upon medical lectures and clinics. You have had the advantages of ample dissecting material, and most excellent opportunities for practical work in a finely appointed chemical laboratory. Your clinical facilities have been most extensive, and as great as those enjoyed in the largest cities. Over two thousand cases have been yearly shown to you in the dispensary clinics alone, besides a large number that you have seen in the wards of the City and County Hospital. Almost every type of disease has been presented to you, and rich opportunities have been offered you for familiarizing yourselves with the class of ailments you will be called upon to treat in your professional life. While your teachers have not ignored your scientific training, it has been their chief purpose to make practical doctors of you. The cases you have seen you have not been compelled to look at with opera glasses from a distant seat of an amphitheatre. It has been your privilege to examine them carefully and closely. You have personally discovered the symptoms present; have yourselves made the diagnosis and under the guidance of your teachers have discussed the methods of treatment. To all intents and purposes during your

senior year, you have been practicing physicians. We send you forth tonight, not inexperienced and green from the lecture-room, but practically familiar with the recognition and treatment of disease, although your colleagues who have studied in the large medical centres of Europe may be more thoroughly instructed in the cognate sciences.

America is a young country, with the virtues as well as the vices of youth. Utilitarianism is at the same time our strength and our weakness. We are not hampered with the moldy traditions of the past, nor with that conservatism which clings to the old, because it is old. But in the temple of liberty which we have erected upon this western hemisphere, we have built no fit habitation for the priests of science. We are, unfortunately, too apt to value scientific attainments for the immediate benefit we can derive from them, and not for their intrinsic worth. It is not strange, therefore, that with us the scientist and the scientific pursuits should be somewhat neglected; and it remains for the coming generations to make amends for the neglects of the past.

But if our institutions have not yet reached the stage of perfection they have attained in the old world, the future before us is none the less bright. In all departments of human activity, America has proven to the world that she accepts no position but the foremost. In commerce, in mechanics, and in inventions, she has wrested the palm from the other nations of the globe. And I doubt not in the years to come, the victories of science will likewise be hers. Young as is our nation she can already point with just pride to many of her favorite sons, whose names have been hewn in adamant letters upon the monument of fame; whose memories will be revered by the generations to come. The genius of the American people recognizes no insurmountable obstacles. Let its attention once be as vigorously directed to the sciences as it has been to the mechanical arts, and we shall see that the revolutions it will bring about in the one sphere will be as great as they have been in the other. To accomplish this end we require institutions like those of Europe, with wealth and equipments, such that our scientists may labor undisturbed by the fear of starvation. There is no doubt that the great discoveries of medicine have taken their origin among the earnest and patient workers of the old world. Institutions under the protection of the government with large subsidies, make it possible for men to devote their lives to abstract scientific pursuits; and the emol-

uments of the positions, and the respect considered the due of these great men make their labors profitable and pleasant. Were the Helmholtz, the Liebig, and the Virchows of Germany compelled to earn their bread in the practice of medicine, I doubt that their great discoveries would have been made.

A step in the right direction has already been taken. The Johns Hopkins' University of Baltimore has been established—equipped with perfect apparatus and extensive laboratories, and its richly salaried professors are asked only to labor for science. But we need more. Throughout our broad country chairs should be munificently endowed in our institutions of learning, that they may become scientific centres whose influence will be felt, not only in the new truths revealed, but more in the germs of thought they will spread broadcast through the land.

But you graduates in medicine, who tonight enter the ranks of the profession, you, likewise, have your duties to perform. Each of you, however humble, will, during his career, be able to contribute his mite to the stores of learning. Make notes of what you see and hear, and when you will have observed something new, let it become the common property of mankind. We have no secrets in medicine, and each gladly gives to all the knowledge he has acquired.

The life that you will have chosen when you enter upon the practice of medicine is, in many respects, not the most pleasant. A wise man has said, "If your son desire to become a physician, dissuade him; if he still persist, reason with him; if he yet be obdurate, implore him; but if nothing turn him from his purpose, give him God's blessing, for he will surely need it."

No sounding of trumpets or booming of cannon will reveal to the world that a new doctor is born; only a little sign on the door-post. Doctors are many, you soon think, and patients few. Anxiously you will wait, and it may be you will become disheartened. But be of good cheer. Those who have gone before you have fared no better, and soon it will be your turn to taste the bitter sweets of a busy practice. For you there will be no hours of rest, no times of recreation. The call of the sick will summon you from your pleasures, and the cry of the suffering arouse you from your slumbers. At all times and in all places they may follow you. And, when with devoted care you will have ministered to the afflicted, it may be that the destroying angel of death will rob you of the life you had striven to save. It may be that in-

stead of the gratitude and thanks your self-abnegation would merit, recrimination and ingratitude may be your portion. Perchance the death that was the inevitable due of nature outraged, may be ascribed to your lack of skill. These are moments that sorely try the faithful heart, and sour the milk of human kindness. But be steadfast in the knowledge of your righteousness, and if the little voice in the breast but whisper your acquittal, all will be well.

On the other hand, when success will have crowned your efforts, when you will have turned back the grim destroying hand, and fanned to radiance the flickering flame of life, yours will be the triumph and the glory. In the bright glance of the thankful eye and the warm pressure of the strengthened hand, will you find your rich reward. To you the anxious mother will turn in her distress, will read in your countenance the dictates of fate; in her eyes you are the all-powerful agent that can call back to health her disease-stricken child. The husband and the wife will eagerly await your coming, and catch the words that drop from your lips as you leave the sick-bed, thankful for each sign of consolation. The sick man will long for your footstep, and your presence will inspire him with hope. To them you are no longer the man they are accustomed to meet in the daily walks of life. A halo of mysticism surrounds you, and in their eyes you hold the scale of fate in your hands, able to turn the balance to the one side or the other.

In the practice of your profession there are many points that you will have to learn for yourselves. By far the larger number of cases you will be called upon to treat in the ordinary routine of practice are not necessarily fatal—they would get well of themselves. All that is necessary for the physician to do is to make the patient as comfortable as possible, to diminish the suffering that is the natural accompaniment of disease, to arrange the surroundings so that the disorder may pass off in as short a time as possible. In other words, in these cases it is more necessary to treat the patient than the disease. To a very great extent your success in life will depend upon the skill with which you manipulate these trivial cases. Remember that your patient does not view his troubles from the objective standpoint that you do. A sore throat, which you know will pass off without medical treatment, represents to him not the pathological condition that your medical eye recognizes, but a fever that harasses him, a pain

and a discomfort that he feels. These you are called upon to mitigate, and the more skilled you are in the management of these scientifically unimportant disorders, the more will you be rewarded with the thanks of your patient. Try to put yourself in his place. Some one has said that in order to be a good physician, one should himself first have been a patient. Your patient is not merely a case, but a suffering individual, who, as such, requires your sympathy. I do not mean, however, that you should cry over him, as is the custom of one of the quacks of our city. If you would succeed, show him, and especially her, that you are interested in the troubles before you; that all your capabilities are being called upon to bring relief, and that while not disposed to exaggerate the symptoms, you do not underestimate them.

But as you well know, a certain proportion of diseases do not run so favorable a course. There are many cases where all will depend upon the skill which you bring to bear upon the treatment. Here you are more than the sympathizer and the alleviator. Here you may be the rescuer. The patient does not know whether his disorder is one from which he would recover without medical treatment or not, and it is your duty in every case to examine him most carefully, so that your diagnosis may be as correct as possible. Examine your patient from head to foot, and ignore no symptom however trivial. We, physicians, have much to learn in this respect from the lawyers, who as a rule, enter more fully into the cases presented to them than is usual in our profession. Doctors are very apt to become routiners, and it is by far too much the custom to hear what the patient has to say—to look at the tongue, feel the pulse, and write a prescription.

We should learn to cross-examine our patients; to hunt for facts which they either forget, or willfully hide from us. Do not enter upon the examination with preconceived notions. Do not seek to find what you expect to find. Use the various aids to diagnosis—the chemical as well as the physical—that science has given you, but above all use your good common sense. With the greatest possible care there will be a certain number of cases whose mystery you cannot unravel, but that number will be small in proportion to the thoroughness of your investigations.

In your relations to your patients be gentlemanly and courteous; avoid undue familiarity, and remember that they will have confidence in you only so long as they respect you. Be honest with your patients and do not deceive them. Of all crimes, dishonesty

in a physician is the most despicable, for it is a gross violation of a sacred confidence. You will enter into the most intimate relations with your clients; things will be revealed to you that no other eye is to see; words will be spoken that no other ear is to hear. Therefore, most scrupulously guard the secrets that may be entrusted to your safe-keeping.

In your relations to your colleagues be guided by one maxim: "Do unto them as you would that they should do unto you." The code which you hear so much discussed at present is but the elaboration of this golden rule. You need not be told that when you are in consultation with a fellow practitioner you are to abstain from all words and all acts that would lessen his value in the eyes of the patient. You need not be told that it is improper to cast slurs upon his professional standing, or to bear tales that would injure his reputation in the community. From all such conduct the instincts of a gentleman will guard you.

When you have left these halls our connection will not be severed. Your Alma Mater will still be the tender mother that fondly watches over your footsteps, and it will be her greatest pleasure when tidings of your success reach her ears.

And now, Graduates in Medicine, your Alma Mater bids you God speed upon your mission of mercy, not like the knights errant of old to destroy, but to save. The dragons you are to vanquish are the dragons of ignorance and superstition; the enemies you are to overcome are the diseases of your fellowmen. Let wisdom be your shield, and the mighty forces of Nature are your weapons.

Pure and unsullied you receive the escutcheon from our hands tonight—pure and unsullied may it pass from your hands when the struggles are over, and the battle of life ends in the silent repose of the tomb.

A CASE OF SUCCESSFUL NEPHRECTOMY.

Reported by **LUKE ROBINSON, M. D., M. R. C. P., London.**

Reuben Wheeler, æt. 34 years. Charcoal-burner; was admitted into Broderis Ward, Middlesex Hospital, Oct. 13th, 1883.

In Dec., 1881, he began to notice pain in the right lumbar region, shooting down the course of the right ureter, to the right testicle and thigh.

These attacks were paroxysmal in character, and uncertain in their onset and duration. He noticed, too, that he occasionally passed small quantities of blood in his urine, but could not remember if these had any synchronism with the attacks of pain.

He went on for some months under medical treatment, in the country district in which he lived (Hampshire), the attacks of pain and hæmaturia occurring at irregular intervals.

He was first admitted in May, 1882, into the medical ward, under Dr. Douglas Powell, with the foregoing symptoms; but under the influence of rest and medical treatment, he so far improved that he was discharged June 12th, 1882. But in November of the same year he was admitted into the hospital, under the care of Henry Morris, F. R. C. S., English Surgeon of Middlesex Hospital, his old symptom having returned with greater frequency and severity than before, causing the most intense anguish.

Mr. Morris decided to cut down, and explore the kidney, and if possible, remove the stone. The ordinary incision was made, and although the kidney was thoroughly explored in front and behind, with the finger tips, and examined in its substance with a sharp exploring needle, nothing could be detected. The patient seemed to be relieved temporarily by the operation, the wound gradually healed, and he was discharged, Dec. 17th, 1882, much improved.

When he resumed work, however, his attacks of lumbar pain and hæmaturia returned as before, and he was re-admitted into the hospital on October 13th, 1883.

Since his last appearance he has lost flesh considerably; passed blood occasionally, and has had recurring attacks of pain in the lumbar, iliac and scrotal regions of right side, the pain not induced or increased by movement, riding in a cab, etc.

Since his discharge from the hospital he has passed several small stones per urethra, causing acute pain in their passage out, followed by but small relief afterwards. During the past month patient's sufferings have been intense, and almost continuous, rendering his existence most miserable. Urine passed in 24 hours, 42 ounces, containing blood and pus, and one-tenth albumen; urea, 1.6 per cent., or .4 per cent. below normal; sp. gr. 1,018, acid.

On October 24th, the patient being put under the influence of ether and the carbolized spray used, Mr. Morris proceeded to make an incision in the right loin, about three inches in length,

extending transversely across the loin, parallel with and just midway between the lowermost ribs and the crest of the ilium. The different structures were divided, until the kidney was reached and recognized. There being now a want of room to explore the kidney thoroughly, an incision about two inches long, transversely to the previous one, and at about its middle part, was made. Space being thus obtained for examination, the operator passed in his fingers and thoroughly explored the front and posterior portions of the kidney, as well as the pelvis, but nothing could be detected; nor did examination with a fine needle, which was made to pierce the kidney substance at various points, reveal anything like a calculus: but so certain was the impression in the operator's mind that there was a stone in the kidney, that he decided to remove the organ. The kidney was shelled out of its capsule by means of the fingers; the ureter and blood vessels were included in a single ligature of carbolized silk, which was applied by means of an aneurismal needle set in a long handle to pass it well down. The ligature was cut short, and the kidney separated with scissors.

The bleeding, considering the gravity of the operation, was extremely slight, and but little oozing occurred after closure of the wound. On examination of the kidney after removal, a stone weighing about 70 grains was found imbedded in one of the calyces in the upper portion of the organ. It was of the uric acid variety, jagged and irregular, and covered in places with phosphatic deposit.

There was considerable inflammation in the kidney substance around the stone, extending to the lining membrane of the neighboring portion of the pelvis of the kidney. The wound was dressed with lint steeped in *ol. terebinth*, and covered with carbolized gauze and protective dressings; a long drainage tube having previously been introduced, which was allowed to protrude through the dressings, and discharge into the gauze charpie.

The patient underwent the operation extremely well, and had but little pain afterwards, which was allayed by morphia suppositories. There was no increase of temperature until the second day, when it reached 101° in the evening, from which time the pulse and temperature were fairly normal, and the wound healed up readily without complication. His urine contained a trace of albumen for several days, and the excretion of urea was, on the average, below normal, viz., 1½ per cent; urine passed in 24 hours averaging above 40 ounces. On the ninth day after the operation,

the patient having been previously restricted to milk and broth diet, was allowed a chop, and on the following day the urine was loaded with one-fourth albumen, and the amount passed in 24 hours was only 30 ounces. The wound healed rapidly, and the patient left the hospital on December 6th, 1883, perfectly well. Since that time he has been entirely free from pain, and his urine has been of normal amount, and void of albumen.

This case presents several interesting features. It corroborates the fact first noticed by Mr. Morris, that if the calculus be placed in the midst of the kidney substance, or in one of the calyces, and not in the pelvis, the diagnostic symptom of pain or movement, jolting, etc., is or may be absent, although all the other symptoms of renal calculus may be present. The temporary relief after the first operation was doubtless due to the fact, that the capsule being stripped off from the kidney, more or less during the examination, severed to a great extent its free nervous supply.

The case also illustrates the great difficulty there may be in detecting a renal calculus, even by direct examination of the organ by the fingers and probe, and strengthens the opinion that, in a case presenting such acute and agonizing symptoms as this did, symptoms pointing directly and undoubtedly to the right kidney, the removal of the organ is justifiable, although no calculus can be ascertained by examination.

It also shows the gradual and complete manner in which one kidney takes on the whole renal function and stress of excretive power; for during the patient's last week in hospital the urea excreted was normal in amount, and the urine free from albumen.

For the daily record of the above case, I am indebted to the kindness of Mr. J. H. Thornton, the very efficient Senior House Surgeon of Middlesex Hospital.

SAN FRANCISCO, Oct. 21st, 1884.

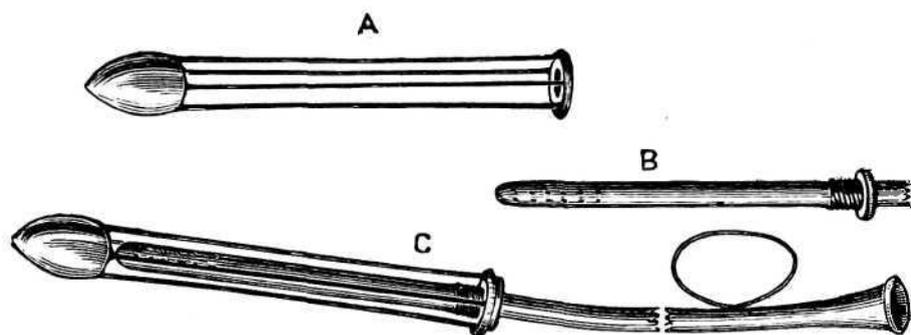
TREATMENT OF CERVICAL CATARRH BY HOT WATER RETROJECTION.

By R. INNIS BROMLEY, M. D.

For some time past I have been treating cervical catarrh with hot water retrojected from the internal os outwards. My plan has acted so nicely, and the results have been so gratifying, that I wish to call the attention of the medical profession to it.

It is observed that when tissues are subjected to the action of hot water, its effects are primarily to congest and secondarily it blanches or renders them anæmic; also, that after tissues have been acted upon for some time they will endure a much higher temperature than at first. If the tissues be examined after its action they will present a shrivelled appearance, and the capillaries will be found to be contracted.

Utilizing this fact, I have invented an instrument by means of which several quarts of hot water can be passed through the cervical canal, from the internal os outwards, without any of it escaping into the cavity of the uterus. I have repeatedly retrojected from eight to ten quarts of hot water through the cervical canal, beginning with a temperature of 115 deg. Fah., and gradually increasing all the time the temperature of the water, until the thermometer often indicated a temperature of 140 deg. Fah. The



point of toleration will of course vary in different individuals. I have found in some instances, when the patient first came to me, that at no time during the retrojection could she bear a temperature of 120 deg. Fah., but after a few visits she could tolerate the water at a temperature of from 135 deg. to 140 deg. Fah.

In two cases of acute cervical catarrh, I succeeded in entirely checking the disease in three days. In a chronic case of some years' standing, the disease entirely subsided in three weeks. In the majority of cases that I have treated by this method, the average duration of the disease was limited to a week or ten days. The astringent effects of hot water seem to immediately modify the severity of the disease. The congestion is readily relieved, the leucorrhœa checked, and the granulating patches about the cervix when present, speedily heal.

I have no statistics to offer at present, but I have had enough experience with this method to demonstrate to me its advantages over other methods of local medication.

The accompanying cut gives a very good idea of the irrigator which I had made for this purpose. It consists of a small wire speculum or fernestrated canula A, and a tube B, the end of which is perforated and made to fit into the portion A, as represented in C. The end of part A is mounted with a solid conical point, which completely plugs the internal os, and prevents the water from entering the cavity of the uterus. There are several sizes of this canula any of which can be adjusted to the same tube B. The tubular handle, extending beyond the main portion of the instrument, is slightly curved, and about six inches in length.

The method that I employ in giving these retrojections is as follows :

The patient is placed on the operating table, a speculum introduced, and the irrigator passed through the speculum well up into the cervical canal. A rubber tube, provided with a stopcock and connection, leads from a tank, and is fitted to the handle of the irrigator. A bed-pan is placed under the patient, or, what I prefer, a rubber pouch provided with a rubber tube attachment. This is fitted over the mouth of the speculum, so as not to obscure the entire view presented through the speculum. The rubber tube serves to convey the water from the pouch to a receptacle. By this arrangement the discomfort of the patient of having to sit over a bed-pan for twenty minutes, or longer, is avoided. A tank with a lamp beneath it is hung on the wall. I usually keep the tank filled with water at a temperature of 115 deg. to 120 deg. Fah., so as to have it ready at any time. When I wish to give the retrojection, the flame of the lamp is raised, the water turned on, and the retrojection allowed to go on until the water is heated to the point of toleration. The lamp is then extinguished, the patient covered over, and allowed to remain while other patients may be attended. When about eight or ten quarts of water have passed, it is shut off, and the irrigator removed. Sometimes I make an application of tannic acid and glycerine to the cervical canal. This process is repeated as often as the occasion requires, usually not oftener than once a day.

As an adjunct to this method of treatment, I usually give the patient some simple tonic, and advise the general plan of treatment that is usually found in the books.

I have observed the following good effects from this method of treatment :

First. The course of the disease is very materially shortened.

Second. The discharge immediately changes from a tenacious mucus to that of a thinner nature, and is soon checked altogether.

Third. The pain is relieved with more promptness than by the use of any anodyne.

Fourth. The leucorrhœa is immediately checked.

Fifth. The sense of weight and discomfort in the pelvis is relieved.

On several occasions I have passed my smallest instrument into the cavity of the uterus, and allowed the retrojection to go on from there with very beneficial effects. Dr. Thomas Bennett, in his work on the Principles and Practice of Gynæcology, makes favorable mention of the use of hot water thrown into the cavity of the uterus for the relief of several diseased conditions, but advises that the cervical canal be first dilated with sponge tents. My irrigator dispenses with the necessity of the previous dilation, as the water finds a ready exit between the wires and the small tube. For this reason I find it a useful instrument in washing out the uterus in the post-parturient state.

HYDROCHLORATE OF COCAINE.

By DR. W. F. SOUTHARD, Oakland.

During the past month several of the eastern medical journals have given more or less extended notices of the new drug, muriate of cocaine, the alkaloid of the leaves of erythroxylon coca, a mild shrub growing in South America. It has come rapidly into favorable notice on account of its wonderful power as a local anæsthetic, especially marked on mucous surfaces. For this reason ophthalmologists have been particularly enthusiastic, since, for many operations upon the eye, chloroform and ether can be laid aside. We have favorable accounts of operations for strabismus, pterygium, iridectomy and cataract on the eye, with scarcely any pain to patient; also the removal of polypi from the ear, by Dr. Knapp of New York. From operations already performed, and from experiments on healthy tissues, it is found to have a particularly good result on all mucous surfaces; on cutaneous surfaces its effects are as yet not determined. That ophthalmologists will find this drug of inestimable value is beyond a doubt. That for

many minor operations on the mucous surfaces it can be used with good effect, is very probable. Its true position can only be determined after more extended use, and the returns are in from a large number of experimenters.

In this article I propose to give briefly my testimony to its value. Unfortunately I have no operations to report made under its influence, since I have had the drug but a day or two; yet I have experimented with it, and these results, with your permission, I lay before your readers. Last Friday I received by mail a small quantity from my friend, Dr. H. A. Bradford of Boston, the introducer of the drug there, and who has an article now in press for the *MEDICAL AND SURGICAL JOURNAL*, giving an account of a dozen or more operations on the eye under its influence. The quantity I received made a solution of thirty-five drops. I used it upon two patients and upon myself.

Case 1. Was upon a patient suffering with erysipelatous inflammation of the lids of the right eye, following an operation on the lachrymal passage. The day following the operation the lids were very much swollen and inflamed, and very tender to the touch, so much so that I could not separate the lids without causing pain. I dropped one drop of the cocaine between the lids, and waited one minute and a half; there was then a decided loss of sensibility. I dropped in four drops during the next five minutes, producing at the end of that time complete anæsthesia, so that I could freely open the lids and inspect the eyeball. I also passed a probe about half way down into the nasal portion of the lachrymal passage without causing pain. I could touch with point of dropper any portion of cornea or globe without any pain to patient. Sensibility returned in one half hour.

Case II. A patient of mine under treatment for ulceration of cornea came in today with a mote in the eye. The eye being very sensitive, I could not remove the foreign body. I used the cocaine, dropping in at intervals of two minutes one drop at a time; at the end of ten minutes eyeball completely anæstheticised, and foreign body removed.

To experience the physiological effects of the drug, I used it upon my own eye, and made notes every two or three minutes. At end of second minute no perceptible loss of sensibility; dropped inside of lower lid another drop; end of fourth minute could freely touch the *lower* portion of globe, but not cornea or upper portion of globe; another drop instilled; at end of sixth minute

insensibility of globe fairly complete; inside of upper lid still too sensitive to touch without nipping the lids. In ten minutes I easily introduced a speculum, and held open lids without trouble. I also touched the cornea freely with end of dropper and pencil, and struck the lower portion of globe with pencil hard enough to hear the blow without feeling it in the least. Also pinched the conjunctiva freely. Pupil in fifteen minutes was two-thirds dilated and astigmatism brought out very decidedly, taking a + 1.50 Dax. 180 deg. to overcome it, and bring out the lines or test cord with distinctness. I found, however, considerable pain in supra orbital region. I have not heard that it affects the head, hence I simply note the condition at the time. Sensibility entirely normal in forty-five minutes. Pupil had not regained its normal size at end of eight hours. The effects of this drug on the ear I found less marked. After dropping into the ear eight drops at two minutes' interval, though there was marked loss of sensibility, I could easily detect the presence of the probe when it touched the membrana tympana. In the nostrils and on the tongue the results bear out those of Dr. Knapp, though in rather a less degree. I presume I did not get the parts so thoroughly under its influence. However, there was nearly entire obliteration of the loss of smell for Lint. Opii, and fumes of iodine, but the lower portion of nostrils became quite numb. I would call the reader's attention to one point in the preparation of this drug for use that may not be out of place. The sample was sent to me with directions to add one drop of dil. muriatic acid to thirty of dist. aqua; this assists in dissolving the alkaloid, but it causes a sharp, burning sensation when applied to mucous surfaces. In children's eyes that would be an obstacle to its use.

Licentiates of the California State Board of Examiners.

At the regular meeting of the Board of Examiners held Nov. 5th, 1884, the following physicians, having complied with the law and the requirements of this Board, were unanimously granted certificates to practice medicine and surgery in this State.

FRANK L. ADAMS, Oakland; Cooper Medical Col., Cal., Nov. 6, 1883.

JEPHTHA W. ALDRIDGE, San Francisco; Cooper Medical Col., Cal. Nov. 1, 1884.

234 *Licentiates of the California State Board of Examiners.*

- SAMUEL J. CALL, San Luis Obispo; Cooper Medical Col., Cal., Nov. 1, 1884.
ROBERT CALLIHAN, Rohnerville; Jefferson Medical Col., Penn., March 11, 1874.
JOHN W. CLINE, Fresno Flats; College of Physicians and Surgeons at Keokuk, Ia., March 1, 1881.
FREDERICK CRANG, Watsonville; Col. of Physicians and Surgeons at Keokuk, Ia., June 14, 1877.
JAMES W. GRAHAM, Los Alamos; Medical Dept. Willamette Univ., Oregon, April 7th, 1883.
JOHN W. HEERDINK, San Francisco; Cooper Medical Col., Cal., Nov. 1, 1884.
P. F. HUBLER, Valley Centre; Medical Dept. Univ. of Pennsylvania, Penn., March 12, 1877.
SIMON HUBLER, San Jacinto; Medical Dept. Univ. of Pennsylvania, Penn., March 14, 1879.
BLANCHE JOY, San Francisco; Cooper Medical Col., Cal., Nov. 1, 1884.
MYRA W. KNOX, Oakland; Cooper Medical Col., Cal., Nov. 1, 1884.
MARY J. MAGILL, Sacramento; Woman's Hospital Med. Col., Ill., April 22, 1884.
ZACHARY T. MAGILL, Nicolaus; Col. of Physicians and Surgeons at Keokuk, Ia., June 20, 1876, and Missouri Med. Col., Mo., March 6, 1883.
JONATHAN T. McDONALD, Livermore; Cooper Medical Col., Cal., Nov. 1, 1884.
WILLARD E. RINEHART, San Francisco; Jefferson Medical Col., Penn., March 20, 1879, and Bellevue Hosp. Med. Col., N. Y., Mar. 1, 1880.
ARTHUR E. VERRINDER, San Francisco; Cooper Medical Col., Cal., Nov. 1, 1884.
ROBERT F. VERRINDER, San Francisco; Cooper Medical Col., Cal., Nov. 1, 1884.

Regular physicians residing in this city are earnestly requested to send their correct address and office hours to this office immediately, for publication in the new Medical Register, in order that it may be in every way valuable as a book of reference.

It is intended that the name and address of every physician in this State shall appear either in the legal or illegal list; therefore, every one desiring to have their names on the right side should make application to the Board of Examiners for a license at once, as there will be but one more meeting (Dec. 3, 1884), before the publication of the Register.

R. H. PLUMMER, 652 Mission Street,
Secretary.

Correspondence.

A LETTER FROM ENGLAND.

LONDON, Oct. 2, 1884.

DEAR DOCTOR: The occurrence of cholera in France and Italy interrupted our projected trip over the continent, but as a compensation, we have an opportunity to see a larger portion of the British Isles than we expected, and more time for observation.

Sight-seeing, of course, occupies a good deal of time, yet I have found many chances for professional improvement, and I trust have been instructed by them, especially in my own special lines of study.

At Dublin I found Prof. Frazer, of the Royal College of Surgeons, doing good work in embryology. He showed me a microtome of a new construction, which I think superior to anything I have seen, although it is susceptible of being simplified and improved. Neither in the Royal nor Trinity College, nor in the Carmichael School of Medicine, all of which I visited, are the conveniences for students in Histology as complete as we have them in the Cooper Medical College. The same remark is true of the medical school at Belfast, and at the Edinburgh University. I was, unfortunately, too late in the season to hear lectures in these places, as it was the beginning of vacation; yet I was everywhere courteously received, and shown into the laboratories, and saw specimens of work done.

I was introduced to Dr. Thomas Keith, of Edinburgh, the distinguished ovariologist, and was invited by him to witness an operation at the Royal Infirmary. It was a double ovariectomy, on a patient about forty years of age. He did not use the spray of carbolic acid, but all the sponges, cloths, etc., were kept in a vessel of hot carbolized water until they were needed. After the ordinary preparations and the abdominal incision, which was slowly and carefully made, the peritoneal cavity was opened, and a large trocar plunged into the presenting sac. From the trocar a long flexible tube led to a large jar, to which an air-pump was affixed, after the manner of a large aspirator. A considerable amount of purulent looking fluid flowed into the jar, as sac after sac of the multilocular tumor was punctured. The pedicle was grasped between the jaws of a large clamp, and removed with the

actual cautery. Great care was taken to remove every particle of debris made by the cautery, and to thoroughly dry the stump before removing the clamp. The tumor proved to be a large dermoid multilocular cyst, containing large plates of bone and much sebaceous matter. As the other ovary showed symptoms of similar disease, it was removed also. The toilet of the peritoneum, and the stitching of the integument, were performed with great care and delicacy, and at the close, to secure perfect apposition of the edges of the wound, a number of carbolized horse-hair stitches were used, in addition to the deeper ones of silk.

The day before, Dr. Keith had removed the entire uterus with a large fibroid tumor, with perfect success.

In London, I have spent considerable time among the practical workers in Microscopy, and was honored with an invitation to address the Queckett Microscopical Club in the university building upon the subject of Graphiology. There were about one hundred present, and from the compliments I have received since, I judge they were pleased.

I had a very agreeable interview with Dr. Lionel Beale, whom I consider to be the greatest living histologist; also, with Sir Spencer Wells. Being vacation, the Samaritan Hospital was not open, but I hope to see Dr. Bantock or Dr. Thornton operate there before I leave the city.

At the International Health Exhibition, the Biographical Laboratory is in charge of Dr. Cheyne, of King's College Hospital, and the Hygiene Laboratory is attended by Drs. Gorfield and Cassal. The former is chiefly devoted to the demonstration of bacteria obtained from Dr. Koch's laboratory in Berlin. Here we saw the various kinds of apparatus and material used in the cultivation of bacteria, and a large collection of the micro-organisms themselves. The pigment-producing microzymes, the yeast torula, the various minute organisms found in milk, the bacillus of tubercle, of glanders, of acute osteomyelitis, of enteric fever, of pneumonia, of erysipelas, of anthrax, and of septicæmia, were shown propagating in the gelatinized material, as well as a number of Dr. Koch's microphotographs of their appearance under the microscope. The exhibition of the parasitic diseases of plants, and the method of microscopic examination of air, water, etc., were also exceedingly interesting.

I have given you in this letter but a glance at the subjects

which have occupied much of my attention since I left home—subjects which I hope to elaborate still farther, and use to some profit on my return.

Yours Truly,

J. H. WYTHE.

A LETTER FROM SCOTLAND.

EDINBURGH, October 3d, 1884.

To the Editor of the Western Lancet :

DEAR SIR : I notice in your columns a short sketch of medical study in Vienna, and several very good points of advice, but it is not to these that the present note is directed.

The writer speaks of the great advantages there are in exposure of the patients, and how much better this exposure is than the "false modesty" of the American patients in the same class.

I am glad to say I attach myself to a minority (which, I regret to say, is daily growing less), a minority which considers that, no matter how much we may be interested in scientific advance in observation of disease, the patient's welfare, is our real object. It cannot be for the patient's welfare, to expose them more than is absolutely necessary. Rather, far, have the "mock modesty" of our American and English women, aye and men, too, than the horrible outré exposure and vulgarity one witnesses on the Continent.

I do not speak as one who has not seen, for I have been engaged in study in most of the great continental universities, and among them, Vienna.

The professor of Venereal diseases in Vienna frequently leaves the patient in a most exposed and uncomfortable position, while he indulges in low personal jokes concerning the unfortunate. In fact, he panders to the taste of an admiring crowd of graduates and students, who smile at his disgraceful remarks.

Can this be good education for young medical men? I doubt it.

[Signed,]

PROPRIETY.

ditorial.

Dr. Henry Gibbons.

On the evening of November 5th, Dr. HENRY GIBBONS the senior editor of this journal, died at Wilmington, Delaware, at his old home and among his friends. The announcement of his death was startling to his friends in California; for, although he had been known to have been in a precarious state of health for a long time, when he left for the East, early in September, he appeared to be particularly well, and likely to be spared to them for a number of years.

Soon after arriving he wrote that he had been unable to do any thing on account of the extreme heat of the weather, which had completely wilted him. This great and depressing change in the climate, and the severe journey across the continent, which is so often underrated, will fully account for his death; but besides this, from his letters we gather that he was ever busy and on the go, seeing old friends or attending some medical or scientific meeting, if his health and the weather at all permitted, not only in Delaware, but often in neighboring States. He was ever laboring and ever active, whether at home or abroad, and accomplishing much at the expense of a limited store of strength.

We were brought but seldom in personal contact with him, except at the meetings of the County Medical Society; but we shall always remember how great an interest he exhibited in the welfare and proceedings of that body; how, when the life of the Society hung in the scale, he was the first to promise constant attendance; how often on account of his feeble health he must have made great exertions to be present; and finally, how seldom an evening passed without his saying something for the benefit and instruction of those present.

Last July, when he proposed that the PACIFIC MEDICAL AND SURGICAL JOURNAL and the WESTERN LANCET should be combined, we gladly accepted the proposition, and hoped to profit by his extensive experience in medical journalism for a long time to come.

Three numbers only were issued when he left on his trip to the East, from which he never was to return. Notwithstanding our sympathy for his friends and relatives in California, we cannot

help thinking that the feeling which is so strong with so many of us, that causes us to speak of the East as our home, was especially strong with him ; and that had he been asked, he would have unhesitatingly replied, that of all places he preferred to die at Wilmington, the scene of his boyhood and his early professional career.

His was a long life, an active life, and a useful life ; and what more can we say, than that he was well beloved and respected by his fellow men ?

On the day following his death a memorial was prepared by his medical friends at Wilmington. This we print, together with a set of resolutions passed by the Los Angeles and San Francisco County Medical Societies respectively, which show very truthfully in what estimation he was held by his fellow practitioners. At a later date a longer memorial will appear in this journal, prepared by one who has been closely connected with him for years, and who, beyond all others, is most fitted for the task.

Respecting the custom of the Society of Friends, to which Dr. Gibbons belonged, and believing that he would have wished it, we omit from the pages of this journal the usual signs of mourning.

In this number we are obliged to chronicle the death of another pioneer in the medical profession of California. We refer to Dr. F. W. HATCH of Sacramento, who was closely connected with Dr. Gibbons, they having both practised at the same time in Sacramento, and both having been at the time of their death upon the State Board of Health. In another column will be found a memorial of Dr. HATCH prepared by Dr. W. R. Cluness, together with the resolutions passed by the Society for Medical Improvement of Sacramento : also a memorial by Dr. H. S. Orme, and resolutions passed by the Los Angeles Society.

The paper on Hysteria which will be found accompanying the Memorial and Resolutions in regard to Dr. GIBBONS was received but a short time before his death, and, as the last medical production from his pen, will be read with especial interest.

**The Memorial prepared by the Medical Friends of Dr. Gibbons at
Wilmington Del.**

Dr. Gibbons was born in Wilmington, September 20, 1808. His father, Dr. William Gibbons, was a physician of Wilmington, having resided here during almost the whole of his professional life, and having been distinguished not only in his profession, but also by his interest in science generally, in fruit culture, and in his relations to the Society of Friends, of which he was a member. Dr. Henry Gibbons was graduated in medicine by the University of Pennsylvania in the year 1829, and immediately afterward opened an office for the practice of his profession in Wilmington. His talents and associations brought him speedily into a large practice, in which he attained an eminent position. Following in the footsteps of his father, he cultivated the sciences collateral to medicine, and frequently delivered popular lectures on these subjects, his purpose being to instruct the community in matters not only interesting, but useful and elevating. During his residence in this city he originated and published for several years a scientific journal, which was conducted with his usual ability. He was also deeply interested in the temperance cause, and was one of its most ardent and fearless exponents; indeed, to such an extent, as at length materially to damage his professional business. About the year 1844, he was invited by a medical friend to engage in practice in Philadelphia, where he remained for six years; when, influenced by the prevailing impulse of the period, he, in 1850, removed to San Francisco, where he continued to reside. In that city he took a prominent position socially and professionally. He became one of the founders of the Medical College of the Pacific, in which he filled the chair of the practice of medicine and clinical medicine, and so continued during his life. He also established and conducted with marked ability the *Pacific Medical and Surgical Journal*, lately in conjunction with his son, Dr. Henry Gibbons Jr., thus affording a convenient mode of disseminating not only his own opinions in regard to the diseases of San Francisco and the peculiarities of the climate of the Pacific Coast, but also the views of other physicians of California, by this means bringing to the knowledge of the medical world much information upon those subjects. Possessed of a retentive memory, a discriminating judgment, a fluent and interesting address, and being a facile and attractive writer, he became prominent in all assemblies with

which he was connected, and held the respect and confidence of his professional brethren in the city of his adoption as he had done in his native place. He was a member of the Society of Friends by birth, and maintained his connection with it throughout his life. During the past few weeks he had addressed that Society several times in their assemblies. His late visit was to this city and the old homestead, now in possession of Henry L. Tatnall, his brother-in-law; and while here he enjoyed the visits and associations of his former friends and of his relatives who resided in the East, with whom, with mind and memory still clear, he delighted to recall many incidents of his youth and early professional life. Age, however, and intense and active application to his profession, as well as the constant use of his pen, left deep traces upon his physical forces; and his sister, in whom he found all the devotion of a mother, saw his energies rapidly wasting, his appetite failing, and the premonitions of the end of life strongly marked. On November 5th he passed away quietly, in the old home of his parents, where his boyhood days were passed, and where, no doubt, he preferred, of all other places on the earth, to close his eyes in death. Both in his profession and in the advocacy of the moral reforms of his day, his life evinced a noble devotion to the welfare of his fellowmen.

Resolutions adopted by the S. F. County Medical Society.

**MR. PRESIDENT, AND MEMBERS OF THE SAN FRANCISCO COUNTY
MEDICAL SOCIETY:**

Your Committee have undertaken the sad duty assigned it, of preparing suitable resolutions on the death of Doctor GIBBONS, with sorrow and regret. This Society has lost one of its founders and warmest friends; the profession its representative journalist, and one of its most honored pioneer members. The Nestor of the Medical Profession of the Pacific Coast is dead! and although having outlived the allotted time of three score years and ten, and having practiced medicine for fifty-five years, from his apparently well preserved condition of health when he left us a few weeks ago to visit his early home in the East, we all looked forward to his return, and that he would still be with us for a few years yet; but the dispensations of unseen Providence otherwise disposed.

Resolved: That in the death of Dr. HENRY GIBBONS this Society has lost one of its most active and useful members; a gentleman of ripe and varied scholarly attainments, and of rare energy of mind and character, whose life has been devoted to the development of science, the advancement and diffusion of medical education, the interests of his profession, and the amelioration of human suffering; whose untiring industry, correct habits of life, strict adherence to the ethics of the profession, kindness and urbanity of deportment in his intercourse with his medical brethren and in the general walks of life, have left an example worthy of emulation; and whose long period of valuable service in the profession and health department, and in connection with the founding of educational institutions, has left a grateful remembrance with the medical men and people of this State, and permanently interwoven his name with its early history.

Resolved: That we feel a sadness at the thought of meeting him at the gatherings of this Society no more; that we shall greatly miss his kindly presence, enlightening voice, and wise counsels in its proceedings, and that we deeply sympathize with the members of the bereaved family in their great and irreparable loss.

Resolved: That the Secretary of this Society is instructed to inscribe these resolutions in the records of the Society, and to furnish a copy to the PACIFIC MEDICAL AND SURGICAL JOURNAL AND WESTERN LANCET for publication.

M. M. CHIPMAN, M. D.

W. F. McNUTT, M. D.

JAMES SIMPSON, M. D.

Committee.

Resolutions adopted by the Los Angeles County Medical Association, November 7th. 1884.

WHEREAS, After more than the Scriptural three score years and ten of a life well lived, our friend, Doctor Henry Gibbons, has in the natural order of God's providence, passed on to that life which lieth beyond: be it

Resolved: That as fellowmen we bear sad and yet glad tribute to the purity and nobleness of the man, while as fellow physicians we give our testimony to the value of the work, which for more than half a century he did in the cause of Medical Science as

writer, as educator, and in the many and responsible official positions, which, during his long and busy life, he was called upon to fill.

To the bereaved family we extend our sympathy.

With him we pray it may be peace.

For ourselves, as we contemplate the calm closing of that life which had been so full of uprightness and of good works, we echo the prayer of the prophet of old: "Let me die the death of the righteous, and let my last end be like his!"

J. P. WIDNEY,

Committee for the Association.

Ordered, that a copy be forwarded to the family, and another to the PACIFIC MEDICAL AND SURGICAL JOURNAL AND WESTERN LANCET, for publication.

Case of Hysteria Simulating Death.

By H. GIBBONS, SR., M. D.

In the summer of 1884, whilst spending the night in the country, and whilst writing in a lower room about midnight, I was hastily called up stairs to see a young lady, the patient of another physician. She was lying on her left side, breathing very rapidly not less than 50 times a minute, and with a running pulse, 150 or more, and very feeble. She was apparently unconscious, and could not be roused. After making the attempt to arouse her and turning her on her back, I again felt her pulse, and found it evidently feeble and more rapid, whilst the respiration was still more frequent and more shallow than a minute previously. I turned to the nurse, and said in a low tone: "She appears to be dying." Scarcely had I whispered these words when the patient gave a deep, gasping breath, such as we often see as a final respiratory effort, and then ceased to breathe. The pulse at the same moment was nearly, though not entirely, extinct. I whispered to the nurse: "I believe she is dead." I immediately instituted movements of the arms on the chest, for the purpose of restoring respiration, continuing them for two or three minutes; but in vain. She lay as if dead; her eyes glaring widely. Placing my thumb and finger on the lids to close them, I felt her wrist with my oth-

er hand, and found the pulse still flickering, and at the same time observed a peculiar movement of the eyeballs under my thumb and finger. This movement was a sudden twitch, barely perceptible, quick as an electric spark, and repeated at intervals of ten or twelve seconds. This singular movement of the eyeballs, together with the persistent, though scarcely perceptible, cardiac action, turned my thought to the suspicion of suspended animation. At this juncture the patient, by a sudden jerk, sprang up in bed in a sitting posture and resumed consciousness—the heart and lungs instantly resuming their normal action. She immediately began to implore me not to let her die, and repeated the request so earnestly and persistently as to lead to the inference that she had heard my whisperings to the nurse, which she afterwards acknowledged.

In tracing the history of this patient, I learned what would have prevented the supposition of death, had the history been known to me previously. She possessed a remarkably nervous temperament, both from inheritance and indulgence, and was subject to hysterical paroxysms somewhat similar to that above described. Being entirely ignorant of this leading fact, it was scarcely surprising that I should have fallen into error when abruptly brought face to face with the phenomena described; for assuredly I never witnessed a paroxysm so simulating sudden death, in a practice covering more than half a century. What significance attaches to the singular twitching of the globe of the eye I cannot say; but probably it is considerable. The case may not be of much importance, but it is presented to the reader for what it is worth. It may at least illustrate the fact that a medical practitioner is never too old to learn, or to hit upon things new to him in pathology.

**A MEMORIAL AND RESOLUTIONS UPON THE LATE
DR. F. W. HATCH.**

**A MAN WHO ALWAYS THOUGHT AND ACTED IN BEHALF OF
OTHERS, A SKILLED PHYSICIAN, A HUMANE GENTLEMAN, AND A
BENEFACTOR OF THE HUMAN RACE.**

At a meeting of the Sacramento Society for Medical Improvement, held in the city on Tuesday evening, the following memorial was read by Dr. W. R. Cluness, Chairman of a Committee of Resolutions:

Gentlemen and Members of the Sacramento Society for Medical Improvement: Our ranks are again broken. One of our oldest, and, I can truthfully say, our most beloved member has been called hence. It is, therefore, fitting that as a Society we should give expression, however feebly, to the promptings of our hearts, and record in tangible form our appreciation of the loss we have sustained. Would that my pen could indite the sentiments of my heart. Would that there were one amongst us who could paint in words a eulogy befitting the occasion, for then would the memory of our co-laborer and friend be written in lines imperishable, and then would a just conception of the true character and real worth be recorded of Frederick Winslow Hatch.

But "it is appointed for all men once to die"; yet when a good man is called from his earthly labors, it is but just to his memory that those traits in his character which command our admiration and respect should be placed before those who are so soon to follow, for thereby they also may be stimulated to good deeds, and the world and all therein be benefited thereby. Each, in his sphere, has his own peculiar work to accomplish, and in accordance with the manner in which he has performed his stewardship, so shall his reward be in this life as well as in that which is to come. The ambitious tell us how their fathers have died upon the tented battle-fields; they paint how they sank beneath the tide of victory; and the billows of honor and glory which encircle the brow of the hero of war are written in poesy and song. But what, to us, are the tints of mourning renown which are so soon mellowed by the pencil of time, when compared with the loss of our friend and our brother? Ours is the profession of humanity; the profession which in all ages and in all climes makes countless thousands daily rejoice; and surely, when he who was the exemplification of this humanity has been gathered in, ripe in years and in honors, it is for us to cherish his memory, and to briefly record the richness of the harvest of his days.

He was born in Charlottesville, Virginia, March 2d, 1822. His boyhood days were passed in Washington, D. C., where his father, an Episcopal clergyman, was Chaplain of the United States Senate for twelve years. But little is known of this period of his life other than that he was of genial disposition, quiet and retiring in his habits, and very studious.

His literary and classical education were obtained at Union College, Schenectady, New York. Here, we learn, he evinced

such an aptitude for the acquisition of his education, and applied himself with such assiduity, especially in his classical studies, that he ranked amongst the first in a large class, and was graduated M. A., with honors, at the early age of 19.

Having determined to study medicine, he at once repaired to the metropolis of the nation, where the largest opportunities were presented for the furtherance of his purpose, and entered the medical department of the New York University. Here his youthful mind fed upon the teachings of a Mott, a Draper, a Revere, a Post, a Payne, and a Bedford, fit educators of a noble and worthy pupil, and he was graduated M. D. March 10th, 1884. While acquiring this part of his education, he has often told me with pride and in reverence that the hopes which had been already warmed in his youthful heart first budded and blossomed, and here did the honey form in the fair expanding bud, whose fragrance this Society has had the good fortune to inhale.

He was married to Sarah R. Bloom in Charleston, South Carolina, June 12th, 1844, and located almost immediately afterwards for the practice of medicine in Beloit, Wisconsin. He afterwards moved to Southport (now known as Kenasha), Wisconsin, where he soon acquired an extensive and lucrative practice, and was regarded as being one of the most competent and reliable physicians. But his great humanity, which was one of his distinguishing characteristics, prevented his accumulating much of this world's goods. Besides, being desirous of fulfilling his mission according to the promptings of his heart, he sought a still wider field of usefulness, and accordingly came to California, landing in Sacramento in the latter part of 1851, where he resided until the time of his death. Here he at once engaged actively in the duties appertaining to his profession, being, in early days, associated with the late Dr. J. F. Morse. But because of his attainments as a scholar and his love of education, he was soon singled out as a representative, and was elected for several successive terms both City and County Superintendent of Schools and member of the Board of Education. Those who are still living and remember him in this capacity, bear willing testimony to his faithfulness in duty, and his untiring efforts to promote education, and to have its importance thoroughly instilled into the hearts of the people.

He was elected Secretary of the State Board of Health March 3d, 1876, and held the position at the time of his death. His labors in this capacity and his reports to the legislature are the best evi-

dences of the wisdom of the board in their selection. They are familiar to all of us, and are monuments of his untiring zeal and energy, especially when considered in connection with the fact that they were written and compiled during the leisure intervals of a large and arduous practice. His ability in the collection of statistics, his choice of words for the recording of his ideas, and the perspicuous arrangement of his sentences, are models such as all may strive to imitate, but few, if any, possess, or may even hope to acquire. To him this faculty was inherent, yet cultivated to a degree of perfection which can rarely be attained. In illustration, let us revert to his address upon the reciprocal relations existing between our profession and the public, or to his "In Memoriam," when the lamented Curtis left us and was laid in his silent tomb. Who will ever forget the beauty of diction, the chasteness of language, and the soul-stirring earnestness in which the lessons of truth and wisdom therein fell from his hallowed lips; and who that has ever read them but feels in his heart that this beautiful world of ours was rendered still more lovely because Dr. Hatch had lived.

But it was not alone in the capacities enumerated that his qualifications were exemplified, for his abilities were as varied as the occasion, and a halo of adornment surrounded his every vocation. He was an active member of our city Board of Health for more than twenty years; was its President for several years; and its efficient Secretary ever since the death of Dr. Logan, eight years ago.

For several years he was Professor of the Theory and Practice of Medicine in the Medical Department of the University of California, and for the past four years was Professor of Hygiene in the same institution. He was likewise a member of the American Medical Association, and contributed many valuable papers, mainly upon hygiene and kindred subjects, which are liberally interspersed throughout its published transactions for the past twenty-five years.

He was also an active member of the American Public Health Association, and regretted exceedingly that his feeble health prevented his attending its late meeting in St. Louis, at which, it is observed, he was appointed a member of the Advisory Council on the 17th inst.

To all who knew Dr. Hatch intimately it is mere superfluity to proclaim his virtues, for his whole life was one of goodness and

active benevolence; but to those who were less fortunate in the enjoyment of a familiar acquaintance, and who, because of his retiring disposition, might regard him as being cold and unsympathetic, it may be said no more unjust estimate could be formed of any man; for he was naturally quiet and unostentatious, but was warm-hearted, kind, generous, sympathetic, hospitable and entertaining to a degree seldom met with. In his relations with his professional brethren he was always kind, courteous and dignified, recognizing all regular physicians as his peers, and never at any time or under any circumstances taking advantage of his own attainments to their detriment. In this respect his utter unselfishness was truly phenomenal. Therefore it was that all of us, however young or however old, however limited our opportunities and acquirements, or however proficient, ever delighted to solicit his assistance in intricate cases, or have him share responsibility with us in consultation. It can be truthfully said of him that no medical man ever felt that any undue advantage had ever been taken of him by Dr. Hatch, for he knew not how, because he was so naturally honorable that no one ever thought it was possible for him to be otherwise. In his afflictions he never murmured, but submitted with Christian faith to the approach of death, for "he wore the white flowers of a blameless life."

But while he filled honorably and with marked distinction his every position in life, it was in the family circle that he always appeared in the full measure of his greatness and worth, and it was there, too, that he found true happiness and comfort. As a man and friend he was honest and true; as a citizen and member of our profession he was useful and valuable; but as a husband and father he rose to the full stature of human perfection. He was at all times a hard worker and diligent student, and, being of but medium physical development, he was less capable of enduring bodily ailments when thus afflicted than many others of even less strength.

About eight years before the onset of his last illness he was attacked with double pneumonia, which came well nigh taking his life, but from which he slowly and gradually recovered. It was not, however, until about two years ago that his friends regarded him as being fully recovered, and even then it was observed by those who were the most conversant with his real condition that he had never regained his normal health. The infirmities of age were becoming prematurely developed; his step was less elastic,

his ability to attend to his professional duties was becoming gradually abridged, and regretful whispers were not infrequently heard that ere long his familiar form would be missed from our streets. The cough which persisted ever since his attack of pneumonia, it was feared, betokened pulmonary trouble of a serious nature. It was not, however, until his return from Washington, whither he had gone to attend the meeting of the American Medical Association, as well as that of the Public Health Association, in May last, that serious apprehensions were entertained that his days of usefulness were nearly over. A severe cold which he had contracted on his journey to Washington was much aggravated by cold and inclement weather in New York, and subsequently in Wisconsin. On his return, late in May, it was observed that he was much fatigued, in fact exhausted; and although he visited his office once or twice after his return, it was evident to all that he was seriously ill. Hopes were nevertheless entertained that rest and entire freedom from labor would restore his health, for a season at least. Examination of his lungs disclosed the existence of considerable solidification in the upper portion of each, and it became evident that he was slowly succumbing to fibroid phthisis.

Yet, in this enfeebled condition, he prepared and sent to the hands of the State Printer his Biennial Report as Secretary of the State Board of Health, which, although plainly manifesting the imperfections incident to his illness, will, nevertheless, be read with much interest; for it is his posthumous contribution to sanitary science, and bears evidence of his great usefulness and wonderful capacity for the work intrusted to his hands.

On the 13th inst., when it was believed that his condition had slightly improved, his kidneys, which had previously performed their function normally, ceased to secrete, and symptoms of uræmia soon developed which gradually increased, until he died on the 16th, at seven o'clock in the evening.

But it was as a member of this Society that his great loss will be most keenly and deeply felt by us, his fellows and colaborers. He was our first President, a position to which he was unanimously re-elected for five successive terms, and until he unqualifiedly declined to longer serve, because, as stated by himself, "the mantle of our choice should now surely be placed upon another." Those of us who are here tonight, and were then present, recollect the reluctance with which we yielded to his earnest but pro-

nounced desires. Of the regularity of his attendance at our meetings, his readiness to entertain the Society when it came his turn, the interest manifested by him at our meetings, his ability in the discussion of all subjects introduced, the wrapt attention bestowed upon his every remark, the completeness and beauty of his diction, and, above all, the grand success which attended our efforts during his incumbency of office, I forbear to speak at length—it was truly phenomenal; for then membership in the Sacramento Society for Medical Improvement was regarded, not only by ourselves but throughout the whole State, as a synonym of professional standing no where else to be obtained in California. His contributions were at all times of a high order, and would reflect credit upon any like organization wherever situated; indeed, if collected and published in conjunction with a few of his other papers that are scattered promiscuously throughout the journals, they would form “an enduring monument of a splendid career,” for they are the golden fruitage of a well-spent life.

His earthly labors are ended; the places which once knew him will know him no more forever; yet “he is not dead, but liveth”; a radiant light, the white-winged messenger of hope, now crowns his brow, and a sheen of gold is reflected from his path. Then,

As in life he was calm, let his grave be apart
From the din of disturbance and riot;
In his brightest days still dear to his heart,
’Twas to live in calmness and quiet.

The following resolutions were then adopted and ordered on the minutes:

WHEREAS, It hath pleased an all-wise and inscrutable Providence to remove from this life our friend and fellow-laborer, Dr. F. W. Hatch, who for thirty-three years had been one of the most zealous, skillful, and conscientious practitioners of medicine known to us, and an active and prominent charter member of this Society: therefore,

Resolved, That in the death of Dr. Hatch this Society recognizes the loss of one who, at all times, exercised his great influence with marked effect for its good and the promotion of its usefulness.

Resolved, That we will ever cherish in grateful remembrance his forbearance towards his fellow members, his earnestness in promoting and maintaining harmony, and his earnest appeals for the strictest justice, tempered with charity.

Resolved, That in commemoration of his memory, this preamble and these resolutions be spread upon the records of the Society, and published in the **PACIFIC MEDICAL AND SURGICAL JOURNAL AND WESTERN LANCET**, and an engrossed copy be transmitted to the widow of the deceased.

W. R. CLUNESS.
IRA E. OATMAN.
G. L. SIMMONS.

[The following memorial and resolutions were read and adopted by the Los Angeles County Medical Society at its last meeting, November 7th, 1884, in relation to the death of Dr. F. W. HATCH.]

Death is the goal of every living being. While care, skill and science may lengthen the course, sooner or later the goal is reached, and life surrenders to the universal conqueror, Death. When the life of any individual has been conspicuous, and the end reached in the midst of his usefulness, the loss is more deeply felt by surviving associates and friends.

It is, therefore, fitting and becoming that this Medical Society should unite with all others in the State, to feebly express our sincere regrets at the loss of so distinguished and well known a member of the profession on this coast as Dr. F. W. Hatch, whose death occurred at his home in Sacramento, on October 16th, 1884, of which city he had been a resident since 1851.

Doctor Frederick Winslow Hatch was born in Virginia, March 2d, 1822. In 1844 he graduated at the Medical Department at the University of New York.

In the practice of his profession for a period of forty years, most of which time he was a citizen of Sacramento, he acquired and sustained without blemish a high reputation, both as a man and as a member of the medical profession, to the elevation of which he devoted himself with untiring assiduity.

He was the first President of the Sacramento Medical Society. He was a member of the American Medical Association, and of the American Public Health Association, and Professor of Hygiene in the Medical Department of the University of California. He had been for several years, and was at the time of his death, the very efficient Secretary of the State Board of Health, and also Treasurer of the State Medical Society.

Doctor Hatch was an old pioneer of California, and from the time of his commencing the practice of medicine in this State

vigorously upheld the Code of Ethics of the regular profession, of which he was so prominent and so blameless a member. And as it is becoming to weep with those who weep, and as it is a natural instinct to mourn over losses suffered, the Medical Society of Los Angeles does resolve :

That, in the death of Frederick W. Hatch, M. D., the medical profession of the Pacific Coast has lost one of its most efficient and beloved members, and the various organizations with which he was officially connected, one of their most efficient and worthy officers.

Resolved, That this Society deeply and sincerely sympathizes with the family and immediate circle of friends of the deceased, in the great loss which has befallen them.

Resolved, That the foregoing shall be entered on the Minutes of this Society, and a copy thereof sent to the widow of the deceased, as a faint appreciation of the estimation in which her late husband was held.

Resolved, That a copy of the proceedings of this Society in this matter be sent by the Secretary to the PACIFIC MEDICAL AND SURGICAL JOURNAL AND WESTERN LANCET for publication.

Submitted by

H. S. ORME, M. D.,

For the Committee.

GEO. W. LASHER, M. D., Secretary,
Los Angeles County Medical Society.

STATEMENT RELATING TO THE INTERNATIONAL COLLECTIVE INVESTIGATION OF DISEASE PROPOSED AT THE INTERNATIONAL MEDICAL CONGRESS AT COPENHAGEN.

The General Meeting of the International Medical Congress, held at Copenhagen on August 14th, 1884, upon propositions made by Sir James Paget, Professor Ewald of Berlin, Professor Bouchard of Paris, and Dr. Billings of Washington, passed the following resolutions :

1. That an International Committee be formed for the Collective Investigation of Disease, in connection with the work of the International Medical Congress.

2. That the following gentlemen do represent their respective counties thereon :

As representatives of Denmark, Professors Trier and C. Lange of Copenhagen ; as representative of Scandinavia, Dr. E. Bull of Christiania ; as representative of Russia, Dr. Rauchfuss of St. Petersburg ; as representatives of Germany, Professors Ewald and Bernhardt of Berlin ; as representatives of Austria-Hungary, Professors Schnitzler of Vienna and Pribram of Prague. To whom was added by co-optation, Professor Korányi of Buda-Pest ; as representative of Switzerland, Professor Despigne of Geneva ; as representatives of France, Professor Bouchard of Paris ; Dr. Lèpine of Lyon ; as representatives of Great Britain and Ireland, Sir William W. Gull, Bart., Professor Humphry of Cambridge, and Dr. Mahomed of London ; as representative of British India, Sir Joseph Fayrer, K. C. S. I. ; as representatives of the United States, Professor Jacobi of New York and Professor N. Daviss of Chicago ; as representative of South America, Dr. Gutiérrez-Ponce of Paris ; as Secretary-General, Dr. Isambard Owen of London. Representatives of other countries to be hereafter appointed.

In accordance with the following resolution of the first meeting of the above Committee, held at Copenhagen on the following day, viz :

“ That the Secretary be instructed to prepare a statement as to the objects of the Committee for translation and publication in the journals of the various countries represented,”

I beg leave to submit the following statement to the members of the medical profession of

ISAMBARD OWEN,

5 Hertford street, Mayfair, London.

Secretary-General.

The main objects which the Committee seeks to attain through the Collective Investigation of Disease are to widen the basis of Medical Science, to gather and store the mass of information that at present goes to waste, to verify or correct existing opinions, to discover laws where now only irregularity is perceived, to amplify our knowledge of rare affections, and to ascertain such points as the geographical distribution of diseases and their modifications in different districts. It will be its endeavor to place clearly before the whole profession the limits and defects of existing knowledge, as well as to stimulate observation, and to give it a definite direction. It will be a not unimportant incidental result of its work should it tend, as it is hoped, to the better training of the members of the profession in habits of scientific and practical ob-

servation, and in systematic methods of recording the facts which they observe.

The age in which we live has seen enormous advances in the sciences on which the fabric of Medicine rests, such as Chemistry and other branches of Physics, Physiology and Pathology. Each of these has taken giant strides. It must be admitted, however, that purely medical knowledge has scarcely made proportionate progress. It cannot be expected that it should do so, as it deals with the aberrations of the most complex of organisms, is of all sciences the most difficult, and demands the greatest patience and the largest accumulation of data.

Hitherto the advancement of medical science has been brought about mainly by individual effort. The value of such work in the past we in no way underrate, nor do we desire to lessen the amount of it in the future; but in Medical Science there is much that defies interpretation from individual experience, and many problem, so far-reaching in an ever-widening field, with elements so manifold, that no single man, however gifted and long-lived, can hope to bring the whole within his range. The need, therefore, in medicine of that combination and concentration of individual work which is adopted in many other branches of science and in commerce, and to which increasing facilities of intercommunication have given so much impulse and so much strength, cannot be questioned. Indeed, it may be said that, resting on individual research alone, medical knowledge can be advanced but slowly and with difficulty. Future progress to any great extent must be the work, not of units acting disconnectedly, but of the collected force of many acting as one. For many to act as one, organization is needed; that organization it is the purpose of our Committee to supply.

Disease is many-sided; and we wish to include in our organization those who see it from every side. All, therefore, whether hospital physicians, family and school attendants, specialists, medical officers of the army and navy, and of workhouses and asylums, will be asked to contribute their quota of observation to the common fund.

In England and in Germany organizations for this purpose already exist, through which good work has been accomplished; and a volume entitled the *Collective Investigation Record*, containing tabulated returns, with reports upon them and other matter, is published annually by the British Medical Association.

France and Austria are alive to the importance of the new method. In Scandinavia and in the United States the foundations of associations have been laid. Denmark, Russia and Switzerland are setting their hands to the task. To unite these several associations by an international organization for the study of various problems, and to induce the formation of similar combinations elsewhere, is to be felt a work peculiarly befitting an International Congress. Our Committee is enjoined by the Congress of Copenhagen to endeavor to carry out this work, and in compliance with that injunction it invites the co-operation of all who have at heart the promotion of medical science and practice.

The following is the proposed method. A subject having been selected, a person or persons of acknowledged authority will be asked to write a memorandum, in the form of a short essay, upon it. The memorandum will succinctly give the present state of our knowledge. It will also point out the directions in which further research may best be made; and, with this view, will suggest a few simple and definite questions upon the subject selected. The questions will relate to matters of fact to be elicited by observation of cases, rather than to matters of opinion.

The contemplated organizations will, it is hoped, in time enable the Committee to ask and collect answers to these questions from the profession at large, wherever scientific medicine is studied or practiced. It will be a further duty to examine, arrange, tabulate and deduce results from the mass of observations thus collected, due credit being given to each contributor for the information he has furnished; and reports on the results of the several investigations will be laid before the International Congress at its next meeting at Washington.

Abstracts and Extracts.

An Important Point in Testing for Albumen.

The Medical and Surgical Reporter contains the following: It is customary for the physician to request his patient to send him a sample of urine passed the first thing in the morning, when he desires to examine it for albumen. That this may mislead him, is suggested by the following case, which a correspondent reports in the British Medical Journal.

A girl, aged 13, fairly healthy, but not over strong, was brought to him about ten months ago, said to be suffering from "incontinence of urine," and debility. On examining the urine, he found it was loaded with albumen; there was no anasarca and cardiac mischief. He prescribed tincture of perchloride of iron and dilute nitro-hydrochloric acid, with the result that nearly all trace of albumen had disappeared in about six weeks, when she went to the seaside, and he lost sight of her for about two months. Soon after her return, he again examined the urine, and found it loaded with albumen. He again prescribed the iron and acid, and gave directions that the urine first passed in the morning should be sent to him for examination regularly every few days. This was done, and he was glad to find almost immediately marked improvement, until one day, by mistake, urine voided in the middle of the day was sent, and this he found to be loaded with albumen. He then gave directions that two samples should be sent on the same day every week, one being that passed the first thing in the morning, and the other later in the day. The result of his investigation was, that the former was perfectly normal and free from albumen, and the latter was decidedly albuminous. The amount of albumen varied, sometimes being considerable, sometimes hardly perceptible. At the present time the morning urine is perfectly free, but that passed at midday contains a decided trace; and this state of things has existed for some weeks past.

Modification of Colotomy.

At the Thirteenth Congress of the German Surgical Association, Dr. Madelung, of Rostock, reported that last winter he had had an opportunity of practicing a modification of colotomy, by which the utility of this operation in cases of cancer of the rectum is considerably increased. This surgeon, instead of making a small opening in the colon, cuts through the whole thickness of the gut, and then secures the central end to the abdominal wound, in order to form the false anus, whilst the peripheral end is closed and allowed to sink down into the abdominal cavity. This operation is more difficult than ordinary colotomy. Great care must, of course, be taken to distinguish the centripetal from the centrifugal portion of gut. The great advantage of the modification as proved, Madelung states, in his case, is that the cancerous rectum is protected, not only against the mechanical irritation of the fecal matter forcing its way through the stricture, but also against the chemical and septic irritation of such matter at the seat of

operation. The surrounding skin can be kept clean, since it is regurgitation of fecal matter that has passed by the opening the colon that the continuous defecation from the preternatural anus, observed in many cases, is especially due. The modification also prevents the very frequent painful accumulation of fecal matter between the cancerous stricture and the external sphincter ani. Finally, the tendency to prolapse of the intestine is diminished. This modified colotomy is not applicable in cases in which the operation is performed at a late stage of the disease, when the intestines are over-distended, and the patient is much exhausted. Under more favorable conditions, it may be practiced with good prospects, as well in the treatment of syphilitic and gonorrhœal, as of cancerous stricture of the rectum.—*London Medical Record.*

Medical Quacks.

The Medical Society of the District of Columbia, at one of its recent meetings, appointed a committee to inquire what action might lawfully be taken against the unusual number of traveling quacks that frequented the city during the past winter, owing, no doubt, to the fact that so many of the States have adopted stringent laws concerning them. The committee, after an examination of the subject, and a consultation with the district attorney, reported that it was unlawful for any person to practice medicine or surgery in the district without a license from the medical society. It was then ordered that any member having knowledge of a person practicing without authority should report the fact to the corresponding secretary. It was made the duty of that officer to notify the accused to appear before the board of examiners and make application for license. It appears there is a penalty of fifty dollars attached to a violation of the law, one-half of which, when collected, goes to the informer. No convictions have yet been had, but it is presumed that a knowledge of their liability may induce the wandering quacks to seek "patents new."

DOCTOR (who has been sent for at 2 A. M.)—"Madame, please send at once for the clergyman, and, if you want to make your will, for the lawyer." Madame (horrified)—"Good gracious! is it so dangerous, doctor?" Doctor—"Not a bit of it; but I don't want to be the only fool who has been disturbed in his sleep by nothing."

LITERARY NOTES.

Messrs. JANSSEN, McCLURG & Co., Chicago, have issued a new work on the "Principles and Practice of Medicine," by Dr. N. S. Davis. The work is not a compilation, but an embodiment of the observations, thoughts and experiences of the author during nearly fifty years of active medical practice. The matter is presented in the form of lectures, delivered by him during his many years of teaching. The features which especially commend the work to the practitioner and student, are the fullness with which the clinical history of the various diseases is given, and the explicit and detailed description of the methods of treatment which have been found most effective. The author's adoption of the metric system of weights and measures is worthy of notice and commendation. Although this system has been advocated by leading scientific and medical societies, it has come into use only to a limited extent. To assist in effecting this change, Dr. Davis has used the metric system throughout the work—giving however, in brackets, the equivalents in apothecaries' measure.

The volume is about the size of Bartholow's "Practice of Medicine," but more closely printed. The author is well known as one of the ablest and most original thinkers in the profession, who has won a high reputation as a lecturer upon practical medicine; and the profession is to be congratulated upon having in a permanent form the rich results of his busy professional life.

G. P. PUTNAM'S SONS will shortly publish, by arrangement with the Vienna publisher, a translation, prepared by Dr. Barney Sachs, with the authorization of the author, of "Dr. Meynert's Treatise on Psychiatrie." The first part of the work, devoted to the anatomy and physiology of the brain, the publishers hope to have ready by the beginning of the new year. The work will be fully illustrated.

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