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Original Articles.

SUICIDE AND LIFE INSURANCE.

By N. S. GIBERSON, M. D.

In a preceding article the legal principle was enunciated that suicide is a crime at common law, and, as a corollary, another principle of law has arisen, viz.: that insurance against the consequences of an illegal act, is, like a contract to commit a crime, void as against public policy.

In cases of suicide, therefore, no insurance can be recovered unless the deceased is proved to be insane at the time of the commission of the deed, in which case, the insurance is valid and can be recovered.

The attitude of life insurance companies in the United States, on the subject of suicide among their beneficiaries, has been a fruitful source of popular misapprehension and harsh judgment. As a matter of history, the great insurance corporations of this country, with few exceptions, have approached this momentous question in a spirit of equity, and have exercised in its consideration those advanced and liberal views, which are eminently characteristic of the most successful financial institutions of modern times.

A few years ago the Chamber of Life Insurance (the executive council of about thirty of the leading companies) recommended that a clause be inserted in each policy providing that it would be null and void "if the person shall die by suicide or by his

own hand, or in consequence of an attempt to commit suicide, or to take his own life, provided, however, that if any of these acts be committed while in a state of derangement or insanity, the company agree to pay upon the policy thus voided the full legal reserve thereof." This was the first explicit declaration of principles on the part of the associated companies, and from that day to the present, each succeeding year has seen the interests of the policy-holder more closely guarded, until at present the most prominent of the New York companies issue policies which are non-forfeitable from any cause after three years; and a surrender-value now attaches to all policies which are dropped from any cause whatever. But this desirable state of affairs was not accomplished without much labor and generations of seemingly interminable groping in the darkness of precedent and prejudice for the true principles at issue. This story I will now attempt briefly to relate.

The question of the forfeiture of a policy by the suicide of its beneficiary has not to this day been satisfactorily settled in England. Some of the English offices still hold that suicide from any cause vitiates a policy. This view smacks of the middle ages, and is a hoary anachronism among the advanced ideas of to-day. Surely, the entire case may be expressed in a single hypothetical question.

If the policy-holder was not guilty of fraud or concealment in procuring the policy; if he fully and freely complied with all its conditions, and is suddenly struck down by an acute disease, or an injury, which causes an attack of mania, during the progress of which he jumps from a window and breaks his neck, does it not seem a violation of the principles of equity, and an unjust discrimination, to deprive his legal representatives of the value of his policy? Had he committed homicide while in that condition, it would have been considered an irresponsible act; how unjust, then, to evolve from the irresponsible homicide the full fledged *felo-de-se*.

During the year 1843, two cases were decided, one on either side of the Atlantic, in which this and cognate questions were thoroughly discussed. In the case of *Borradaile vs. Hunter* (44 Eng. Common Law Reports, 336) the action was brought to recover the amount of a policy on the life of a party who threw himself into the Thames from a bridge and was drowned. The words "die by his own hands," formed the exception in the

proviso to pay the policy, and the whole case turned upon their construction. At the trial, Erskine, J., instructed the jury that if the deceased threw himself into the river knowing that he would destroy himself, and intending to do so, the policy would be void; they had further to consider whether the deceased was at the time capable of distinguishing between right and wrong, or, in other words, whether he had sufficient knowledge of the act to make him a *felo-de-se*. The finding of the jury was as comprehensive as a successful party platform in a political campaign. They found that the deceased threw himself into the river with the intention of destroying himself, and that previous to the act he had exhibited no evidence of insanity. This made the deceased simply a suicide—a *felo-de-se* with no extenuating circumstances. But they also found, by what process of occult reasoning I know not, that the deceased, when he took the fatal leap was not capable of distinguishing between right and wrong. This part of their luminous conclusion exactly reversed the previous portion, and was a victory for the plaintiffs. But with an engaging docility they rectified their verdict at the fiat of the presiding judge, and declared the policy null and void.

This case was submitted on appeal to a bench of Judges, who, with a single dissenting voice, sustained the action of the Court below. (In the case of Schwabe vs. Clift, Liverpool Summer Assizes, 1845, it was proven beyond a doubt that the deceased was insane, and while in that condition ended his life by poison. The jury found for the plaintiff, but the Appellate Court reversed their findings, and granted a new trial; thus squarely planting themselves on the doctrine that suicide, under any and all circumstances, will vitiate a policy.)

In Breasted vs. The Farmers Loan and Trust Co., in the Supreme Court of the State of New York, was heard a case similar to the one first cited. The policy contained a clause of forfeiture in case of suicide, and it was held that the insanity of the assured at the time of his death by suicide was no defense. This view was sustained by the Court of Appeals, five Judges confirming the lower Court, and three dissenting.

It may be observed in passing that in the decision just mentioned, the case of Borrodaille vs. Hunter, was cited and approved.

It seems to have become an established principle in English

cases that the insurance companies have the right to make any exception they may decide upon at the time of issuing the policy.

In Germany and Continental Europe generally, the decisions have practically corresponded with those of England, but in the United States the later decisions, while more or less conflicting, have constantly tended towards the protection of the assured.

The presumption of law is, in all cases, that death was caused by accident, or by natural causes, and the burden of proving that death was the result of suicide rests with the insurers. It then devolves upon the representatives of the assured to prove that at the time of committing the fatal deed he was not capable of appreciating its consequences. In the United States Supreme Court (*Life Insurance Co. vs. Terry*, 15 Wallace, 580), in a case where the policy contained a nullifying clause in case of suicide, and the assured died from self-administered poison, the Court said: "We hold the rule on the question before us to be this: If the assured, being in the possession of his ordinary reasoning faculties, from anger, pride, jealousy, or a desire to escape from the ills of life, intentionally takes his own life, the proviso attaches and there can be no recovery. If the death is caused by the voluntary act of the assured, he knowing and intending that his death shall be the result of this act, but when his reasoning faculties are so far impaired that he is not able to understand the moral character of the general nature, consequences and effect of the act he is about to commit, or when he is impelled thereto by an insane impulse which he has not the power to resist, such death is not within the contemplation of the parties to the contract, and the insurer is liable."

The American doctrine is fully exemplified in the case of the *Knickerbocker Insurance Co. vs. Peters*, 42 Md., 414. The policy in this case contained the proviso that it should be null and void "if the assured shall die by his own hand or act." The suicide was by hanging. The company declined to pay the policy, claiming that the above proviso made it void. In deciding the case, the Court said: "It is now too well settled to admit of question that the clause is not to be construed as comprehending every possible case by which life is taken by the person's own act. For instance: all the authorities concur in the view that an unintentional or accidental taking of life is not within the meaning or intention of the clause. Thus, if, by inadvertence or accident, a person shoots himself or takes poison by mistake,

or, in a sudden frenzy or delusion, tears a bandage from a wound and bleeds to death, in a literal sense of the term he dies by his own act; yet all the decisions agree that a reasonable construction of the proviso, according to the plain and obvious intention of the parties, would exclude such party from its operation, and the Court instructed the jury that the clause in question would not prevent a recovery if they found from the evidence that the deceased killed himself in a fit of insanity which over-powered his consciousness, reason and will, and acted from a mere blind and uncontrollable impulse; and that after they are satisfied that he died by his own hand, it becomes the duty of the plaintiff, on her part, to offer proof sufficient to prevent the operation of the clause; and she does not comply with such exigency by proof merely that the deceased was insane at times. She must prove that he was insane when the act was committed, and in the absence of such proof of his condition at the precise time when the act was committed, the jury must presume he was then sane, and they cannot draw an inference that he was insane from the fact that he destroyed his own life. These instructions, say the Judges, state the law more explicitly and more favorably for the insurer than is found in any of the American authorities to which they have referred, or to which their attention has been called on argument. The Court says, in effect, that when the act of self-destruction is done during insanity, it is death by accident."

In the case of Gibson vs. The American Mutual Life Insurance Co., the question of the religious sentiments of a *felo-de-se* as affecting the probabilities of suicide was thoroughly discussed. The question at the trial was whether death was accidental or intentional. The defendants claimed the right to show that the deceased was an infidel and an atheist, and thence deduced the theory that death was suicidal. In deciding against the introduction of such evidence, the Court held that: "To adjudge that a man's belief in Christianity will prevent the commission of suicide, or that atheism will produce or tend to produce a contrary effect, is to adopt a principle more subtle and speculative, more uncertain and more remote, than the law can recognize."

The New York Court of Appeals (Van Zandt vs. Mutual Benefit Life Insurance Co., 55 N. Y., 179) has decided that the testimony of medical experts is to be taken, in this class of cases, in a very restricted sense only. In the case above cited, a medical

witness, called for the plaintiff, was asked the question: "Assuming that a person had that form of insanity which you denominate melancholia, and had committed suicide, would you attribute that suicide to the disease?" This question was objected to by the defense, and the witness answered: "Yes; I should attribute it to the result of insanity." The verdict was for the plaintiff, but the Appellate Court granted a new trial on the exception above noted. The general drift of American decisions is towards a close following of the language and terms of the policy; it is, therefore, vastly important to the insurer, or to his assignee, to thoroughly understand the provisos and restrictions relating to suicide. (Chapman vs. The Republic Life Insurance Co., 5 Bigelow Ins. Cases, p. 110; Pierce vs. Travelers Life Insurance Co., 34 Wis.; S. C., 3 Ins. L. J., 422.)

The most of Life Insurance Companies declare that suicide shall, under no circumstances, prejudice the assignee of a policy, but by some the condition is added that notice of the assignment must have been made to them before death. The English Courts have decided that suicide does not vitiate any bona fide interest which a third party may have acquired in the policy. (Moor vs. Woolsey, 25 Beauman, 599; The Solicitors' Gen. Life Assurance Co. vs. Lamb, 2 De Gex. J. and S., 251.) Where a policy was executed for the benefit of the wife and children of the assured, and it contained no forfeiting proviso in case of suicide, evidence that the deceased committed suicide was held to be inadmissible, and the parties interested were not bound by the acts of the deceased unless in direct violation of some condition of the policy. (Fitch vs. Am. Pop. Life Ins. Co., 59 N. Y., 557.)

In regard to the enforcement of payment from foreign companies doing business abroad, the general rule of the "Law of the Forum" prevails, and the law of the place where the contract is to be performed is to be considered without regard to the laws under which the company is organized and located at home.

The *lex loci contractus* prevails to a certain extent in the United States. The policies usually provide that the payment of loss must be made by the "home office" and at the "home office." In such case, the *lex loci* is at that place, and although a suit is commenced in some other State, it is governed by that of the home office.

Finally, it has been urged that the endowment policy---plac-

ing, as it does, a premium on life and longevity, and being in fact the only absolutely secure savings bank in existence—is the form of policy best adapted to eradicate the suicidal tendency of the life insurance beneficiary.

BONE TRANSPLANTATION.

By H. M. SHERMAN, M. D., Orthopaedic Surgeon Hospital for Sick Children and Training School for Nurses, San Francisco.

The operation of bone transplantation, as well as that of grafting skin, muscle or tendon, is founded upon the fact that small portions of living tissue, separated from their original *locus*, will, for a brief time, retain their vitality independently; and are able to form adhesions and vascular connections with a suitable living surface, with which they have been placed in contact, so as to become an integral part of it.

This is stating a fact which is by no means new. Accidents had frequently demonstrated its possibility, and so long ago as 1847, the late Frank H. Hamilton, of New York, proposed the method of skin grafting for the healing of a large granulating surface on a boy, while in 1854 he did the operation successfully on a man (International Encyclopedia of Surgery, vol. I, p. 539). He was followed in 1869 by Dr. J. L. Reverdin, of Paris, who had evidently discovered the principle independently, and who presented the operation, illustrated by cases and descriptive papers, to the profession. His is the name most intimately associated with this procedure, and the facts as he enunciated them, together with the details of the operation as he originally laid them down, have not been materially changed since that time (Ibid., vol. I, pp. 539-41). To-day this method of securing the rapid and satisfactory healing of granulating surfaces of greater or less extent is employed universally.

Other examples of the transplantation of tissue of epidermic origin, are the historic experiments of Hunter transplanting teeth into cocks' combs, and the operation of transplanting teeth from mouth to mouth, as to-day done by dental surgeons.

Transplantation of the deeper tissues has not been done with similar success, and the reasons for this are obvious. Gluck is reported to have experimentally transplanted muscle from

the cat to the hen, and the transplanted tissue responded with the other muscles to electrical stimuli of the supplying nerves. He also transferred tendons between the same two animals (*Introduction to General Pathology*, Sutton, p. 152). Recently Dr. Peyrot, of Paris, reported two cases of tendon transplantation; the material, being taken from a young dog, was in each instance interposed between the cut and separated ends of the flexor tendons of fingers. One case was successful, and the patient could voluntarily partially flex the previously extended finger. The other case failed entirely (*Medical Record*, March 12, 1887, p. 301).

In the years 1858 to 1862, Ollier, of Paris, published several papers on the subject of bone grafting, his work being chiefly experimental, and grafts both of bone and periosteum being used. Part of the work was practical, and two of the papers deal with the application of this method to the restoration of the nose. (*Compt. Rendu Soc. de Biol.*, 1858, Paris, 1859, 2, s. v., pt. 2, 145-162; *Gaz. Med. de Paris*, 1859, 3, 5, xiv. 212, 226; *Compt. Rendu Soc. de Biol.*, 1859, Paris, 1860, 3, s. i., 232-234; *Jour. de la Physiol. de l'Homme*, Paris, 1860, iii, 88-108; *Min. et Compt. Rendu Soc. de Scien. Med. de Lyon*, 1862, 1, 300-311; *Gaz. des Hosp.*, Paris, 1862, xxxv., 86.)

Philipeaux, in 1870, demonstrated that the buttons removed by the trephine could be implanted in similar openings in the skull of other animals of the same species, where they would contract adhesions and live (*Compt. Rendu. Soc. de Biol.*, 1870, Paris, 1872, 5, s. ii., 34 to 36); and Ollier proved that they would establish a true vascular connection with the parts, so that their blood vessels could be injected through the general vascular system (N. Senn, *Trans. Wisconsin State Medical Society*, 1875, p. 37). In 1871, Philipeaux reported experiments showing that the bony plates developed from transplanted periosteum became absorbed, and disappeared after the lapse of a certain time (*Compt. Rendu Soc. de Biol.*, 1871, Paris, 1873, 5, s. iii, 127-129).

In 1871, Prof. Von Nussbaum, of Munich, operated on a case of deficiency in the middle of the ulna, caused by the necrosis of a portion of bone which had been separated from the rest by a gunshot. He split from the upper remaining fragment a piece two inches in length, and comprising half the circumference of the bone, leaving intact, however, as much as possible

of its connection with the soft part. This piece was now bent down and placed in the gap between the two fragments, and although there followed a partial necrosis, enough of it remained alive to contract adhesions, and afford a sufficiently strong and useful ulna (N. Senn., *Trans. Wisconsin State Med. Soc.*, 1875, pp. 37-39). In this operation the transplanted portion was not wholly separated from its original vascular connections, and the proceeding may be compared with the sliding operations in the plastic surgery of the face.

Dr. C. W. Trueheart, of Texas, reports the case of a man who had $2\frac{3}{4}$ inches of the left clavicle shot away by the accidental discharge of a shotgun. Nine weeks after the injury, and after the part had otherwise wholly healed, there was no attempt at filling the gap between the fragments by bony growth. The cicatrix was therefore dissected out and the ends of the bone exposed. When a bed of healthy granulations had formed, small pieces of periosteum, or of periosteum and bone, were cut from the scapula of a young dog and transplanted to the wound. Three of such transplantations were done in the course of a month, 70 per cent to 80 per cent of the grafts adhered and produced bony tissue, so that, when the wound healed a second time, there resulted a clavicle, slightly shorter than its fellow, and somewhat distorted in its outline, but perfectly sufficient to support the shoulder normally. Dr. Trueheart noticed that the grafts had the same stimulant effect upon the granulations in their immediate neighborhood that has so frequently been seen in the operations of skin grafting (*Med. Rec.*, Oct. 3, 1885, p. 374).

Professor Poncet reports the case of a boy eleven years old who lost the diaphysis and lower epiphysis of the tibia by necrosis. The periosteum being destroyed in the lower part bone grafting was done at two operations; in the first the grafts, one-third inch long and one-sixth inch wide, were taken from the humerus of a baby which had been dead two hours; in the second they were taken from the tibia of a kid. At the first operation fifty per cent of the grafts lived and grew, and at the second eighty per cent to ninety per cent. Further grafting was not necessary for the wound rapidly closed and a firm tibia was obtained. (*Lyon Medical*, Sept. 26, 1886, quoted in *Med. Rec.*, Nov. 20, 1886.) The same operator also reports this case: A man, aged forty-three years, suffered from an ununited frac-

ture of the tibia, the ends of the bone being atrophied and one and one-third to one and one-half inches apart. The first phalanx of the great toe, on a limb recently amputated, was removed, the articular ends sawed off and the bone split in two. One of these halves, about one inch long, was fastened between the freshened ends of the broken tibia, with due antiseptic precautions. Fibrous union took place at one end and osseous at the other. There was no necrosis. (Quoted in *Medical Record*, April 23, 1887, p. 469.)

Dr. Robert F. Weir, of New York, reported incidentally, at a stated meeting of the New York Neurological Society held April 5th, 1887, that in a case in which he had trephined the skull for the cure of epilepsy, the opening being nearly two and one-half by three inches, he had replaced the bone removed, and that then, about seven weeks after the operation, all the wounds had healed save one, the bones were felt to be solid and were painless. (*Medical Record*, May 7, 1887, p. 535.)

Probably "one of the most remarkable examples of transplantation of bone is that recorded by McEwen, in Proc. Royal Society, vol. xxxii. In this instance a boy, aged three years, was admitted into the Glasgow Infirmary suffering from necrosis of the entire diaphysis of the humerus. After the removal of the sequestrum, the periosteum failed to develop bone, and McEwen at different times introduced into the arm pieces of bone, broken very small, taken from the tibiae of children, in order to rectify incurvations. As a result of these proceedings, the engrafted pieces of bone grew, and in course of fourteen months from the time of the first transplantation the boy had a functional humerus." (Introduction to General Pathology, Sutton, p. 153.)

In January of this year I was permitted, by the kindness of Dr. C. B. Hutchins, to attempt the restoration of a portion of the tibia in the following case.

James Desmond, Irish, aet. sixty-five years, a laborer, had received a compound Pott's fracture of the right leg. The injury was by direct violence and the parts became very much swollen. By treatment in a water bath the swelling and pus formation subsided, the fibula united, but about one and one-half inches of the tibia necrosed. The necrosed part was removed, the greater portion being gouged out, but one piece on the outer aspect of the bone next the fibula was left to separate naturally.

The periosteum on the anterior, posterior and internal aspect of this portion was destroyed. The wound was kept open by a tight packing with iodoform gauze. At the time of the transplantation it was between three-fourths inch and one inch in diameter extending across the width of the tibia, and then upwards about one-half inch on the outer side.

The leg and wound were thoroughly cleansed by soap and bichloride solution. Four incisions were made in the granulations on the end of the tibia, and in each of these were placed two small pieces of bone and periosteum, about one-third inch long and one-fourth inch wide, split from the radius and ulna of a healthy puppy. Four more pieces were tucked into natural recesses between the granulations and three or four were dropped into the deeper part of the sinus. The cavity was then packed with thirty-three per cent iodoform gauze, and a bichloride gauze and Mackintosh dressing applied. The whole was done with antiseptic precautions.

For the renewal of the bone the puppy was chloroformed, the grafts were cut and dropped into a warm solution of salt and water from which they were transferred to the wound. The dog was afterward killed. Three days later the discharge came through and odor developed so that a dressing became necessary. Three grafts came out in the packing, bare of their periosteum, and one could be seen half buried in the granulations and firmly adherent. There was some eczema around the wound. No more of these grafts came away and the one which had been visible became wholly covered in by the granulations. Nine days after the grafting ten more pieces were introduced in a similar manner, and in making the little incisions for their reception the knife touched bony tissue, showing osseous formation either from the grafts or some remaining thread of periosteum. Three of these grafts came away at different times during the healing, which progressed rapidly until nothing but a small sinus remained. Two months from the time of the first grafting the wound was filled entirely with bony tissue, there was no deformity and the foot was in its normal position. Limited motion, both passive and active, was possible at the sites of the ankle joint, and the limb was able to bear some weight. Two months later the sinus again opened and discharged a little, no bony fragment coming away however, and then closed entirely again. But in another month it had again

opened to a depth of an inch and Dr. Hutchins attempted its complete closure as follows: The leg and sinus were washed and the latter probed to discover if there were any dead bone causing the discharge. None being found, bone taken from the leg of a chicken was introduced. This bone was split so that it would fill the sinus, and both periosteum and medulla would be in contact with the granulations.

The wound was solidly healed in four days, but in about two weeks it reopened and a spicula of bone was discharged, after which it again closed. This process has been repeated once since and the sinus is now again fully healed. During all this time the strength of the limb has steadily improved, and the full weight of the body can be borne upon it. Limited motion is present at the site of the ankle joint and there is no tenderness or pain here. At the time of the receipt of the original injury the instep was hurt, and at that point the patient has pain when he walks. In the house he goes about with no artificial aid save that of a shoe with side braces jointed opposite the ankle, and sometimes a cane. In the street he uses a crutch and a cane. The reopening of the sinus was almost surely due to the fact that the man was urged to use the foot as much as possible, so soon as it was wholly healed, in order to preserve the maximum of motion at the ankle. After the insertion of the chicken bone portions of it necrosed and came away, and the amount of these now about equals the size of the bone introduced. The gain by the transplantation has been the filling in of the cavity left by the necrosis with bony tissue instead of with fibrous. The limb is useful, and in this respect is constantly improving though it is not yet thoroughly efficient. The proportion of grafts that lived was about the same as we should expect in skin grafting.

In June, 1886, Thos. Eldred, æt. 19, noticed swelling and pain over the front of the right tibia. Abscess formed and was opened, exposing necrotic bone. Early in this year, Dr. J. F. Morse removed this at the City and County Hospital, and in May he most kindly permitted me to attempt bone grafting.

The wound was then about eight inches long, one to one and a half inches wide, and about three-fourths of an inch deep. It was healthily granulating, while the edges were cicatrizing and somewhat inverted. By a linear incision the edges were loosened and turned up; small fragments of bone and perios-

teum, obtained from a puppy, were planted at the bottom and held down closely by a tight packing of thirty-three per cent iodoform gauze. Others were implanted in little incisions made in the granulating surface. More iodoform gauze covered these, while outside was placed bichloride gauze and rubber tissue. Fourteen grafts were used. A dressing was done on the fifth day; no grafts came away, and an experiment was tried with chicken bone.

Two tibiae and one femur were taken from a young chicken, the epiphyses cut off, the diaphysis cut in two and each piece split. This gave fragments three-fourths of an inch long and one-fourth to one-third of an inch wide, with periosteum on one side and medulla on the other. These were kept in a warm salt solution while the wound was thoroughly cleansed, and were then laid on the granulations. Six were placed medullary side down and four periosteal side down, and they were gently pressed into the granulations and held in place by the usual dressing, firmly applied. At the first dressings, which were necessary about every two days, because of the amount of discharge from the very extensive surface of granulations, the grafts appeared about as when they were first implanted. At the end of a week the periosteum began to peel off those implanted medulla down, and the medulla from those implanted periosteum down. Still there was no attempt to throw off the bits of bone themselves, and when touched with a probe they seemed firmly adherent, and granulating spurs were creeping up their sides. By the end of the second week the chicken grafts were in some instances turning black on their exposed surface, and the dressing was changed to a daily application of balsam of Peru, iodoform and oakum. At the end of the fourth week, two, which had been implanted periosteum down, were evidently being pushed up by the granulations, and consequently were removed, their dislodgment causing a very slight flow of blood. They were bare of periosteum, and their surface of contact was eroded by absorption.

At the end of another week all the pieces but one were removed, as it seemed that there was no chance of their being living tissues. They were quite firmly attached, and bleeding followed their removal. Their surfaces of contact were all eroded; they were quite destitute of medulla or periosteum, and only at their extreme edges were there any signs of vitality.

At this time the attempt was made to implant periosteum. Plaques of this tissue were stripped from chicken bone and laid on the granulations, their bone-contact surface down. All of these died and came away in the discharge. Cicatrization was taking place rapidly, the tibia was quite strong enough to bear the patient's weight, and further attempts were abandoned. One chicken bone graft was still in situ, and this in the preparation had splintered into three strips, and might fairly be called three separate grafts. During this time two of the grafts of dog's bone came away on the dressings, all of the others, twelve in number, lived.

The boy left the hospital, and lately came back because of the failure of the wound to wholly cicatrize, a narrow strip in the center refusing to close in. For this, skin grafting is being done by Dr. Morse. The boy states to Dr. Morse that the chicken bone which was left in is still there, and entirely covered in by the cicatrix.

In this case the whole of the grafting was experimental and not necessary, for the periosteum, which was not destroyed on the external and posterior surfaces, could easily reproduce an efficient tibia. The grafting of dog's bone succeeded, twelve of the fourteen grafts living. The grafting of chicken bone failed because too much was attempted.

In the success of this plan the following points are of importance: 1. A perfectly healthy bed of granulations is necessary. This can best be secured, I believe, by tight packing with iodoform gauze, and the best of this is that prepared by Am. Ende, and contains 33 per cent of iodoform. The stimulation of the drug and the pressure give a bed of fine, firm granulations. 2. The grafts should be taken from the bone of some young and rapidly growing animal, and from near the epiphysis when vital action is most rapid. They should consist of both bone and periosteum, and many of those I used contained also cartilage of ossification, which seemed an advantage. They should not exceed one-third inch in length, and one-quarter inch in width. Beyond these limits the power of vitality decreases with increase of size. Part of the graft dies before the circulation can be re-established in it, and the burden of throwing off this dead part is imposed on the living portion. This is exactly parallel to the case in skin grafting.

3. Grafting has been successfully done with human bone, kid's

bone, and dog's bone, and these sources are probably the best. Perhaps kitten's bone would be equally good. Chicken bone, I think, is not so likely to succeed. Perhaps the difference in the shape of the blood corpuscles of mammals and fowls has something to do with this.

4. In their natural state these grafts have had vascular connections on all sides, therefore they must be implanted in incisions in the granulations where they can contract adhesions and draw nourishment on all sides. In this way the greatest possible chance for life is given to the graft.

5. The granulations by their natural elasticity sometimes show a tendency to push the grafts out of the incisions, the latter then closing. For this reason, and also to hold the parts closely apposed to check unnecessary hemorrhage from the incisions, firm pressure, either by packing or by bandaging, is necessary. This must not be so firm, however, as to be irritating to the tissues.

6. The discharge from the granulations should be kept at a minimum and consequently strict antiseptic measures are to be taken.

7. It is not advisable to disturb the part by too frequent dressings. Hence the dressings should be large enough to absorb and keep sweet the discharge for several days, the indication for new dressings being the complete saturation of those in use and the appearance of the discharge through the bandages.

8. I consider iodoform gauze, thirty-three per cent, in which the drug is incorporated in the gauze, not merely sprinkled on it; bichloride gauze 1 to 1,000; and Lister Mackintosh to be most suitable for this purpose.

Dr. Ambrogio Ferrari, after experiments, has reached these conclusions regarding the life history of bony grafts. 1. They live, and not only live but also grow. 2. This growth is accomplished by a true vascularization of the graft. 3. A bony callus, periosteum and medulla is formed which, as in fracture, possesses temporary vitality, is finally absorbed, and leaves the graft nourished by a greater permanent vascularization. (*Gazzetta degli Ospitali*, July 22, 1885, quoted in *Pacific Medical and Sur. Jour.* September, 1885, p. 507.)

This procedure is applicable to all those cases where accident, surgery or disease has destroyed or removed bone, and in addi-

tion to this the periosteum has been so injured or removed that the regeneration of the bone is impossible. It would seem especially serviceable in cases of compound depressed fracture of the skull where a large area of bone must be removed to relieve the pressure on the brain, for in these cases new bone formation is rare, fibrous tissue being the usual material produced. Pseudarthrosis in children has hitherto invariably led to amputation; no means, surgical or otherwise, have been successful in procuring union and the limb has undergone rapid atrophic changes. (*Archiv. Pediat.*, April, 1887, p. 251.) The recognition of the non-union of a fracture and the early resort to bone grafting might, from the stimulant effect of the grafts upon the tissue next them, obviate this surgical disaster.

Having it thus in our power to cause the reproduction of lost bone by these artificial means, nature failing to perform the act, we should be able to save and make useful limbs which would otherwise have been sacrificed and so take one more step in advance in conservative surgery.

Fatal Intestinal Obstruction from Biliary Calculus.

Large biliary calculi occasionally produce intestinal obstruction. Murchison mentions such cases, and Leichstern (in Ziemssen) speaks of fifty where death occurred. The author's case, a man fifty years of age, complained of severe abdominal pains, which were attended by troublesome vomiting of mucus and bile. He also suffered from constipation, which had lasted three days when he entered the hospital. The abdominal pains and vomiting subsided, the constipation alone persisting. A month later it was noted that the constipation still existed, the abdomen had also become painful, and the bilious vomiting had returned. The next day he presented all the appearances of a person suffering from obstruction. A careful examination of the usual situations for hernia was made, with negative results. The abdomen was not tympanitic, nor was it painful on pressure. Patient gradually sank. At the post-mortem examination the cause of the obstruction was discovered to be an enormous biliary calculus, apparently formed of a number of small calculi agglutinated together, and blocking up the large intestine. Numerous adhesions were found between the under surface of the liver and the duodenum.—AUDRY.—*Lyon Medical*, 1887, No. 16, p. 532.—*Medical Chronicle*.

Proceedings of Societies.

San Francisco County Medical Society.

SAN FRANCISCO, November 22, 1887.

The meeting having been called to order by the President, Dr. J. D. Arnold, the minutes of the former meeting were read and approved.

Dr. Chismore took the Chair while Dr. Arnold read a paper upon nasal catarrh, in which he dealt chiefly with deformity of the septum and turbinate bones as a cause of catarrh by obstructing the passage of air through the nose.

Dr. Martinache said that as a matter of personal curiosity he had devoted considerable attention to coryza, and believed that an important relation existed between the functions of the skin and diseases of the nasal mucous membrane, or between the skin and the stomach and the stomach and coryza. Contraction of cutaneous vessels with irritation of the nerves in the nose and ears were the most common cause, and, therefore, coryza should be regarded as a general rather than a local disease. Similar views would be found expressed in a work by Edward Vokes, of London.

Dr. G. F. G. Morgan thought that many were liable to treat catarrh simply as if it were an offensive discharge, without giving attention to the pathological conditions, general or local, producing it.

Dr. Whittell agreed with Dr. Arnold, that as a rule catarrh is treated too superficially. Attention should always be directed to the relation between the upper part of the digestive tract when repeated coryzas occur, for in such cases where there is a resulting catarrhal thickening of the mucous membrane of the nose, there is invariably dyspepsia in some form. All irregularities of diet, and gastric disturbance must be remedied before the catarrhal conditions can be permanently cured.

Dr. Stallard thanked Dr. Arnold for his epitome of advanced catarrh. He had been in the habit of regarding catarrh much as he would an eczema, i. e., as the outward sign of a constitutional disturbance, and consequently did not expect much improvement from local treatment unaided by internal medication. Among children the bad air of over-crowded school-rooms and

congestion of the liver from improper diet were, in his experience, the two most frequent causes of catarrh.

Dr. Whitwell asked whether catarrh was more prevalent in San Francisco than in other cities.

Dr. Arnold replied that although catarrh was frequent in San Francisco it was equally prevalent in all large cities throughout the United States.

Dr. Chismore believed that one reason for the belief that catarrh is more common in the cities of America than in those of Europe, lay in the fact that the disease was more thoroughly advertised by reason of the large number of quack remedies used for its relief. He believed that the inhalation of irritating dusts and vapors were among the most common causes, while it would appear that pure air was beneficial, as he had seen coryza frequently disappear from among soldiers after the troops had been ordered into the field.

Dr. Wm. Watt Kerr called the attention of the President to the fact that for two successive years the Committee on Medical Ethics had been requested to revise the Constitution and By-Laws, but had failed to do so; he, therefore, moved that the "the President together with a committee of four be appointed to revise the Constitution and By-Laws." The motion was carried, and the following committee appointed, Drs. J. D. Arnold, J. F. Morse, D. W. Montgomery, C. A. Von Hoffman, Wm. Watt Kerr.

The Society then adjourned.

WM. WATT KERR, M. D.,
Recording Secretary.

SAN FRANCISCO, December 13, 1887.

The meeting having been called to order by the First Vice-President, Dr. Geo. Chismore, the minutes of the former meeting were read and approved.

Dr. J. Heerdink, Univ. Heidelberg, 1886, was proposed for membership by Drs. Morse and Kerr, and referred to the Committee on Admissions.

On motion of Drs. Chismore and Sherman, Dr. J. J. Cochran, U. S. A., was elected an honorary member of the Society.

Dr. H. M. Sherman read a paper on "Bone Transplantation."
(Printed in this number of the JOURNAL.)

Dr. Rosenstirn said that his experience with this advance in surgery was limited to one case, in which the whole of the first

digital phalanx of a child seven years old had been excoriated and the periosteum destroyed. His treatment was to implant seven or eight grafts from the epiphiseal portion of the humerus of a puppy, and pack the wound with the iodoform gauze. Bone formed, and the child is now using the finger, which is perfectly healed and useful, although not quite so shapely as its fellow digits. It was his intention to try this plan for formation of bone in a case of fractured skull, where he had trephined in two places, over the frontal and parietal bones.

Dr. Morse reported favorably on the progress of his patient, who had been operated upon by Dr. Sherman.

Dr. D. W. Montgomery thought it quite an important question whether pits should be made in the granulations as sockets for the grafts, since blood-clot must form between the graft and the bone, and thus prevent union. He believed pressure of the grafts into the granulations to be sufficient.

Dr. D'Evelyn had seen several cases, and thought that the average number of grafts which took was about 80 per cent. He would like to ask Dr. Sherman whether he gave much attention to the diathesis of each patient, as indicating the chances of a successful operation.

Dr. Whittell said that there appeared to be no limit to transplantation of tissues, as in addition to the cases already mentioned, such a delicate membrane as the cornea had been restored by this method. As a matter of experiment, he suggested that the tissues of shellfish, which are known to be exceptionally reproductive, should be used as a source for grafts.

Dr. Chismore had a patient the top of whose finger had been completely detached by means of a chopping machine. It was immediately washed and reapplied by a fellow-workman. The further treatment consisted simply in the use of bichloride dressings, and although the part at one time became perfectly black, it gradually regained its color and became perfectly healthy without any resulting deformity.

Dr. G. F. G. Morgan related a similar experience with his own finger.

Dr. Sherman, in closing the discussion, said that the accumulation of blood between the bone and grafts was prevented by the pressure of the dressing forcing out the blood and absorbing it. He considered the diathesis of the patient to be of vital importance in contributing to the success of the operation.

There being no further business, the Society adjourned.

Wm. Watt Kerr, M. D.,
Recording Secretary

Licentiates of the California State Board of Examiners.

SAN FRANCISCO, December 9, 1887.

The following persons having complied with the law and all the requirements of the Board of Examiners, were granted certificates entitling them to practice medicine in the State, on the 2d of November, 1887:

M. L. ARTHUR, M. D., San Diego; Med. Dept. Univ. of Iowa, Iowa, March 3, 1886.

JOHN K. CARSON, M. D., Los Angeles; Missouri Med. Coll., Mo., March 6, 1883.

THOS. J. EATON, M. D., Chico; Univ. of New York, N. Y., March 3, 1859.

FRANCIS M. FEATHERSTON, M. D., Fresno; Louisville Med. Coll., Ky., February 27, 1874.

GEO. H. FLETT, M. D., Berryvale; Jefferson Med. Coll., Penn., March 29, 1884.

FRANCIS GALLAGHER, M. D., San Francisco; Yale Med. Coll., Conn., July 26, 1864.

EDMOND GOLDMAN, M. D., San Jose; Bellevue Hospt. Med. Coll., N. Y., March 5, 1863.

C. WOODVILLE HELM, M. D., Hildreth; Missouri Med. Coll., Mo., March 2, 1886.

W. B. DE JARRETTO, M. D., San Diego; St. Louis Med. Coll., Mo., March 9, 1871.

WM. J. MAYNARD, M. D., San Francisco; Rush Med. Coll., Ill., February 5, 1868.

OTTO M. SCHULTZ, M. D., Los Angeles; Univ. of New Orleans, La., March 30, 1887.

FANNIE E. WILLIAMS, M. D., Los Angeles; State Univ. of Iowa, Iowa, March 1, 1876.

The following were granted certificates December 7, 1887:

RUSSELL D. ADAMS, M. D., Los Angeles; Long Island Coll. Hospt., N. Y., July 30, 1864.

L. F. ALVAREZ, M. D., San Francisco; Cooper Med. Coll., Cal., November 17, 1887.

CHAS. DEXTER BALL, M. D., Santa Ana; Bishop's Coll., Province of Quebec, Canada, April 3, 1884.

ALFRED R. BRANDON, M. D., San Francisco; Cooper Med. Coll., Cal., November 17, 1887.

WM. B. BRENGLE, M. D., Los Angeles; Rush Med. Coll., Ill., March 4, 1875.

JAMES P. BOOTH, M. D., Needles; Galveston Med. Coll., Texas, March 2, 1871.

CATHARINE H. BRANDT, M. D., San Luis Obispo; Women's Med. Coll. of Penn., March 17, 1887.

OWEN BUCKLAND, M. D., San Francisco; Cooper Med. Coll., Cal., November 17, 1887.

- FRED POPE CLARK, M. D., Stockton; Cooper Med. Coll., Cal., November 17, 1887.
- CHANNING H. COOK, M. D., San Francisco; Cooper Med. Coll., Cal., November 17, 1887.
- WM. HENRY COPE, M. D., Oakland; Cooper Med. Coll., Cal., November 17, 1887.
- E. M. DIAL, M. D., Orange, Los Angeles Co.; Louisville Med. Coll., Ky., February 25, 1886.
- CHAS. ATKINSON DOZIER, M. D., Rio Vista; Cooper Med. Coll., Cal., November 17, 1887.
- WM. H. DICKENSON, M. D., Los Angeles; Univ. City of New York, N. Y., February 17, 1880.
- FRED. W. D'EVELYN, M. D., San Francisco; Univ. of Edinburgh, Scotland August 2, 1886.
- CHAS. FAGET, M. D., San Bernardino; the Faculty of Medicine of Paris, France, August 7, 1880.
- S. T. FERGUSON, M. D., Santa Barbara; Rush Med. Coll., Ill., January 25, 1865.
- MICHAEL I. FOLTBELL, M. D., San Francisco; Med. Dept. Univ. of Cal., November 15, 1887.
- HENRY H. FORLINE, M. D., Los Angeles; Benmont Hosp. Med. Coll., Mo., March 1, 1887.
- GEORGE KENNEDY FRINK, M. D., San Francisco; Cooper Med. Coll., Cal., November 17, 1887.
- JOHN WOODBURN GIBSON, M. D., San Francisco; Cooper Med. Coll., Cal., November 17, 1887.
- J. M. HARRIS, M. D., Los Angeles; Univ. of Louisville, Ky., February 25, 1887.
- HENRY L. JOHNSON, M. D., Oakland; Cooper Med. Coll., Cal., November 17, 1887.
- FREDRICK KIRCHHOFFER, M. D., San Francisco; Med. Dept. Univ. of Cal., Cal., November 15, 1887.
- RICHARD J. MOHR, M. D., South Pasadena; Med. Dept. Iowa State Univ., Iowa, February 21, 1861.
- RICHARD MURPHY, M. D., Pasadena; Univ. of Michigan, Mich., March 28, 1875.
- WILLIAM CASPER PARKER, M. D., Los Angeles; Sterling Med. Coll., Columbus, O., February 26, 1869.
- WILLIAM C. PAYNE, M. D., Pasadena; Med. Dept. Western Reserve Coll., O., March 2, 1853.
- STEPHEN T. W. POTTER, M. D., Orange; Coll. Phys. and Surgs., Keokuk, Iowa, February 14, 1878.
- DENIS FRANCIS REGAN, M. D., San Francisco; Cooper Med. Coll., Cal., November 17, 1887.
- L. REDMON, M. D., San Francisco; Rush Med. Coll., Ill., February 25, 1865.
- JOHN MACK READ, M. D., Woodland; Cooper Med. Coll., Cal., November 17, 1887.

- RUFUS LEE RIGDON, M. D., San Francisco; Cooper Med. Coll., Cal., November 17, 1887.
- NICHOLAS RUSSELL, M. D., San Francisco; Univ. of Bucharest, Romania, January 14, 1877.
- LEOCADIE RUSSELL, M. D., San Francisco; Univ. of Bern, Switzerland, March 12, 1879.
- HUGO SEUFFLEBEN, M. D., San Luis Obispo; Univ. of Koenigsberg, Chili, August 9, 1885.
- JOHN H. SHEETS, M. D., Susanville; Med. Dept. Univ. of Cal., Cal., November 7, 1881.
- DUDLEY W. STEWART, M. D., Los Angeles; Med. Dept. Lind Univ., Ill., March 4, 1861.
- CHAS. J. WARRY, M. D., Alameda; Royal Coll. of Surgs., London, England, April 18, 1871.
- JAMES M. WHEAT, M. D., Colton; Albany Med. Coll., N. Y., May 31, 1853.
- ROBT. B. WILLIAMS, M. D., San Francisco; Med. Dept. Univ. of Cal., November 15, 1887.
- WALTER KERN WILKINS, M. D., San Diego; Bellevue Hosp. Med. Coll., N. Y., March 15, 1886.
- W. B. WOOD, M. D., Earlham; Missouri Med. Coll., St. Louis, Mo., March 4, 1875.
- HERBERT W. YEMANS, M. D., San Francisco; Detroit Med. Coll., Mich., March 5, 1878.

Wm. M. LAWLER, M. D., Secretary.

Dosage of Salicin in the Treatment of Rheumatism.

Dr. MacLagan in a letter to the *Lancet*, April 30th, 1887, makes some interesting comments on a case of rheumatic fever previously reported by Mr. Green, of Wallingford, in which salicin and salicylate of soda had failed to exercise their so-called specific action. The patient was treated with salicin for a week; at the end of that time he was no better, and had a temperature of 107° F, although 1,280 grains of the drug had been given. Dr. MacLagan points out that this amount would only be equivalent to 6.6 grains per hour, and considers this a totally inadequate dose. To get the full effect of salicin, he says, 20 to 40 grains should be given every hour until there is decided evidence of its action. Usually distinct improvement is observed before an ounce has been taken. Rheumatic hyperpyrexia, he considers, is not a true part of the rheumatic process, and the salicyl compounds which are so potent in rheumatic pyrexia, are of no use in hyperpyrexia.—*Medical Chronicle.*

Health Reports.

Report of State Board of Health.

Mortality returns received from ninety towns for the month of November indicate an increased death rate over the preceding month; the number of decedents being eleven hundred and sixty-nine in an estimated population of seven hundred and fifty-four thousand nine hundred and fifty, a percentage of 1.54 per thousand in the month. The increased mortality may be attributed to the greater prevalence of pneumonia, diphtheria, and typhoid fever, rather than any increased severity in the type of the diseases themselves.

Consumption was the cause of one hundred and sixty deaths, the largest number recorded for many months.

Pneumonia is credited with causing one hundred and twelve deaths, nearly twice as many as occurred in October, and four times the mortality from this disease in September.

Bronchitis was fatal in sixteen instances, chiefly occurring among the aged.

Congestion of the lungs is noted as the exciting cause of death in twenty-two instances, an increase of over one hundred per cent in the mortality from this cause in October. The increased mortality in these affections of the respiratory organs was no doubt greatly influenced by the meteorological changes to which we were subject, especially the lowered temperature during the latter part of the month.

Diarrhoea and dysentery caused twenty-nine deaths, which is an increase over last report.

Cholera infantum. The mortality from this disease decreased from fifty-one deaths last month to twenty-three this month.

Diphtheria shows a much increased mortality, forty-six deaths being recorded from it; of these fourteen occurred in San Francisco, eight in Pine Creek, Tehama County, seven in Suisun, five in Sacramento, two in Anaheim, two in Sonora, and one each in Oakland, Eureka, Colton, Pomona, San Jose, Santa Ana, Watsonville, and Williams.

Croup shows relatively quite as large a mortality, the deaths from this cause numbering thirty-two; nearly all occurred where diphtheria was prevailing.

Whooping-cough caused only two deaths.

Scarlet fever had two decedents.

Measles caused four deaths.

Smallpox caused four deaths in San Francisco.

Typho-malarial fever had two decedents.

Typhoid fever shows a marked increase in mortality, fifty-six deaths being recorded from this disease during the month. San Francisco reports fifteen, Los Angeles seven, San Jose five, Pomona three, San Diego, San Pedro, Pasadena, Bakersfield, Etna Mills, and Nevada City two each, Alameda, Anaheim, Calico, Elsinore, Fort Bidwell, Gonzales, Santa Ana, Santa Clara, Sierra City, Stockton, and Vallejo one each, showing the disease to be prevalent over a large extent of territory.

Remittent fever. Eight deaths are attributed to this disease, which is a slight increase over former report.

Cerebro-spinal fever caused nine deaths, of which three are reported from Sacramento, and one each from Elsinore, Lincoln, Monterey, Oakland, Ukiah, and Watsonville.

Alcoholism was fatal to fourteen decedents.

The following towns report that no deaths occurred in them during the month: Auburn, Cedarville, Davisville, Mariposa, Castroville, Merced, Millville, San Mateo, Susanville, and Truckee.

PREVAILING DISEASES

Reports of sickness received from one hundred localities throughout the State decidedly indicate an abnormal amount of sickness; especially in diseases affecting the respiratory and alimentary tracts. There is no doubt that the contamination of the soil by waste matter deposited in the vicinity of dwellings where there is no sewerage, is a prolific cause of typhoid fever. This waste, being chiefly fluid, sinks into the soil, and, with the continued lowering of the water, slowly percolates through the parched earth, until finally it reaches the well water and loads it with tasteless, odorless, and, by sight, undiscoverable poison.

We find that cholera infantum was noticeable in Downey, Knight's Ferry, Arbuckle, and Modesto.

Diarrhoea and dysentery were quite prevalent in Downey, Dixon, Etna Mills, Merced, Benicia, Cedarville, Salinas, Bakersfield, Modesto, Sonora, Colton, Redding, Wheatland, Lemoore, Gridley, Biggs, Cottonwood, Santa Cruz, Santa Ana, Tehachapi, Susanville, Elsinore, Jolon, Calico, and Lockeford.

Measles are prevalent in Sacramento, Ukiah, Red Bluff, Merced, Lemoore, Lodi, Cottonwood, San Francisco, Hill's Ferry, Cedarville, Martinez, Truckee, Anderson, Lockeford, and Sierra City. The type is mild and with a very limited mortality.

Scarlet fever is noticed as present in Sacramento, Fort Bidwell, Red Bluff, Lodi, Truckee, Cottonwood, Forest Hill, and San Francisco.

Smallpox is becoming quite prevalent in San Francisco; no less than thirty-three cases being reported in November, and several have occurred since. Two cases were reported by Dr. Downing, 16 miles from Suisun; one case reported in Oakland; and one case in Elmira. This gradual spread of the disease is giving us timely warning to get ready to meet the destroyer, by constant attention to vaccination; when all are vaccinated the enemy is defeated, as it will have no food upon which to subsist. We cannot too earnestly insist upon vaccination *at once*; do not wait for smallpox to develop, as you may contract the disease when vaccination will be too late to arrest it. Therefore we say vaccinate now and vaccinate thoroughly.

Diphtheria continues to spread over the State. It prevails to some extent in San Francisco, over eighty cases being reported last month; it is found in Sacramento, Anaheim, Etna Mills, Martinez, Millville, Biggs, Colton, San Jose, Oakland, Anderson, Truckee, Igo, Pomona, Santa Ana, Eureka, Sonora, Watsonville, Williams, St. Helena, Suisun, Pine Creek, Amador City, and Rock Creek. In Suisun it was very prevalent, and Dr. Downing writes that it appeared also on Grizzly Island, in Sacramento River. In Pine and Rock Creeks, in Tehama County, Dr. Harvey writes, the disease was particularly virulent, there being eight deaths out of the twenty-one cases seen. The region attacked is, Dr. Stansbury says, near the foothills in places sparsely settled, and where we would suppose the drainage good. The first cases came directly from the foothills.

Croup is noted in those towns where diphtheria prevails, especially in Anaheim, Lemoore, Downey, Millville, Modesto, and Redding.

Whooping-cough is present in Salinas, Jolon, Redding, and Elk Grove.

Erysipelas was noticed during the month in Yolo, Red Bluff, Dixon, Lower Lake, Forest Hill, Lockeford, Downey, Merced,

Millville, Santa Cruz, and St. Helena. The type was mild, without fatality.

Typhoid fever is found in nearly every town in the State. This must be expected from the continued absence of rain during the month. Typhoid being now generally recognized as due to a specific infection which finds its nidus in conditions brought about by a failure to deal properly with the solid and liquid refuse of population, it is not surprising that we should find the disease prevailing in all those towns where sewerage is deficient or entirely absent. We find that in San Diego its frequency is well marked. Dr. Huntington, an experienced military surgeon in charge of the garrison there, says the cases occurring among the troops were contracted outside the barracks by visiting insanitary spots in the city, and thinks that the deficient sewerage of the place, with the overcrowding which the increased immigration has necessitated, has disseminated the fever quite extensively. In Nevada City, Dr. Welch says, the disease has been quite prevalent. It is also noted in Etna Mills, Cedarville, Truckee, Lincoln, Anaheim, Bakersfield, Los Angeles, Fort Bidwell, Sierra City, Ukiah, Santa Cruz, Sacramento, Oakland, Elsinore, Pomona, Pasadena, and San Jose.

Pneumonia prevails extensively and seems to have developed generally during the latter part of November, when the warm weather gave place to cool days and frosty nights. The disease has been quite severe in San Francisco and along the coast counties, and is noticed in some places as being almost epidemic.

Bronchitis is noted for its prevalence.

Influenza is also mentioned as assuming an epidemic character in many of the interior towns. It is not, however, accompanied by that extreme prostration and debility which is the general character of most epidemics of influenza.

The following is the

PACIFIC COAST WEATHER FOR NOVEMBER, 1887.

Signal Service U. S. Army, Division of the Pacific, San Francisco, Cal., December 1, 1887. Weather. The well marked storms of the month have been but three in number. The first passed from the ocean to the east north of Washington Territory on the 11th and 12th, accompanied by light gales near Cape Flattery, and by rainfall extending as far south as the northern quarter of California. The second appeared in Arizona and

Southern California on the 21st, giving rains in California as far north as Monterey. This rain was light except in the extreme southern portion of California and Arizona, where it was unusually heavy. The third storm of the month appeared off the coast of Washington Territory on the 27th, and rapidly extended to the south, giving rains along the entire Pacific Coast. Rain also fell in light, scattered showers in Oregon and Washington Territory on the 5th, 6th, 7th, 8th, 9th, 10th, 13th, 14th, and 24th. During the greater portion of the month the temperature remained above the normal in all of the Pacific Coast districts, this period of warm weather being broken by a decided fall in temperature on the 23d. From the 24th to the 28th the weather was unusually cool, frost being reported over a wide area of country.

Temperature. The mean temperature for the month has been about normal in Washington Territory, Northern Oregon, and along the coast of California. In Southern Oregon and in the interior of California the month has been slightly warmer than usual, but the departures from the normal are small, in no case exceeding three degrees.

Rainfall. The rainfall has been in excess of the average rainfall for the month in southeastern Washington Territory, and in the extreme southern portion of California. In all other districts it has been markedly below the average.

GERRARD G. TYRRELL, M. D.

Permanent Secretary California State Board of Health.
Sacramento, December 10, 1887.

COCAINE IN MENTAL DISORDERS.—Dr. C. Heimann, of Berlin, describes the prejudicial effects produced by the excessive use of cocaine as being similar to those which affect the Indian coca eaters. "It seems," he says, "that the coqueros, like our own cocainists, are recognisable by their uncertain manner, the loose skin of earthy tint, the hollow lack-lustre eyes surrounded by violet-brown circles, the tremor of the lips, the style of speech, the suspicious, hesitating, false, crafty character. Similarly to our cocainists, they are insensible to hunger and thirst, are often under the influence of delusions, and, mentally, they not infrequently are degraded to complete imbecility." The writer considers that in the treatment of mental affections cocaine is of doubtful benefit.—*Journal of Mental Science.*—*The Practitioner.*

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SAN FRANCISCO, JANUARY, 1888.

Editorial.

OUR HOSPITALS AND ASYLUMS.

We are in receipt of a pamphlet by Dr. Wm. H. Mays, Superintendent of the State Insane Asylum at Stockton, in which, after giving a historical account of the treatment of the insane from very early times, he calls attention to "the modern distrust of insane asylums."

His timely and appropriate remarks are called forth by the slanderous accusations that have been made within the last few months against the medical attendants in the asylums of some of our sister States, all of which have been found to be false and without foundation, but nevertheless have left their sting in the hearts of those victimized. We are all more or less accustomed to the attacks on the hospitals, but this need not be a matter of surprise, since most of the positions in these institutions are the recognized reward of political service, whereas the asylums, in this State at least, are free from those official changes that usually follow a campaign.

The effect of these attacks, whether they be made against hospitals or asylums, is far from beneficial. We do not mean

to convey the impression that these institutions should be closed against public scrutiny, or that misdeeds and carelessness should be covered up from public gaze; but we do denounce the habit of rushing into print with an article based upon the statements of a professional vagrant, thief, prostitute or opium fiend—whose inclinations towards laziness, whisky or vice, have been restrained,—without taking some precautions to ascertain the truth or falsehood of the charges. It is true that sickness commands the same exercise of kindness and forbearance, whether it be found in saint or sinner, nevertheless it is very improbable that the comforts and benefits of a hospital, or any other public institution, can be correctly estimated from the feelings of one whose restrained passions would make heaven itself a hell. All we urge is that the credibility of the witness be established, and the fact ascertained that the charges are not the offspring of vindictiveness or mental incapacity.

The following extract from Dr. May's paper shows how necessary such precautions are:

"Dr. Chapin, of Philadelphia, referring to a recent legislative investigation of charges made against an asylum, says: 'If the hallucinations of the inmates of insane hospitals are to be received as competent evidence, if reputable physicians and humane gentlemen who act as trustees, are to be dragged before the public and exposed to harsh criticism, whenever an uncured lunatic chooses to make a statement of cruelties, the whole system of insane hospitals will become a failure.' I have a lively recollection of a case in point that occurred in my own experience lately. A young man, recovering from acute mania, was brought to me for a final interview before discharge. He said he had one complaint to make, and only one, and that was about the manner in which he had been brought into the asylum. He had been thrown headlong out of the carriage, he said, and dragged by the feet up the stone steps of the building, amid the jeers of a crowd of bystanders. Now it so happened that I was present at the admission of this patient, and remembered the circumstances clearly. I saw him, a frenzied maniac, lifted gently from the vehicle and conducted carefully

into the reception-room, walking with the support of an attendant on either side. Yet this man goes forth, sane on other points, to spread his preposterous story before the world, to ears too ready to receive it. The incident made a deep impression on me, illustrating so forcibly the general character of charges made against asylums."

The effect of these ill-timed attacks is bad for everyone connected with public institutions. Many of the best and most honorable men who would, under other circumstances, most willingly serve the State or city by acting as directors or trustees, decline to do so on account of the annoyance they would be subjected to by politicians and newspaper misrepresentation; the employés are discouraged by the knowledge that merit on their part will not win the reward of prolonged employment; and, lastly, many deserving people are deterred from applying for medical relief by the utterly false and sensational articles that appear from time to time in the daily papers.

Owing to our rapidly increasing population, the number of applicants for political appointments is every year exceeding the number of positions, and there is now an effort, on the part of some people, to increase the supply by bringing into the political arena medical offices that have been long removed from it. As most of the evils we have referred to are both directly and indirectly due to political interference, we would urge our readers to exert themselves in opposing this movement.

POSSIBLE SUBSTITUTES FOR COCAINE IN MEDICINE.—Dr. A. Hughes Cennett says, that, in an investigation undertaken in 1872, he demonstrated that the physiological properties of theine, caffeine, theobromine, guaranine, and cocaine, when administered hypodermically, were to all appearances the same. "Should it be proved that they have also similar effects when applied externally to the mucous membranes, it would be of importance from an economic point of view; as cocaine is extremely expensive, while the others are comparatively cheap."—*Southern Medical Record.*

Translations.

By D. W. MONTGOMERY, M. D.

Extra Peritoneal Exploratory Incision in the Linea Alba.

By Dr. A. von GUBEROFF.

At the Congress of Russian physicians, dedicated to the memory of Piragoff, which was held in Moscow early this year, Prof. Sneguireff recommended the adoption of different extra-peritoneal incisions for diagnostic purposes. Later on Bardenheuer published a communication on the same subject. Both these authors recommended incisions which run high up or to the side, but Guberoff shows from the anatomy of the parts that an incision in the linea alba is the most advisable. In the middle line, and for about three centimeters on each side of it, the peritoneum may be easily stripped from the abdominal wall, and its elasticity permits of examining almost the whole abdominal cavity without tearing it. This kind of examination is particularly successful if one hand be introduced into the wound in the middle line, and the other hand placed on the lateral wall of the abdomen. In this way may be examined the whole anterior surface of the pancreas, the pylorus, the duodenum, both kidneys, a great part of the lower surface of the liver, the gall bladder, the most of the pelvic organs, and, with a little practice, the ureters.

This kind of examination might always take precedence in those cases where a diagnostic laparotomy is indicated; in the first place, because it is not at all dangerous, and also because the usual explorative laparotomy can be made if the peritoneum should tear.—*Centralblatt fur Chirurgie.*

The Signs of Pregnancy.

By BROUARDEL.

The following study of the signs of pregnancy and parturition will be reduced strictly to its medico-legal aspect.

We may reduce the cases into two orders—those in which a woman wishes to conceal a pregnancy, and those in which she wishes to simulate a pregnancy; in the latter there are usually monetary interests to be served, as, for example, inheritances. Of all errors of medical diagnosis, there are none which strike

the public so forcibly, and are so harmful to the reputation of a physician, as those we are about to treat of. In any case it is a grave issue, and in medico-legal medicine most particularly grave. In Vic, a small village near Nancy, a young girl was accused of infanticide, after having had a loss of blood with apparent disappearance of the pregnancy, at the seventh month. A midwife and a doctor, after making an examination, declared she had borne a child. She was condemned to six months' imprisonment, but two months after she gave birth to a child at term! By a singular coincidence, at another town called Vic, near Tarbes, a woman gave birth to a dead child of from eight to eight and one-half months on leaving the Courtroom where she had just heard herself sentenced for infanticide. Such occurrences do not add much glory to physicians, and especially to medico-legal experts.

Let us now follow some of the questions which may come up before a doctor in examining a patient to determine if she be *enceinte* or not. Should she refuse to allow an examination, you cannot go any further; you must not even make use of arguments to try to induce her to submit to such an examination; you would be accused of exerting moral force, and the lawyer of the opposition, in his oratorical efforts, would liken you to those who, in former times, used torture to wring confessions from their witnesses.

You ought always be on your guard against what are called the probable signs, such as the suppression or continuance of the menstrual flow. It has occurred that a woman wishing to conceal a pregnancy has borrowed a chemise stained with menstrual blood from one of her friends, or has stained her own linen with blood from the lower animals. More importance may be attached to the examination of the breasts. They enlarge, and the tubercles of Montgomery tumify. At the end of the second, or in the third month, they already contain a little colostrum. On making gentle pressure behind the nipple, you may empty the lactiferous ducts. But this is not an absolute sign of pregnancy, and I know a woman who for eight years has never ceased to secrete milk, and who is always obliged to wear cloths on her breasts to receive the overflow. Milk has been found in the breasts in cases of retro-uterine haematocele. Leblond reported such a case a short time ago before the Medico-Legal Society. There are also men from whom you may press a few

drops of milk, and Humboldt says he saw a man in India nursing an infant at his own breasts.

The uterus may be examined through the abdominal walls. It rises above the pubes in the third month, and above the navel in the sixth. It may be mistaken for an ovarian tumor. During our term as interne in the hospital we have seen such an error. An ovarian cyst was diagnosed. The cyst was punctured, and while drawing off the fluid a foetus was discovered in the supposed cyst. It was a case of dropsy of the amnion, and all the physicians and surgeons of the hospital had slipped up on the diagnosis, &c., discussing all possible hypotheses. Three months after drawing off the fluid a living infant was born at term.

Nevertheless there are signs of pregnancy as certain as the crepitant rale and the souffle of pneumonia. The first of these is the movement of the fetus, but even here one may be mistaken, and Antoine Dubois, who is undoubtedly one of the foremost accoucheurs of our day, acknowledges having been caught in this. Certain spasmodic movements of the abdominal muscles may simulate movements of the fetus. Ambroise Paré relates a very amusing instance of this. In 1651 a young girl, saying she came from Normandy, came to Paris soliciting alms, because she suffered from a serpent in her abdomen. She would have people place their hands on her abdomen that they might feel for themselves the movements of the serpent. A lady took great pity on her, and took her into her own house, and had physicians called to take measures to drive out this serpent. An active purgative was given, but without the desired effect, then the physicians held a consultation at which they decided to tell her they were about to give her a very powerful medicine. She took fright at this, and escaped during the night, not forgetting to pack up and carry off her own clothes, and also some of the clothes of her benefactrice. Some days afterwards she was seen disporting herself with some questionable characters of her own sex in a manner showing that she did not suffer to any great extent from the supposed serpent.

The second sign consists in giving certain passive movements to the fetus as abdominal and vaginal ballottement, which can be elicited in the fourth month.

The third and most certain of all signs is the auscultation of the foetal heart. Nevertheless, it does not do to be too confi-

dent even here, for both Antoine Dubois and Pajot have been deceived in this. It is necessary to exclude carefully the pulsations of the mother, for some women, under the excitement of an examination, have a pulse of 120 in the minute, also in those women afflicted with Basedow's disease the pulsations may be so fast as to give rise to an erroneous diagnosis.

To sum up, a positive diagnosis can only be made by taking the signs collectively. One of the most frequent causes of error is extra-uterine pregnancy. If this condition be positively made out, then you may rest perfectly easy, for you may be sure there is not at the same time a normal pregnancy.

We now come to the false pregnancies or socalled moles. We have fleshy moles, vesicular moles, etc., and we include here fibrous bodies, polyps, etc., developing in the uterus, which are expelled sooner or later. Moles arising from degeneration of the placenta may weigh from thirty to fifty pounds. In the good old times when a nun or a demoiselle of a noble house would give birth to a child, long winded discussions would be held in Parliament on the subject of moles.

Of other and many causes of error such as hydropsies, we will not speak at present. Here, as well as under many other circumstances in medico-legal medicine, there is only one course, viz.: Gain time, know how to wait, and above all never come to a final decision on a single examination.

Many and diverse questions may hinge on a woman being pregnant or not. For instance, a woman is accused of having had an abortion performed on her, and accomplices are suspected. How long afterwards can it be diagnosed; and if the woman be dead, how long after burial may she be exhumed with the hope of finding traces in the affirmative or negative? Casper was able to show nine months after burial that a girl was a virgin. And, further than that, the uterus and placenta are organs that undergo putrefaction very slowly, especially when aromatic woods are used in making the coffins.

Can pregnancy escape recognition by the mother herself? This is very rare, although it frequently happens in the hospitals that girls will obstinately deny being pregnant even when the head of the foetus, being born, comes into view. Nevertheless, the following happened to one of my clients, a very fat woman who had already borne three children; the last child had been nursed already for twelve months, and she had no reason

whatever to deny being pregnant. Her husband came to me asking me to call on his wife during the course of the day, as she was troubled with some pains in the abdomen. When I arrived the state of affairs was very evident, and in half an hour the child was born. This woman had never felt a movement, and the absence of the periods had been attributed to the continuance of lactation.—*Gazette des Hopitaux.*

Relative Value of Antipyrine and Antifebrin.

Dr. G. Walter Barr, of Bridgeport, Ill., has made a most careful clinical study of antipyrine and antifebrin on himself whilst suffering from neurasthenia complicated with malaria. He thus sums up his experience:

Antipyrine.	Antifebrin.
Lowers temperature in half an hour.	In an hour or more.
Effect lasts two hours.	Effect lasts six hours.
More diaphoretic.	More diuretic.
Depressing after-effects.	No after-effects.
Cerebral sedative.	Cerebral vaso-motor and muscular (?) stimulant.
Dose, 15 to 30 grains.	Dose, 5 to 15 grains.
Tolerance from continued use.	Tolerance from continued use.

This table, he says, will suggest the selective use of the two drugs. From the patient's point of view (which is really coincident with the physician's), antifebrin is much to be preferred in continued fevers, because the dose is one small capsule instead of three; the effect lasting so long requires one-third the number of doses; the tonic stimulation excels the depression and after malaise; and the cost is one-fourth that of antipyrine. The antipyretic action of antifebrin is as strong or stronger than that of antipyrine, and its only objection is its slowness of action. In isolation and other cases where a quickly-acting antipyretic is necessary, and when it has a specific action on the pathology of a disease, as is claimed in rheumatism, antipyrine is to be preferred. Whenever one can wait an hour for the antipyretic action to begin, he greatly prefers antifebrin, and so he believes will the patient also. He regards its stimulant or tonic effect as very valuable in weak patients.—*Therapeutic Gazette, June, 1887.—The Practitioner.*

Extracts.

Stenocarpine—Another New Local Anæsthetic.

A discovery has been made in America of a new active principle possessed of powerful properties as a local anæsthetic and mydriatic, which promises to become applicable in practical medicine and surgery. Dr. J. Herbert Claiborne, Jr., of New York, appears to have been the first to examine the physiological action of this new substance. Having convinced himself that it possessed local anæsthetic and mydriatic properties in animals, he applied it to man. On June 27th, three drops of a .0 per cent solution of the alkaloid were instilled into the left eye of a medical friend. He complained of stinging sensation, immediately followed by slight lacrimation. In five minutes anæsthesia of the cornea and conjunctiva was complete; reaction of pupil to light, normal; no dilatation; palpebral fissure increased slightly; a "stiff" sensation in the lids. In eight minutes the punctum proximum was five inches; the lids less stiff; the eyeball feeling fuller than before. In ten minutes anæsthesia still complete; palpebral fissure markedly increased; no appreciable difference between the pupils. In fifteen minutes anæsthesia was the same; left pupil slightly larger than the right; reaction to light, direct, accommodative, and consensual, normal; conjunctiva slightly paler. In twenty minutes anæsthesia of cornea and conjunctiva not complete; dilatation increased, reaction to light direct, accommodative, and consensual; no blurring of vision. In thirty minutes, anæsthesia abolished, left pupil dilated *ad maximum* and uniform; neither direct, consensual, nor accommodative reaction can be seen. Right pupil contracted to pin-head size, and somewhat irregular, but reacting to light, directly, in accommodation and consensually. No difference between the tension of the two eyes. No systemic effect. Pulse, eighty. On June 28th, at 4 p. m., P. P. was found to be twelve inches; dilatation about medium; palpebral fissure normal; the three reactions of the pupil to the light, faint. On June 29th, P. P., eight inches; pupils slightly dilated; reaction to light, marked. On the 30th, the pupil was normal, with P. P. at five inches. At no time was there any unpleasant symptom. The drug was next employed in a number of cases of disease of the eye and other parts. Foreign bodies were removed

from the cornea of patients, invariably without pain. Cases of conjunctivitis simplex were treated with it also; some constriction of the vessels occurred, but this by no means approached that caused by cocaine. Its effects on the nose, ear, and skin was also tested, with fairly satisfactory results. No experiments were made as to the physiological effect of the drug when introduced into the general system. From analogy it would be reasonable to expect that the anaesthetic effect would be increased by stronger solutions. In its effect upon the eye it seems to stand midway between atropine and cocaine. Its anaesthetic effect lasts about as long as that of cocaine; its mydriatic effect is greater than that of atropine; while its paralyzing effect upon the muscle of accommodation is perhaps as great as that of atropine, reaching its maximum effect in about six or seven hours, and disappearing rapidly thereafter. It would seem to be indicated wherever cocaine is, so far as its anaesthetic properties are concerned; and where atropine is, so far as its mydriatic properties are concerned. In fact, for irides rendered sluggish by inflammation it seems to be superior to atropine, though the duration of its effects, as we have seen, is by no means as great. In seven instances Dr. Claiborne observed a diminution in tension when the pupil was dilated *ad maximum*, though he has not been able to detect it in all cases. Dr. Knapp, of New York, has already added to our knowledge of the drug, especially as regards its general (systemic) action. He finds that when applied externally to an unbroken cutis, it produces no anaesthesia. Small doses rapidly absorbed may produce transient general symptoms—pallor of the skin, cold perspiration, dizziness, stupor, fainting, nausea, and weakness. Larger doses cause the most alarming general symptoms—violent tetanoid convulsions, opisthotonus, dilatation of the pupils, excessive acceleration of pulse and respiration, and prostration—like those of strychnine. Introduced into the veins stenocarpine is the strongest poison, causing death almost instantly by arrest of respiration and pulsation. It is certainly dangerous to inject even small quantities into vascular tissues, such as the orbit, for instance; it appears even unsafe to inject it under the skin in quantities exceeding ten minims of a two per cent solution—*i. e.*, about .01 grammie (one-sixth grain). We should also be on our guard if we apply it to an open wound during the progress of an operation.

The tree that yields this remarkable alkaloid grows abundantly in Louisiana, where it is known as the Tear Blanket Tree. The leaves resemble those of the *Acacia stenocarpo*, whence the name stenocarpine suggested for the active principle. Complete botanical details may be shortly expected.—*The Medical Record, July 30 and August 13, 1887.*—*The Practitioner.*

The Tribulations of a Medical Student.

By "QUIGLEY," M. D.

MR. EDITOR—You ask me to write you a reminiscence of my student days. Now, I don't like reminiscences. Somehow my Thaumaturgie spade always digs up dry bones, and the particular one you want—well, I would as soon write you a ghost story as I sit here alone in the office to-night as to recall this special reminiscence. There are some things we never can forget; but, like Banquo's ghost, they will not keep down, but rise again.

I was young then, and am getting old now. The frosts of many winters are whitening my locks. I have seen many of the mile-stones of time flit by me. I have learned and forgotten many things; but this ghost of my student days still looms behind me like the spectre of the "Brocken." It was my first "granny" case.

I was a student in medicine, had attended my first course of lectures, and was spending my inter-collegiate vacation as "Interne" at the old Tennessee State Hospital. Old Dr. D—— called on me one day, and informed me that he had been engaged to attend a Mrs. H——, who lived in the neighborhood, in her confinement, then about two weeks off; that he was compelled to be absent, and he wanted me to take charge of the case. I could not refuse, and agreed to do so. The next day the old doctor brought me over a set of harness to put on her when in labor, and explained their application. There were feet rests, hand pulls, belly-bands, shoulder braces, and the Lord only knows what else. I only remember I was afraid to try and make the application, and gave it up in disgust.

Two weeks—well, if there ever were two long weeks, they were the ones. I was in a constant state of dread. The call of the angel Gabriel and that of Josh H—— were all the same to me. I would have as soon heard the one as the other.

Finally, one morning, as the sun rose, I had to rise too, at

the call of Josh H——. I slipped into a new broadcloth coat which had cost me forty-five dollars, and repaired to the cottage. Shortly after my arrival, I requested an examination, which was readily accorded. Now, the *tactus eruditus* in my case had never been developed—in fact, there was no *eruditus* at all; but I assured the family all would be right, which seemed to impart a great deal of consolation. I was not, however, so happy. I had felt the immense size of the abdomen, and, for the life of me, I could not see how there could ever be an adaptation of the means to the *end*. I remembered, however, that my old professor, Dr. Watson, had explained the wonderful resources of nature, and I had faith, because perforce I was compelled to; but my faith was in Dr. Watson's words, and not based upon the substance of things unseen by me. I mentally cogitated: "Now, old dame, if you come out all right in this thing—the top dog in the fight—you will have to be a hustler and do about, for you can't get any assistance from me, but I never will doubt your vast powers and conservatism; no, never."

The pains were slight, and, after a few hours, some hemorrhage took place; but I remembered Professor W—— had spoken to us about a *show*. I remained satisfied for a few hours; but as it turned out, it was not only a *show* to me, but a whole circus and a hippodrome thrown in. Telling the family that I was compelled to be absent for a short time, but that I would return in time, I made a bee-line for the office of Professor W——, and consulted him. He kindly told me that as soon as the head engaged in the pelvis it would probably cease; and I returned to my charge.

Hours passed, and still but little change. A young girl, one of the burgeoise, who did not seem to appreciate that she was at a questionable place of propriety, had accompanied her mother, and was munching apples under an apple tree in the yard. Every few minutes I would see my patient, and then rejoin the girl, and in my desperation make love. (But I must confess I began to have, like the good old Vicar of Wakefield did for his filly, a most hearty contempt for the sex.) Well, Mr. Editor, in my desperation I ate apples until I felt like a cider press, and had almost as much *embonpoint* as my patient, and wished I was a little girl baby in my mother's arms instead of a doctor.

About 11 o'clock at night I took another observation. The waters had not broken, but, O horrors, there was something, but I could not tell what. My manipulations ruptured the membranes, but still I could not make out the presentation. I felt something, but what could it be? It was not a foot or a hand, because there were no toes or fingers. It was not a scrotum or a tongue; but what could it be? (It was an ear.) I could not tell. Unaccountably to me, the pains ceased, and I sat down in utter despair, with no hope but in the conservatism of nature. The old crones around me became uneasy, and commenced to debate the situation.

"Go out, Sallie, and chunk that dog out from under the house. It is a bad sign to hear a dog howl; it is almost a sure sign of death. I remember poor Suckey More died after a dog howled."

"Yes," said another, "and did you hear that screech owl in the apple tree awhile ago? It is almost as good a sign as fur a dog to howl."

"Pore Miss ——," said another. "Pore critter, she has suffered powerful to-day. She has been jest like pore Nancy Sweet the day she dide, but maybe the Lord will pervide."

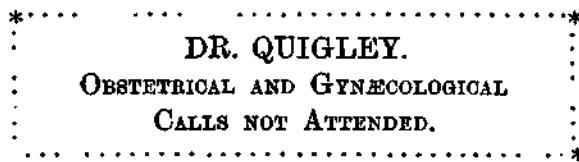
Now, Mr. Editor, in my helplessness I almost wished a dozen screech owls and dogs would make a call for me. I was nervous. I felt that I was a galvanic battery, and every hair on my head stood straight out, and was an electrode. My hands felt cold and clammy, like Uriah Heep's. I placed them on my brow; it was bathed in perspiration, and felt like a wet tombstone. I could stand no more, and requested that Dr. McE—— be called in consultation. He came, recognized the presentation, very kindly corrected it, and telling the family that I had done right and all that could have been done, that all would soon be right, only give nature a chance, took his departure after reassuring me. Poor fellow, he has long since crossed over where doctors most do congregate, but I shall always love his memory, and feel willing to mend harp strings for him on the other side.

To make a long story short, just before day the baby was born. The old women had prepared a tub half full of water in the middle of the room, and insisted that the doctor always had to wash the first baby he grannied. Not wishing to seem ignorant of the literature of the profession and a custom which

had come down to us through the centuries ever since the perennial glories of Eden first tinted the world, when Abel was born to Adam (Dr. Bowling said Adam was a doctor, for Eden could not have been perfect without one), I larded and egged the baby well and essayed my task. The first motion I made to seat it in the tub, it slipped from me. I caught it up and it slipped again. Everything was now in an uproar. Babel or a grand symphony from a ten-acre field of jackasses could not have equalled it. "Take it out," "It will drown," "It will scald to death," "Pore thing, it is almost gone now," were some of the consoling remarks I heard. I still had my new coat on. In my desperation I formed a cradle of my arms, and scooped the baby out. The old women now took charge of it, and I retired to another room to wash my coat sleeves. But the devil seemed to have been turned loose in that house, and I found the cleansing operation utterly impracticable, and as difficult as the grannying of the baby.

But my trouble was not over. "Run here quick, doctor, the baby's blue and got a fit." I readily recognized a case of morbus ceruleus, and I remembered Professor Watson had said turn it on one of its sides, but I could not remember which. I turned it on its left side, and it bounced around the bed like pop-corn in a hot skillet. I turned it upon its right side, and the spasm subsided.

Well, Mr. Editor, that baby died, and I—well, by a fortuitous concatenation of heterogeneous circumstances I still survive, and you can see upon my sign:



—Southern Medical Record

Cocaine Anæsthesia During Labor.

By B. C. KEISTER, M. D., South Boston, Va.

I beg leave to report my first experience in the use of local anæsthesia during parturition: The patient was a primipara of twenty-eight summers, whose general health was below par, and whose nervous system was almost exhausted from dread of the pending labor. The membranes had prematurely ruptured

She had been in labor about twelve hours, and with each pain a discharge of water followed. The pains were rapidly growing stronger, but were not very effective in dilating the os. The patient had become so nervous and weak that I had to resort to chloroform to keep her from going into convulsions. I kept her partially under its influence until the os had fully dilated. I had, up to this time, given about four ounces of Squibb's chloroform, besides a considerable quantity of chloral and morphine.

The patient was rapidly growing weaker and the pains growing stronger, and I feared she could not stand very much more chloroform. So I decided to try local anaesthesia by applying a preparation consisting of two parts of a four per cent solution of hydro-chlorate of cocaine to six parts of pure glycerine, to the vaginal walls. I made the applications with a vaginal syringe and a small piece of soft surgeon's sponge. Before making the application, I washed out the vaginal canal thoroughly with a six per cent solution of carbolic acid and tepid water. I made five applications, allowing from twelve to twenty minutes intervals. After the third application, I left off the chloroform. The head of the child had descended into the vagina when I made the first application. I also applied the mixture to the perineum and vulva. The expulsion pains were long and severe, but the patient bore them without any chloroform, save a whiff or so occasionally to partially relieve the tension of the perineum.

Notwithstanding the large head of the child, the labor terminated favorably, and without any laceration, save a slight rent in the anterior wall of the vagina, which readily healed under the antiseptic wash that was prescribed for the vagina. The patient made a good recovery. I feel justified in stating that in my judgment the patient would not have survived her long and tedious labor had it not been for the local anaesthesia.

This has been my only experience with local anaesthesia in parturition up to this time. But I feel encouraged to make another trial when I have another case similar to the one above mentioned. But for the exorbitant price of cocaine, I think it should find its way into every practitioner's obstetrical bag. I know of no reason why the os of the uterus could not be anaesthetized by the same process as above mentioned, and alleviate the pain that so often exhausts a poor woman before the regular expulsive pains commence.

Strange, but true, there has been less advancement made in the science of obstetrics during the past half century than in any other branch of medicine. If a few of the great thinking minds of our profession could be aroused by the dying appeals of parturient women to the importance of giving them a part of the time and attention that is annually given to microbes, bacilli, and "water fleas," I verily believe the suffering and mortality of parturient women would be reduced at least one-half, if not three-fourths. I refer more particularly to the sufferings and mortality of delicate and nervous women during labor. This class constitutes about one-fifth of the child-bearing women of the United States, which is no small percentage when we consider that physicians' wives constitute a large percentage of this number.

I think the time is rapidly approaching when local anaesthesia will supersede general anaesthesia, not only in surgery, but in midwifery. Local anaesthesia does not have the deleterious effect of checking the contractions of the uterus during the labor, and in the third stage of labor it does not subject the patient to haemorrhage. These are very important advantages in favor of local anaesthesia during labor over general anaesthesia.

I shall not proceed further into the details or merits of this important subject until I shall have had opportunities for more thorough investigation; and for the present will leave the subject for abler pens.—*Virginia Medical Monthly.*

Procidentia Uteri.

By AUGUST MARTIN, M. D., of Berlin, Germany.

[A Clinical Lecture delivered at the Jefferson Medical College Hospital, September 22, 1887.]

"Gentlemen: As you well know, the procedure for the cure of procidentia of the uterus has, through improvements in the method of operation introduced during the past ten years, become one of the most successful gynaecological operations; and by it we have succeeded in doing away with the objectionable pessary, which during that time had been used in the treatment of this condition. As was first pointed out by Hegar, we cannot retain the uterus by any operation on the vaginal wall alone; such operations are only temporarily successful. After a time, the uterus again comes down. In order to successfully retain

the uterus it is necessary to strengthen the floor of the pelvis. When we succeed in arranging in the floor of the pelvis a cicatrix sufficiently strong to carry the uterus and the prolapsed vagina, we may hope to keep the uterus and vagina in their proper positions. In treating a case of procidentia, we must repair any defect in the uterus and restore it to a condition as near the normal as possible; we must direct attention to the vagina and relieve any trouble that may exist there, and we must also restore the perineum. These three different forms of operation can be done at one sitting. Their performance is accompanied with very little blood, and the results are such that this operation can be highly recommended to your patients.

" The patient on whom I shall demonstrate this operation has a rather large womb, which is retroflexed and with a cervix torn on the left side. I shall restore the cervix, and lift up the uterus and bring it into a position of anteversion. I shall next remove an elliptical-shaped piece of the mucous membrane from the anterior wall of the vagina. I shall then unite the edges of the wound thus left. This may be accomplished in two ways. The wound may be brought together by the interrupted silk suture; but a much better way is by the continuous catgut suture. With this the wound may be brought together in different layers, some of the sutures being buried. Beginning at the upper angle of the wound, the edges are brought together with the continuous catgut suture until slight difficulty is observed in approximating the edges. Then the suture is passed through the bottom of the wound, including a certain amount of the tissue. When the suture has reached well down to the lower angle of the wound, the edges of the wound are again caught with the thread and brought into apposition. There is then left a wound one-half of the length of the original denuded surface, which is next brought together with the continuous suture. The catgut used is of such a size that it will continue in position for at least ten days.

" For the posterior wall, I perform an operation which is in correspondence with the natural condition of the parts. As you know, the vagina is formed by the union of the two Muller's canals. As a result of this, we find in the lateral walls of the vagina dense lines of fibrous tissue. In all the other methods of treating prolapse of the vaginal walls, this very dense tissue is cut off and denuded. My plan is to retain this, and the pos-

terior pyramid is also preserved, the lateral walls being brought into apposition with it, as will be seen when I come to operate. After the vagina is narrowed in this way, I shall perform an operation for the restoration of the perineum. This is quite a common operation, the cicatricial tissue being removed and the denuded surfaces being brought together with the catgut suture."

The patient was then brought in. There was complete proctidinia and the uterus presented a marked laceration on the left side. The right side of the cervix was first incised to the same depth as the laceration, and then, as the cervix was decidedly hypertrophied, a wedge-shaped piece ... along the whole width of the posterior lip was cut away, a strip of mucous membrane being resected at the position of the future cervical canal. Interrupted catgut sutures were then introduced, securing the strip of mucous membrane to the denuded surface. This also had the effect of checking the bleeding. A portion of the anterior lip was then removed in the same way, and after the strip of mucous membrane had been secured, the two lips of the cervix were brought together with catgut sutures.

The operation on the cervix having been completed, the uterus was drawn down, exposing the prolapsed anterior wall of the vagina. This was then denuded, an elliptical portion of the mucous membrane being removed. The denuded surface was four inches in length by two inches in width at its widest part, and extended from just behind the urethra to the junction of the vagina with the cervix. Catgut sutures were then introduced, beginning at the urethral extremity of the wound, the continuous suture being carried as far as the tissues could be readily brought in apposition. This was a distance of about one inch. The suture was then buried in the bottom of the wound, bringing this together to a certain extent. It was then continued towards the lower angle of the denuded surface, until a point was reached where the edges could be brought together with ease. After the lower edges were coaptated, the suture was again carried upwards and a portion of the surface left exposed was brought together; but the tension still being considerable, a second row of buried sutures was introduced. Finally the edges were united, and the wound in the anterior wall entirely closed.

The next step in the operation was to replace the uterus, which

was done with a sound, the organ being left in a position of anteversion. The posterior column of the vagina was then brought down and a point in the left lateral wall of the vagina, which could readily be brought in apposition with the posterior column, was selected. This left a sulcus which was denuded and the raw surfaces brought together with the continuous catgut suture. The right side was then treated in the same way. By this measure the posterior wall of the vagina was narrowed.

It still remained to restore the perineum. This was done in the usual way, the cicatrical tissue being removed, the line of denudation extending up to the point where the operation on the posterior wall was performed. The first sutures were passed through the upper portion of the wound, including the parts already brought together in the operation on the posterior vaginal wall. The cutaneous surfaces were then united with the catgut suture, and finally the vaginal edges were secured with the continuous catgut suture.

In regard to the after treatment of the case, Dr. Martin said: "The wound will be left entirely alone, and the patient kept in bed on her back for three weeks. The catheter will be used frequently and the bowels moved on the fourth day. The patient must not be allowed to exercise much before the expiration of three months, and sexual intercourse must be prohibited for at least six months."

In the operation Dr. Martin was assisted by Dr. Howard A. Kelly and Dr. William Ashton.—*Medical and Surgical Reporter*, October 1, 1887.

Transfusion and Infusion.

The brilliant successes in saving life already reported have fully established the value of this method of relieving the alarming and dangerous condition of acute anaemia following excessive hemorrhage, and have incited many experimenters to renewed investigations, which have added much important information to our previous knowledge of the subject.

The danger of direct transfusion, and the difficulty in obtaining a donor for this purpose, made it exceedingly desirable to discover some substitute equally efficient, and more easily controlled.

For this purpose Lauderer with Cohnheim in 1881, made a series of experiments with the alkaline salt solution; but the

conclusions arrived at were that its effects were transitory and unsatisfactory. Experiments with defibrinated blood were more successful; but the best results were obtained from a combination of defibrinated blood (1 vol.) with an alkaline salt solution (3 to 4 vols.). Animals which had suffered a blood loss of 5.3 per cent of their bodily weight, and a case of severe nitro-benzole poisoning were successfully resuscitated. Schramm has shown that a loss of blood equaling 5.4 per cent of the bodily weight almost invariably results fatally, and fourteen experiments with infusion corroborated the above statement that the salt solution caused only a moderate and transitory cardiac irritation, and had no decided influence in preserving life after severe hemorrhages. A summary of Schramm's work gives: Blood transfusion, 10 cases; blood loss, 5.3 per cent 10 recoveries; infusion, non-defibrinated blood 1; salt solution 4; 10 cases, 5 deaths, 5 recoveries; infusion of serum or egg albumen and salt solution, 17 cases, 9 deaths, 8 recoveries, the albumen having apparently no effect in regenerating the blood.

He then concluded that the treatment of acute anaemia from hemorrhage should be thus classified: (1) Analeptics; (2) salt solution infusion; (3) in cases of renewed collapse, blood transfusion.

Lauderer has, since his original report, continued his efforts to find a substitute for human blood, and his more recent experiments with an alkaline salt-sugar solution, show more favorable results than with the simple salt solution originally used. He treated successfully a case of acute anaemia in a human subject, and demonstrated that animals treated in this way would recover after a blood loss of 5.5 per cent even, which is strong proof of its efficacy. Experiments on animals poisoned with nitro-benzole and chloral were also successful. The advantages claimed by Lauderer for this solution are: (1) That the fluid constituents of the tissues (*Gewebssafte*) are energetically attracted to the blood. (2) That the blood tension is essentially increased: a very important factor in hemorrhage. (3) The addition of an easily assimilated nutritive substance; namely, sugar, for which purpose the simple salt solution generally used, or even blood, has been shown valueless. At the discussion of Gaule's report Kronlein's remarks referring to his own experience with infusion confirmed Lauderer's views. Kronlein also classified the indications *ut seq.*: (1) Altered vas-

cular tension; (2) altered nutrition of tissues; (3) interference with the function of the haemoglobin. In the latter two he considers that infusion of simple salt solutions is valueless. In (3), for example, carbonic acid poisoning, blood transfusion would be required; but this view is somewhat at variance with Lauderer's ideas, who considers that even in this class of cases blood transfusion is not necessary. The fact that recoveries have followed infusion of the six per cent salt solution, in cases of severe post partum hemorrhage, Lauderer does not think invalidates his conclusions, since the best results with this solution have been obtained in this class of cases, a fact which he considers quite significant.

In regard to the details of the operation of infusion Cohnheim strongly recommended that the solution should be infused into the proximal end of a distal artery, preferably the radial. His reasons for advancing a method so entirely different from the usual operation are that the artery is more readily found, the blood current in the artery diminishes the danger of a sudden over-powering of the heart; the danger from air embolism is avoided, and the opportunity for gangrene induced by rupture of distal arterioles during spasm to resist a foreign fluid is absent. It is singular that these suggestions, endorsed as they were by an investigator of Cohnheim's reputation, should have received so little attention, for, as far as we know, there is no published case where this method has been employed. It would seem as if these advantages were not wholly theoretical.

The possibility of relieving dangerous collapse from other causes than excessive hemorrhage, probably suggested by the above investigations, has led to the development of infusion, and its applications to other emergencies than those for which it was originally intended.

Among these is the work of C. Sanquirico, of Siena, who has attempted to show by experimentation that the elimination of fatal doses of poisons through the renal excretion can be so accelerated by the introduction into the vascular system of an "indifferent" solution equivalent in amount to eight per cent of the animal's weight, that life can be saved. He succeeded only where chloral hydrate and aconite were the toxic agents employed. Also, the treatment of cholera by subcutaneous infusion, first mentioned by Cantari (1863), and again revived by S. Samuel, of Konigsberg, is another outgrowth of this meth-

od. It is used in the stage of asphyxia, and is continued as long as the attack lasts; that is, until the pulse regains its force, and renal excretion is re-established. It has been found that the neck and intra-clavicular region is most favorable for the infusion, since the circulation and power of absorption exist in these regions after they have ceased in localities more distant from the heart, especially the extremities, and the technique of the operation is described most fully by Keppler, who has apparently done the most accurate work in this subject. For a full statement of his experience and its results, those interested are referred to his publication. Also, Samuel's article is a very valuable one to those wishing to gain a knowledge of the history and present value of this method.

From the above, it can be readily seen that we have at hand a means of saving life, where formerly the surgeon was compelled to sit with folded hands, and acknowledge himself powerless to aid his patients. Since then, the work of a few men has developed a means of treatment which has already proved effectual in many of these most trying cases. It surely behooves every practitioner to become thoroughly familiar with the treatment most valuable in these emergencies, and be ready to thus save many a victim who would otherwise perish.—*Boston Med. and Sur. Journal.*

A Substitute for the Orthodox Pessary.*

By W. GILL WYLIE, M. D., New York.

Having no paper to read, I will substitute a few remarks upon a subject that I have often wished to bring before the Society, as it has been of much practical benefit to me—viz., the abuse of the pessary. I am entirely satisfied that in the text-books too much stress is laid upon the matter of displacements as being the cause of uterine disease. I mean that I think it is a mistake to regard simple displacement of the uterus as a disease. It is very frequently associated with serious disease, but, as a rule, if the disease is cured, the displacements are of little consequence.

I never did adopt the use of the stem pessary, having felt satisfied that it is of little practical value, and that it is risky.

I recognize the fact that retroversion is often a serious complication, especially when the uterus is large or when the parts

* Remarks made before the Northwestern Medical and Surgical Society of New York, April 27, 1887.

are very much relaxed; or when the uterus prevents the free egress of the fecal matter. But it is not a disease.

It seems to me that there will be a radical change in the teaching of the text-books upon this subject. The thing has been entirely overdone.

Long ago I was convinced that the pessary was only a helping instrument; that if it relieved the patient, it simply relieved her, and that its use alone was not good practice. Some years ago Dr. Sims introduced glycerine as an agent to be used in the vagina, with the view of producing a watery discharge. He also found that if it was left there for forty-eight hours it would very frequently undergo some kind of ferment or change resulting in a vaginitis, and do more harm than good. He also mixed with it alum, and found that alum increased the tendency to the watery discharge.

A number of years ago I took up the subject, but accomplished little until boro-glyceride was brought out.

A standard formula that I use with great success in my practice is boro-glyceride and enough pure glycerine to make a pint, and one ounce of sulphate of alum (if I want an astringent; if not, the acetate of aluminum).

Then I found, if I took cotton in a soft, fluffy bunch, tied it with a string, saturated it with the solution, and put it up against the uterus, that, often in six hours, that piece of cotton would be rolled into a ball which would rest against the urethra and set up an irritation. I saw then that this would not do, and it occurred to me to take the cotton and roll it up over a rubber tube; after it had been rolled to the size desired, I tied the end of it firmly with a string. That answered very well. Later I secured some borated cotton of Eimer & Amend, which comes in flat sheets. I found that by rolling this firmly into a roll about one inch in diameter and two inches long, and tying it with a good flax string at the end, that I had cotton in such shape that, if it was thoroughly saturated and put into the vagina, it would retain the shape for four days. It would stay where it was put, and in four days it would be almost in the identical position. I also found that, for the first twenty-four hours after its introduction, there would come away a profuse watery discharge, from four to eight or nine ounces, in proportion to the congestion of the uterine vessels.

The method of introduction is as follows: Place the patient

in Sims' position, then introduce Sims' speculum; after saturating the cotton thoroughly, pull back the perineum and push the cotton against the cervix, letting the cervix rest on the anterior part of the cotton. Hold the cotton in that position and remove the speculum. The anterior portion would then lie in the direction of the pubic bone.

It acts as a pessary, except with more certainty, because the perineum, springing up against the cotton, keeps it in place.

The action of the boro-glyceride is to prevent any kind of ferment or change. It has a good effect in catarrhal conditions, and it does not interfere at all with the action of the glyceride and alum in producing the watery discharge. I am satisfied with this as a means of keeping the uterus in place, and at the same time as tending to cure any uterine congestion. I leave it in the patient for twenty-four to seventy-two hours; then wash out the coagulated mixture, and on the third or fourth day make a second application. If there is much of a dragging sensation, I tell the patient to wear it two or three days.

The manner in which this acts as a curative agent, it seems to me, is perfectly plain. The watery discharge which comes from the glands of the mucous membrane, not only of the vagina, but of the uterus itself, forces a rapid circulation through the pelvic vessels; it acts in the manner of a very hot poultice, by getting up an active circulation through the tissues, thus bringing fresh and healthy blood into the tissues; and in that way it helps to eliminate disease.

You can theorize about this as much as you please, but practically it is a very great success.

I can take a case of subinvolution of two or three months' standing, with the dragging sensation and more or less leucorrhœal discharge, and in from three to six weeks I will reduce the uterus to its normal size, using nothing else but this cotton. It has enabled me to do almost entirely without pessaries. I use this treatment in cases where Dr. Emmet recommends hot water and iodine. It is very much quicker in its action than the latter method, and instead of the patient being kept in bed, she is enabled to go about.

I often use bismuth on these pledges, as it is a good anti-septic; also other substances, such as iodoform, balsam of Peru, etc.—*The Medical Record.*

Treatment of Uterine Flexion.

This paper opens with some preliminary remarks on the anatomy and physiology of the uterus. Notice is taken of the position of the uterus, and of the manner in which it is held in this position. Superiorly as well as inferiorly it is free, and it is by its intermediate parts that it is suspended *in situ*. On each side are the folds of the broad ligament passing to each side of the pelvis. In front it is also free, with the exception of that part of the vaginal portion of the cervix which is attached to the bladder. Posteriorly, the uterosacral ligaments extend from the sacrum to the point of insertion of the vagina into the cervix. Special stress is laid upon the manner in which the pelvic fascia keeps the organ in position.

In all cases of flexion there exists a certain amount of prolapse as well, and the author believes that the prolapse always precedes the flexion. As a concomitant of painful flexions there is invariably found a certain amount of congestion of the superior portion of the uterus. Fundal endometritis is caused by the flexion, and this gives rise to the retention of secretions, which become acrid and even acid, and so react in an injurious manner upon the mucous membrane.

Not only is the fundus of the uterus provided with a separate vascular arrangement from the body and cervix, but its nervous arrangement is also equally distinct. The nervous supply comes directly from the ovary, and this ovarian branch is derived from the plexus covering the kidney, and accompanying the spermatic artery. The cervix and body, on the other hand, are supplied respectively from the hypogastric and inferior gastric aortic plexuses. The real plexus having direct relations with the great splanchnic ganglia, the fundus uteri has far more intimate and complex relations with the female frame than either the body or cervix uteri. Obviously, then, disease of the fundus will exercise a more serious influence on a female than similar disease in other parts of the uterus.

To successfully treat a flexion of the uterus, these indications must be followed, viz.: (1) to correct the prolapse in such a way as not to produce pain; (2) to relieve the congestion or inflammation of the uterus generally, but of the fundus in particular; and (3) to allow free exit to all irritating contents of the uterus, especially those at the fundus.

To fulfill the first indication a Hodge's pessary must be used,

along with an intra-uterine stem which does not touch the fundus of the uterus. These instruments may be used either separately, or united by means of a ball-and-socket joint.

"To relieve the congestion generally of the uterus, and of the fundus in particular, local depletion, and absorptives local and general, are made use of. Creasote, carbolic acid or iodine are applied locally to relieve the pain in the fundus. Attention is drawn to the fact that an intra-uterine stem provokes a considerable flow of blood from the uterus, and thus acts most effectually in relieving a non-involuting or congested ovary.

To allow of a free exit to the pent-up contents of the uterus an intra-uterine stem is employed, and one must be used which will not impinge upon the fundus uteri.

To fulfill these several conditions notice must be taken of the different instruments employed. The ordinary Hodge is too well known to require comment. Of the intra-uterine stems Dr. Greenhalgh's is the most difficult to introduce, but once in position it holds well. The spring pessary gradually, by its resiliency, straightens the uterus, without the medical attendant having first to reduce it by means of the sound. The author's own instrument is easily applied, and well-retained.

Of the pessaries in which the Hodge and intra-uterine stem are combined in one instrument, there are three varieties, viz.: (1) Simpson's, which is now discarded; (2) Meadows', as modified by Dr. Bantock, which, however, requires to be provided with a ball-and-socket joint to prevent a jerk; and (3) Routh's, which is not liable to this objection. These pessaries must be of different sizes, so as to suit different women.

As regards the mode of application: The organ having been suitably prepared by allaying the inflammation, a tent is passed in to dilate the cervix during the first day. On the following day this is withdrawn, the vagina washed with an antiseptic lotion, and the uterus pulled down with a vulsellum. The point of the stem is then introduced into the cervix, and all the instruments being withdrawn except the pessary, it is pushed upwards into its proper position. This instrument should be worn for from six to eight months, or even for a year, before it is removed. It is worn with the greatest comfort, and does not interfere with the conjugal duties. In those cases in which a prolapsed ovary complicates the flexion, a modified form of this buckle pessary may be worn, in which the superior portion of

the Hodge is deficient on one side. With the precautions mentioned above, abscesses and other serious troubles should never occur from the use of these pessaries. The patient should be kept under observation for ten days before being allowed to go out, and exercise must at first be taken with caution. If there is the slightest pain, the instrument should be taken out. An antiseptic vaginal wash should be used while the instrument is worn.

The remainder of the paper is devoted to a short summary of the surgical treatment of flexions. Alexander's operation is referred to, and in his hands, at least, it is admitted that shortening of the round ligaments, combined with the after use of the galvanic stem, has been attended with successful results. Imlach's newer operation of oophorrhaphy, with a mortality at *nil*, gives promise of success, and deserves a trial. A successful case is also related, in which Dr. Heywood Smith opened the abdomen, replaced a retroflexed uterus, and kept it in position by means of a suture passing through the fundus and the right and left edges of the wound. Surgical proceedings, however, should not be undertaken when there is either great uterine enlargement or prolapse, or when there are either firm and extensive adhesions, or great debility and relaxation of the ligaments.—ROUTH (C. H. F.).—*British Gynaecological Journal.*—*Medical Chronicle.*

Ipecacuanha in the Treatment of Disease.

By A. S. HOLMES, M. D., Benton, Miss.

About twelve years ago, the Atlanta *Medical and Surgical Journal* began the publication of certain letters of Surgeon A. A. Woodhull, U. S. A., on the subject of "non-emetic uses of ipecacuanha" in the treatment of numerous kinds of disease. Becoming interested in the writings of Dr. Woodhull, and being favorably situated for experiment, I began the use of ipecac. in the treatment of malarial fever. Adopting the suggestion of Dr. Woodhull, I used the drug in doses of two to five grains as an anti-periodic, as many are in the habit of using quinine. Meeting with encouragement I continued trial with it, and until this day have never ceased to use it, and at that, almost exclusively. For these twelve years I have been practicing medicine in the Yazoo Delta and Mississippi valley. I am moderate in saying that I have seen two thousand cases of malarial fever

treated with ipecac. successfully, and without quinine. My conclusions are, that while it is not the equal of quinine in many conditions, it is often a valuable substitute, while in some conditions it gives decided advantage. In hemorrhagic malarial fever I am emphatically partial to it, notwithstanding I am probably unsupported by any authority. It has several times been my gratification to note the happy effect of ipecac. when quinine and its auxiliaries had proven useless. When fever has been running high for several hours and there is scant and high colored urine, it is not a *very* unusual thing in extreme malarial poisoning that the heroic use of quinine, as often suggested, will be followed by the alarming symptom of bloody urine. If none other than the "Yazoo swamp doctor" will support this assertion, and swear, by his icteroid observation and through his tobacco juice as by the eternal, that quinine does it. When above premonitory symptoms of swamp fever (malarial hemorrhagic) have presented themselves, I have seldom, if ever, failed to dissipate them with ipecac. I generally prescribe it in ten grain doses, regardless as to whether it promotes emesis or not. This dose should be followed as soon as extreme nausea is over by a pill of pulv. ipecac., gr. iij, to be repeated every three hours. Try it, skeptic, and learn the difficulty of vomiting a man twice in six hours with ipecac.

I was once asked to see a case of nose-bleeding in the person of a boy seventeen years old, then under the careful treatment of Dr. C. C. H. Fenwick, of Tensas Parish, La. The boy was apparently healthy (otherwise) but was exsanguine from the hemorrhage. He had taken ergot for eighteen hours. The doctor twice plugged the anterior and posterior nares, but the accumulation of blood in the nose causing intense distress, the plugs were either removed or would be forced out. He then used a continuous douche of hot water for fifty minutes, the water running out through the mouth, which offered only temporary encouragement and then proved ineffectual. The patient was faint and had now to maintain the recumbent posture. He was pulseless at the wrist and cold at the elbows and knees nevertheless he got a suppository of pulv. ipecac., gr. xx, and had the ice bag, which for some time had been applied over the head and face, placed over the epigastrium. Extreme nausea and efforts to vomit came on in about forty minutes, but at this hemorrhage ceased. When the first paroxysms of retching were

abating, he took a bolus of ipecac., grs. v, without water. Thirty minutes after this dose he fell asleep, and though he was given three grains more every three hours he did not again complain of nausea or lose another drop of blood. About six weeks afterward he came again to Dr. F. with profuse epistaxis, and was at once given ten grains pulv. ipecac. and put to bed. He vomited from this dose but was immediately given, and continued to take, three grs. every three hours for eighteen hours. Hemorrhages ceased when emesis came on.

I have repeatedly used the drug in minor hemorrhage, and with far more gratifying results than from *any* thing else. In five cases of pulmonary hemorrhage I have used it without failure. One of these was from a stab-wound, two from lacerated injuries from broken ribs, and two from tubercular cavities.

A common feature of malarial remittent fever is a persistent nausea and vomiting of a greenish acrid bile; everything is rejected which is taken into the stomach, and the sick stomach is difficult to control. I have never tried anything so effectual as an emetic dose of ipecac. per rectum, or hyperdermically, half the dose to be repeated as soon as free emesis is over. Not one time in ten can you reproduce vomiting with ipecac. alone, within several hours, and it should be given in doses of two to four grs. until fever is off. While emesis is in no instance here referred to as essential, but on the contrary a disagreeable result, I am in the habit of disregarding it when a prompt impression is desired on the sympathetic ganglia. When you have exhausted your supply of limewater and paregoric, oxalate cerium, sweet milk and sulphur, mustard plasters, crushed ice, etc., etc., as well as your faith and patience, try a bolus of five grs. ipecac. and repeat the dose immediately after each vomiting and you will enjoy the grim grins of having "whipped the devil with fire."

From a large number of cases under my observation, I do not believe there is any remedy equal to ipecac. in the treatment of troublesome and persistent hiccough, used in "non-emetic" doses.

The efficacy of ipecac. in the treatment of acute dysentery is proverbial. During a term of service as house physician and surgeon in the Louisville city hospital I had occasion to try the remedy to my satisfaction. During the summer of 1874 there prevailed in the city of Louisville an epidemic of acute dysen-

tery, which at one time filled the medical wards of the hospital to their utmost. Desiring to establish the best line of treatment to my own satisfaction, all the usual measures were faithfully tried, but from the successful dominance of the "old ipecac. treatment" over all others it was finally and entirely instituted, and some two hundred cases treated by it. The records will show to-day that *all* were cured where the proper diagnosis had been made, and there was no complication, (i. e.) where there was a proper differentiation of acute from chronic dysentery. Allow me to remind you, however, that acute dysentery of Louisville and the blue grass country is an impudent fly on the lip of a lion compared to the good old "bloody flux" of the Yazoo Delta.

In the promotion of sympathetic ganglionic and nervous action in impaired digestion and assimilation, particularly in infantile cases, I have never tried any alterative tonic equal to ipecac., nor did anybody else. As a promoter of physiological peristalsis, proper glandular secretion and cholagogue catharsis, it stands upon its excellence as upon its innocence.

I have often prescribed it alone in treating chronic diarrhoea, used as directed for the pepsin, but in small doses— $\frac{1}{2}$ to 1 gr. with meals, with good results.

In the line of these observations is there not something suggestive in the treatment of cholera? While I am not prepared, nor was it the object of this article to discuss, critically, either the physiological effect of ipecacuanha on the sympathetic nervous system, or the pathology of cholera, I should not be surprised to hear it proclaimed a valuable remedy in that disease.—*Mississippi Valley Medical Monthly.*

Cocaine and Its Fascinations, From a Personal Experience.

By FRANK W. RING, A. M., M. D.

I propose to narrate, in as plain and concise a manner as possible, a ten months' constant use of the hydrochlorate of cocaine, taken entirely from an atomizer, and always through the nasal passages.

I have suffered for the past four winters with a chronic follicular pharyngitis, having an hypertrophy of the turbinated bones. Constant closure at night of the nasal passages; I would awaken several times with a dry, parched throat and mouth. Having

used the cocaine spray on several patients with marked temporary relief for the same affliction, it occurred to me that an application of it would be beneficial to myself.

About September 1, 1886, I began to use every night, previous to retiring, a spray of four per cent solution of cocaine, forcing it into my nostrils by means of a small ball atomizer. For a month, each night, I used about a drachm (two grains).

After the first few applications the relief experienced was well marked. I would go immediately to sleep, and breathe quietly all night long. It was a soporific; a dilator of the nasal passages; in fact, a vehicle to "nature's sweet restorer."

At the end of about four weeks' use I experienced a change gradually coming on. My constant evening spray began to lose one of its principal virtues. Instead of going to sleep immediately, a sense of wakefulness possessed me, and it would be half an hour or more before slumber and rest came on. However, as it had not lost the virtue for which I began its use, I did not mind an hour's fanciful and visionary wakefulness.

During the months of November and December nothing of note occurred. Thinking a less quantity would suffice for the purpose for which I used it, I reduced the dose to about one and a half grains. The period of wakefulness increased, but my sleep was quiet and undisturbed during the night. In January I began to rather enjoy its effects, and to take a spray in the early evening, increasing it to two and three applications, until a member of the family suggested that I would better be careful and not resort to the drug too often. Up to this time I had deceived no one in regard to my use of it. I had informed all my friends, especially of the medical profession, how much relief I got from cocaine, and how often I took it, and how long I had taken it.

It did not occur to me up to within four weeks of its discontinuance that I was becoming dangerously attached to the drug, and in February I stopped it entirely for ten days, just to convince my family that there was absolutely no danger of my becoming a cocaine *habitue*. But I found my breathing was less agreeable, and I renewed the employment of it. Through the months of March and April I experienced no ill-effects, unless one may consider two or three hours' inability to sleep as deleterious; but I began to notice a diminution of appetite, which did not disturb me, as that had often happened during the past few years.

On May 1st an incident occurred which saddened my existence to a great extent. I became very much depressed, despondent, and filled with grief. Everything was done mechanically, with lack of interest. Here is where the charms of the cocaine give relief. Temporary relief, but relief. I used it every night four or five times before retiring, each time followed by one or two cigarettes. My nights were passed in a dreamy restlessness, my mind set at ease, and spirits exhilarated. The appetite still decreased, the nerves became unsteady, and I was advised to stop cigarette smoking, which I did entirely for three weeks. About this time I very unwisely began to indulge in an occasional spray at the office during the daytime, something which had never occurred before, and June 27th the climax began. During the fortnight following I had one or two patients "go wrong," suffered from anxiety, worry, and overwork, made four or five visits a day for a week to a person afflicted with a purulent ophthalmia, and after each visit I would turn on forty or fifty pounds pressure, and reduce the liquid in the tube half an inch. Then seeking an easy-chair, with a cigarette in my mouth, I would dwell on the trials and tribulations of this life with a calmness and complacency hardly imaginable. My mind was at rest in less than five minutes, a sensation of exquisite numbness would steal over my body, creeping up from the feet to the head, everything looked bright and happy, my grief and anxiety were gone, my troubles were ended. After about a week of this state of things I became somewhat alarmed. My friends could not account for my listlessness, loss of interest in themselves and their pursuits. I assured them it was the result of a little too much cocaine; and after making a feeble effort at facetiousness, would relapse into a condition of silence again.

I did my work mechanically and well; my mind was as level as ever half an hour after these inspirations. At the end of fifteen minutes I would have an inordinate desire to go to the bath-room, and upon rising would find myself staggering a little. I had no desire to talk, but thought I might write a few articles to the medical journals, and I did write, and afterward found that my productions were creditable to a man of ordinary talent. During these *seances* I noted a slight increase in temperature, acceleration of the heart's action, no nausea, no perspiration, mind seemingly clear and active. The numbness only lasted two or three minutes. Thirty minutes after a spray of a

solution containing four grains I would be entirely myself again, with the exception of a slight headache, which soon passed away upon using a little bromo-caffiene. I had no appetite during this fortnight of partial bliss, did not sleep well, and lost five pounds of flesh. Probably during this time I averaged ten grains a day. This is certainly not excessive, and would not have caused as much disturbance had I not been under its influence for so long a time. I am sure the second week was more fascinating than the first, and yet I took less cocaine, plainly showing that its effects were cumulative.

July 9th I came to the conclusion that the medicine was getting to be a necessity, that it might become a source of injury to my well-being, and I calmly decided to stop it, which I did. The inclination for it often seizes me, but I crush it with a confidence that I shall never again indulge in its enchantments.

I have computed, from my account with the druggists and recollections of the amount taken, that the cocaine consumed during the ten months will aggregate more than six hundred grains. After the first few months I found a two per cent solution answered my purpose just as well, and reduced the spray accordingly. Another conclusion arrived at from my experience, not heretofore mentioned, is the fact that cocaine must be ranked among the anaphrodisiacs.—*N. Y. Record.*

Nature and Treatment of Cholera Infantum.

The causes enumerated by writers on these diseases are heat, atmospheric conditions, and changes in the food. One fact is very significant, and that is that breast-fed children are rarely attacked with the disease, and if the high temperature acted directly on the body there would be no reason why these infants should escape more than older ones. That heat and atmospheric impurities have much to do with the causation of diarrhoea is certain, but their chief evil effects are upon the food. Three years ago the author discovered in decaying cheese, ice-cream, and in milk a ptomaine which produced nausea, vomiting, and diarrhoea. Chemically this poison is diazobenzol, which may be made artificially by the action of nitrous acid gas at a low temperature upon the nitrate or other salt of aniline. It is decomposed when heated with water to nearly the boiling point. It is developed in milk by the growth of a germ when the conditions are favorable. These favorable conditions consist in the

exclusion of air or the presence of a limited supply and of a temperature of 98° F. One to one and a half grains administered to cats cause retching and purging, with death in an hour or two; the stools are at first faecal, but later consist of serum and are rice-water-like in appearance. There is much evidence for believing that this poison is an important factor in the causation of cholera infantum and similar diarrhoeas in children, the violence of the attack varying with the amount of the poison present. When we remember that these diseases are most prevalent among the poor classes of our large cities, where fresh milk is almost unknown, we can readily understand their frequency. By such people milk is often not obtained until it has begun to turn sour; then it is kept at a high temperature, and often in a foul atmosphere; it is consumed by infants who are already perhaps weakened by poverty and all the discomforts which it brings. The author does not claim that tyrotoxicon is the only poison that may be developed in milk, but that it is probably one of a large class of bodies which are produced by putrefaction. He quotes a case which aptly illustrates his point. An infant of seven months commenced to vomit, and was purged, passing six or seven watery stools in rapid succession. The eyes were sunken, skin cold and clammy, pulse small and rapid. It had been brought up at the breast, but shortly before the vomiting it had been given some cow's milk. The child improved in a few days, no cow's milk being allowed in the meantime; but vomiting and purging recommenced when cow's milk was again taken. On an examination of the milk of the animal which had furnished the milk in the first instance, some blood and pus cells were discovered. The milk was coagulated and filtered; the filtrate was rendered alkaline by KHO, and agitated with ether. The ethereal solution was evaporated, the residue dissolved in distilled water and again agitated with ether; the residue of this had a brownish tint, and when dissolved in distilled water and given to a cat, retching and vomiting was produced.

In the remarks the author makes on treatment, he corroborates the views of those who insist upon all milk foods being withdrawn and replaced by mutton broth, meat juice, rice or barley water. He administers castor oil if seen in the first stages; if, however, the stools have become serous, he administers copious enemata of water, containing salicylate of soda,

nitrate of silver, or tannin. By the mouth he prefers alkalies, such as chalk, in a non-saccharated medium.—VAUGHAN (VICTOR.).—*The Medical News, June 18, 1887—Medical Chronicle.*

On Abscess of Gall-Bladder.

This case formed the substance of a paper read before the Central New York Medical Association, at Syracuse, in May last. The patient, a furrier, aged 52, was seen by Dr. Elsner in October, 1886. He had suddenly been taken with a severe pain, radiating from the right hypochondriac region backward, downward, and upward. The pain was so severe that with every paroxysm he had tonic and clonic contractions of the muscles of the extremities. The acute pains recurred at intervals of from three to five minutes. A quarter of a grain of morphia was injected hypodermically, and repeated in half an hour, the first having failed to ameliorate the pain. In about twenty minutes after the second injection the pain recurred at longer intervals, but the patient complained of great tenderness and soreness over the region of the gall-bladder. About three and a half months later, during which there was no recurrence of the severe paroxysmal pains, the gall-bladder could be distinctly outlined, and a slight fluctuation was perceptible a little to the right and about one-eighth of an inch from the umbilicus. This fluctuation extended upward towards the median line for about one inch. Introducing a hypodermic syringe, a yellowish green fluid with pus was withdrawn. The pus looked healthy, and the fluid contained cholestrine plates. As the patient was growing more feeble, and pressure symptoms had developed, Dr. Elsner decided to cut into the swelling, introduce a drainage tube, and wash out the cavity. This was done under strict antiseptic precautions, and the abscess cavity washed out with 1:5,000 sublimate solution; afterwards a 1:3,000 solution of carbolic acid was daily employed for the purpose. The patient made satisfactory progress afterwards. At no time was there elevation of temperature. The jaundiced color of the patient disappeared; the tumor gradually became smaller; the edema of the extremities was relieved; the drainage and washing out was continued until there was no further discharge. It should have been mentioned that the walls of the gall-bladder at point of incision were adherent to the peritoneum. This did away with the necessity for

performing the operation at two different periods. The patient made a good recovery, and when seen some months afterwards physical examination failed to detect any trace of the original tumor.—ELSNER (Dr.).—*Buffalo Medical and Surgical Journal*, July, 1887.—*Medical Chronicle*.

Epidermis Transplantations on the Lids and Conjunctiva.

The pieces of skin employed by Eversbusch contain only the proper stratum epidermoidale (strat. corneum, lucidum, rete Malpighi) and the uppermost layer of the papillæ. They are therefore thinner than those used by Theirsch, which also contain the entire papillæ and a portion of the straight layer of the stroma. Eversbusch's pieces are in length from 2 cm. to 3 cm., and in breadth 1 cm. They are first placed in a six per cent normal saline solution, and as they easily roll up, they are laid with a microscope forceps on a small spatula, and with the latter they are quickly inserted into the wound. It is important to arrest beforehand the slightest hæmorrhage by ligaturing the vessels and by the application of ice. Everything diseased, especially cicatricial tissue, has to be completely removed from the wound. Antiseptics are to be avoided. For the after treatment, Eversbusch first uses a six per cent salt solution; later on the wound is dusted over with iodoform powder, covered with gutta-percha tissue, which is fastened at the borders with collodion or chloroform, and over this a cotton gauze dressing is placed and kept in position for eight or ten days. With respect to the results, Eversbusch never saw any of the epidermis die (in one case more than seventy pieces had been transplanted), and retraction of the newly-formed skin after complete healing was very slight.—EVERSBUSCH.—*Munch. med. Woch.*, 1887, Nos. 1 and 2.—*Medical Chronicle*.

Sufficient Dosage of Salicin in Rheumatism.

Dr. T. J. MacLagan writes to protest against certain statements recently published of the failure of the salicyl compounds in acute rheumatism. He points out that in a case of this kind recorded by Mr. Greene, of Wallingford, it was stated that although the patient got salicin regularly for a week, the salicin failed to check the rheumatic process. “From June 21st to June 29th,” wrote Mr. Greene, “my patient had taken at least

1280 grains of salicin, and in spite of this the temperature had risen to 107.4° ." This, says Dr. Maclagan, is a perfectly accurate statement, and apparently a very telling one against the salicin, quite justifying Mr. Greene's indictment. But only apparently; for what does it really mean? 1280 grains in eight days are 160 grains a day, or 6.6 grains an hour, a totally inadequate dose. As well might one give a man suffering from intermittent fever one grain of quinine every three hours, and say that the quinine failed to exercise its so-called specific action, as it certainly would in that dose. From the time that Dr. Maclagan first introduced salicin to the notice of the profession as a remedy in acute rheumatism (now more than eleven years ago), he has never ceased to insist that small doses are of no use, and that to get its full beneficial action the drug must be given in large and frequently repeated doses. Twenty to forty grains should be given every hour till there is decided evidence of its action. It will generally be found that before an ounce has been consumed—often before half that quantity has been taken—there is a marked improvement. As the symptoms decline the dose may be diminished; but it is well not to do this too quickly or too early, for if the remedy be omitted too soon, or given in inadequate dose, the symptoms are apt to recur. The salicyl compounds are very rapidly eliminated from the system, and their full beneficial action in acute rheumatism can be got only by frequently repeated full doses. Mr. Greene's patient never had the chance of being under the influence of salicin; the 20 grains which he got at twelve o'clock had probably nearly all passed off from the system before the three o'clock dose was given.—*The Lancet*, August 13, 1887.

A YOUNG PHYSICIAN, who has just established himself, and has very little practice, is noted for his braggadocio. One of the older physicians, meeting him on the street yesterday, asked him how he was coming on. "I've got more than I can attend to," was the boastful reply; "I had to get out of my bed five times last night." "Why don't you buy some insect powder?" asked the old "doctor.—*Ex.*

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Original Articles.

INTERESTING AND ANOMALOUS FEATURES IN A CASE OF OVARIOTOMY.

With a report by Dr. Albert Abrams, Demonstrator of Pathology to the Cooper Medical College.

By O. O. BURGESS, M. D.

[Read before the San Francisco County Medical Society, Dec. 27, 1887.]

CASE 58. Miss L ——, a well developed, fine looking young girl of a little less than seventeen years of age, came under my care Dec. 27, 1886. She first menstruated five years before, when she was hardly twelve years old. Since then her periods have recurred with perfect regularity, lasting from four to six days, unaccompanied by pain, and normal in every respect except slight disturbances of the nervous system for a day or two preceding the appearance of the flow. The quantity of blood lost, however, had been a little more liberal than usual for the last few months. About ten months ago it was noticed that her abdomen seemed more distended than it should be, and this enlargement had slowly increased up to the time of my first examination. During these months there had been, at times, more or less pain in the left side and in various parts of the abdomen, more especially in the right iliac region, which had been attributed to flatulence and indigestion. These symptoms, together with constipation of the bowels, "nervousness" and depression of spirits, constituted the chief complainings of the patient.

Upon examination I had no difficulty in making out a distinctly fluctuating and apparently thin-walled cyst, arising, as I believed, from the right ovary or parovarium, and extending upward to an inch or more above the level of the umbilicus. There were present the usual percussion dullness over the site of the tumor, with resonance above it and along its flanks.

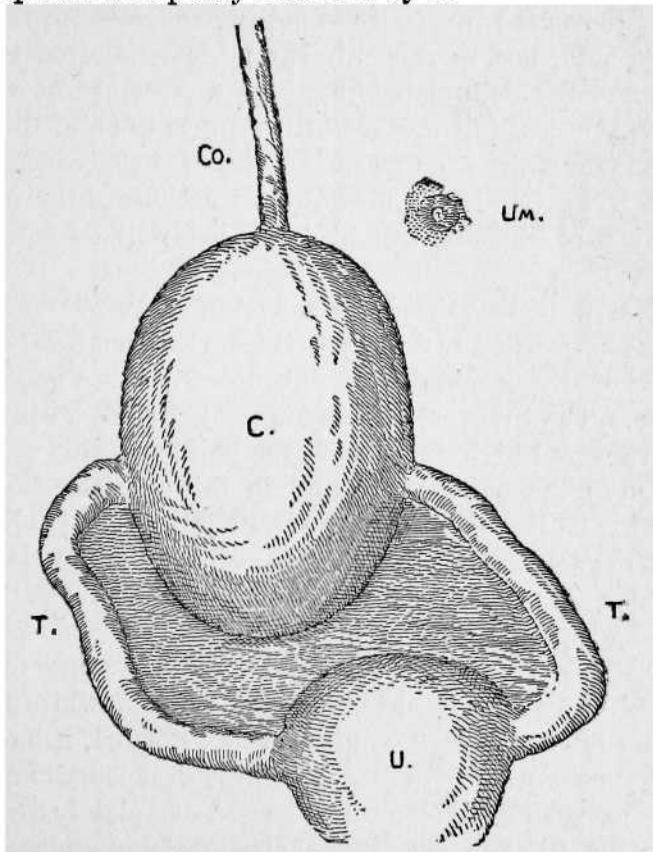
A week later, when I made my second examination, I was surprised to find the abdomen very much reduced in size, with more or less resonance on percussion all over it. There was an obscure feel, however, as of a small and very flaccid sac lying deeply in the right iliac region. Higher up on this side I caught the "sense of resistance" of something much more firm than the cyst I had felt in the first examination, but it was too deep-seated and too well covered by flatulent coils of intestine to enable me to arrive at any definite conclusion in regard to it. The patient stated that she had noticed a marked diminution in the size of her abdomen a few hours after my first examination. I will not take up your time with a relation of my conjectures and speculations as to what had brought about these only too apparent changes. The further history of the case will furnish a much more plausible reason for them than any that suggested itself to my mind at that time.

For several months following there was but little change in the conditions just described. Sometimes the cyst would seem to be a little fuller; at others, it could scarcely be felt at all. In the same way the firmer body above it could sometimes be indistinctly felt, while at others it could not be felt at all, especially when the over-lying intestines were largely distended with gases, as was usually the case.

Finally, on my return from my vacation in July last, nearly seven months after my first examination of this patient, I again found a well-defined, fluctuating cyst extending upward to near the level of the umbilicus. The general symptoms remained much the same, except that she had become more irritable and despondent, had lost flesh to some extent, and complained more of pain. Her next menstruation occurred early in August, and on the 18th of that month I proceeded to operate, assisted by Drs. Geo. Chismore, Chas. E. Blake and G. W. Davis.

Entering the abdominal cavity we came upon an extremely thin-walled, translucent cyst, of considerable size, which collapsed, flattened down and became lost after being emptied of

a quantity of serous-looking fluid. It was simply a pouch of peritoneum lifted up from the region of the right broad ligament by serous effusion. In other words, an encysted dropsey of the visceral peritoneum. Deeper seated a smaller cyst, about the size of a man's fist, was found and disposed of in the same manner as the first. Further exploration revealed something which required some study before its true character and relations could be clearly made out. It consisted of a thick-walled cyst, lying to the right of the median line, well above the uterus, and covered apparently by a fold of the broad ligament which had been pushed upward and partly unfolded by it.



U, Uterus; TT, Fallopian tubes; C, cyst; Co., cord of attachment; Um., Umbilicus.

Note: The umbilicus is located too far down in the diagram, giving an idea of greater extent to the tumor than it really possessed.

Something, which at first glance looked very much like intestine, arose from the pelvic cavity to enter the cyst laterally, about midway of its long axis, and to emerge from it on the opposite side, dipping downward again into the pelvic cavity.

From the vertex, or superior portion of the cyst, a white, solid, cord-like attachment extended upward, passing well to the right of the umbilicus, and ending by expansion in the parietal peritoneum near the lower border of the liver. With the exception of its origin and insertion, and of two or three slight adhesions to omentum and intestine, this cord was lying quite free in the abdominal cavity.

Returning now to a more critical examination of the tube which seemed to pass through the cyst, it was found to have more the feel and appearance of the Fallopian tubes, somewhat elongated and enlarged, than of intestine. By tracing the two portions downward they were found to connect with the uterus on either side, and in this way it was demonstrated that they were in fact the Fallopian tubes. It was certainly a curious anomaly, this arching upward of the tubes to enter the cyst on either side far above the uterus. A glance at the accompanying diagram will give a better idea of the relations of uterus, tubes, cyst and cord-like attachment than can well be conveyed in words.

It was now evident that the removal of the cyst was practicable, and I proceeded to enucleate it from its peritoneal covering. This was finally accomplished, but not without a good deal of difficulty. The tubes were then amputated close to the uterus, the cord severed high up, close to the point where it was lost by expansion in the peritoneum, and in this way the whole mass was freed from its attachments and removed. Although a thorough search was made, no trace of anything like ovarian structure could be found anywhere. The uterus was normal in size, appearance and position.

The wall of the cyst was thick, white and cartilaginous looking, and its contents consisted of a thick, milky white fluid with numerous fatty masses floating in it. In short, it had all the usual characteristics of a dermoid cyst except hairs and bony formations. The Fallopian tubes passed completely through the cyst wall on either side, so that their fimbriated ends were lying free in the sac.

The following able report by my friend Dr. Albert Abrams, Demonstrator of Pathology to the Cooper Medical College, who kindly made an examination of the somewhat dilapidated remains of the specimen, will be read with interest.

112 MASON STREET, December 19, 1887.

DEAR DOCTOR BURGESS:

I herewith report to you the result of my investigation with regard to the growth extirpated by yourself and sent to me for examination. The same, representing but a part of the original specimen, is about two inches long by one and one-half inches wide. Emanating from the vertex of growth is a round, fibrous cord measuring one and one-half inches in circumference. Attached, laterally, to the growth is what purports to be a portion of the Fallopian tube. The growth itself represents a monocular cyst, globular in shape, the contents of which had already been removed, but which, from report, consisted of a greasy, pultaceous mass. The interior of cyst presents a corrugated appearance, and a section of the wall of this cyst, which is about half an inch in thickness at its widest part, has a cartilaginous consistency and opalescent appearance. Fine lanugo-like hairs are thinly distributed over interior of cyst. Sections made with the microtome from various parts of the cyst wall show, under the microscope, heterogeneity of constituent elements. The following histological structures are apparent: White fibrous and yellow elastic tissue, a small amount of muscular tissue and hyaline cartilage, the latter predominating. The fibrous cord emanating from vertex of growth shows only the structure of connective tissue. From the preceding, the evident conclusion is, that the growth was a dermoid cyst of both ovaries, the bilaterality of which was due to a coalescence of the two ovaries, with subsequent destruction of the wall between them. The abnormal situation of the ovaries was probably a congenital condition, and attributable to some anomaly attending their descent from the median borders of the Wolffian bodies. There was no evidence of previous inflammation contiguous to growth. The presence of the round fibrous cord I have sought in vain to explain.

I am, very fraternally,

ALBERT ABRAMS.

I believe Dr. Abrams' conclusions to be correct. The coalescent ovaries were probably hung up in their anomalous position by the cord of attachment until they were finally destroyed by the degenerative processes which ended in the formation of the cyst.

The patient, who recovered rapidly, without any serious drawback, menstruated again on the 8th of September, 21 days after

the operation, and about 35 days after the last preceding period Since then she has been perfectly regular—menstruating October 6th, November 5th and December 3d.

The history of this case presents several interesting questions for discussion; but my present purpose is simply to place the anomalous features of it upon record. It was certainly not a very easy matter to complete the diagnosis of it, even after the abdominal cavity was opened.

COEXISTING SYPHILITIC AND TUBERCULAR ULCERATION IN THE LARYNX.

By J. D. ARNOLD, M. D.

The following case presents some clinical features of such interest that I shall claim your indulgence to relate it somewhat in detail. A young man, æt. 28, came to me with the statement that about five months ago he had taken cold whilst bathing; a few days later his voice began to grow husky; it had gradually become worse, until now he can speak only in a whisper. The patient's appearance led me to doubt the sufficiency of this etiology for the aphonia. He was extremely emaciated, with a pale, yellowish complexion; hollow, brilliant eye; and his thin, dry lips occasionally emitted a spasmodic, ineffectual cough. On close questioning, I learned that during the past twelve months he had frequently had slight hemorrhages. He had lost within that time thirty pounds in weight. His father and two uncles on his father's side died from lung disease. His mother is alive and well. He has one younger brother, who is well and robust. Upon examination I found the pharynx and the arches of the palate very anæmic and waxlike. At the superior margin of the epiglottis there was a deep granulating ulcer, with slight infiltrated border, that had destroyed a small wedge-shaped portion of the cartilage. Both arytenoids were cedematous, though not much swollen, and between them, in the inter-arytenoid space, was a deep ulceration fringed with white papillomatous excrescences, which sprang probably from its border within the cavern of the larynx. The ventricular bands were red and thickened, but their surface seemed intact. The superior surface and vibrating edge of the whole left, and the anterior third of the right cord, as well as the petiolus, were covered with broad, shal-

low erosions, which appeared to extend no deeper than the mucous membrane. The anterior wall of the trachea, which could be seen as far as the bifurcation, was red and glairy, but its mucous investment was unbroken.

If the history of the case, together with the laryngoscopic appearances, left any doubt in my mind as to its nature, this was quickly dispelled by the percussion and auscultation of the chest. The whole left apex was dull and woody as far as the lower margin of the second rib; at this height there was a suspicion of tympanism in the percussion note, and over the third rib, at about two finger breadths from the edge of the sternum, there was well marked amphoric resonance. The breath sounds over the whole anterior aspect of this side were tubular, and, at the third rib, distinctly cavernous. The upper portion of the right lung gave some signs of infiltration; the percussion lacked resonance, and as far as the second rib there was mixed breathing, with prolonged expiration. Posteriorly, on the right side, breathing and percussion note normal, except some slight dullness in the supra-scapular region. On the left side dullness and loud bronchial breathing as far as the sixth intercostal space; from this to the eighth there was some resonance, which abruptly gave place to complete flatness at the ninth rib, where all breath sounds and fremitus ceased (these probably were the remnants of a pleuritis, as on the opposite side breathing could be distinctly heard as low as the tenth intercostal space).

With phthisis written in giant characters under every fact that the throat and lung examination had elicited, I addressed myself to treatment. I continued the cod liver oil, adding the hypophosphites, and gave my patient very learned advice as to how he should feed himself, clothe himself and exercise himself. As cough and swallowing were very painful I directed him to use daily fifteen drops amyl nitrate through a steam atomizer, and to come every day for an insufflation of morphia powder. From this treatment the patient derived considerable mitigation of the distressing cough and dysphagia, and better rest at night. On his seventh visit to my office his conscience pricked him, and he said: "Doctor, you asked me if I had ever had any venereal scar, and I answered no; but I did have a chancre about three years ago." I hereupon examined him carefully and found a scar below the corona of his penis, and several hard condylomata on the scrotum, and at the verge of the anus. A suspicion

then arose in my mind about the throat ulceration which I had no reason to entertain before; namely, that it might be non-tubercular. I forthwith put the patient upon a rigid specific treatment. In five days there appeared unmistakable signs of cicatrization in the ulcers upon the cords and epiglottis, and in three weeks they had entirely healed, but the arytenoid swelling and the deep intra-arytenoid ulcer showed not the faintest evidence of repair. The voice was considerably mended; for whilst before he could only whisper, his speech had now a hoarse intonation. The patient became much elated at this improvement and believed himself on the high-road to recovery. He died three months later from rapid advance of the pulmonary trouble.

All text-books upon throat disease mention the possibility of complicated syphilitic and tubercular ulceration, and Heinze and Eppinger note the probability of a syphilitic ulcer occurring in a phthisical individual becoming tuberculous, but I have been unable to find any case recorded, wherein, as in this case, there was undoubted tubercular and syphilitic disease progressing side by side, each after its own manner.

The evident clinical lesson taught by the foregoing experience is that destructive ulceration in the larynx of a phthisical patient should not be too hastily diagnosed as tubercular. Observe further that such a case supports the idea of Heinze, that the larynx is invaded through the lymph or blood channels, since the ulcers in the cords and epiglottis certainly did not become tubercular. Of course a sloughing sore would not be apt to take up poison of any kind. The contrasted deportment of the venereal and tubercular ulcers towards the treatment used needs no comments.

MESSRS. Eli Lilly & Co., pharmaceutical chemists, of Indianapolis, Indiana, have issued for 1888 their catalogue of formulas. A copy of this catalogue will be mailed physicians on application.

DR. A. L. Lengfeld, whose drug store, on the corner of Geary and Stockton, is so well known, has lately thoroughly refitted and restocked the Baldwin Pharmacy, situated under the Baldwin Hotel. The store is open all night, and a competent and reliable prescription clerk always in attendance. We wish Prof. Lengfeld all success in his new venture.

Proceedings of Societies.

San Francisco County Medical Society.

SAN FRANCISCO, Dec. 27, 1887.

The meeting having been called to order by the President, Dr. J. D. Arnold, the minutes of the former meeting were read and approved.

Dr. Geo. Merritt and Dr. Emma Merritt, graduates of the University of California, were proposed for membership by Dr. L. M. F. Wanzer and Dr. O. O. Burgess, and referred to the Committee on Admissions.

Dr. Burgess reported a case of ovariotomy in a young lady where the operation had been rendered very difficult from the peculiar anatomical arrangement of the parts. The two ovaries had coalesced and degenerated so as to form one tumor from each side of which a tube, that at first sight resembled intestine, but was afterwards found to be Fallopian tube, passed to the uterus, while from the vertex of the tumor a fibrous band passed upwards and gradually disappeared in the peritoneum. The fact that the displacement of the uterus was congenital, its descent having been prevented by the fibrous band, made it very strange that there never should have been any disturbance of the menstrual function.

Dr. Chismore had witnessed the operation and regarded it as a case of extreme interest, it being the only case in his experience in which the diagnosis of the character of the tumor was as difficult after the abdominal section as before it. The difficulty of the operation was very great and there was not any trace of an ovary other than that forming the tumor.

Dr. Hirschfelder was anxious to know whether the girl still continued to menstruate, as such a case would throw much light on the physiology of menstruation, and Dr. Arnold suggested that any changes in the character of the menstrual fluid should also be observed.

Dr. Burgess replied that the patient had menstruated regularly since the operation, and that there was not any apparent change in the quality of the fluid.

Dr. Stallard thought that these facts tended to show that menstruation does not depend upon any one portion of the generative apparatus, for we had other cases like the one before the

Society in which both ovaries and tubes had been removed without arresting the process, and he, therefore, believed that if the uterus and nervous centers remained menstruation would continue.

The Secretary read a communication from *Sacramento Medical Times*, asking permission to publish the proceedings of the Society.

Dr. Hirschfelder moved that the request be granted. Dr. G. F. G. Morgan seconded the motion.

Dr. Wm. W. Kerr opposed the motion because the Sacramento Medical Society had refused to furnish its proceedings to any other than the local journal. He was chiefly opposed to the motion, however, on the ground that frequently business was discussed in the Society, and recorded in the minutes, which it was not desirable to make public; any published reports would, therefore, have to be revised by the Society, or some responsible person, before they were given to the journals.

Dr. Hirschfelder offered the following amendment to his motion: *The Sacramento Medical Times* be granted the privilege of publishing such reports of the proceedings of the San Francisco County Medical Society as the Society may desire to publish; and that such reports be furnished by the Secretary, either directly or through the journal reporter.

The amendment was seconded by Dr. Morse and carried by the Society.

There being no further business, the Society adjourned.

Wm. WATT KERR, M. D.,

Recording Secretary.

SAN FRANCISCO, January 10, 1888.

The meeting having been called to order by the President, Dr. J. D. Arnold, the minutes of the former meeting were read and approved.

The Committee on Admissions reported favorably on the credentials of Dr. Geo. W Merritt and Emma S. Merritt, who were forthwith elected to membership.

By a unanimous vote of the members present, Dr. R. I. Bowie was reinstated as a member of the Society.

Dr. J. D. Arnold, Chairman of the Committee on Revision of Constitution and By-Laws, gave notice that the proposed changes in the Constitution and By-Laws of the San Francisco County

Medical Society would be submitted to the Society for approval at the next meeting.

Dr. C. A. Von Hoffmann reported a case of cholecystotomy in a lady fifty years of age, from whom he had removed by this operation nearly one hundred and fifty gallstones, varying in size from a hazel nut to less than a pea. It was now nearly three weeks since the operation had been performed, and the patient was making an excellent recovery.

Dr. Stallard during the last year had seen six cases in which there was jaundice from impacted calculus, and in three of these the operation was suggested. In two of them laparotomy was performed, but in one the calculus was not discovered, although at a subsequent autopsy it was found impacted in the common duct, and lying behind the head of the pancreas. Such a case showed the necessity for thoroughly exploring the duct.

Dr. Frisbie reported an autopsy in which he found two ducts opening into the bowel. The higher one was obstructed by a calculus, but the lower one which entered the intestine several inches further down was patent.

Dr. Miller mentioned a case in which he found a triangular stone with one angle in the cystic duct and another in the common duct.

Dr. Chismore reported an instance of impacted gallstone unaccompanied by jaundice. The case was that of a young lady, who, after a fall from her horse, began to suffer from severe abdominal pain. In the course of time a tumor developed in the region of the gall-bladder, but this very frequently disappeared, and never could be felt when the patient was lying on her back. After several years suffering the patient died, and the autopsy showed the gall-bladder to be normal, with the exception of inflammatory adhesions to surrounding tissues, and the presence of a large hour-glass shaped calculus in the common duct.

There being no further business, the Society adjourned.

WM. WATT KERR, M. D.,

Recording Secretary.

A SUBSTITUTE FOR COD LIVER OIL.—R. Salt, bromide of potash, ana 2.00; iodide of potash, 0.05; fresh butter, 125.00.

S. Well rubbed together, and to be given just as you would butter upon the bread.—*Weekly Medical Review.*

Licentiates of the California State Board of Examiners.

SAN FRANCISCO, January 4, 1888.

The following persons having complied with the law and all the requirements of the Board of Examiners, were granted certificates entitling them to practice medicine in the State, on the 4th of January, 1888:

FRANK S. COOK, M. D., San Francisco; Med. Dept. Univ. of Cal., Cal., November 15, 1887.

WM. G. DANIEL, M. D., Colton; Nashville Med. Coll., Tenn., March 2, 1857.

WM. A. DAVISON, M. D., San Diego; St. Louis Med. Coll., Mo., March 13, 1873.

WILLIAM DODGE, M. D., Los Angeles; Coll. of Phys. and Surgs., Keokuk, Iowa, June 18, 1878.

FRANK F. DOLE, M. D., Los Angeles; Bowdoin Coll., Maine, May 25, 1859.

JEFFERSON CORROSSO FRASER, M. D., San Diego; Bellevue Hosp. Med. Coll., N. Y., March 1, 1875.

G. W. FULLER, M. D., San Francisco; Cooper Med. Coll., Cal., November 17, 1887.

JOHN PERRY GALE, M. D., Woodland; Univ. of Pennsylvania, Penn., May 7, 1887.

CHAS. G. GARRISON, M. D., Santa Ana; Univ. of Pennsylvania, Penn., March 11, 1865.

GEORGE I. GLAZE, M. D., San Francisco; Med. Dept. Univ. of Cal., November 15, 1887.

WILLIAM GREIG, M. D., San Diego; Bellevue Hosp. Med. Coll., N. Y., March 10, 1881.

WILLIAM B. HOWARD, M. D., Modesto; Med. Dept. Univ. of Cal., Cal., November 15, 1887.

ROBERT B. HULBERT, M. D., San Diego; Keokuk Med. Coll., Iowa, March 2, 1880.

GEORGE MERRIT ILLINGWORTH, M. D., Los Angeles; Chicago Med. Coll., Ill., March 10, 1874.

JO. WADSWORTH KEENE, M. D., National City; Harvard Univ., Mass., June 26, 1878.

JENNIE TOWER LEONARD, M. D., Merced; Women's Med. Coll. of the New York Infirmary, March 27, 1877.

WILLIAM B. LINDSEY, M. D., San Francisco; Univ. Victoria Coll., Province of Ontario, May 5, 1869.

WILLIAM H. MILLER, Grangeville; Coll. of Phys. and Surgs., Chicago, Ill., February 23, 1886.

MELVIN L. MOORE, M. D., Los Angeles; Rush Med. Coll., Ill., February 24, 1890, and Bellevue Hosp. Med. Coll., N. Y., March 15, 1882.

J. M. MOSENK, M. D., San Jose; Coll. Phys. and Surgs., Iowa, June 18, 1878.

HEBER ROBERTS, M. D., Santa Barbara; Missouri Med. Coll., Mo., March 4, 1880.

VERNON D. ROOP, M. D., San Diego; Vermont State Univ., June 27, 1867.

- CHRISTOPHER A. SANBORN, M. D., Redlands; Bellevue Hospit. Med. Coll., N. Y., March 15, 1882.
- IDA MAY STITES, M. D., San Francisco; Cooper Med. Coll., Cal., November 17, 1887.
- CHAS. TEUBNER, Ph. G., M. D., San Diego; Univ. Med. Coll., New York, March 6, 1885.
- T. J. TOWNSEND, M. D., San Diego; Univ. Med. Coll., N. Y., March 5, 1869.
- CHRISTOPHER C. WEBB, M. D., Elsinor; Med. Dept. Univ. of Maryland, Md., March 3, 1881.
- WILLIAM H. ZIEGLER, M. D., Oakland; Jefferson Med. Coll., Penn., March 13, 1880.

Dr. T. J. Le Tourneux, seconded by Dr. Jules Simon, introduced the following resolution, which was unanimously adopted:

WHEREAS, The law to regulate the practice of medicine in the State of California provides that the Board of Examiners, in the discharge of its official duties, shall determine what colleges are in good standing, whose diplomas may be presented by applicants, for certificates under the law; and,

WHEREAS, It is apparent that the protection of the public, and the best interest of the profession, require a higher standard of medical education than that which is now adopted by many medical colleges; therefore,

Resolved, That on and after April 1, 1891, the Board of Examiners of the Medical Society of the State of California will not grant certificates to practice medicine on diplomas issued after that date, by colleges which do not require that all candidates for graduation shall have studied medicine not less than three full years, and shall have attended not less than three full regular courses of lectures delivered during three separate years.

Wm. M. LAWLER, M. D., Secretary.

THE government of New South Wales has lately reproduced a perfect fac-simile, in size, paper, type and the four colored plates, of the second edition of Dr. Jenner's treatise on the "The Variolæ Vaccinæ." It bears the date of 1800. The Australian *Medical Gazette* says the work is introduced by a preface, in which is found the following: "The book will no doubt be found of great benefit to the medical profession and to the general public, by placing before them, without extraneous matter, the evidence upon which vaccination was adopted by every civilized government in the world."

Health Reports.

Report of State Board of Health.

Mortality reports received from sixty-eight cities and towns for the month of December indicate a slightly increased death rate over the mortality reported in November; in the latter month the percentage per thousand in the month being 1.54 in a population estimated at seven hundred and fifty-four thousand nine hundred and fifty; whereas, in December, in an estimated population of six hundred and eight thousand eight hundred, the deaths numbered ten hundred and fifty-three, giving a percentage per thousand in the month of 1.73. The increased mortality may fairly be attributed to the greater prevalence of pulmonary diseases, including croup and diphtheria as affecting the air passages, and typhoid fever and diarrhoea and dysentery as affecting the alimentary canal.

Consumption caused one hundred and seventy-three deaths, which is a large increase over the last report. Very many of these deaths occurred in strangers visiting the coast in hopes of benefit from the climate.

Pneumonia was fatal in one hundred and sixteen instances, which is also an increased mortality over the preceding month.

Bronchitis was credited with twenty-seven deaths in December, which is an increase of eleven deaths over last report.

Congestion of the lungs had the small mortality of four.

Diarrhoea and dysentery are credited with causing twelve deaths, which is a decided decrease from last report, when the deaths recorded were twenty-nine from these causes.

Cholera infantum has also decreased its death record from twenty-three in November to nine in December.

Diphtheria shows but little change in its mortality returns, twenty-nine deaths being reported against it. San Francisco reports only eleven deaths from this cause, Berkeley five, Oakland four, Sacramento four, Stockton, Watsonville, and Suisun one each, and Woodland two.

Croup shows a larger mortality than diphtheria, thirty deaths being reported from this cause, all occurring in towns in which diphtheria prevails, which is strong evidence of the unity of these diseases.

Whooping-cough caused two deaths.

Scarlet fever caused three deaths.

Measles is credited with seventeen deaths, which is an increase of fifteen over last report.

Smallpox caused thirteen deaths; of these ten occurred in San Francisco, two in Sierra City, and one in Elmira. One death is said to have occurred in Los Angeles, a Chinaman, but not officially reported.

Typho-malarial fever caused six deaths.

Typhoid fever shows an undiminished mortality in December, fifty-four deaths being ascribed to this disease.

Remittent fever. Five deaths were attributed to this disease, which is a decrease from last report.

Cerebro-spinal fever is credited with eighteen deaths, which is a largely increased mortality over the deaths in November. Eleven of these occurred in San Francisco, and one each in Cloverdale, Fresno, Downey, Millville, Oakland, Tulare City, and Sacramento.

Alcoholism caused seventeen deaths.

Erysipelas was fatal in five instances.

The following cities and towns report *no deaths* for December: Amador, Calistoga, Colfax, Colton, Davisville, Downieville, Elk Grove, Forest Hill, Gridley, Gonzales, Hopland, Igo, Jolon, Knight's Ferry, Nicolaus, Redwood, Sausalito, Shasta, and Ukiah.

PREVAILING DISEASES

Reports received from ninety-two localities in different parts of the State continue to indicate that disease prevails to a greater extent than usual at this season of the year. This is especially noticeable in diseases affecting the respiratory organs, pneumonia, bronchitis, and influenza being almost epidemic in many localities.

Diarrhoea and dysentery are mentioned with frequency in reports received from Tulare, Newcastle, Wheatland, Downey, Etna Mills, Millville, Fresno, Sonoma, Knight's Ferry, Santa Cruz, Sissons, Arbuckle, Jolon, and Modesto.

Measles prevail very extensively throughout the State. They are noticed in San Francisco, Sacramento, Calistoga, Lower Lake, Davis, Downey, Cottonwood, Merced, Fresno, Ukiah, Calico, Sausalito, Oakland, Alameda, Lockeford, Auburn, Truckee, Hopland, Colton, Pomona, Red Bluff, Gridley, Sissons, Arbuckle, Mariposa, Weaverville, Woodland, Berkeley, Hill's Ferry, Modesto, and Elk Grove.

Scarlet fever is mentioned in Cottonwood, Lemoore, Sacramento, Red Bluff, Pomona, Sissons, Arbuckle, Forest Hill, Livermore, Oakland, and San Francisco.

Diphtheria seems to be spreading throughout the State. It is quite prevalent in Sacramento, San Francisco, Oakland, and Amador City; it is also mentioned as present in Watsonville, Berkeley, St. Helena, Santa Cruz, Fresno, Maxwell, Redwood, Etna Mills, Truckee, Igo, Sissons, Suisun, Livermore, Cloverdale, Biggs, and Woodland.

Croup is also frequently met with wherever diphtheria prevails.

Whooping-cough still lingers in Dixon and Red Bluff.

Erysipelas is noticed with more or less frequency in Newcastle, Downey, Santa Cruz, Susanville and Mariposa. The type is mild, and with but a limited mortality.

Typhoid fever continues to be noticed in reports from Bakersfield, Cottonwood, Santa Cruz, Merced, Anaheim, Susanville, Calico, Fresno, Truckee, Tulare, Elsinore, Colton, Igo, Pomona, Cedarville, Gridley, Sissons, Weaverville, Elk Grove, Mariposa, Sacramento, Oakland and San Francisco.

Typho-malarial fever is reported in Wheatland, Downey, San Diego, Tulare, Fresno, Lemoore, Amador, Truckee, Knight's Ferry, Pomona and Modesto.

Remittent and intermittent fevers are noticed in a very limited number of reports; these diseases being sporadic where occurring and without any noticeable mortality.

Pneumonia prevails very generally, and is reported in San Francisco, Oakland, Alameda, Sacramento, Watsonville, San Jose, Bakersfield, St. Helena, Fresno, Lemoore, Bodie, Susanville, Truckee, Yreka, Cedarville, Los Angeles, Pomona, Suisun, Hill's Ferry, Modesto and Woodland.

Bronchitis is also prevalent throughout the State.

Influenza is also prevalent. The type is not of a very severe character, and the mortality quite limited.

Smallpox is slowly but surely disseminating itself throughout the State. It has been declared epidemic in San Francisco; is present in a sporadic form in Alameda, Solano, Marin, Sonoma, San Joaquin, Butte, Contra Costa, Nevada, Siskiyou, Lake and Sierra Counties. This scattering of so contagious a disease as smallpox over so large a section of the State, indicates its source as being from a common center where disease germs are in abun-

dance, and are thence conveyed by visitors in their systems, or in their clothing, to be developed as they reach their several homes. All the cases, so far as known, trace their origin to San Francisco. In Sierra City the disease assumed epidemic proportions, there being no less than nineteen cases in that town. We may expect a like result in other towns as the disease progresses. The history of smallpox in this and other States is about the same. For a number of years the disease is absent. Then negligence takes the place of vigilance, and vaccination is deferred, until the number thus unprotected has assumed such large proportions that smallpox, if introduced, is supplied with an over-abundance of material susceptible to contagion, so that the disease in a short time assumes an epidemic form, until all the available sources of supply are exhausted, and every unprotected person attacked. We are just now emerging from this period of quiescence throughout the State, the material for infection is abundant, and smallpox is abroad. Therefore, without general vaccination throughout California, we cannot possibly escape the result of our negligence. The smallpox of to-day is the same smallpox described by Procopius nearly fourteen hundred years ago, that decimated and laid waste the Eastern world; and if material is furnished as then, its ravages are no less sure. The State Board of Health again reiterates its advice to vaccinate all unprotected persons, and to revaccinate those, the protective power of whose vaccination may have become impaired through lapse of time. Do not wait until smallpox invades the community in which you live before availing yourself of the only preventive means that exists to avoid the disease. It may then be too late, and yourself be the first victim to the malady. Above all, pay no attention to the inevitable fool that is sure to arise to air his ignorance by declaring that there is no safety in vaccination, and that it is a delusion. The history of smallpox emphatically gives such cranks positive contradiction. There is safety in vaccination; without it there is none.

PACIFIC COAST WEATHER FOR DECEMBER, 1887.

Signal Service U. S. Army, Division of the Pacific, San Francisco, Cal., January 3, 1888. Weather.—The month opened with a well marked storm, central off the mouth of the Columbia river. This storm was accompanied by high winds, and a rain area covering the entire Pacific Coast. This was succeeded

by a number of weak storms, which passed to the East, giving almost constant rain in Oregon and Washington Territory, until the 18th, and light rain in Northern California on the 4th, 7th, 8th and 13th. From the 16th to the 23d the weather was fair in all districts. This period of fine weather was broken by a light storm on the 24th, which gave rain as far south as Fresno, in California, and by a severe storm on the 27th, which, rapidly spreading to the south, was accompanied by high winds and a copious rainfall, extending from San Diego in the south to Cape Flattery in the north. During the greater portion of the month the weather was warmer than the average December weather, the last ten days, however, being colder than usual.

Temperature.—The month has been warmer than usual in all the Pacific Coast districts. In California the departures from the normal mean temperature were small, averaging about one degree. In Oregon and Washington Territory they were larger, averaging three degrees for the coast districts, and from five to ten degrees for the interior.

Rainfall.—The rainfall has been in excess of the average December rainfall in Oregon and Washington Territory, and below it in California. The greatest excess is found near Puget Sound, where it amounted to five inches. Thence it diminished in all directions, becoming two inches in Southern Oregon and a half inch in Eastern Washington Territory. The greatest deficiency occurred in the northern portion of the Sacramento Valley, amounting to over two inches. In the remaining portions of the State the deficiency ranges from one-half inch to one inch.

GERBARD G. TYRELL, M. D.

Permanent Secretary California State Board of Health.
Sacramento, January 10, 1888.

TREATMENT OF NON-SPECIFIC OZENA.—Dr. Dubousquet-Laborderie has a very novel way of treating non-specific ozena, by means of supplanting the lost nasal mucous membrane with the skin of frogs. He has treated eleven patients in this manner, and has made from ten to twenty grafts in each case, more than half of which grew. He uses the skin of the interdigital membrane, of the nictitating membrane, and of the abdomen. He simply cuts them off with a scalpel, and places them upon the raw nasal surface with a pincette.—*Weekly Medical Review.*

PACIFIC MEDICAL AND SURGICAL JOURNAL
AND
WESTERN LANCET.

EDITOR:

WILLIAM S. WHITWELL, A. M., M. D.

The Editor is not responsible for the views of contributors.

All communications relating solely to the editorial management of the JOURNAL, should be sent to No. 438 Bryant St., San Francisco.

All business communications should be addressed to L. H. Bonestell, 401 Sansome St., San Francisco.

SAN FRANCISCO, FEBRUARY, 1888.

Editorial.

We regret to announce with this number the retirement of Dr. Wm. Watt Kerr from the editorial management after a pleasant association of over two years.

His connection with the JOURNAL we hope is not to be entirely severed, and that he will from time to time give our readers something in the way of editorial or collaborative work.

IS CARE ENOUGH EXERCISED IN VACCINATING?

By some physicians, yes. By others, and we fear the majority, no.

Vaccination is looked upon by both the people and by physicians as a necessary operation, but at the same time as a most trivial one.

The town has been declared in a state of epidemic, and there has been an epidemic of vaccination. Everybody without asking as to its advisability or necessity has come to be vaccinated. Their arms have been scratched, a point or quill supposed to contain true and fresh vaccine has been rubbed upon the scari-fication and they have taken their departure. That is the last

that will be seen of them until the next epidemic, when they will put in another appearance and go through the same operation.

Either or both vaccinations may have taken; still, protection from smallpox may not have been given, although in both cases the arms were sore and much inflamed. A scar upon the arm does not in every case signify protection. The true vaccine scar is slightly below the surrounding skin surface and is marked by punctate depressions which are characteristic.

A large, ugly, disfiguring, white, shining scar so often thought to denote an exceeding thorough vaccination is of little account for it often is the result of a sore produced by irritating matter from the crust, quill or point which has been used.

The first vaccination, no matter at what age, should be done carefully and with deliberation, and only with matter which has been proven to be good. It should be the endeavor of the physicians to cause from two to four characteristic pustules, and consequently a like number of characteristic scars.

One good scar protects, but three give an additional protection. Statistics show that the death rate decreases with the number of scars. The properly vaccinated child is now protected for ten or a dozen years, and perhaps for life, and we believe that any further vaccination for such children until the age of puberty is unnecessary.

Before a child can attend one of the public schools, the School Board requires that he show a certificate from the family physician to the effect that he has been duly vaccinated. This certificate is often given, and accepted, when really only the attempt has been made at vaccination; when in fact there has been no true vaccination. Would it not be better if the certificate stated how many characteristic scars the child could show, and whether in the physician's opinion the child was sufficiently protected. If the child was over twelve the condition of the arm might still be called for, and then the result of the revaccination. A requirement of this sort would ensure a more

careful report on the part of the physician, and the child would be obliged to return that the result might be noted.

This would save in many cases, the annoyances of an unnecessary vaccination, and ensure in other cases, where the child has not been properly vaccinated in the first instance, great care being taken at the time of the revaccination to obtain a good scar.

Careful primary vaccination and a careful revaccination at the age of puberty, give an almost absolute protection, and should obviate this incessant revaccination on the occasion of the slightest smallpox scare.

DURING the present epidemic the guiding and experienced hand of Dr. Meares has been missed; but, although some mistakes may have been made, and some measures left undone, the action of the authorities has been as effective, for the most part, as the fund at their disposal would allow. Free vaccination could be obtained at the Health Office long before smallpox was declared to be epidemic. Public vaccinators were appointed in different sections of the city, and in some parts vaccination from house to house was carried on at public expense.

Finding that many applications for admission to the Smallpox Hospital were made at the Old City Hall, the Mayor, with the approval of the Board, had a tent erected in the opposite plaza, where patients might remain until they could be properly removed. Before this, a number of the sick and suffering were obliged to take a car and go to the New City Hall before they could obtain the required permit, exposing many other persons to the liability of contracting the disease. Although subjecting the Mayor and Board to much criticism, it was a very wise measure, and one which could only draw forth adverse criticism from the ignorant. For the surrounding people, it was fully as safe as a wooden barracks. To the patients it did not afford as complete shelter, but otherwise it was efficacious; and, what was more to the point, it was immediately efficacious.

At the present time the number of verified cases is decreasing, and before another month is out we hope that only a few sporadic cases will remain. In the meantime it will be well for physicians to urge those who are not protected by either having had the disease or by vaccination, to become so at their earliest opportunity.

Fortunately, few fanatics remain who oppose the remedy as useless or as worse than the disease, and these are being rapidly exterminated by the wise law of natural selection. We call to mind two personal friends who have forfeited their lives after many years of fierce opposition to this simple and safe method of protection from a fearful scourge.

THE regular monthly meeting of the City Board of Health was held on the evening of January 19th, and after the reading of the minutes of the last meeting the Secretary, Mr. Cyril Williams, read the reports from the public vaccinators in regard to the virus obtained from the San Rafael farm. One physician only gave a favorable report, all others stating that in the majority of the cases the vaccination was a failure.

Dr. Gale, Acting Health Officer, reported that over 13,500 persons had been vaccinated at the Health Office since the last monthly meeting of the Board, and that 13,788 had been vaccinated by the district physicians. The total since June last was 52,022.

Dr. Pelham, Resident at the Smallpox Hospital, reported that that on Dec. 14 he had 29 patients under his care; that he had received 179 since that time. Of this number only 21 had died or about ten per cent. This is a low mortality and either shows excellent care or that the disease was very mild.

Dr. Pelham referred to the case of the woman who was said to have been sent to the hospital although she was not suffering from smallpox. He said she certainly did have a light attack, but that the diagnosis was undoubted.

In speaking of the condition of the hospital the doctor said

that the sewers were in a rotten condition, that the roof of the main building was leaky and that the range was out of order.

Mayor Pond visited the hospital the next day and made a thorough personal investigation. The building was unsuitable, but affairs in his opinion, were not in as bad a condition as he had supposed from the report, and there were few complaints from the patients. Repairs were needed, and he recommended after the present epidemic that the building be torn down and a more suitable one be erected in its place.

At a special meeting of the Board of Health, held on January 23d, Dr. D. E. Barger, who has for some time past filled the position of Superintendent of the City and County Hospital so efficiently and satisfactorily, was elected to fill the place left vacant by the death of Dr. Meares. A better selection from the available men in the profession of this city, to fill this very important office, could not have been made. The place of the Superintendent of the City and County Hospital being vacant, Dr. P. A. Kearney was unanimously elected to fill the position.

DR. S. S. Herrick has been appointed Assistant Secretary of the Health Department, in place of Dr. R. D. Johnson, who tendered his resignation.

As showing the advance the belief in vaccination has made in this city, the *Evening Bulletin* states that "for the first time the existence of smallpox has failed to send to the office disbelievers in vaccination to protest against the advocacy of vaccination, and not a single communication disapproving of vaccination has been received."

THE Chinese passengers and crew of the Steamship *Gaelic* are still held in quarantine. Perhaps it is safer for them, for smallpox is epidemic on shore. Whenever a case of disease occurs among them, it is quickly disposed of by being sent to the city. Two cases of smallpox came ashore on the 22d ult. These were the last. Altogether there are 360 persons, including the doc-

tor, who are thus carefully shielded from infectious disease (rent and board free) at public expense on the ferry steamer Capital. Dr. Hermann Partsch is in charge.

DURING the last of December or early in January smallpox was declared to be epidemic in San Francisco. During the month of November the Health Officer announced that 33 cases were verified; in December, 86, and during January, about 250 cases.

VACCINE POINTS.

WE have received a circular from Dr. Thomas Waterman, 172 Marlborough street, Boston, Mass., to the effect that he is ready to supply animal vaccine virus in direct descent from lymph of the "Beaugency Stock." This virus is collected on large lancet-tipped ivory points, which are charged from the lymph of two animals. They are also dipped twice, by which means the second charge hermetically seals the first. To make sure that the virus thus prepared is energetic, it is tested upon either an animal or an infant, and, according to the result, the points are distributed or destroyed. Prices of this virus are as follows:

One Crust.....	\$2 00
Ten Points.....	1 00
Four " 	50
Single " 	15

There is a discount on larger quantities, and all virus is warranted.

EACH vaccine farm takes precaution in the preparation of its virus, through which it tries to recommend itself to the profession. The National Vaccine Establishment of Washington sends forth a circular stating that the ivory points are not so reliable as the prepared quills, and that they therefore advise the use of the quill. Crusts are considered dangerous, and they therefore refuse to sell them at any price. It is stated that during the recent epidemic in Canada virus from this farm was relied upon to protect the northern borders of the Union. It is the vaccine used

by the United States Army. The good practice of making each package of points bear the date of charging is enforced by the management, and might, with advantage, be followed by others. Whole quills are 25 cents each. Ten quill points can be obtained for one dollar. Ivory points are the same price. These points are for sale in the city by W. S. Duncombe & Co., 427 Sutter street.

FROM the vaccine farm at San Rafael points may be obtained. If reliable, the advantage of obtaining them so much fresher than is possible from any Eastern farm would be great. Two points were sent to us and used, but the number was too small for the drawing of fair conclusions as to its efficacy. We have no reason for not supposing it excellent, and think that the home production should if possible be encouraged. The Board of Health have however declared that the virus is worthless.

Hospital for Mental and Nervous Disease.

Dr. Whitwell has removed his private Hospital from 620 Folsom St., to 438 Bryant St., where he will only admit such cases as come under the head of mental or nervous diseases. The house is large and comfortable and the grounds extensive. In pleasant weather patients will be able to be out of doors most of the time. This is an advantage which it was impossible to allow at Folsom St. All physicians are cordially invited to call and see for themselves what arrangements have been made for the care of patients.

JOHN L. MEARES, M. D

On the morning of January 15th, Dr. John L. Meares, the Health Officer of San Francisco, who has been for a long time in poor health, died at his residence on California street.

Dr. Meares will be universally missed and sincerely mourned by all who knew him, for he was a kindly gentleman and very faithful, having served the city as Health Officer for more than ten years most efficiently. His death has occurred at an unfortunate time, for his judgment, skill and experience, had they

been available, would have been of the greatest benefit to the city while passing through the present smallpox epidemic.

Dr. Meares was born in Wilmington, North Carolina, in 1822. He studied medicine at Jefferson College, Philadelphia. At the time the civil war broke out he was practicing in Wilmington, but immediately sought the appointment of surgeon to one of the Southern regiments, and throughout the war was in active service. Coming to this State in 1871, he first went to Fresno, but soon afterwards came to San Francisco. In 1873 he was appointed Quarantine Officer, and, in 1876, Health Officer, which latter position he held until his death, serving the city honestly and faithfully.

As his friend, we mourn for him; as a physician, we recognize the loss the medical ranks have sustained; as a citizen, we feel that an officer has gone whose place it will be difficult to fill, for Dr. Meares was energetic, fearless, honest and capable.

Dr. F. H. Terrill died on January 20th, at the Twenty-sixth Street Hospital. He was removed at his own request from his rooms on Stockton street at the first appearance of the disease. He was attacked by smallpox in one of its most virulent forms, and succumbed to its effects within 48 hours of his removal.

Dr. Terrill was a Virginian, and was born in 1854. Soon after graduating he joined the navy, and was for some years attached to the Japanese squadron. Taking a leave of absence for a year, he settled in San Francisco, and was associated with the late Dr. Maxwell. Preferring practice, to the duties of a naval surgeon, he resigned from the service and has since this time been busily engaged by an active practice. He was a Director of the Cosmos Club and Surgeon of the First Infantry Regiment, in which he held the rank of Major. He was an able man and a popular physician.

If we have been rightly informed, he fell a victim to his non-belief in vaccination. The disease was taken while in attendance on a patient who had been stricken by the disease.

THE addition to the Smallpox Hospital, which is at present in process of erection, is 216 feet long, and, when finished, will accommodate nearly one hundred patients.

RESOLUTIONS IN MEMORY OF J. L. MEARES, M. D.

On the announcement of Dr. Meares' death, a meeting of the Board of Health was called and a committee appointed to draft appropriate resolutions. In speaking to the resolutions, Dr. Clinton said:

"Mr. President: It is seldom a public body is called upon to show marks of respect to the memory of an official more deserving than Dr. Meares. He was a capable, kind and vigilant public officer. If his advice and warnings given in his annual reports for the past twelve years had been heeded by those who could have carried out his suggested improvements, he most probably would be living to-day and enjoying the thanks of a greatful people for giving them the healthiest city in the world. Year after year he pointed out the rotten condition of our system of sewerage, and again and again warned us that the time would come when San Francisco would repent her stubborn defiance of sanitary laws. A city without quarantine, a city with a receiving hospital in a cave, without proper provision for patients suffering from infectious diseases, one section of it at least growing over ground built of garbage—such is the condition of affairs that Dr. Meares condemned and vainly tried to remedy. His wise admonitions were unheeded—the results we know. Low taxes have made high mounds in our graveyards; the dollar limit has limited, so to speak, the patience of nature in regard to the health of San Francisco. Our good friend and adviser, Dr. Meares, as all our city journals admit, died in the harness of his noble calling. Overwork and anxiety for the public health may be regarded as at least the mediate cause of his death. To show his devotion and self-sacrificing spirit allow me to state a little episode, that you, Mr. President, can verify. Sickness broke out in a family, its head was taken down, the symptoms were alarming, the disease was diagnosed by the family physician to be smallpox. Only those who have had such an experience can imagine the horror and dismay of that poor family. Oh! if Dr. Meares could come he might say

it was not this awful disease. The case was stated to the doctor, and he, who never refused to solace the afflicted, rose from what promised to be his deathbed, pressed his swollen feet into his boots and braved the cold and storm of a bitter night to visit that poor family. His practiced eye scarcely rested on the patient when he pronounced the disease measles. The family were made happy, but the good doctor survived his glad tidings only a short time. What eulogy could be made on this man greater than that woven around him by this and a score of like incidents. Well may we exclaim, whenever we pass his honored ashes:

An honest man lies here at rest,
As ever God with His image blest,
The friend of man, the friend of truth;
The friend of age and the guide of youth."

At a special meeting of the San Francisco Medical Benevolent Society, held January 14th, 1888, Dr. Swan, President, appointed a committee to draw up resolutions in memory of Dr. John L. Meares. The committee reported as follows:

WHEREAS, This Society feeling deeply the loss by death of one of its most esteemed members, Dr. John L. Meares, late Health Officer of this city, does hereby resolve,

That we desire to express our heartfelt grief at the untimely demise of our late colleague, who was not only a skillful physician, but a warm friend and earnest manly man.

Resolved, That in the performance of his public duties, he displayed great ability and untiring zeal, and that this community has lost in him a faithful officer at a time when his services were most needed.

Resolved, That we tender to his family our profound sympathy in this, their great bereavement, and express the hope that they may feel some consolation in the fact that he carried to the grave with him the love of the whole people for whom he labored so long.

Resolved, That the Secretary be instructed to spread these resolutions on the minutes, publish them in the *Western Lancet*, and transmit a copy to the family of the late Dr. John L. Meares as a tribute of our respect.

Committee. { Dr. GEO. C. CHISMORE, Chairman.
 { Dr. F. B. KANE.
 { DR. JOHN NIGHTINGALE.

Correspondence.

From Our Edinburgh Correspondent.

January 2d, 1888.

MY DEAR DOCTOR:

Since I left your city I have never till now been in a position to fulfill my promise of sending you occasional letters with Edinburgh medical news for your *Journal* which you still so kindly send me.

During 1887 Edinburgh has not been conspicuous for many noteworthy or startling events. Perhaps the most important feature is the formation of a new laboratory by the Royal College of Physicians, for scientific research in medicine. Dr. G. Sims Woodhead has been appointed Superintendent, the laboratory is well furnished with scientific instruments and apparatus, and is open to all members of the profession, subject to the approval of the council, the members of which are selected from the fellows of the College of Physicians.

There was quite an epidemic of scarlet fever in the city last February. This gave rise to a special meeting of the Medico-Chirurgical Society, where an interesting and instructive discussion took place as to milk supply and its relation to the disease; one medical man who had followed the progress of the epidemic very closely, showing that most of his cases were supplied by several milk shops, all of which got some of their supply of milk from a certain farm where two members of the family suffered from the fever just before the epidemic began. Demonstrations under the microscope were given at the same meeting of the scarlet fever bacillus, and there was a good deal of talk about the treatment of the fever as well as on the methods of preventing its spreading.

The medical teaching of women is steadily progressing here, and Leith Hospital has been granted for their use, and in it they receive instruction in clinical medicine and surgery.

A very successful post graduate course was held in September; a greater number of subjects being embraced this year, and the lectures attended by a greater number of practitioners and others.

CLINICAL TEACHING IN EDINBURGH.

The students' representative council of the Edinburgh University has on foot at present a project, which, if carried through,

will become one of considerable importance. It is proposed that a commission be formed to enquire how clinical teaching in the hospitals may best be improved. This commission is to be formed of representatives from the Edinburgh University, the School of Medicine, the Colleges of Physicians and Surgeons, the staff and management of the Infirmary and from the students themselves.

As things at present stand it is almost impossible for a student to attend more than one clinic on the same day, as all or nearly all are held at the same hour (12 o'clock). What the promoters of the scheme desire is that some arrangement be made by which senior students and graduates may be enabled to avail themselves more fully of the abundant material afforded by the infirmary. This would, of course, necessitate some change in the hours of the various clinics, but there is no doubt that were such an alteration effected, a great impetus would be given to clinical teaching in Edinburgh, and both students and graduates would be attracted to the school by the greater advantages derivable from the change.

A few new books have appeared in Edinburgh during the year: "The Action and Basis of Digitalis and its substitutes with special reference to Strophanthus," by Prof. T. R. Fraser; "The Topographical Anatomy of the Child," by Dr. J. Symington; "Notes on Surgery for Nurses," by Dr. Joseph Bell, and the second edition of Dr. P. H. Maclaren's valuable "Atlas of Venereal Diseases."

Several wellknown members of the profession have died during the past year. The best known of these in Edinburgh is Dr. Daniel Rutherford Haldane, wellknown as a pathologist and clinical teacher, and one time President at the Royal College of Physicians.

CAP AND GOWN IN EDINBURGH.

During the present session a plebiscite of the students was taken by their representative council with a view of ascertaining the opinion of the students regarding the adoption of academic costume, i. e., cap and gown. The result was that out of 3,020 matriculated students, only 1,576 sent replies; of these 806 were in favor, and 646 against the project; while 124 papers were spoiled. From this it will be seen that nearly half the students were indifferent, and on account of this the council has determined to take no further steps in the matter.

DR. R. H. BLAIE.

Notices of Books, Pamphlets, etc.

ANATOMY, DESCRIPTIVE AND SURGICAL. By HENRY GRAY, F. R. S. Edited by T. Pickering Pick. A new American from the eleventh English edition. Thoroughly revised and re-edited with additions by William W. Keen, M. D. To which is added Landmarks, Medical and Surgical by Luther Holden, F. R. C. S., "with additions by W. W. Keen, M. D. Philadelphia: Lea Brothers & Co., 1887. San Francisco: Samuel Carson & Co., 3 Sansome Street. Black edition, price cloth \$6.00; leather \$7.00; colored edition, price cloth, \$7.25; leather \$8.25.

This work is well known to practitioners and students of anatomy and has been always held in high esteem by them. The special feature of all editions has been the engravings, but these have been always in black, whereas, now, the arteries, veins, and nerves are distinguished by their different colors. This makes the relations of the three systems much more evident to the student and is a marked improvement.

Landmarks, Medical and Surgical, by Mr. Luther Holden, is of great benefit to the student, for it teaches how from the surface of the body to distinguish the position of the internal parts. Study in this direction is simply invaluable, for it trains the eye and the touch, and makes the student cognizant of facts which will prove of great practical use. As a text-book the present edition of Gray's Anatomy is unsurpassed.

DRUITT'S SURGEON'S VADE-MECUM. A Manual of Modern Surgery. Edited by STANLEY BOYD, F. R. C. S., Eng. 12th edition with 373 wood engravings. Philadelphia: Lea Brothers & Co., 1887. San Francisco: Samuel Carson & Co., 3 Sansome Street. Price, \$4.00, cloth: \$5.00, sheep.

We welcome another edition of the surgery which was so familiar to us in our medical school-days. A favorite then, it should not be less of a one now, for by this last edition it is restored to the front rank of surgeries. Every chapter has been rewritten, and much new material added. Seventy-three wood cuts have been added to the already large existing number, and in every respect the work has been brought up to the knowledge of to-day. It is, therefore, an excellent text-book, and it will naturally be used as such in a large number of the schools.

An appendix of valuable formulæ will be found to be very useful.

PAMPHLETS RECEIVED.

SEVENTEENTH ANNUAL REPORT OF THE MANAGERS OF THE BUFFALO STATE ASYLUM FOR INSANE, FOR THE YEAR 1887.

STATISTICAL REPORT OF 5,700 CASES OF EAR DISEASES. By S. S. BISHOP, M. D., Chicago.

OPERATIONS FOR MASTOID DISEASE. By S. S. BISHOP, M. D.

TREATMENT OF CHRONIC SUPPURATIVE OTITIS MEDIA. By S. S. BISHOP, M. D.

THIRD ANNUAL REPORT OF THE MANAGERS OF THE NORTH TEXAS HOSPITAL FOR THE INSANE, AT TERRELL. For year ending October 31, 1887.

THE MEDICAL WAIF: A practical monthly medical journal, devoted to diseases of children, women, rectum and anus. Lafayette, Ind., 1887.

RULES AND BY-LAWS OF THE MELBOURNE HOSPITAL.

TRANSACTIONS OF THE AMERICAN DERMATOLOGICAL ASSOCIATION at the 11th annual meeting.

SOME OF THE CAUSES OF FAILURE IN OPERATIONS FOR THE CORRECTION OF SQUINT. Reprint from Philadelphia *Medical Times*. By DUDLEY S. REYNOLDS, M. D.

A STUDY OF THE CAUSES AND TREATMENT OF UTERINE DISPLACEMENTS. By THOMAS ADDIS EMMET, M. D. Reprint from *Gynaecological Transactions*, 1887.

SYPHILIS OF THE ENDOMETRIUM. By T. A. ASHBY, M. D., Baltimore, M. D. Reprint from the *Maryland Medical Journal*.

RECTAL AND ANAL SURGERY, with a description of the Secret Methods of the Itinerants. By EDMUND ANDREWS, M. D., LL. D., and E. WYLLYS ANDREWS, A. M., M. D. With original illustrations. Chicago: W. T. Keener, 1888.

REPORT ON PROGRESS IN MEDICINE. By J. B. MARVIN, M. D. Reprint from *Southwestern Medical Gazette*.

PROGRESSIVE MUSCULAR ATROPHY BEGINNING IN THE LEGS. By J. B. MARVIN, M. D. Reprint from *Practitioner and News*.

UNIVERSITY OF CALIFORNIA: Circular of the College of Letters and College of Science, 1887.

ANNUAL REPORT OF THE SECRETARY TO THE BOARD OF REGENTS OF THE UNIVERSITY OF CALIFORNIA. For the year ending June 30th, 1887.

FOOTPRINTS OF A PROFESSION OR ETHICS IN MATERIALS AND METHODS. Address delivered before the Maine Dental Society, by HORATIO C. MERRIAM, D. M. D.

ANNUAL REPORT of Morse Dispensary of Cooper Medical College of San Francisco for 1887.

COOPER MEDICAL COLLEGE Annual Commencement.

SCRIBNER'S MAGAZINE.

Scribner's for February contains as the leading article Mendelssohn's Letters to Moscheles, with portraits and reproductions of drawings by Mendelssohn, by William F. Apthorp. Fair Harvests is continued, while "The Man at Arms" is concluded. Part II. of the romance "Natural Selection," by H. C. Bunner

is given in this number. A paper on Volcanoes, by N. S. Shaler, will be read with much interest. "What the Will Effects" is an article in another line by William James. The last article is a short one by the popular writer, Robert Louis Stevenson, and is entitled "The Lantern Bearers." It is a timely and an earnest protest against Realism in Fiction. We are struck by the great variety in the articles presented in this number so that no one can take it up without finding several that are of interest to him. Scribner's is fast becoming, as it was formerly, one of the most popular magazines published.

A Successful Hysterectomy.

A most extraordinary injury, done by violence to the genital apparatus of a woman, is described in the *Centralblatt fur Gynakologie* of Nov. 13. A woman was brought one morning to the hospital in Hamburg by the police, who had found her lying in the street insensible, her clothing covered with mud and stained with blood. An examination showed a fleshy tumor protruding from the vulva, which proved to be the uterus torn loose from all its attachments except at the anterior vaginal vault; there was a tear involving the whole recto-vaginal septum and opening into the peritoneal cavity. The total extirpation of the uterus was completed in the hospital, and, strange to say, the woman made a perfect recovery. The recto-vaginal tear was then repaired by a plastic operation which was also successful. The subsequent judicial investigation elicited the fact that the woman had been drinking heavily, till after midnight, with two male companions who, following her on her way home, had cohabited with her, not without her consent: she herself being intoxicated could not tell clearly what had taken place, but it was apparent, from the nature of the injury, that one of these men in a drunken frenzy, had introduced his whole hand into the rectum and rupturing the anterior wall, had endeavored to drag out the uterus entire. The woman had remained lying in the street, in mid winter, until the following morning, and when found showed evidence of having lost a large quantity of blood. Her recovery, under the circumstances, was remarkable, and taken in connection with the rarity of the injury, if indeed it is not unique, make the report of the case very interesting.—*Med. News.—Nashville Journal of Med. and Surg.*

Translations.

By D. W. MONTGOMERY, M. D.

A Case of Hereditary Syphilis Characterized by a Nearly Universal Distribution of Gummata.

By DR. FOURNIER.

To-day's lecture will be taken up by the consideration of the clinical history and autopsy of the infant that died last Sunday.

The infant was brought here last Saturday, and was then in a dying condition, breathing with difficulty, eyes dull and lustreless, and skin exceedingly pale, of that paleness expressed by the phrase "pale as a sheet."

On examination we were struck by the presence of two very large tumors; one situated on the upper and outer side of the right arm, the other on the lower part of the left arm.

The infant, not yet one year old, had some months previously been brought to us on account of some syphilitic manifestations, of which we shall presently speak, and after remaining some weeks in the hospital was discharged cured. Since then, however, new manifestations made their appearance, and when brought back last week it had the full cachexia.

The prognosis was very easily arrived at for the child was dying, nevertheless stimulation with alcohol was tried, although without success, for in spite of everything, it died the day following.

Before speaking of the autopsy we will review quickly the previous history of the mother, which happens to be of extreme interest.

She is now twenty-nine years of age, of lymphatic constitution, and contracted syphilis in August, 1881. The date of the inception of the disease being fixed, we have an interesting fact before us, viz., the prolonged duration of the syphilitic poison, which lasted six years—the woman had received very little treatment, and the little she did receive had been very imperfectly carried out.

She has had two children—the first in 1885, which died at the age of two months of convulsions. It may be mentioned here, that this is the ordinary mode of death of syphilitic infants.

In her second pregnancy she gave birth to the child now under consideration. She entered this hospital last year in the eighth month of her pregnancy, having then confluent mucous

patches on the vulva. On Dec. 27th she gave birth to an apparently healthy child, not suffering from any eruption whatever, and of medium weight and size. After confinement the mother and child left the hospital, both being apparently healthy.

During the first four months the child remained well, not showing any signs of hereditary infection, and this fact is most worthy of our attention, for some syphilographers assert that every child not presenting any signs during the first weeks is certainly free of the hereditary taint. This is a grave error, and I can cite cases where the hereditary taint did not become manifest till the twenty-fifth or thirtieth year.

At the age of four months and a half, syphiloderms first made their appearance on the frontal and auricular regions, and at the same time a coryza came on with abundant secretion, causing excoriations in the nose and on the upper lip. I also made out the presence of a syphilitic saccocoele—a very rare affection among infants.

Under treatment these lesions disappeared promptly, and both mother and child again left the hospital apparently in good health at the end of four weeks. During the following months the child remained perfectly healthy, according to the mother, with the exception of a slight bronchitis. Three weeks ago it commenced to grow pale, and emaciated; then the limbs grew tumified and oedematous; after which the abdomen enlarged; then the two tumors, mentioned at the commencement of our lecture, made their appearance. The infant became cachectic, and died a few hours after entering the hospital.

At the autopsy gummatus deposits were found in nearly every part of the body. A gummatus deposit was found in the inferior extremity of the right humerus, and a similar deposit in the upper extremity of the left humerus. Circumscribed and diffuse gummata were found in the cranial bones. Multiple gummata were also found in the cellular tissue, from which escaped an apple green, non-purulent, sirupy, thready gummatus liquid.

There were also multiple miliary gummata in the viscera, notably in the liver, which was peppered with them. Gummata were also found in the lymphatic glands, especially in the bronchial glands, and in the lungs and testicles (three or four in each testicle). In fact, the autopsy showed an extraordinary multiplicity of syphilitic lesions.

The question now before us is, could this infant have been saved by an energetic treatment begun three or four weeks before its death? I cannot answer this positively, because of the multiplicity of the lesions. Could it have been saved by treatment begun immediately after birth? Yes. I am convinced that such a case may be cured by treatment commenced immediately after birth.

The child is born, to all appearances, healthy, and remains healthy for four and a half months; nevertheless it ought to receive antisyphilitic treatment from its birth, even though it appears healthy. Reflect over the cases you have seen, as I reflect over those in my experience, and you will see that this is not generally done. Usually, in similar cases, one does nothing. What is the use of medicating a healthy infant? And, besides, hereditary syphilis is not fatal, and the child born of syphilitic parents is not absolutely condemned to have syphilis, are the arguments used by the majority of physicians.

This kind of treatment is by far too often practiced, and for a long time I myself have followed it, which I heartily repent of, for I now recognize that it is deplorable and murderous. But I do not wish it to be understood that I generalize too much, and I do not say that *all* children born of syphilitic parents should be treated, when they have apparently nothing the matter with them.

It is necessary to distinguish those cases where treatment is called for, from those where it is not indicated. The following are the indications:

1. An infant apparently healthy at birth, having a syphilitic father, should not receive treatment, because we know that paternal heredity is much less certain than maternal heredity, and consequently there is a chance that the child may have escaped the disease.

2. An infant apparently healthy at birth, having a mother afflicted with a syphilis of long standing, and who presented no signs of syphilis during pregnancy, ought also not be treated; for, if there are chances that the child may be syphilitic, there are also chances that it may not be so.

3. An infant apparently healthy at birth, having a mother suffering from recent syphilis, especially if she have shown venereal lesions in the course of her pregnancy, ought to undergo an energetic course of antisyphilitic treatment from its birth;

for it is certain, in spite of all appearances to the contrary, that it is syphilitic, and its latent syphilis may break out at any moment, causing grave troubles, or even a fatal issue, as in the case under consideration.

Such is the treatment that I recommend, and that I now follow, regretting that I did not put it into practice earlier.—*Gazette des Hopitaux.*

Naphthalin and Calomel in Typhoid Fever.

There has been a large amount of clinical evidence tending to show that calomel and naphthalin are efficient drugs in typhoid fever, lessening its severity and even at times aborting it. Dr. Furbinger (*Deutsche Med. Wochen.*, 1887, Nos. 11 to 13) has been investigating this question both clinically and from a bacteriological standpoint, with results somewhat disappointing to hopeful therapeutics. Naphthalin was first tried in one hundred consecutive cases of typhoid fever. It was given in doses of 3 to 5 grammes daily, according to the Rossbach-Gotze formula. Mild baths were also employed, but no other special remedies. Dr. Furbinger concludes that the drug had no influence in shortening or aborting the disease, or in preventing complications or relapse. Still more positive were his bacteriological studies. He found that the faeces of patients not taking naphthalin contained 112,000 micro-organisms per milligramme, while during the use of naphthalin the number was only reduced to 90,000. Furthermore, the naphthalin did not kill the typhoid bacilli, and these could be cultivated from the stools without any difficulty.

Calomel given in good doses at the beginning of the disease had a striking action upon the temperature, lowering it for some time. Furbinger seems to think that this result does not occur in other fevers, and infers that it is in a measure a specific action. There is, however, plenty of evidence to show that calomel does act similarly in other febrile diseases, such, for example, as pneumonia. In the calomel stool the number of micro-organisms is about three-fourths that in the ordinary stools, or 81,000 per milligramme.

The typhoid bacilli are not killed, and such action as calomel possesses cannot be due, therefore, to any antiparasitic process. Furbinger thinks that the drug does possess a certain amount of specific action, but that, practically, the calomel treatment of typhoid fever does not materially influence the course or mortality of the disease.—*Ed. Medical Record.*

Extracts.

An Address on the Development of Surgery and the Germ Theory.

By LAWSON TAIT, F. R. C. S.,

(Surgeon to the Birmingham and Midland Hospital for Women; President of the Branch.)

GENTLEMEN.—Your kindness in placing me in this position of distinction brings with it for all of us the burden of an address. I tried hard to find some new line for this, but I have failed, and I have to fall back on the retrospect inevitable in all such efforts, and, more serious still, the retrospect must be personal.

I am reminded that it is exactly twenty-seven years since I entered the University of Edinburgh as a medical student, and I have been trying to recall to mind, as accurately as I can, my impressions of what I then saw, to contrast them with what I see now; to recall the teaching and practice of 1860, and compare them with those of 1887, and to see wherein and how far we have improved.

In such a retrospect there will be this advantage, that I shall speak of events and contrasts which most of you have witnessed, and which can, therefore, be in no way regarded as ancient history.

My earliest surgical recollection is still very vivid. The operating theater of the old infirmary was crowded, every seat even to the top gallery was occupied. There were probably seven or eight hundred spectators, for Syme was to operate on a gluteal aneurism. He was then in the zenith of his fame, and in the very best of his powers, his hand as steady and his eye as true as it ever had been—incomparably the best surgeon I have ever seen. He entered the theater with the recognized procession of assistants—house surgeon and dressers—and was greeted with a subdued murmur of applause. The spectators included men of all ages and ranks in the profession. Very many who had come from great distances to see the great feat—like Bickersteth, of Liverpool, who came specially to assist, if I remember rightly—and, of course, there were many boys like myself from fifteen upwards. The patient was put to sleep. Syme buttoned up his dress coat, turned up his sleeve, I saw a rush of blood, and in a few minutes the placing of the patient in the carrying chair and a round of applause announced the conclusion of the operation.

I have often wondered since, and now I wonder still more deeply, why we gathered in such numbers to see that operation. The boys did so from curiosity and in ignorance. I am sure I did, and my ignorance was in no way lessened, for I saw little of the operation, and I understood less. The older and more experienced spectators went mostly from curiosity, and perhaps to be able to say that they had seen the great surgeon do this great deed. Some six or eight men were there, like Bickersteth, who might some day be called upon to operate for a gluteal aneurism, and they were the only legitimate spectators. All the others had far better have been away.

In those days the first-year students were turned into the operating room, and I believe this practice is still continued, to learn how operations are done before they know the names, far less the relations, of the structures concerned. In the dissecting-rooms our greatest feats were to display skilfully the fancifully numerous layers of fascia which, if we had been really operating for hernia, we certainly would never have troubled about; or to remember the varieties of troublesome perineal arteries with which not one per cent of us would ever have any practical anxiety.

The strange thing was that this nonsense was encouraged by our teachers—nay, it was carried into the examination hall. At that time, as now, the College of Surgeons was the great manufacturing agency for those practitioners in England and Wales who had the care of all the ordinary ailments of British humanity, as well as the smaller number who operated on gluteal aneurisms. In order to receive a certificate which enabled the candidate to deal with scarlet fever and pneumonia, he had to answer questions about the internal iliac artery, and how it might be tied. Such a trifling accident as that upon which many of you depend for your night work, the process of parturition, had not been regarded as of nearly so much importance as the relations of the pelvic fascia.

Now all this is greatly changed, but it is not changed enough, and there is still room for improvement. It is perfectly true that a great bulk of surgical work (with which for precision and brilliancy of result, as well as for difficulty of detail, even Syme's gluteal aneurism can not for a moment compare) is now done in small rooms before audiences restricted to a few post-graduate pupils. All this—a quarter of a century ago—even if

it had been possible, would have been the object of spectacle. Now two facts are recognized that were apparently hidden from our fathers; that the great bulk of human ailments are such as do not require operative interference, and that the acquisition of a surgical diploma is no guarantee of the possession of the manipulative skill necessary to be an operating surgeon. In my youth, the great object of the schools seemed to be to turn out men able to cut for stone and tie arteries, and the more solid and more frequently exercised qualities of the general practitioner were neglected. To some extent the reason of this was that the great bulk of the students went to the university with so large an amount of experience gained by the old fashioned apprenticeship system that many of them could readily claim to be already accomplished practitioners. But the changes of the last quarter of a century have almost ended that most excellent method of training, and I find now that our young men leave the schools in large numbers in just such a state that they are ready to begin to learn the profession they have to follow.

My business at present is not so much with the process of medical education as with some of its results, but I can not help joining my voice in the wail, which is getting pretty general, concerning the destruction of the old method of education by apprenticeship, and I most emphatically condemn the attitude taken by the two Royal Colleges in relation to the Apothecaries' Company, to which, whatever may be said to its detriment, we owe most assuredly the most solid and useful element of education for very many past generations. During the time covered by my retrospect, some of the changes effected have resulted undoubtedly in making our students more learned, but I sometimes wish that the coming generation had less about them of the *savant* and more of the doctor.

In 1860 the battle of anaesthetics was nearly ended, and no one ever thought of performing a surgical operation without chloroform, though its application to midwifery practice was still stubbornly resisted by some of the old folk; but the traditions of the old surgeons of the days before chloroform still survived, centering chiefly round the memory of Liston, who must have been a man fulfilling the requirements of the operative surgery of his day more fully than any other of modern times. In those terrible days, when the operation had to be done in spite of the shrieks and struggles of the poor sufferer,

rapidity was every thing, and accuracy had sometimes to be sacrificed to speed. But Liston seemed to excel every one in his lightning-like movements, with all the accuracy of Syme. Thus he made a reputation, and leaves a memory more like that of an actor than a man of science, as he really was. Nowadays, when accuracy is every thing and speed a matter of little moment, advantaged as we are by our slumbering patient, we can form no notion of the work of such a man as Liston. As boys, we always spoke of him as a hero. All the stories of him were treasured and handed down, and he formed the standard of comparison to the detriment of all his successors. We then spoke of a lithotomy not in relation to its results, but by the number of seconds it took to finish. Nowadays, the man who hurries an operation for show is no credit to his art. By this, however, I do not mean that men with slow minds and shaky hands are to be encouraged to engage in operative work.

In a retrospect such as this it is an easy matter to speak of the wonderful advances made by the discovery of the anæsthetic properties of certain volatile drugs, as contrasted with the horrors of the days before this great blessing to mankind; but we do not as yet fully recognize the indirect advantages it has conferred upon ourselves. It is, like Mercy, twice blessed; it blesses the surgeon as well as the sufferer, and it has made possible operations which no surgeon could have faced without it. The whole realm of abdominal surgery gives an illustration of what I say. It is true that a few abdominal operations were done before the days of chloroform; but in this country, at least, they were nearly all removals of simple parovarian cysts. The first ovariotomy by Charles Clay did not occur till September 27, 1842. Baker Brown had slumbering patients, and, without the unconsciousness to which we now so safely reduce them, not one of those many advances with which the name of Birmingham will ever be closely associated could ever have been possible. It is true that the deep sleep was first cast upon man in the Massachusetts Hospital; but the battle was fought in this island, and the victories which have followed it are due to the pluck and pugnacity of James Young Simpson. "It is not," says Sydney Smith, "the man who first says a thing who deserves the credit, but he who says it so long and so loud that at last he persuades the world it is true."

Having thus been able to do something more than snatch an

occasional victory by sleight-of-hand like Liston's, the art of the surgeon made rapid progress, and about 1862 Simpson began to insist that we should know something about surgical results; that we should know, indeed, not only whether we were doing as much as we could do for the welfare of patients upon whom we had to operate, but whether the results obtained were at all in proportion to the labor, expense, and suffering involved. Curiously enough, the research was at first not made on the main lines, but on a side issue—that of inquiry as to the best method of closing bleeding points. Simpson collected a mass of statistics which excited amazement at the terrible mortality of such simple operations as removals of the leg and forearm. He blamed the old method of ligature, and he led us astray about acupressure; but even that mistaken divergence was of infinite use, for it led us to discontinue the long ligature—an advance which has never been acknowledged, and never accredited to Simpson's work as it ought to have been long ago. It was an advance as great as Ambrose Paré's introduction of the thread itself.

In my youth every stump had a number of threads hanging out of it, and after a week they were pulled by the house surgeon or dresser day by day until they came away. Sometimes they never came. Simpson's attack led to a reconsideration of the whole question; in fact, we owe to him an enormous debt for the whole advance of modern surgery in the three directions which I have indicated—anaesthetics, statistical research, and the arrest of bleeding. For all of these rich fields were lying ready. Baker Brown showed that we had no need to fear that for which we all had such a mortal dread—a little piece of dead stump inside the abdomen. The rivalry between Baker Brown and Spencer Wells induced the latter to adopt a method of recording his cases, which has been followed ever since, and the method of proper statistical research was begun. Finally, the battle of torsion and ligatures was decided in favor of short ligatures of animal tissue, and our present perfect methods were established.

But this was not all. Simpson's research on the mortality of amputations and hospitalism showed that enormous advances might be made in our hospitals, and the conclusion was established that, just as in a town, the larger and more crowded the population, the greater the factors of danger, the greater need for precautions of many kinds. Vast improvements in our hos-

pital systems have followed; the old careless nursing has been banished; and where dirt and untidiness reigned supreme, all is now care and cleanliness.

Here, again, I am carried back to the memorable day when I saw Syme operate on the gluteal aneurism. One of his assistants was his son-in-law, the recently appointed Professor of Surgery in the University of Glasgow, Joseph Lister, a man who has exercised an enormous influence for good on the progress of surgery during the last twenty years—a verdict which will be accepted the more readily from me as one known to be hostile alike to his doctrines and his practice.

Let me remind you again that just then the great battle of biogenesis was being fought, the leaders of the two sides being Pouchet and Pasteur. The former died early, and his work—almost his name—is forgotten. But on my own mind an indelible impression was made by his wonderful little book, *L'Origine de la Vie*, which fell into my hands in 1868, and which has remained a landmark in my life ever since. I now know that many of his conclusions were incomplete, and many of his observations inaccurate by reason of his faulty apparatus, but his book kept me out of the errors of the school of Pasteur, and freed me from the dreams of Lister, into which so many have fallen.

Shortly after I had finished my curriculum, I was fortunate enough to be appointed house surgeon to a small hospital in Yorkshire, little known outside its own district, but ever likely to keep a strong hold on my affections, founded by John Clayton, in the city of Wakefield. There I had an enormous mass of surgical material at my disposal, and a kindly and indulgent staff, under whose direction I was permitted to make full use of it. Lister had just published his first papers, and had hardly grasped, certainly had not fully formulated, his splendid idea of antiseptic surgery. From 1867 till 1870, Lister had no more faithful disciple, no more devoted follower, than the unknown house surgeon of the Clayton Hospital. I spent my days with my hands soaked in carbolic or making carbolic putty and securing carbolic lac plaster. Compound fractures were saved, which in Edinburgh would have been condemned to amputation, and I did operations successfully which astonished others as much as they gratified me. Years after, when I had fallen away from the faith, the argument against me which alone caused me grief, was the assertion that I had never seen and did not understand

Listerism. I had been to Glasgow to see it, I had carried it out more scrupulously than the master himself, I had suffered painful attacks of Hematuria from my misguided enthusiasm years before my metropolitan critics had known what carbolic acid was. But with all my success there occurred the old troubles, death from pyemia, loss of cases which I could not understand if Lister's doctrines were true. I thought a royal road to surgical success had been opened to me, yet every now and then I found myself floundering out of it, and I began to fear that it was a science falsely so-called.

In 1870 I came to Birmingham in search of a wider field, and my present happy line of life was opened to me. For some years I had little to do in the way of practice, and I devoted myself to the following of the researches of Bastian, Tyndall, and Pasteur; all my work, however, being tinctured by the strongest belief in the faith of Darwin. To such a mental altitude the ultimate doctrines of Listerism are an impossibility. This has been completely established by some of our most recent and best English workers; and the widely extravagant speculations of German observers, whose powers are far more in the direction of metaphysical invention than of actual biological record, are blown to the winds by such a man as Dallinger. Buchner, for instance, carries his cultivating experiments of the bacillus anthracis to an absolute *reductio ad absurdum*, when he tells us that he can, by successive cultivations, change it into the bacillus subtilis; and again that he can change the harmless bacillus subtilis into the deadly bacillus anthracis by a similar process. Dallinger disposes of this briefly in two sentences. "To one who has fully comprehended the meaning and operation of the Darwinian law, it will be at once apparent that there must be error somewhere in this matter."

"If the law of actual variation, with all that is involved in survival of the fittest, could be so readily brought into complete operation, and yield so pronounced a result, where would be the stability of the organic world? Nothing would be at one stage. There could be no permanence in any thing living."

I could grant, at their first appearance, the conclusions of Tyndall, that the lowly organisms which are associated with, and which doubtless cause decomposition, do not and can not arise save from preexisting germs. Dallinger's observations completely establish this, even if it wanted any thing more than

an *a priori* proof. I followed Bastian's work, and soon found enough to persuade myself that his conclusions were based on incomplete experiments. A biogenesis, as Bastian and Pouchet before him had proclaimed it, was to me, as an evolutionist, a doctrine which could not be adopted. I read with delight Mantegazza's dramatic description of this when he said: "Je dus me lever, brisé de fatigue, mais enchanté d'avoir surpris la vie à son berceau." But I could not bring myself to believe it. To me that was incredible; for the theory of Darwin—amply verified by every fact in nature—has as a corollary the conclusion that changes are slow in a geometrical proportion to their primitive character. The curve of progress in civilized life is rapid. In the primitive forms of life, the biological record clearly shows that during that epoch the curve of progress is so slow that the human mind can devise no scheme for appreciating its direction at all; no conceivable measure of time can be stated for the period which must have passed during which the simplest chemical combinations existed without form of life, and that in which the simplest forms of life were changed into more complex. To assert, therefore, that out of a mere chemical combination life would be developed in a laboratory experiment, was to try to get us to believe in the reality of the juggler's deception. And yet the followers of the opposite school, with absolutely ascertained facts to guide them, went as far astray on the other side, and absolutely misinterpreted the truths before them. The fact that sterilized beef-tea can be kept indefinitely in a hermetically closed vessel has been known to the housekeeper for generations. Tyndall showed that cotton-wool could so filter air and so sterilize it that it might be freely and harmlessly admitted to the said beef-tea. That also can not be doubted, and the conclusion is inevitable that if you keep away the germs of the minute organisms, the growth and life of which alone determine decomposition, you keep your beef-tea sweet. But they did not give sufficient prominence to certain other facts; I do not say they did not know them or that they forgot them, but the overwhelming importance of their increasing discoveries dwarfed to the biologists the importance of those old fashioned facts. Thus the housekeeper also knows that the chemical constitution of the beef tea has a great deal to do with its keeping sweet; that, in fact, the beef tea may be put into such a condition as to defy the germs. Such a simple chemical

process as putting a great deal of salt in it, or depriving it of its water, will effect this. Similarly, the presence of life in tissue will prevent decomposition, and not only in tissue, but in non-organized material which is in association with tissue. Thus, in an egg there is a very minute—a microscopical—mass of tissue, the germinal vesicle, which, when living, seems to possess the most extraordinary powers, not only of resisting decomposition itself, but of preserving from decomposition the non-organized mass of albumen with which it is associated. Try a very simple experiment with four eggs, and you will see the force of what I mean. The first egg shall be one laid by a hen to which the male bird has never had access, so that the egg is absolutely sterile. The second egg shall be one completely fertilized. If you put both of these eggs into an incubator, and keep them under precisely the same circumstances, in a week the non-fertilized or dead egg will be putrid and will swarm with all sorts of bacteria and spores, while the fertilized egg-contents will be quite sweet and the chick well-formed.

The second part of the experiment is as follows: Another and precisely similar pair of eggs are to be dipped together for about twenty seconds in boiling water, so as to form a thin film of coagulated albumen immediately within the shell. They may then be put on the shelf of the store-room for six months, and opened at the same time, they will then be found both quite sweet to eat. This is the rough and ready method of the house-keeper to preserve eggs from the attacks of germs. Of this second pair of eggs, one had life in it and the other had not. The life in the former is destroyed by exactly the same process as that which prevents the access of germs to it and to the egg which never had life. Of the first pair of eggs not protected in this way, the presence of life protected the egg from decomposition, the absence of it allowed rapid and complete decomposition to be effected. There is not a henwife in the kingdom that does not know that, unless the access of the male bird is permitted in proper ratio, not only will the eggs not set, but they will not keep, and that such proper access will enable eggs to be kept for nearly three weeks. After that the embryo loses its life; there is no further protection, and decomposition at once sets in.

If these scientific workers had known as much as the henwife, they would have known that to apply the conclusions derived

from beef-tea in the flasks of the chemist's laboratory to the phenomena of living tissue is nonsense. The phenomena of decomposition must not, therefore, be taken for those of disease.

We do not in the least know what life is. We call it vital power, and talk glibly about it, though our men of science seem to have neglected it. But let us suppose for a moment that when life ceases some chemical change takes place; until that change does not take place the phenomena of putrefaction are impossible. Take a drop of fluid in which amoebæ exist; put it on a warm slide, and watch the marvellous phenomena—as I have often done for two or three hours at a stretch. The field swarms with bacteria and micrococci, and bacilli of numerous breeds, as well as amoebæ. Pick out an amoeba and watch him. Allman used to call him the “all-devouring”—and he well deserves the title. So long as his sloth-like movements go on he is avoided by his neighbors. But his movements get feeble and very slow, and you will see a peramecium go at him. The movements cease altogether, and presently you will find him riddled with bacteria and bacilli, and soon all trace of him will be lost. Why did his enemies avoid him while he was alive? Why could they so easily attack him when dead? I can not tell, but it shows that there is an enormous difference between tissue living and tissue dead.

The reasons which may be urged to show the futility of the arguments of the German school of bacteriologists are endless; but I must not be tempted into a discussion of any of them, for I have to deal with a much wider question. Let me only say that the best of all proof of the fallacy of their assertions is the fact that every attempt to elevate the germ facts of putrefaction into a germ theory of disease has miserably failed, and has failed nowhere so conspicuously as when obtruded into the realms of the treatment of disease.

Let me continue my retrospect on this subject. Increasing engagements gradually withdrew me from the practical study of these interesting questions, and I have not, therefore, closely followed the researches into the new field of work, the cultivation of germs and cognate lines of research, chiefly because they have trenchéd very little on surgical work. They have been practically confined to the class of diseases dealt with by the physician. They have unearthed many strange and striking facts, and have explained many occurrences of the utmost im-

portance. I do not, therefore, either despise or deride them. I believe I estimate them at their proper value. I believe that John Law was really a philanthropist, and his Darien project was a very good thing in its way, yet the South Sea scheme did not make everybody's fortune. Neither will the germ theory of disease explain all the facts of pathology; nor will it enable us to deal effectually with every disease, as its disciples want us to believe.

Yet it has had some splendid successes; no one can dispute that, who knows the story of the mortality of women in child-bed. Many horrible tales have been told illustrative of this. Let me add another. A few weeks ago I made some visits to La Maternité with my friend Professor Tarnier. He directed my attention to a linear chart on the wall of his room, showing the total death-rate of the women confined in the hospital from 1792 till 1886. He divides this marvellous record into three periods, the first of which he calls the period of inaction, during which the mortality was 9.3 per cent—in some years it was as high as 20 per cent, a perfectly murderous mortality. The second period he calls that of the battle against the causes of infection and contagion without antisepsis, that is, by mere general hygiene; and he shows that by this an abrupt descent to a mortality of 2.3 per cent was secured. In his third period, by the employment of antisepsis chiefly, and now entirely, by solutions of corrosive sublimate of about 1 in 3,000, the mortality was reduced to 1.1 per cent, and in 1885 and 1886 it was not 1 per cent. Finally, the conclusion is this: When antiseptic precautions were used, the mortality almost disappeared, so that we now know that the raid against lying-in hospitals was a mistake. I have taken an active share in it myself, and therefore am bound to make this recantation. Destroy the germs on the hands of those who attend parturient women, and the women are safe. Women attended in their confinements by midwives have a greater chance of escape, because those midwives are but little likely to come across the deadly germs which excite the fatal diseases. But let the physicians and students of tumble-down and not over-clean buildings, like La Maternité (a convent but little altered from the sixteenth century), wash hands and instruments in a solution of corrosive sublimate each time before touching the patients, and these women seem to be absolutely free from danger. I need not say that after this true infective

puerperal fever ought to be banished from practice. It ought to be heard of no more.

Well, you say, this proves the germ-theory of disease. Certainly, for this one instance; but the case is only the exception which indicates the real road for inquiry. The puerperal woman is in a condition wholly different from that of any other patient; her very blood is wholly different in chemical constitution from the blood of any other human being. I believe that the very germs which are so disastrous to her might be, and often are, smeared over wounds in men and non-puerperal women without any harm. That there is a difference of this kind is proved by many illustrations, such as scarlet fever. No one can doubt that this disease is due to a specific germ which generally breeds true. I do not know what has been done in the way of cultivating it, but we do know that it does sport when grown in abundance, for in epidemics the poison results vary from slight sore throats to malignant non-eruptive attacks, fatal in twenty-four hours. But look at the natural history of the disease. Each child goes through a period of danger, having its maximum period between five and seven years of age; and just in proportion as the individual approaches a period of life more and more remote from that age, so does the likelihood of becoming affected by the disease diminish, as the severity and fatality of the attack diminish if it occurs. Yet the germs are the same—it is the vital condition of the *nidus* which changes. So the curious fact of the immunity generally conferred by one attack against a second proves that we are expecting too much from our knowledge of germs, and that we are neglecting too much researches into the condition of the nest in which they breed. What is the chemical or physical change effected in the individual constitution which enables it for an indefinite time to resist the attacks of the germs, which at one time it was so ripe for, and which it cultivated so freely? Not any known method of research can show us the difference in the soil, but there is a difference, while the germs float about exactly the same.

You will see, therefore, that I accept the germ theory of decomposition; its facts are indisputable. I also accept the germ theory of disease concerning certain diseases; the facts there are equally beyond cavil. But it is when Lister comes in with his royal road to surgical success, still more when his German disciples, full of enthusiasm and quite empty of discrimination,

appear on the scene, that I am in doubt and equally in fear. What I predicted in a paper read before the Royal Medical and Chirurgical Society, in 1880, has come to be only too well fulfilled. This failure in logic, this rushing to extremes, this undue haste to unravel all the mysteries of nature, and that greatest mystery of all—human disease—by every new little fact discovered by us, is no new thing.

No sooner had Schleiden and Schwann made out the rough outlines of cell-growth, than we got a full-blown system of cellular pathology about which the fights were bitter, just at the time when my retrospect begins. Then bigger and better microscopes enabled Bennett to see molecules, and a molecular pathology swept the cellular out of the field. Now our lenses enable us to study bacilli and their spores, and the bacillary pathology takes the prize.

But Dallinger has beaten the bacillus, and now our *savants* will have to give up their jellies and their soups, on which they feed their nasty beasts, for Dallinger has found a lesser flea:

“ So naturalists observe, a flea
Has smaller fleas that on them prey;
And these have smaller still to bite ‘em;
And so proceed *ad infinitum.*”

Let me go back again to my retrospect to show what I mean, by two illustrations taken from my own surgical work, in which I can speak strongly from a very abundant experience. I have argued this question very fully elsewhere from the views of abdominal surgery, and I shall speak in a few moments of that subject again. But we are told now that abdominal surgery is a thing by itself, apart altogether from the surgery of the rest of the body, and not governed by the same laws. That, of course, is nonsense—simply a repetition of the schoolboy proposal, “ heads I win, tails you lose.”

Let me speak of the only bit of general surgery which comes my way—the removal of tumors of the breast—operations of which I perform some scores every year. When I was a follower of Lister I used his every method, every detail recommended by him in turn—and they were endless in variety—and I rarely got any thing like such satisfactory results as I get now without them. I used the carbolic oil, and the putty, and the lac plaster, and the carbolic spray, thymol, absolute phenol, corrosive sublimate, boro-glyceride, etc., *usque ad nauseam.* But the moment

I gave all that up and used a little piece of Chassaignac's drainage-tube and plenty of Gamgee's absorbent wool, my results became uniformly satisfactory, and they remain so. Union by first intention is the rule, suppuration is the exception. The reason is simple. The drainage-tube removes the likelihood of any nest for the germs to breed in, and the absorbent cotton-wool makes their existence impossible; it removes the dead fluids. Therefore I care not a fig for the germs, and the advance in surgery in the direction of this success is due not to Lister, but to Chassaignac and Gamgee. It was my custom long before Gamgee's death to ascribe on all fit occasions this merit to the labors of our late townsman, and now that he is gone from among us it is my duty to claim for him a full recognition of his great discovery. Titular honors and weighty pensions have often been bestowed for far less important services to humanity, and I am strongly of opinion that the State should be moved to recognize to his widow in some substantial form the merit of his invention.

Let me now speak briefly of the arguments derived from the recent advancements of abdominal surgery, and as that is a field on which I must inevitably become wearisomely discursive, unless I exercise great care, let me confine myself rigidly to one case, that of inflammatory disease of the Fallopian tubes. I am induced to select this because I have been savagely attacked recently by several German authorities, notably by Dr. Sanger, of Leipsic, and by others at the recent Surgical Congress. Dr. Sanger's style of language is such that I could not emulate it, and should be sorry to attempt an imitation of it. Dr. Sanger has such a low opinion of my abilities and my work that he goes so far as to recommend me to learn to read German, and to read the works of German gynaecologists. Unfortunately for me, that is just what I did some twenty years ago with infinite labor, for the language is neither simple nor easy. I have long since been convinced that my time in this respect was thrown away. The German mind, at least the German medical mind, is essentially different from the mind of the Briton; it not only evolves from its own consciousness descriptions of things other than the proverbial camel, but it wraps up its grain of wheat in such a bushel of chaff that the labor of getting a meal is intolerable. Nothing pleases it so much as metaphysical speculation, while we, on the contrary, are eminently pragmatic. From my early

experience of German hospitals and the methods of work therein, I never wondered at the necessity of some such reform among them as was offered by Listerism.

To return to the Fallopian tube and Dr. Sanger. His chief trouble about me is that I will not recognize his subdivision of pyosalpinx into varieties, based on the peculiar kind of low organization to be found in the contents of the tubes. He desires to establish three such varieties—the salpingitis gonorrhœica, due to the gonococcus of Neisser; the salpingitis tuberculosis, produced by the bacillus tuberculosis of Koch; and the salpingitis actinomycotica, produced by the actinomyces bovis of Bollinger.

My reason for refusing to follow Dr. Sanger is simple and my argument easy. Dr. Sanger is putting the cart before the horse. These organisms are the result of the inflammatory exudation, not its cause. When Dr. Sanger is as accomplished in the use of the microscope as Dallinger, he will probably find in the contents of these tubes the still smaller beasts which, by repeated buttings against the fragments of dead tissue, prepare the food on which the bacteria live. The bacteria are the phenomena of decomposition and not the cause of the disease. If it were not so, how could we explain the familiar fact of rapid recovery after the opening of a superficial abscess in a person otherwise healthy? The evacuated pus swarms with bacteria; the pus is dead tissue. The bacteria do not attack the living tissue. The moment their food is removed they are starved into subjection; the abscess cavity heals and the patient recovers. But put this germ theory of disease into the position of power, which its German advocates claim for it, and recovery is theoretically impossible. The whole economy must become an addled egg. Given the access of the bacillus tuberculosis to the Fallopian tubes, the infection of the peritoneum is a logical sequence. But I have opened the abdomen and removed chronically inflamed Fallopian tubes distended with dead matter infected by this bacillus, and with the infundibula not occluded, and the patient is now well and healthy, nearly three years after the operation. I have opened the abdomen, in many cases packed full of tubercular matter, and drained it like a common abscess, and have cured the patients. The same thing has been done by Esmarch, who has identified the bacillus in the orthodox German fashion. Does any one believe that either of us removed every bacillus

and every spore? I know I did not, for the tubercular masses in several of my cases kept coming out for weeks afterward, yet the patients recovered. What I really did was to enable my patients to get rid of the dead or dying exudation on which the bacilli lived, of the decomposition of which they are probably the means and wholly the result. Apply this German notion of the germ theory of disease to the facts of clinical medicine and surgery, and see how irreconcilable with the facts it is. If true, the amputation of a finger ought to be as fatal as the loss of the thigh at the hip-joint. But it is not so, in the same hospital and under precisely similar circumstances. Amputations have an increasing mortality every where just as the point of severance approaches the trunk. Why? Clearly on account of the "diminished vitality" of the general tissue due to the "shock." These two good old-fashioned terms are sneered at by your modern savants because they serve only to express our ignorance. The reproach is true; we are ignorant. But it is better to be ignorant and to confess it than to parade a lot of inaccurate conclusions in the name of science.

If the germ theory of tubercle, that it is the result of the existence of the bacillus tuberculosis, were correct, none of us were safe from consumption, for we must meet these deadly brutes at every cabstand, and at every gathering in the town-hall. If it were true, Bennett's fact that multitudes of people recover from consumption could not be sustained, yet every physician knows it is true.

We do not know exactly what we mean when we speak of diminished vitality, any more than we know exactly what we mean when we speak of an earthquake. But there is such a thing. A man's toes remain healthy until the deposits of lime-salts in the walls of the arteries deprive them of nutrition and diminish their vitality, till they can no longer resist the attacks of the ever present germ. The germ attacks the dead and nearly dead tissue. Drysdale's flagellate monad probably begins the deadly work of senile gangrene, and the bacteria finish it. But there is a line of demarcation beyond which the little beasts are powerless by reason of the resisting vitality. Some indiscreet surgeon interferes, makes a clot in the artery; the clot runs up, nutrition stops, vitality is destroyed, and the germs wreck their evil wills.

In conclusion, let me again say that as the wrecks of the cel-

lular pathology remain to us most valuable contributions towards the solution of the mysteries of disease; as the construction by Bennett of a scheme of molecular pathology did much to help us, so has the germ theory rendered us great service. But as a final answer it is insufficient, and its wholesale and reckless application is alike mischievous and misleading.—*Brit. Med. Jour.—Medical Herald.*

The Safe Dose of the Salicylates.*

By FREDERICK HENRY ALDERSON, M. D.,

Vice-President of the West-London Medico-Chirurgical Society.

The introduction of the salicylates into our pharmacopœia has proved satisfactory to the profession, to the credit of medicine, and of considerable benefit to the suffering patient. There are few of us who have not prescribed salicylic acid or its soda salt with very appreciable benefit, earning alike the gratitude of the patient, and the self-conscious satisfaction of having given relief, and not infrequently even cutting short the disease. These happy results have of late been somewhat clouded by the doubts that have been thrown by correspondents in our medical papers, and various annotations that have appeared in our medical press as to the occasional danger of the salicylates. At first the serious symptoms or toxic effects that were observed occasionally to follow the administration of this medicine were thought due to impurity in the manufacture of the drug, but now, after twelve or fifteen years of its very frequent prescribing, there ought not, and neither do I think there is, any difficulty in procuring salicylic acid or the salicylate of soda free from any impurity or adulteration. It has occurred to me that the officinal dose of the British Pharmacopœia is too large, and ordered to be repeated too frequently, and I have thought, and perhaps with greater reason, that the undesirable and even occasionally alarming symptoms that have been noticed after its administration could scarcely have been due to the recognized dose of the salicylate prescribed. In February last I attempted to call attention, by a note published in the *Lancet*, to a case where 15 gr. doses of salicylate of soda were believed to have caused even a fatal result. As I received no reply, perhaps the readers of the *Lancet* thought as I did, that the death was in no way owing to the medicinal dose of the salicylates.

* Read before the West-London Medico-Chirurgical Society, Dec. 2d, 1887.

I wish to-night to consider what is a safe dose of this medicine, and also to ask your careful attention to two or three brief notes I will read to you, where the symptoms that followed the prescribing of the salicylates were serious and alarming, and especially as to whether, in your opinion, the symptoms were, as was supposed, due to the salicylate of soda.

Allow me to remind you that the officinal dose of salicylic acid is 5.30 grs., B. P., '85; Martindale in his "Extra Pharmacopœia, '84," says 5.30 grs. or more.

Whitla, in his work on "Pharmacy, Materia Medica, and Therapeutics," gives as the dose of salicylic acid, or salicylate of soda, 30 grs. in half an ounce of water every two hours, for 3, 4 or 6 doses, as the severity of the pain or height of the fever indicates; and adds subsequently, pain and fever will return if it be withheld, and yield again on its administration. Bruce, also, in the third edition of his work on "Therapeutics," p. 367, mentions 15 to 20 grs. as a moderate dose, and cautions that, as the pyrexia declines, the dose of the salicylate must be gradually reduced, as relapses are extremely common after it has been discontinued.

A year or two ago I attended a young lady for the hyperpyrexia of acute rheumatism. I quickly reduced her temperature from 107° to 104° by five or six doses of 20 grs. of salicylate of soda, given every three or four hours, and subsequently to 102° by its continuance at longer intervals. I then, at her urgent request, discontinued it, as she said: "I should now feel quite well if you would only leave out the medicine that you told me caused the buzzing in my ears and the fullness in my head." I complied with her request, and substituted for the salicylate an effervescing mixture of citrate of potash c m v doses, vini colchici. On the evening of the second day, after the discontinuance of the salicylate, the hyperpyrexia somewhat suddenly returned, and was not again reduced even by a return to the scrupulous doses of salicylic acid or salicylate of soda. Death resulted from pericarditis in about twelve hours, consciousness being retained till within half an hour of death. (a)

Farquharson, in his "Guide to Therapeutics," p. 285, states "that we may give salicylic acid in 20 gr. doses, repeated hourly

(a) It was suggested in the discussion that this death was due to uræmia, but the urine had been tested, and was normal, and there never was any symptom of kidney mischief.

for one or two successive days, and continued at shorter intervals if the disease resists forty-eight hours' medication."

Salicylic acid is one of those few medicines that acts specifically, and that we are able to predict with more or less confidence that it will reduce temperature, that it will ease pain of both joints and muscles when due to acute rheumatism, and that it will not infrequently cut short, and even cure, the disease for which it is prescribed. I am therefore desirous, and indeed anxious, that the apprehensions that have arisen, with more or less cause, as to its safety, should be considered, and to know what is the safe dose, that the salicylates may be prescribed with confidence of happy results. With your permission, I will now ask your kind attention to brief notes of two cases where serious symptoms were either caused or followed medicinal doses of the drug. One is recorded in the *Lancet* of Dec. 18th, 1886, by Mr. Freeman; the other and more instructive was published in the *British Medical Journal* of Feb. 5th, 1887, and the symptoms occurred in a patient an inmate of St. Mary's Hospital, and under the care of Sir Edwd. Sieveking. The case is recorded by Mr. Freeman as a *warning of the need of caution* in the use of salicylic acid, but the result appeared in no way owing to the dose of 15 grs., for only three doses were taken, and there had previously been cerebral symptoms. I cannot, then, believe that Mr. Freeman has here any sufficient reason to think, merely because the patient was comatose and the urine was albuminous, that the medicinal dose of the salicylic acid caused the fatal result. (b)

More important and more worthy of your attention is an interesting case of salicylic acid poisoning, recorded in *British Medical Journal* of Feb. 5th, 1887, at St. Mary's Hospital, London, under the care of Sir Edwd. Sieveking. C. W., æt. 55, was admitted at 2:30 p. m. on Nov. 3d, 1886. She had been treated by a medical man for subacute rheumatism, and had been ordered 15 grs. of salicylic of soda every four hours, but by a mistake on her part had been taking double doses of the salicylate mixture. The first dose was taken at 12 a. m., Nov. 2d, and the last dose at 5 a. m., Nov. 3d, and during this period of seventeen hours the patient had taken 120 grs. of salicylate of soda. On admission, the patient complained of a buzzing noise in the ears, some headache, and great deafness (she was naturally

(b) For full account of this case *vide Lancet*.

slightly deaf). The pupils were extremely contracted, the urine contained a large quantity of salicylic acid and albumen, about 1-10th of the latter depositing after boiling the urine with a little nitric acid. A saline purge was administered. Nov. 4th.—All the symptoms had considerably abated. The urine still contained a large quantity of salicylic acid, and a trace of albumen. Nov. 5th.—The urine contained a moderate amount of salicylic acid, but no albumen. Nov. 6th.—The urine was quite free from salicylic acid and albumen. The buzzing noise in the ears, the headache, and the extreme deafness had gone. The pupils had resumed their normal size. The patient was discharged a few days later quite well. *Remarks.*—The case is of interest as demonstrating the time taken for the elimination of the salicylic acid from the system.

As I read this, the symptoms of poisoning seemed of the slightest or at least insufficient to have apprehended a fatal result, but by some unaccountable mistake the dose had been doubled, but even then it did not exceed the full officinal dose of 30 grs. I would with all diffidence add, the symptoms, except the contracted pupils, appear to me to have been little more than the physiological and not the toxic effects of the salicylate. There is no coma, no insensibility; the patient describes her own symptoms; no difficulty of respiration; no alteration noticed in the color of the urine, not even the olive-brown tint, as is occasionally seen when large doses are given, nor the olive-green tinted urine that might point to the impurity in the manufacture of the drug. In the absence of these symptoms, as also of the graver toxic effects, such as delirium, visional hallucinations, dyspnoea, and cardiac failure after the primary excitation has passed off, I should upon less eminent authority have hesitated to have considered this case as one of salicylic poisoning. The patient recovered, and no antidote was given; had it occurred in my practice I think it would scarcely have crossed my mind that the patient was being poisoned by the dose she had taken, even double dose as it was. Of course I should have discontinued the salicylate or at least reduced the dose, and had I thought the effect that had been produced alarming or dangerous, I might perhaps have substituted salicine for the salicylate, which Prosser Jones mentions in his "Guide to the British Pharmacopœia." Dr. Maclagan has found "the cerebral symptoms produced by large doses of salicylic acid disappear on the administration of the salicin and withdrawal of the acid." Mr. George Robinson, in the *Lancet*

of Oct. 2d, 1886, mentions that he prescribed the salicylate of soda in a case of paraplegia, after only two doses of 15 grs., given at intervals of four hours, the patient complained of nausea, pain in the head, giddiness, buzzing in the ears, and faintness; he was, however, cautiously content to reduce the dose from 15 to grs. viij for four days, and subsequently increased to grs. x every four hours, with very decided benefit to the patient, relieving much the putrescence of the urine for which it was prescribed.

Gentlemen, it is necessary, as was forcibly demonstrated at our last meeting by Dr. Thudichum, that we should know the nature, strength, and properties, whether usual or unusual, of the medicines we prescribe, that we may have confidence in the remedies we give for the relief or cure of our patients, and if any remedy be attended with risk of danger, we must blot it out of our armarium medicinæ even if with a sigh of regret, for this is necessary for our tranquility of mind, as well as incumbent upon us in our patient's interest and the public weal.

In conclusion, I ask for your experiences, the result of careful observations, if salicylic acid or its soda salt is a safe as well as effectual remedy, and in what dose, having due regard for the constitution of the patient and the disease for which it is prescribed, it may be ordered with safety; my own experience inclines me to think 10 or 15 grs. of the salicylate of soda, given at intervals of four hours, is safe, and that there may have been perhaps needless alarm and apprehension as to the serious although not toxic symptoms not infrequently following this useful medicine.—*The Medical Press.*

Alexander's Operation.

There is no doubt that, by shortening the round ligaments, many chronic and almost hopeless cases can be permanently cured or greatly relieved, especially cases of retroversion, and prolapse of heavy and painful ovaries, where there are no adhesions or very slight ones. It is equally certain that in other cases, apparently similar, the operation fails to give relief, probably on account of organic disease of the ovaries, or of a demoralized condition of the nervous system with a habit of invalidism and a reliance on narcotics.

The procedure is not particularly difficult in the hands of com-

petent surgeons, and with reasonable care and precautions it cannot be considered dangerous. The main questions to be decided are, the limitations of the operation, the indications for its employment, and the proportion of women who have an absence or irregular attachment of the round ligaments.

We have endeavored in this number of the *Annals* to lay before our readers the views of those most competent to decide these questions; among these we find differences of opinion in regard to the value of shortening the round ligaments in the treatment of prolapsus uteri.

Dr. Reid is the only surgeon quoted who trusts to this procedure alone, even in bad cases of prolapse, with a "uterus 5½ inches deep, very heavy, cervix badly turned up, the vaginal orifice quite gone." We feel assured that most surgeons will agree with the judicial views of Dr. Alexander himself, who is accustomed, especially in the cases of laboring women, to supplement the shortening of the round ligaments with operations for repair of the cervix and perineum.

Dr. Doleris, who has a large experience of the operation, appears to consider it simply as a supplement to the repair of the cervix and perineum, and to colporrhaphy; that is, when in addition to prolapse there is a severe retroversion of the uterus, he shortens the round ligaments after the other procedures, and at the same time of operating; probably few will dispute the usefulness of Alexander's operation employed in this limited and subsidiary manner. The method of securing the ends of the round ligaments recommended by Dr. Kellogg has not been found necessary by Alexander or other operators. Experience must decide whether this modification is an improvement.

Considering everything, then, we feel sure that Alexander's operation is a distinct addition to our surgical resources, a means of permanently benefitting cases otherwise troublesome or incurable, a valuable addition to the procedures devised for curing cases of prolapse of the uterus, and for preventing recurrence of the same after operation.—*Ed. Annals of Gynaecology.*

How to Give Injections of Ergotine.

In the *Centralblatt fur Gynakologie*, Nov. 28, 1887, Bumm describes the technique of injecting ergotine, which we condense, as follows:

Regarding the choice of a location for the injection, the writer

is strongly opposed to the integument of the abdomen, which is so often chosen. He considers it an entirely improper selection, and expresses his strong preference for the nates, where experience has shown that mercurials can be most conveniently injected. The solution must be injected directly into the muscles, and to accomplish this the needle should be introduced perpendicularly to the skin, and as deep as its length will allow. Intramuscular injections are entirely absorbed twelve hours after injection, while subcutaneous injections are retained much longer. The choice of a proper solution is important. The fluid should be perfectly clear and liquid. It has been found that the greater part of the burning pain, of which patients often complain after these injections, is caused by the strongly acid reaction of the extract of ergot used. When this acidity is neutralized the virtue of the drug is unfortunately much impaired. A good preparation for the injection should remain clear when almost neutralized by soda solution, not when the reaction is made alkaline. From this observation upon patients the writer concludes that the effect of the drug is not lessened by making the solution neutral. A second cause of the pain produced by injections is the strength of the solutions employed. A solution, one part of ergotine to five of water, is often recommended. The writer believes that solutions of five or ten per cent are of more utility, and that in emergencies, when prompt action is demanded, two or three simultaneous injections of weaker solutions are better. The further advantage obtains that a dilute solution, distributed over a wider area, will be absorbed much more readily than a more concentrated solution retained in a smaller space. When a watery solution of from five to ten per cent of a pure specimen of ergot is neutralized by soda, filtered until clear, and injected deeply into the nates, almost no after effects are produced. A very trifling sensitiveness for a half hour or a whole day, with a little redness and swelling, is the most observed. The advantages of the nates over the skin of the abdomen as a place of injection are so great that the writer is positive in his recommendation.—*Therapeutic Gazette*.—*Nashville Journal of Medicine and Surgery*.

THE State Board of Health Bulletin, published at Nashville, Tenn., advises the people of the State to look out for the smallpox: "Let it not be forgotten that, as far as vaccination is concerned,

perhaps three-fourths of our people are unprotected. Our safety lies in extreme watchfulness, prompt isolation and care of the first cases, and in perfect sanitation." We should suggest that greater safety lay in thorough vaccination first, if only one-fourth the population were protected.

One Hundred and Ten Laparotomies for the Removal of the Uterine Appendages—Sixty-One Consecutive Operations Without a Death.

To our distinguished countryman, W Gill Wylie, of New York, are we indebted to a greater extent than any other one individual for the fair showing that we are enabled to make in laparotomy. His achievements in this line have of late been so brilliant that they leave nothing to be desired. Such results are readily understood by those who have observed Wylie's cautious and careful method. In the December number of the *Annals of Gynecology*, he has this to say upon the subject:

Feb. 2, 1887, before the New York State Society, in a short paper giving a summary of my work in abdominal surgery up to Jan. 1, 1887, I reported 74 laparotomies done for the removal of the uterine appendages. Of these, 69 recovered and 5 died; but there were no deaths in the last 27. Since Jan. 1, 1887, up to Oct. 20, I have done 36 laparotomies for removal of the appendages; only the 35th case died. Adding the 27 of my former cases to the 34 of these, gives me 61 consecutive cases without a death. (See table.) Of the 36 cases, 20 were private, and 16 were hospital cases operated on in Bellevue Hospital; 25 were operated for subjective and objective symptoms sufficiently well marked to warrant the operation; 11 were operated upon for either painful or bleeding uterine fibromata. The hospital cases were, with few exceptions, selected from the patients of three of our largest dispensaries. Nearly all of the private cases were brought to me by professional friends from all parts of the country. A number of cases were sent to me for operation where the patients gave all the subjective symptoms of serious functional disturbance, if not of actual disease of the appendages; but, on account of the absence of any positive objective signs of actual enlargement or disease, I refused to operate. There certainly are a number of cases where both local and general treatment fails to give relief to pain and complete loss of health apparently due to disease or to a faulty action of the generative organs, and

where, on examination, all we can find is an imperfectly developed antiflexed uterus, with a prolapsed left ovary and a general condition of hyperesthesia on both sides. The question is, in such cases, where all other means fail to give relief, are we justified in removing the tubes and ovaries to put a stop to functional activity? Next, does the operation really cure such cases?

It is in just this class that serious mistakes are made. The operation for the removal of the appendages should be done only in very extreme bed-ridden cases, after a prolonged and careful trial of other means of cure by more than one doctor.

In three or four well marked extreme cases where I felt justified in operating it has effected a cure, but it has not changed the delicate woman into a strong, healthy woman; but they are up and about, and are not pulled down on their beds by the periodical return of menstruation.

Of the 36, only one was a case of hystero-epilepsy. On examination I found a large cystic ovary the size of an orange; the other ovary was cystic, but not much enlarged; both were removed. The patient, when last heard from, had only had one convulsion, and seemed to be improving. I would not advise operation except in cases where the convulsions seem to have a direct relation to menstruation, or where there are unmistakable objective signs of local disease of the appendages, and in no case would I promise a cure by the operation.

In two of the 36 cases the tubes and ovaries were not removed, because, after the adhesions had been broken up, the tubes were found patent, and the ovaries, to all appearance, were not seriously affected. In both, the fixation of the uterus caused by the adhesions prevented the tubes and ovaries being defined until the abdomen was opened. In both, the subjective symptoms were sufficient to warrant the risk of opening the abdomen. From the density of the adhesions and the peculiarly indurated roughness of the peritoneum covering the fundus, and the general enlargement and hardness of the organ, it was plain that the uterus had been the seat of a severe meritis, and that the peritoneum had become affected through the walls of the uterus, and not from extension of the disease into and through the tubes, as is nearly always the case. In both cases the ovaries were, to some extent, involved by the adhesions. In both cases the uterus was retroverted and retroflexed, and in both the functions of the rectum were seriously interfered with by the adhesions. Both were greatly relieved by the operation, and in

one the displacement did not return after the operation. In both a glass drainage tube was placed behind the uterus, and kept there for several days. No attempt was made to sew the fundus to the abdominal wall.

In a third case, reported last January, in which the tubes and ovaries were not removed, the general condition of the patient was good; but she had been under treatment for uterine disease for three or four years, and spent most of the time in bed, giving the subjective symptoms of ovaritis. On physical examination the ovaries seemed much larger than normal, and very sensitive. When the abdomen was opened the ovaries were held down by slight adhesions, the tubes were very vascular and unusually large, and both ovaries were studded by a number of recently ruptured cysts of ovulation, several on the exposed surface of each ovary. One or two of these were burst in getting up the ovaries, and this accounted for the increase in size. There did not appear to be sufficient evidence of disease to justify their removal; so they were dropped back and the wound closed. For a time the patient seemed better, but by mistake she was told that the ovaries had not been removed, and she was so provoked and troublesome that she had to be sent away from the hospital. The above cases raise the question: Are we justified in opening the abdomen to break up adhesions in those cases where enlarged tubes and ovaries cannot be made out by examination?

We must not forget that, in some cases of salpingitis, sometimes the most painful and distressing kind of adhesions are small, thicker than normal, but much shortened. Nor should it be forgotten that adhesions *per se* are not a disease, and unless they are attached to or compress a diseased organ or gland, or constrict a lumen of an organ and prevent normal action or performance of function, they do no harm. In severe cases, where the adhesions seriously interfere with the normal action of the intestines by constricting the lumen, I believe laparotomy is the best and only reliable means of making a cure. Breaking up by force by the use of uterine repositors is a method by no means free from danger, and utterly fails to give relief in many cases.

In two other cases, besides those related above, I have done laparotomy successfully for relief of obstruction by adhesions near the sigmoid flexure, which could not be reached per vaginam. In cases of adhesions of the tubes, if they are diseased enough to be occluded or distended with pus or other fluid, I

think they should be removed when the abdomen is once opened.

Eleven of the 36 were operated upon for the removal of the appendages for painful or bleeding fibromata of the uterus. In three instances the fibromata were complicated by pyosalpinx and ovaritis. In two others the ovaries had small fibromata attached to or growing from them. As a rule, fibromata are not painful, but they are not uncommonly complicated by inflammatory disease of the tubes and ovaries or endometritis. When there is associated fibroid degeneration of the ovaries, I believe the pain is due to this condition rather than the fibromata. In two of the 11 the menstruation was not checked, although the tubes and ovaries were carefully removed. In both of these the fibromata were large and well intra-uterine.—*Weekly Medical Review.*

Recent University Changes in Germany.

Professor Blodig, Professor of Ophthalmology, has retired from Graz, and has been succeeded by Professor Schnabel, of Innsbruck. Dr. Grawitz has removed to Greifswald with the title of professor. It will be remembered that this gentleman was a member of the Cholera Commission that visited Egypt and India under the direction of Prof. R. Koch, at the command of the German Government. Prague loses the services of Prof. Bandl, who retires, his chair is filled by the appointment of Prof. Schawta, of Innsbruck. Prof. Mikulicz, the well-known surgeon, removes from Cracow to Konigsberg. In Berlin the vacancy created by the death of Schroeder has been filled by the appointment of Olshausen, of Halle, the vacancy thus created at Halle has, in its turn, been filled by the translation of Kaltenbach, the collaborator of Hegen, in the well-known work on diseases of women, from Giessen to Halle, while the vacancy thus created at Giessen has been filled by the appointment of Schroeder's first assistant at the University Klinik, Berlin, Dr. Hofmeyer who, although youthful, has already earned for himself a name. Prof. Rydygier, of Culm, goes to Cracow as successor to Weil, the Professor of Surgery. Professor Runge, of Dorpat, goes to Gottingen as Professor of Obstetrics and Director of the Gynaecological Klinik, and is succeeded in Dorpat by Schultze, of Heidelberg. Dr. Matterstock, of Wurzburg, succeeds Prof. Geigl, the place of the former being filled by the appointment of Dr. K. B. Lehmann, of Munich. It will be seen that not only is there free inter-communication between the universities of Germany, but also between the German speaking parts of the Austrian Empire and Switzerland and Germany.—*Medical Press.*

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Original Articles.

ON SUBTROCHANTERIC OSTEOTOMY.

By DR. JULIUS ROSENSTIERN.

[Read before the San Francisco County Medical Society, April 26, 1887.]

The operation for correcting a malposition and establishing mobility in an ankylosis hip-joint was first made by Rhea Barton in November, 1826. He entered the joint with a chain-saw and sawed through the femur, between the two trochanters. The mobility attained by this operation was lost after seven years, but the improvement of position remained. The second operator, also an American, Rodgers, of New York, took out a cuneiform piece of bone in the region between the trochanters. He gained a movable joint that even permitted flexion to a right angle.

B. von Langenbeck was the first to introduce, in 1852, subcutaneous division of the bone by very narrow puncture saws; and thus, in approaching the safety of the new operation to the then modern and much applauded one of tenotomy, obtained a favorable reception for it. Brainard very soon after made known his method of subcutaneous perforation by a queerly-shaped perforator, which, however, was never used on the femur. In 1869 L. A. Sayre published his new operation for artificial hip-joint in bony ankylosis. He removed with the saw a semi-lunar piece from the femur above the small trochanter, in order to save the

insertions of the iliacus and psoas muscles below it, to preserve flexion. He operated twice. One patient could walk, with the aid of a cane, 10 months after the operation; the other died, six months after the operation, of pulmonary phthisis, the suppuration from the wound having lasted till the time of his death.

A much more important modification was the operation called, by William Adams, "A new operation for bony ankylosis of the hip-joint, with malposition of the limb by subcutaneous division of the neck of the thigh-bone." In his first series, he published seven cases, all successfully operated after his new method; but this favorable impression was materially weakened by his second publication of 15 additional cases, which had shown very bad traits regarding inflammation and suppuration.

He himself recommends, for cases with a good deal of new-formed bone tissue around the anchylotic joint, a method of operation by Mr. Gout, who divides the bone just below the small trochanter with instruments like those of Mr. Adams, only his saw is a little longer, owing to the greater thickness of the femur at his point of division.

A most satisfactory stage, theoretically as well as practically, was reached for this class of operations by Volkmann's introduction of the "Osteotomia Subtrochanterica." His method, assisted by the antiseptic treatment, has been almost universally adopted, and given excellent results.

His division of the femur is made about an inch below the lowest point of the trochanter major.

He uses chisels for the bone, and removes, especially on larger children and adults, a cuneiform piece with the base outward and backward.

By this last measure a closer and better adaption of the cut-bone surface is effected, the consolidation better insured, and the line of support a more direct and natural one.

The after treatment is carried on with weight and pulley extension; at the same time the operated leg and foot are fixed in abduction, to allow the correction of any shortening by inclination of the pelvis towards the affected side.

As in the Adams and Gout operations the question of mobility has been entirely disregarded in this one, for the reason that the results as to locomotion with one ankylosed but straight hip-joint are excellent, and that, although with the other opera-

tions mobility may at a much greater risk be kept up for a time, it has always been lost after some years.

Volkmann devised a method to form a movable joint for those cases where both hip-joints are ankylosed and consequently, even if a correct position of the legs has been effected, walking without one joint made movable is an utter impossibility.

He calls this operation "Meisselresektion," Chisel resection. He makes the same incision and divides the bone as in his operation for subtrochanteric osteotomy; then he trims the peripheric part of the divided femur with chisel and bone forceps so that its top is no larger than the transverse cut of the middle of the femur. With the same instruments, then, the femur head is taken away piecemeal and a new and large acetabulum formed to fit and receive the new head, a phase of the operation which, particularly in sclerotic bone, is very difficult. In the after treatment 20 to 30 pounds extension are used to cause the necessary distraction, besides very early passive movements and continuation of the weight and pulley extension in the night for over a year are deemed indispensable.

Allow me to present to you to-night 4 cases in which I operated after Volkmann nearly 5 years ago, two of whom had bilateral ankylosis of the hip-joints, one complete, the other partial. The two other patients had the right side affected only.

I will now circulate these photographs showing the cases before and after the operations and you can convince yourselves by examining the patients here that the results obtained have been permanent.

W. R. TOBIN, born in Massachusetts in 1874, enjoyed good health until November, 1879, when he fell while playing near his father's house in this city.

A short time after, hip disease appeared in his left leg, and medical aid was summoned. A plaster of Paris bandage was applied and the patient ordered to keep in bed for a year. No improvement succeeding at the end of this time the bandage was removed. Then a brace was applied for six months by another physician with similar result.

Not being able to walk and a change of attendance deemed advisable again, he was carried to a surgical institute on Bush street. Here another brace was supplied, the disease making constant progress, appearing on the right leg, both legs also showing abscesses. He became too weak to be carried

down to the "Institute," and the men in charge there refusing to attend out-door patients, a third physician was asked to see him who then pronounced the case hopeless, giving even a fatal prognosis quoad vitam—mors to ensue in 3 to 4 weeks. I took charge of the boy in January, 1882. On the right side all abscesses had healed spontaneously, whilst on the left three pus-discharging fistulae remained, one over the large trochanter, one below Poupart's ligament near the anterior inferior spine of the ileum, and a third one on the outer face of the thigh near the middle.



W. R. TOBIN, January, 1882.

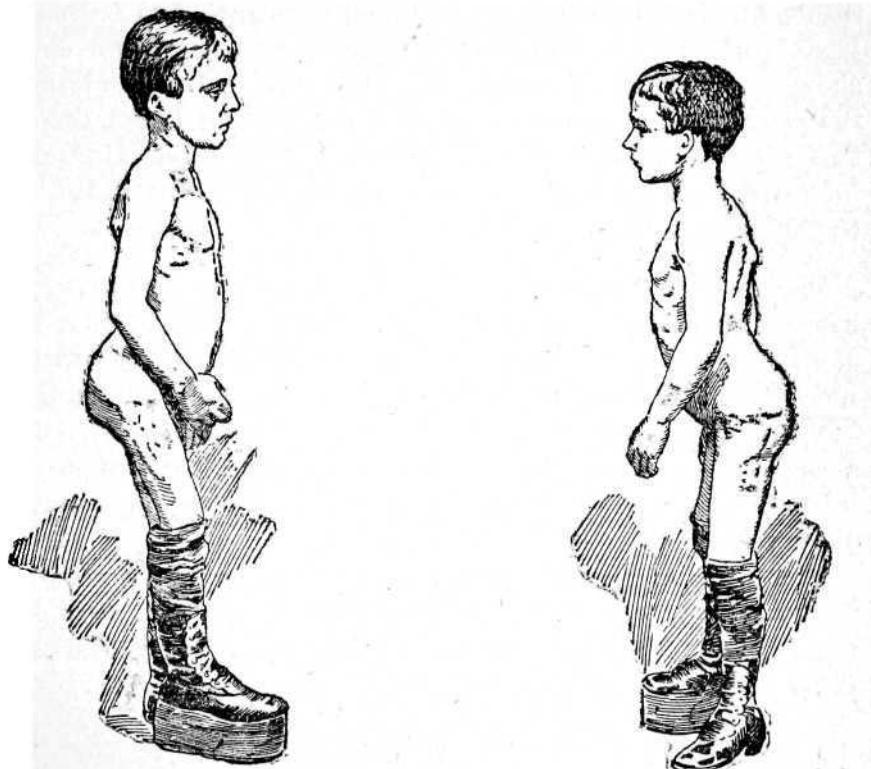
RIGHT LEG. LEFT LEG.

The trochanter above Roser Nelaton line. $1\frac{1}{2}$ inch. $\frac{1}{2}$ inch.
Length from highest point of trochanter

to sole of foot.....	$21\frac{1}{2}$ inch.	22 inch.
Flexion angle.....	65 deg.	60 deg.
Adduction angle.....	25 deg.	15 deg.

In suspension on Sayre's apparatus and straightening as far as possible the curvature of the (lumbar) spinal column, the trochanters in correct distance from the ground, the right malleolus externus is at a distance of $7\frac{3}{4}$ inches, the left 6 inches from the ground.

As both hip-joints were immovably ankylosed I had to perform chisel resection on one leg. I chose the left one on account of its being the longest, without considering the existing fistulæ which I hoped to be able to heal or greatly improve during attendance to the right side. I made the subtrochanteric osteotomy of the right leg on January 31st, 1882, in the German Hospital and put on immediately an extension weight of five pounds. During the first few days following the operation there was no febrile reaction but after a morning injection of iodoform ether into the fistulæ of the left side the evening temperature



W. R. TOBIN, September, 1882.

rose to 40° (104°). On changing the bandage of the operated side no cause could be detected for this elevation and as the secretion, swelling and pain on the left side had been markedly increasing, I accepted this to be the sole cause of the mischief. Strict antiseptic measures with dilation, scraping and washing out of the fistulous ducts did not seem to produce much lowering of temperature. I therefore concluded to open and expose the fistulæ to their termination and combine the chisel resection

W. R. TOBIN, September, 1882.

with it. This was done on Feby. 20th, and an extension weight of 12 pounds attached. Until the 28th the evening temperature rose to 102° (38°) yet, but after that date it gradually dropped and reached the normal. Still the recovery was not uninterrupted. While the right side remained perfectly well small abscesses appeared at various intervals on the left, symptoms of carbolic intoxication (diarrhea together with the characteristic blakish urine) showed themselves repeatedly and only on June 30th, 5 months after the first operation, 4 months after the second, every wound had healed and the secretion stopped. Strange to say that while the left side that gave him so much trouble at first has retained its mobility and has never since shown any inclination to suppurate, the right side has alarmed the parents to an unusual extent by producing at long intervals two small abscesses, which however healed readily. He walks long distances with only a cane as casual assistance, whilst for the house and playing grounds he discards even that.

This young man, Mr. JOE. MURPHY, who as you see has grown considerably since his photograph was taken, fell down a few steps of a back stairs when eighteen months old and ceased the newly acquired trick of walking eight days after the accident. He was in bed during the next 3 years, had fever off and on and a series of abscesses were opened on his thigh. He then got up on crutches which he had to use till the operation, a period of 10 years.

When I saw him, all that indicated former suppuration on his thigh were the old scars, the right trochanter stood $2\frac{1}{2}$ inches above Nelat. Roser line, the heel $7\frac{1}{2}$ inches, the point of toes 4 inches above the floor.

Total length of right leg, $26\frac{1}{2}$ inches.

" " " left " $27\frac{1}{2}$ "

Circumference of right thigh in the middle. .12 inches

" " " left " " " ".15 $\frac{1}{2}$ "

" " " right " above the condyles $9\frac{1}{2}$ "

" " " left " " " " 11 "

" " " right leg below calf..... $8\frac{1}{2}$ "

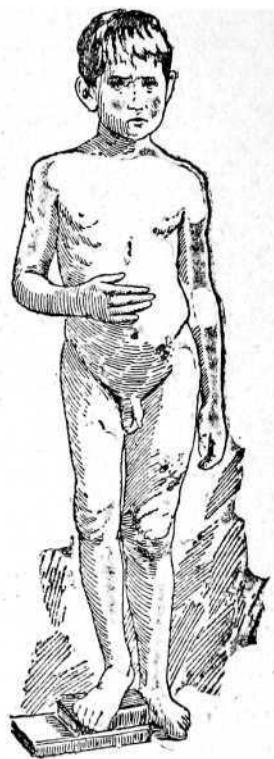
" " " left " " " " .. . $10\frac{1}{2}$ "

Angle of flexion of right leg, 40 degrees.

I operated on August 17th, 1882, cutting down to the bone $2\frac{1}{2}$ ctmtrs. below the trochanter and taking out a wedge of bone with a base of three ctmtrs. Small superficial drainage tube, Lister. Extension of 12 pounds. On the 25th, drainage tube removed; no suppuration or fever; on the 9th of September, plaster of Paris bandage. Removed on the 30th Sept., as the patient gets up and makes his first attempt to walk, six weeks



Jos. MURPHY, August, 1882.

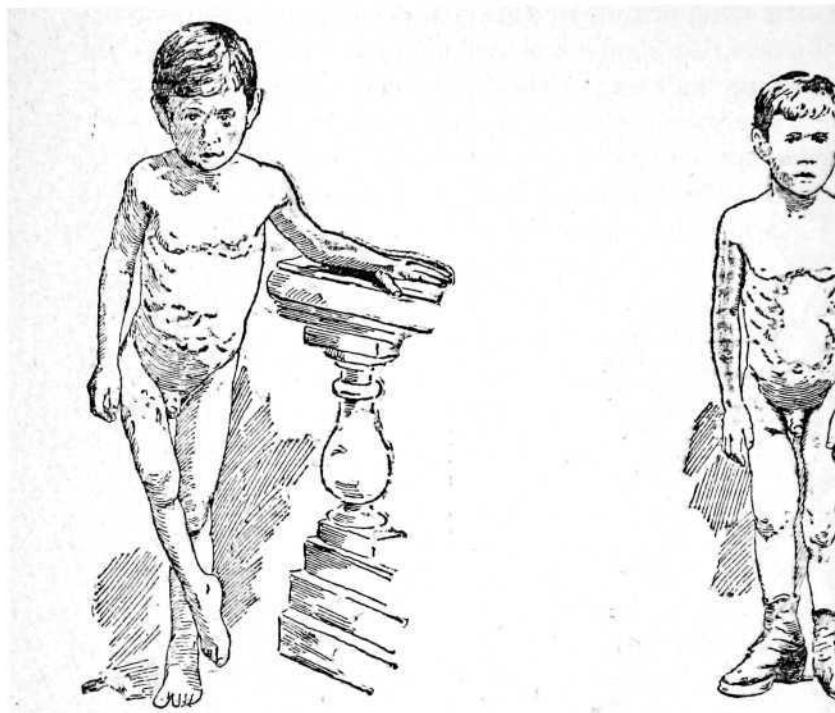


Jos. MURPHY, November, 1882.

after the operation. He walks without cane already—October 10th. You see that now, nearly five years after the operation, the result has remained the same excellent one, and the muscles of the right leg have assumed equal proportions to those on the left side.

The boy who is undressing now, CHARLES AURICH, was remarkably healthy till his third year, when he fell suddenly sick with the usual symptoms of hip disease. Seven years old he came under my treatment, having never walked without crutches since his first attack. Two fistulæ, discharging a considerable quantity of pus, were on the anterior and median side of the thigh,

near the end of the upper third, and one on the lateral side in about the same height. He was emaciated, had evening temperature of 102 to 103, no appetite, a suspicious cough and expectoration, but no definite dullness over the lungs.



C. AURICH, December, 1882.

C. AURICH, April, 1883.

The measurements were

Length of right leg.....	20	inches
" " left ".....	20½	"
Trochanter above Ros. Nel. line.....	1½	"
Distance of heel from floor.....	7½	inches
" " " toes ".....	4½	"

	RIGHT.	LEFT.
Circumference of middle thigh.....	8 inch	10½ inch
" " over condyles.....	7 "	8 "
" " " calf.....	6 "	8½ "
" " " foot.....	6 "	6¾ "

Flexion angle.....	40	degrees
Adduction angle.....	25	degrees

The parents only reluctantly consented to the operation of subtrochanteric osteotomy which was performed on Dec. 29th,

1882, together with dilating and scraping out the fistulae; extension 7 pounds. On the 27th of January, after a brief period of febrile evening temperature, I discovered and opened an abscess under the gluteus maximus. No improvement followed till February 5th, and the secretion in anterior fistulae grew rather more abundant. I then cut down to the bottom of the fistulae, making one large incision, opening them all freely, commencing below the outer third of Poupart's ligam., going transversely through the greater parts of the rectus femoris and the sartorius in a median and posterior direction. The femoral artery and vein were both divided and (doubly) ligated. Very slight œdema of leg for the first two days. Then normal appearance and hardly any pains. No more fever, slow recovery. Excellent appetite ever since. Got out of bed April 10th and commenced to walk about three and one-half months after the operation. Walks well with shoe of three-fourth inch sole, and uses neither crutch nor cane for even the longest distance; is extremely active. The circumference of the right leg now nearly equals the left.

This young lady, Miss S., came under my care when fifteen years old.

She walked perfectly well until the age of two years and eight months, when she was taken with bilateral hip disease, and suffered for years with abscess on both thighs, which healed finally. Since then she has not been able to walk without crutches. I saw her in the beginning of July, 1883.

Her photographs of that time recall as to shape very much the picture of the celebrated Hottentot Venus. The lumbar part of the vertebral column, and the os sacrum nearly go off at right angle from the dorsal part. Even under chloroform this can only be straightened partially. The right leg is firmly ankylosed, whilst the left is not, and has quite a latitude of excursion. Her measurements showed:

	RIGHT LEG.	LEFT LEG.
Troch. of Roser Nelaton line.	$2\frac{1}{4}$ inches	$1\frac{1}{2}$ inches
Length from troch. to sole...	$31\frac{1}{4}$ "	$32\frac{1}{2}$ "
Angle of flexion....	75 deg.	80 deg.
Angle of adduction....	10 deg.	5 deg.

The operation of subtrochanteric osteotomy was performed bilaterally in one sitting on July 20th, 1883. On both sides I

had to take away wedges of bone about four centimeters at the base to be able to straighten the legs as far as possible. The wounds healed under antiseptic bandage without any trouble, but a very stubbornly chronic eczema of both legs caused by the extension plaster kept her a long time in bed, and she did not commence her first walking experiments until January, 1884. She was extremely timid and frightfully nervous. My visits for the purpose of massage and electricising, and superintending her walking were looked forward to with great anxiety,



MISS S., July, 1883.

my entrance into the house was greeted with a flood of tears and cries. She made very slow progress and her over indulgent mother opposed rather than aided my efforts.

I could not induce her to have her photograph taken *in puris naturalibus* after her recovery, but through her clothes her deformity can scarcely be detected, her walking, however, is not very good, and she requires for any distance the aid of a cane.

I would like to draw your attention to a little additional measure employed by me in this operation, viz.: the subcutaneous division of contracted fibres of the fascia lata and of those of the strengthening fibres of the ilio femoral capsular ligament that can be reached from the wound with a long tenotomy knife.

This is done to prevent, in connection with the extension treatment, as much as possible a future relapse into the old malposition, from the contracting soft tissues. Winiwater in Vienna makes a plastic operation on the anterior lateral side of the thigh for the same purpose. He cuts a triangular flap, its base toward Poupart's ligament, through skin and fascia down to the muscle, and after dissecting it from the underlying tissues some way up from its apex, he unites the lower boundaries with each other and pushes the flap upwards, somewhat like in Dieffenbach's ordinary blepharoplastic operation.

His results (*Langenbeck's Archiv fur Chirurgie.*—Vol. XXVIII., page 40.) in the four cases published are not as good as mine, besides laboring under the disadvantage of having been observed only a short time after operation, whilst all my patients presented here to-night have been operated upon between four and five years ago. If we consider that the primary success has not changed during all this time we certainly will decide in favor of this very simple decision.

I cannot close this article without thanking Dr. S. S. Kahn for assisting me patiently in these cases, all of which occurred among a very poor class of our population, where the hard struggle for existence made a strict observance of antiseptic measures very difficult.

TWO CASES OF SURGICAL OPERATION ON THE FEMALE BLADDER.

By CLINTON CUSHING, M. D.

[Read before the S. F. Obstetrical Society.]

The following cases are reported: First, because they are somewhat out of the usual course, and secondly, for the reason that the literature of the subject is somewhat meagre, if we may judge by the small number of similar cases reported in the medical journals. I believe that the surgical operations upon this part of the body can be much improved by attention to technique and to details.

Of all the departments of surgery I know of none that demands so large a share of personal experience to insure success as in the various steps required in the management of bladder disease of long standing, and when success attends our efforts

the satisfaction in having achieved a cure is great, it being in proportion to the obstacles overcome.

CASE I—TUMOR OF BLADDER.

Mrs. "K," æt. 64, was referred to me by Dr. J. O. Hirschfelder, October 25, 1887, on account of the presence of blood in the urine.

Blood had been noticed in the urine in varying quantities for four months, there being enough usually to produce a dark coffee colored sediment.

Her health was excellent except that she had pain of many years standing, in the sides, on a line with and a hand's breadth laterally from the umbilicus.

The question to be determined was whether the hemorrhage was from the kidneys or the bladder.

A microscopic examination of the urine gave no satisfactory information.

It was now found, that upon moving the sound about in the bladder immediately after washing out the viscera that the hemorrhage was markedly increased. Dr. Hirschfelder now examined the cavity of the bladder with the cystoscope and detected a papillary growth and could also discern the blood escaping from it.

On November 22d, assisted by Dr. Akerly and Dr. Fuller, I made an incision an inch and a half in length into the bladder through the vesico-vaginal septum and at once came upon a soft villous growth with a well defined pedicle, about the size of a small hen's egg, growing from the posterior wall an inch to the left of the median line, and just above the opening of the ureter.

The tissue broke down easily under the pressure of the forceps, and was followed by a rather free bleeding.

The pedicle was now drawn well up to the opening and ligated with strong silk. The tumor was then cut away. The mucous membrane of the bladder was now stitched to that of the vagina around the entire extent of the incision with chromized catgut, for the purpose of insuring a large vesico-vaginal fistula.

For three weeks the vagina was kept clean by vaginal injections of warm carbolized water used night and morning, the patient being allowed to sit up when so disposed.

At the end of three weeks an examination showed the bladder

to be healthy; the stump of the tumor had practically disappeared and the bladder wall examined by the finger through the vesico-vaginal fistula was smooth.

I at once closed the fistula with silver wire in the usual way after denuding the edges. It united without difficulty and the patient has made a perfect recovery. There is no blood or mucus in the urine, and no pain about the bladder.

CASE II.

Vesico-vaginal fistula of unusual size, and uretro-vaginal fistula, cured by operation.

Mrs. Ellen Brandley, æt. 40—7 children—1 miscarriage. Of the children two were males and five females. The first child was a male and was delivered with forceps. Then the succeeding five children were girls and were delivered naturally. She had never had any serious sickness until the present one.

On June 1st, 1884, she was taken in labor with the last child at 5 P. M., and was under the care of a midwife, and was delivered on June 3d at 2 A. M., with forceps, after a prolonged and very painful labor. The child was very large. Incontinence of urine followed immediately after the delivery of the child.

She made a tedious recovery from her accouchement, and on November 18th, 1886, she entered one of the hospitals of this city, where she remained for five months, during which time three operations were performed by the surgeons in charge, with the view of closing the large vesico-vaginal fistula, but, so far as could be judged, without any gain having been made.

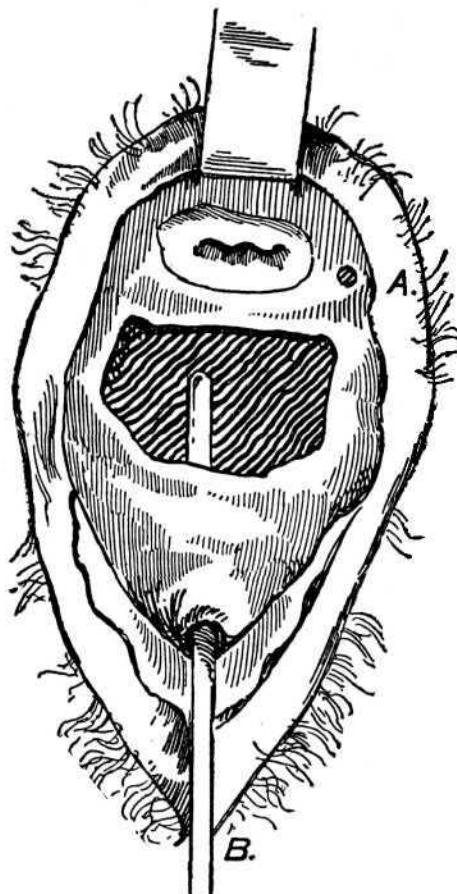
She applied to me on June 1st, 1887, at the suggestion of Prof. L. C. Lane, and upon examination I found that when she lay upon her back upon the examining table that the anterior wall of the bladder prolapsed through an enormous vesico-vaginal fistula and appeared at the ostium vagina as a dark red mass.

Upon placing her upon her elbows and knees and introducing a large-sized Sim's speculum, and lifting the posterior vaginal wall, it was found that nearly the entire base of the bladder was gone, and that the ureter from the right kidney opened into the vagina to the right of and very near to the cervix uteri.

The accompanying diagram illustrates the condition.

On June 7th, I laid the fistula open upon the right side with one stroke of the scissors, so as to make the uretral opening a part of the large fistula. I then freshened the borders of the fistula extensively, and afterward drew the cervix down and at-

tached it to the remnant of bladder-tissue near the urethra. The tissues around the urethral opening were freshened and the ureter was turned into the bladder. Silver wire was used for sutures. The entire line united by first intention, except where the ureter was turned into the bladder, where a minute opening was left.



Cut representing opening of ureter in vagina on right of cervix at A.
B., showing sound in bladder, with base of bladder destroyed.

The drawing represents the condition as it appeared when the patient was in the knee-elbow position.

On July 14th, edges of fistula were denuded and drawn together with silver wire, but the stitches cut out and the fistula remained unhealed.

August 20th, the operation was repeated, but without success.

On September 17th, I split the cervix uteri from before, backward, to the depth of three-fourths of an inch, and then de-

nuded its outer surface; then dissected a flap from the adjacent part of the vagina, opposite the cervix, including the entire thickness of the vaginal wall. Now, after again denuding the edges of the fistula, I united the flap composed of the right half of the cervix and the vaginal flap, and the parts healed and the cure was complete.

She was able to retain her urine for five hours, and returned to her home in the mountains.

I have lately received a letter from this patient, in which she states that her health is good and that she has no trouble with her bladder.

RESULTS OF VACCINATION.

By DR. WINSLOW ANDERSON.

During the present epidemic of smallpox I have vaccinated 5,205 persons. About one-third were primary cases. The youngest was an infant of fifteen days and the eldest a man of ninety-five years. Both had been exposed to the contagion of variola. The infant's mother and the old man's daughter, having contracted the disease, were removed to the Hospital. Both the nursing infant and the old man escaped having variola, although they were successfully inoculated with bovine lymph after their exposure and presented typically umbilicated vesicles with circumscribed areolæ on the ninth day. The old man had not been vaccinated for forty years.

Of the 5,205 vaccinations 4,789 were successful, about 92 per cent.

The best result was obtained with Alexander (Lancaster) ivory points, of which I used 3,500 with about 95 per cent successful inoculations. Very good results were obtained with the virus from the Pennsylvania Vac. Co., National, Martin's, New York, the St. Louis and the Chicago.

In January I used 400 points of Dr. Du Bois' San Rafael virus and kept a special record to test its efficacy, and out of the 400 persons vaccinated, 309 were successfully inoculated, about 77 per cent. During the present month, Feby., I have used 100 more points of the San Rafael matter and 80 per cent "took."

I do not consider the sore limb with swollen glands, septic ulceration and severe constitutional disturbances, successful

vaccination. Nor do I consider the blood tumor, naevus or raspberry excrescence, the thin, yellow, and irregular crust which falls off in eight to twelve days without leaving a foveated and striated cicatrix, a successful inoculation. It is only where found a circular vesicle with depressed centre and circumscribed areola forming in from six to ten days, or an umbilicated striated kine-pock mark, that I passed them and issued a permanent certificate. The difficulty experienced in having the patients return for an inspection or re-vaccination, I obviated by issuing a provisional certificate good for two weeks only, thereby making it obligatory for the school children, factory employees, seamen and others who required permanent certificates of successful vaccination, to return and present themselves for inspection. In this way I had very little difficulty in keeping a record of my cases.

The first lot of 400 points of the San Rafael virus I used was found to be very hard, so that the lymph could not be removed by the ordinary method of dipping in water before applying. Noticing this, I used a solution of glycerine and water, equal parts, and soaked each point from ten to thirty seconds before applying to the denuded derma. This facilitated the removal of the matter and I believe insured more successful inoculation.

I subsequently learned that the excessive hardness was due to the process of hardening by sulphuric acid recommended by authors on the subject. The second lot of 100 points did not present any objectionable features and I do not see any reason why we cannot produce as pure bovine virus on this coast as they do in the East or in Europe.

Out of the 5,000 cases vaccinated I had six septic ulcerations, with swollen glands, erythematous limb and severe constitutional disturbances. Every one of them was in destitute circumstances, half clothed and half fed, exposed to cold and filth. The bandages and cotton I had applied were removed and the vesicles and sores torn open and exposed to all the contaminations of their miserable surroundings.

Over the inoculated points on an arm or leg, I make a practice of applying a small piece of non-absorbent carbolized cotton and a bandage, thereby measurably preventing rubbing off the vaccine lymph and the disturbance of the vesicles and scabs from the influences of cold and septic infection, for I look as much to the patient and his surroundings as I do to the virus, for the cause of these septic disturbances.

Licentiates of the California State Board of Examiners.

SAN FRANCISCO, February 1, 1888.

The following persons having complied with the law and all the requirements of the Board of Examiners, were granted certificates entitling them to practice medicine in the State:

FRED. BAKER, M. D., San Diego; Med. Dept. Univ. of Michigan, July 1, 1880.

CHARLOTTE LE BRETON JOHNSON BAKER, M. D., San Diego; Med. Dept. Univ. of Michigan, June 30, 1881.

H. O. BRINK, M. D., Brentwood, Cooper Med. Coll., Cal., November 17, 1887.

MATILDA WATSON BURNS, M. D., Guernville; Cooper Med. Coll., Cal., November 17, 1887.

EDWIN CARSON, M. D., San Diego; Miami Med. Coll., Ohio, March 1, 1883.

FRANCIS MARION CASAL, M. D., Santa Barbara; Rush Med. Coll., Ill., January 27, 1864.

FREDERICK PAYSON CAVE, M. D., El Monte; Univ. of the City of New York, March 12, 1883.

JOE. D. DAVIDSON, M. D., City of Fresno; Vanderbilt University, Tenn., March 1, 1882.

ORVILLE S. ENSIGN, M. D., Ontario; Univ. of Michigan, July 1, 1880.

ELIZABETH GALLIMORE, M. D., San Jose; Cooper Med. Coll., Cal., November 17, 1887.

EDWARD V. JARRETT, M. D., Fowler; Atlanta Med. Coll., Georgia, March 4, 1874.

EMMA CAROLINE LAFONTAINE, San Francisco; Cooper Med. Coll., Cal., November 17, 1887.

JAMES LONG, M. D., Pasadena; Bellevue Hosp. Med. Coll., N. Y., March 1, 1879.

ELBERT NELSON MATHIS, M. D., Los Angeles; Rush Med. Coll., Ill., February 19, 1884.

ASA P. MEYLERT, M. D., San Francisco; Univ. of the City of New York, N. Y., July 2, 1856.

WILLIAM ABRAM NORMAN, M. D., Plymouth; Cooper Med. Coll., Cal., November 17, 1887.

ALBERT EDWARD PHELAN, M. D., San Francisco; Univ. of Bishops Coll., Canada, March 3, 1887; Coll. of Phys. and Surgs., Province of Quebec, May 11, 1887.

WILLIAM E. REARDON, M. D., San Francisco; Med. Dept. Univ. of Cal., November 15, 1887.

DAVID WM. REID, M. D., Monrovia; St. Louis Med. Coll., Missouri, March 3, 1863.

TULLIO ANTONIO ROTTANZI, M. D., San Francisco; Cooper Med. Coll., Cal., November 17, 1887.

HAMSON EDWARD STROND, M. D., San Francisco; Med. Dept. of Colorado State Univ., June 3, 1885.

GEORGE MORTON TERRILL, M. D., San Francisco; Univ. of Pennsylvania
Penn., April 13, 1883.

WESLEY THOMPSON, M. D., San Francisco; Miami Med. Coll., Ohio, Marc
2, 1869.

HENRY UTLEY, M. D., Los Angeles; New York University, N. Y., July 2
1848.

M. ELLA WHIPPLE, M. D., Long Beach; Med. Dept., Willamette Univ
Or., March 26, 1883.

J. W. Wood, M. D., Long Beach; Coll. of Phys. and Surgs., Chicago, Ill
March 13, 1883.

ELIZABETH MILDRED YATES, M. D., San Francisco; Cooper Med. Coll., Cal
November 17, 1887.

The application of Julius Wltschek, of San Diego, was, b
unanimous vote refused, owing to insufficient credentials.

Wm. M. LAWLOR, M. D.,
Secretary.

IRVING M. SCOTT, who secured for the Pacific Coast the con
tracts for building the iron cruisers "Charleston" and "San
Francisco," has contributed an article to the *Overland Monthly*
for March, describing the difficulties encountered in raising the
sunken British four-master Earl of Dalhousie from the bottom o
San Francisco Bay, in 1885.

MICROBES IN EXPIRED AIR.—Lister was perhaps the first ob
server who called attention to the singular fact that air which
was admitted into the pleural cavity as a consequence of simple
fracture of the ribs produced very different and much less ser
ious results than in pneumothorax following incised wounds o
the chest. The explanation is to be found in the purity of ex
pired air in respect to the bacterial and other growths. Professo
Tyndall had already remarked that expired air was *optically*
pure, *i. e.*, when traversed by a luminous ray that it showed no
suspended particles. MM. Strauss and Dubreath have proved
this even more conclusively by breathing through sterilised
bouillon. Only in very rare cases did growths or mould deve
lope, and these were probably due to some defect in the proced
ure. The idea that we are breathing out at each expiratio
loads of bacilli, for the benefit of our fellow creatures must
therefore be classed among the "exploded ideas."—*Medical Press.*

Proceedings of Societies.

Special and Standing Committees of the Medical Society of the State of California for 1888; the First Named on Each Committee Being Chairman Thereof.

1. On Practical Medicine and Medical Literature—Sam'l O. L. Potter, San Francisco; Geo. W. Westlake, Red Bluff; David Powell, Marysville; E. S. Meade, San Jose; Alfred H. Woodill, Riverside.
2. On Surgery—W. E. Taylor, San Francisco; B. F. Clark, Chico; Alden M. Gardner, Calistoga; Samuel W. Dennis, San Francisco; Wm. T. Lucas, Santa Maria.
3. On Obstetrics—Walter Lindley, Los Angeles; Wallace A. Briggs, Sacramento; M. A. Cachot, San Francisco; F. Walton Todd, Stockton; Mary W. Moody, San Francisco.
4. Medical Topography, Meteorology, Endemics and Epidemics—J. B. Trembly, Oakland; Lawrence M. Agard, Auburn; John W. Robertson, Napa; C. M. Fenn, San Diego; John Fife, Red Bluff.
5. Indigenous Botany and Domestic Adulteration of Drugs—W. P. Gibbons, Alameda; H. J. Crumpton, Saucelito; R. G. Reynolds, Upper Lake; T. J. Jenkins, Oroville; C. B. Bates, Santa Barbara.
6. Public Hygiene and State Medicine—Washington Ayer, San Francisco; G. G. Tyrrell, Sacramento; H. S. Orme, Los Angeles; Jas. Simpson, San Francisco; J. G. Jewell, San Francisco.
7. Histology and Microscopy—Julius Rosenstirn, San Francisco; Albert Abrams, San Francisco; C. M. Richter, San Francisco; D. W. Montgomery, San Francisco; J. H. Stallard, San Francisco.
8. Mental Diseases and Medical Jurisprudence—W. W. Macfarlane, Agnew; N. S. Giberson, Paso Robles; W. H. Mays, Stockton; F. W. Hatch, Napa; Robt. K. Reid, Stockton.
9. Medical Education—Jos. P. Widney, Los Angeles; W. S. Whitwell, San Francisco; Wm. B. Lewitt, San Francisco; A. J. Pedlar, Fresno; Charlotte B. Brown, San Francisco.
10. Publication—Henry Gibbons, Jr., San Francisco; Wallace A. Briggs, Sacramento; C. G. Kenyon, San Francisco; G. F. G. Morgan, San Francisco; A. P. Whittell, San Francisco.
11. Arrangements—C. G. Kenyon, San Francisco; Chas. E.

Farnum, San Francisco; Walter E. Bates, San Francisco; Geo W. Davis, San Francisco; Jerome A. Anderson, San Francisco

12. Prize Essay—M. M. Chipman, San Francisco; Jos. C Hirschfelder, San Francisco; F. B. Kane, San Francisco; Martin Regensburger, San Francisco; E. J. Overend, Oakland.

13. Gynecology—C. Cushing, San Francisco; John Wagner, San Francisco; John A. Miller, San Francisco; Lucy M. E Wanzer, San Francisco; Elizabeth A. Follansbee, Los Angeles

14. Diseases of Women and Children—Ira E. Oatman (Women), Sacramento; H. M. Sherman (Children), San Francisco; J. P. LeFevre, San Francisco; Agnes Lowry, San Francisco; Jos. H. Wythe, Oakland.

15. Ophthalmology, Otology, Laryngology and Rhinoscopy—Geo. C. Pardee, San Francisco; Henry Ferrer, San Francisco; Elizabeth R. C. Sargent, San Francisco; N. J. Martinanche, San Francisco; J. D. Arnold, San Francisco.

16. Necrology—Albert H. Pratt, Oakland; W. L. Wills, Los Angeles; J. R. Laine, Sacramento; W. H. Wallace, Eureka; E. D. Robertson, Yreka.

17. Medical Legislation—Chas. E. Blake, San Francisco; Wm. M. Lawlor, San Francisco; Chas. H. Steele, San Francisco; W. F. McNutt, San Francisco; W. D. McCarthy, San Francisco.

18. Graduating Exercises—O. O. Burgess, San Francisco; R. W. Murphy, San Francisco; John E. Kunkler, San Francisco; H. H. Gardner, San Francisco; Geo. J. Bucknall, San Francisco.

Special Committee on Building—Wm. F. McNutt, San Francisco; Luke Robinson, San Francisco; Jas. Simpson, San Francisco; Robt. A. McLean, San Francisco; H. S. Orme, Los Angeles; W. R. Cluness, Sacramento; Washington Ayer, San Francisco; Henry Gibbons, Jr., San Francisco; R. Beverly Col, San Francisco; Benj. R. Swan, San Francisco; T. H. Pinkerton, Oakland; Wm. P. Gibbons, Alameda; W. S. Thorne, San Jose.

Special Committee on Organization of County and District Societies—Wm. M. Lawlor, San Francisco; W. D. Anderson, Vallejo; Charles Anderson, Santa Barbara; W. J. G. Dawson, St. Helena; Bird S. Young, Santa Rosa.

The Committee of Arrangements of the Medical Society of the State of California, call attention to the 18th annual session, to be held at B'nai Brith Hall, 121 Eddy St., this city April 18th, 19th, and 20th, 1888.

Health Reports.

San Francisco Health Report.

ABSTRACT.

	1886	Jan.	Feb.	Mar.	Apr.	May	Jun.	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.
Total, 1886	519	468	479	418	425	370	437	408	394	436	452	491	522	
Total, 1887....	5237	519	451	445	450	475	409	459	409	486	534	582	650	
Phtisis.....	730	76	74	86	73	67	70	51	54	43	69	95	100	89
Pneumonia....	319	39	25	35	31	36	25	32	26	17	35	56	63	103
Bronchitis....	125	20	12	8	4	11	10	7	9	13	8	8	17	25
Heart Disease...	249	31	25	34	36	36	22	32	31	30	26	38	32	43
Aneurism.....	15	2	3	4	0	1	2	0	3	4	2	5	1	0
Apoplexy.....	126	19	8	14	9	13	10	11	14	17	11	9	12	11
Typhoid.....	135	13	9	9	6	11	8	6	9	..	8	17	25	23
Paralysis....	91	8	6	10	9	9	8	12	9	13	6	9	10	16
Cancer.....	168	14	17	16	13	15	14	11	13	12	14	16	19	18
Diphtheria....	181	40	20	15	26	22	20	15	9	19	14	11	11	10
Group.....	96	9	10	6	6	2	4	7	4	8	6	15	16	10
Infant Convisns	156	9	11	16	17	22	9	13	8	10	13	11	17	12
Meningitis....	133	13	7	11	4	19	14	11	10	12	1	17	11	18
Casualties....	167	12	20	13	11	19	13	20	13	17	9	11	16	12
Suicides.....	79	5	8	3	9	4	11	6	5	12	9	1	11	8
Homicides....	30	2	1	1	1	2	2	3	1	1	0	0	2	2
Small Pox.....	..	..	..	..	..	..	..	..	..	..	19	4	10	17
Enteritis....	..	..	..	..	..	..	..	..	..	..	18	..	17	17

Oakland Health Report.

With an estimated population of 50,000 Oakland has had a total of seventy-one deaths. The principal causes of death were phthisis and pneumonia, which together caused fourteen. Bronchitis was the cause of four deaths; heart disease, six; inanition, three; five from urinary troubles.

The rainfall was about the same as that of San Francisco, viz., 6.42 inches. The mean temperature of the month was 45.37°. On January 15th the mean temperature was 31.33°.

October—Cerebro-spinal meningitis, 15; cholera infantum, 22. November—Gastritis, 13. January—Measles, 11.

Population according to U. S. census, July 1st, 1880, was 234,520; Caucasian, 212,520; Chinese, 22,000. Estimated population, June 30th, 1886, 280,000.

Daily mean tem.	51°	47°	54.3°	54.5°	55.8°	58°	55.2°	56.3°	.00	.01				
Precip. moist're	1.90	9.24	0.84	2.30	0.06	0.07								

January—Measles, 11.

Population according to U. S. census, July 1st, 1880, was 234,520; Caucasian, 212,520; Chinese, 22,000. Estimated population, June 30th, 1886, 280,000.

Report of State Board of Health.

Mortality reports received from one hundred and one cities and towns for the month of January, indicate a higher death rate than we have had for many years. The number of dece- dents were twelve hundred and twenty-five, in an estimated population of six hundred and eighty-six thousand three hundred, giving a percentage of 1.8 per thousand in the month. The ex- cess in our death rate is due mainly to the advent of smallpox and the greatly increased number of those dying of acute pul- monary disease.

Consumption caused one hundred and seventy deaths, about the same mortality as that taking place in the previous month.

Pneumonia had a mortality of one hundred and eighty-two, which is very largely in excess over that of December, and a greater mortality from this disease than has been experienced for years. Cold, humidity and high winds being the three agents that promote the prevalence of pneumonia, and as all three were experienced throughout the State during January, we may thereby account for the great numbers who suffered from the disease, and its consequent large death rate.

Bronchitis shows a mortality of forty-two, which is also un- usually high, but as the same factors which determine pneu- monia have also a predilection towards bronchitis, the frequency of the disease will explain the circumstances.

Congestion of the lungs was the cause of death in seventeen instances, an increase of thirteen over last report.

Whooping cough caused no deaths.

Scarlet fever had the small mortality of ten during the month.

Measles is credited with thirty-two deaths, which is just double the death record from this disease in December.

Smallpox caused thirty-six deaths, twenty-seven of which occurred in San Francisco, three in Los Angeles, two in Sierra City and one each in Downieville, Stockton, Redwood City and North Bloomfield. There were also some deaths in Oakland, but the Health Officer having failed to send in his report for the month, we are unable to give the number.

Typho-malarial fever had only four dece- dents.

Typhoid fever shows a slightly decreased mortality, forty- nine deaths being attributed to it, against fifty-four recorded for preceding month.

Remittent fever caused ten deaths.

Cerebro-spinal fever had a mortality of six, which is a decrease of twelve from last month.

Alcoholism is credited with twenty-five deaths during January, which is a large excess over those reported in December.

Heart disease caused seventy-six deaths.

Erysipelas was fatal in four instances.

The following cities and towns report *no deaths* in January: Angels Camp, Auburn, Azusa, Bodie, Cedarville, Shasta, Colfax, College City, Dixon, Fort Bidwell, Gonzales, Biggs, Sissons, Hopland, Igo, Jolon, Millville and Martinez.

PREVAILING DISEASES.

Reports received from ninety-eight localities throughout the State continue to show an excess of sickness over the usual amount experienced at this season of the year. The very cold and inclement weather which prevailed throughout January, manifested its deleterious effects in the number of persons attacked by inflammatory affections of the lungs, and pulmonary catarrh. The pernicious effects of the cold and damp weather does not seem to have influenced unfavorably the intestinal canal as we find that:

Diarrhoea and dysentery are mentioned but very seldom as prevailing to any extent. A few sporadic cases were observed in Lemoore, Fresno, Downey, Elsinore, Camptonville, Wheatland, Tulare, Anderson, Lockeford, College City, and Redwood.

Measles prevail very generally, and is epidemic in many places. San Francisco, Berkeley, Oakland, Benicia, Sacramento, Merced, Azusa, Gridley, Colton, Salinas, Elk Grove, Fort Bidwell, Colfax, Cloverdale, Sonora, Calistoga, College City, Lockeford, Anderson, Livermore, Bloomfield, Ukiah, Tulare, Millville, Brownsville, Santa Cruz, Downey, Wheatland, Auburn, Truckee, Knight's Ferry, Tehachapi, Lemoore, Lodi, Nicolaus, Lincoln, Sausalito, Newcastle, Lower Lake, Napa, San Jose, Fresno, Mariposa, Red Bluff, Davis, Calico, and Hill's Ferry, have all had the disease to a greater or less extent. The type in some instances is quite severe and rapidly fatal; several instances of what is known as "black measles" being noted.

Scarlet fever has not prevailed to any extent during the month. It was noted in Sacramento, Marysville, Fort Bidwell, Etna Mills, Forest Hill, Anderson, Red Bluff, Sissons, Santa Ana, Hanford, Grass Valley, Folsom, and San Francisco.

Diphtheria was not so prevalent during the month of January as

it had been the preceding months. San Francisco had only twenty-eight cases reported, which shows a decline of the disease there. It was noticed in Sacramento with some frequency, also in Elk Grove, Anderson, Etna Mills, Forest Hill, Redwood, Igo, Truckee, Tehachapi, Wheatland, Calico, Los Angeles, Santa Ana, and Watsonville.

Croup was present wherever diphtheria prevailed to any extent. The identity of these diseases seems becoming a matter of general belief among the profession, and sanitary precautions are adopted in treatment.

Whooping-cough still is present in Elk Grove, Igo, Dixon, Red Bluff, Downey and Biggs.

Erysipelas was noted in some instances in Salinas, Anaheim, Brownsville, Fresno, Camptonville, Sacramento, Calistoga, Pasadena, Placerville and San Diego.

Typhoid fever prevails to a limited extent in Merced, Fresno, Elsinore, San Diego, Colton, Fort Bidwell, Redwood, San Pedro, Igo, Wheatland, Cottonwood, Angels Camp, Calico, Sacramento, Los Angeles, Pasadena, Riverside, Santa Ana, San Jose, Stockton, and San Francisco.

Typho-malarial fever is mentioned in only two or three reports. It may therefore be said to have disappeared as a prominent cause of sickness.

Pneumonia prevails to a greater extent throughout the State than ever before known; in San Francisco, Sacramento, San Jose, Napa, Los Angeles and San Diego, it has been very prevalent; it is also noted in reports from Elsinore, Colton, Salinas, Santa Cruz, Downey, Fresno, Mariposa, Etna Mills, Colfax, Forest Hill, Elk Grove, Gridley, Anderson, Livermore, Tulare, Wheatland, Auburn, Lemoore, Camptonville, Berkeley, Benicia, Brownsville, Bakersfield, Chico, Marysville, Nevada City, Oroville, Santa Rosa, Stockton, Vallejo, Sissons, and Fresno.

Bronchitis was likewise very prevalent during the month, although the type was not generally of a severe character.

Influenza is mentioned as prevailing generally. The type is mild, and not attended by any fatality.

Smallpox continues to spread very slowly. Two hundred and twenty-four cases were reported during the month in San Francisco. Thirty of these were Chinese. Three cases were reported in Sierra Valley. Several cases occurred in Sierra City, but there the disease has been checked. Two were reported near

Downieville and two at North Bloomfield. In Los Angeles ten cases were reported, eight in Stockton and eleven in San Jose. Dunsmuir had two or three cases, two were reported in Red Bluff, two in Redding, one in Delta, two in Sacramento, and one each in Castroville, Santa Rosa, Cloverdale, Santa Barbara, Yuba City, Riverside, Chico, three in Tulare and eight in Martinez. Of the two cases in Redding, Dr. Miller of that place writes that one of them was contracted through a dog carrying the infection in his hair to the child, who lived a quarter of a mile from the place where the first patient was quarantined. In Berkeley, of the two cases one was traced by Dr. Payne, the Health Officer, to Oakland, where the disease was contracted in handling washing from the steamer *Gaelic*.

With so many centers from which to radiate, smallpox cannot fail to reach in time every portion of the State, if preventive measures are not at once adopted to stay the pestilence. Eighty-nine years of constant trial having fully and unequivocally proven the value of vaccine virus as an efficient safeguard from the poison of smallpox, general vaccination should be resorted to in every city, town and village in the State. The trustees of incorporated towns and the supervisors of each county should employ public vaccinators and offer vaccination free to every one who had sense enough to apply for protection—a house to house inspection and vaccination of all unprotected persons therein, would make the community perfectly safe from an epidemic. If vaccination were made compulsory, we should hear very little of smallpox. The material for an epidemic is abundant in this State, and if vigorous measures are not quickly adopted we will witness such an extension of the disease as to completely debar all travel from the Eastern States.

The State Board of Health has just issued a circular on smallpox and vaccination, which will be distributed free to all applicants, and we ask our correspondents to send for as many copies as they can distribute in their respective fields of practice.

PACIFIC COAST WEATHER FOR JANUARY.

SIGNAL SERVICE U. S. ARMY, DIVISION OF THE PACIFIC, SAN FRANCISCO, CAL., FEBRUARY 1, 1888. Weather.—The month is found to divide itself into three well-defined period, the first extending from the 1st to the 6th, marked by rain or snow along the entire Pacific Coast, and a temperature slightly below the normal; the

second, extending from the 6th to the 20th, notable for long continued and extremely cold fair weather; and the third, extending from the 20th to the end of the month, marked by high temperature and rain. During the last period the rainfall was heavy in Oregon, Washington Territory and portions of California, being light and local in Central and Southern California. High winds were reported from the 23d to the 28th off the coast of Oregon and Washington Territory, accompanying a storm central near the mouth of the Columbia river.

Temperature.—The mean temperature for January was markedly below the normal in all of the Pacific Coast districts. The greatest departures occurred in Southern Idaho, where they amounted to seventeen degrees. From that point they diminish in all directions, becoming about eight degrees along the coast of Oregon and Washington Territory, and Northern California, and four degrees along the coast of Southern California. The minimum temperature record at the several Signal Service stations, are, to the nearest whole degree, as follows: Olympia, 0; Spokane Falls, 28; Portland, 2; Walla Walla, 18; Roseburg, 4; Boise City, 26; Eureka, 23; Red Bluff, 18; Sacramento, 20; San Francisco, 20; Fresno, 20; Los Angeles, 30; San Diego, 32; Yuma, 26.

Rainfall.—The rainfall for January was from one to two inches in excess of the normal rainfall for that month in Washington Territory; it was about normal in Oregon, and slightly in excess of the normal in California.

GERRARD G. TYRELL, M. D.

Permanent Secretary California State Board of Health.
Sacramento, February 10, 1888.

CHARLES J. KING, son of James King of William, gives in the March *Overland* his recollections of early days in San Francisco, including the circumstances of his father's murder.

HON. HORACE DAVIS, lately elected to the presidency of the University of California, has an article in the March *Overland*, developing his theory in explanation of Shakspere's sonnets. He finds in them the record of much of the inner life of the great poet, and convincingly defends his interpretation.

PACIFIC MEDICAL AND SURGICAL JOURNAL
AND
WESTERN LANCET.

EDITOR:

WILLIAM S. WHITWELL, A. M., M. D.

The Editor is not responsible for the views of contributors.

All communications relating solely to the editorial management of the JOURNAL, should be sent to No. 438 Bryant St., San Francisco.

All business communications should be addressed to L. H. Bonestell, 401 Sansome St., San Francisco.

SAN FRANCISCO, MARCH, 1888.

Editorial.

PACIFIC COAST VACCINE STATION.

If there is any one enterprise more than another which is worthy the attention of the State Board of Health, it is the successful establishment of a vaccine farm upon this coast, from which at all times of the year reliable fresh vaccine may be obtained.

The establishment and success of such a farm would, more than any other one measure, aid in banishing the periodic epidemics of smallpox with which the State, or, more especially, San Francisco, is afflicted. These epidemics cause much alarm, not alone among the people of the State, but amongst the travelling public—amongst the tourists. To San Francisco, and, at the same time, to the State, this means a great financial loss; for, when smallpox is declared epidemic, tourists and others in pursuit of pleasure and health avoid the city, and spend their money and leisure elsewhere. By the present epidemic thousands and thousands of dollars have been diverted from the State.

A very serious hindrance to the prevention of these epidemics

lies in the fact that at all times it is not possible to obtain active virus. During the hot summer weather in the East, even if the vaccine matter is successfully propagated, we cannot be sure that it has withstood the excessive heat to which it is liable in transportation. Great difficulty has been experienced in vaccinating during the summer months with any brand of virus, more particularly when there has been no active demand for vaccine. In this case the Agencies may not always be able to send absolutely fresh points, and the dealers in this State are tempted to keep their wares until they are inert. Our equitable climate in the neighborhood of San Francisco allows of successful propagation during any month of the year, and, by care in packing, points might be sent to all parts of the State and be received in active and fresh condition. San Francisco, the port through which smallpox enters, could always have at hand such a virus, and thus be ready to meet any emergency which might occur, and physicians would not be subjected to the delay in obtaining virus, which so often is fatal to the prompt stamping out of the disease.

About four months ago, anticipating this want, and after thoroughly studying the subject, Dr. Henry A. Dubois established a vaccine farm at San Rafael. Shortly after starting, and before much experience had been gained, the city was declared in a state of epidemic, and an extraordinary demand for virus followed. Dr. Dubois was pressed by many applications, and among these was one from the Board of Health of San Francisco. It is well known to those who have attempted to propagate virus by the vaccination of calves, that, for some hidden reason, a small proportion of the animals give sterile virus. The practical, and, in fact, the only known method of determining which virus is sterile and which fertile, is by trial. Neither the time nor the opportunity was given for this, and points were furnished as rapidly as prepared.

On trial of points sent at this time, as stated in the February number of this journal, the City Board of Health declared the

virus obtained from the San Rafael Farm to be useless, thus dealing a severe blow to a home industry, and one which, in our Republican opinion, should be protected. To be sure, this could not be expected from a Democratic Board; but, still, we think it was rather harsh, and believe that the wiser course would have been to have examined carefully and looked for the cause of this inertness. Careful inquiry and repeated trials might have shown that the fault lay, not in the virus, but in the mode of using it. If it was proved, without doubt, to be the virus, the aid of the Board might have been given in discovering the cause; for it certainly could not have been a useless waste of time in a matter which so nearly concerns the safety of the community at large.

Receiving favorable reports from other sources as to the activity of this virus and believing that injustice had been done in officially announcing its valuelessness, we went to San Rafael, called on Dr. Du Bois, and were shown how the farm was managed. We saw the vaccine matter taken from the ripe vesicles and the points prepared; how they were, after being dried, kept in a temperature of about 50°, and how they were packed for transportation. Everything was done with the greatest care, and we saw no reason why this farm should not furnish a virus with a protecting power equal, and even greater than that from the farms in the East, to the people of this State and upon this coast. We say protecting power, for, contrary to the popular idea and to the belief of some of our medical brethren, the capability of a virus to produce a sore and ulcerated arm is no criterion of its power of protection. As proof that at least one individual was satisfied with the San Rafael virus, we might state that we saw a gentleman in the doctor's office who, fearing the very sore arms he had seen produced by virus used in the city, went to San Rafael, was vaccinated at headquarters and was so well satisfied that he had now brought his family for the same purpose.

Marin is a dairy county, and calves of the proper age are

easily obtainable. They are kept in clean stalls and well fed for a day or so before they are operated upon. Dr. Du Bois says, that from the Martin virus he has obtained the most satisfactory results, for, from some of the others, the irritation has been great, and the sores have taken a very long time to heal.

From some calves it is possible to obtain a hundred points; from others only a few. The virus is clear and transparent, so much so that the points appear after drying, to have little or nothing upon their surfaces. All with a trace of matter from ulceration or with a sign of blood are rejected. The points are sometimes dipped twice, and then, if packed for transportation, are dried over the fumes of sulphuric acid. This process renders the virus hard and less liable to destruction by time and change of temperature, and it may account for the failure of some physicians to get results, for, unless the points are moistened for a few moments before using them, the virus cannot be satisfactorily removed.

Before points charged from any one calf are sent off, a number from these are tested in primary cases. If the report returned shows good results the others are preserved. If the report shows them to be sterile, or only capable of producing "raspberries," the whole crop procured from this calf is destroyed.

Genuine cow-pox is a rare disease. Dr. Martin states that but two or three cases have thus far been discovered in this country. Dr. Du Bois, however, does not despair of finding one, and for this purpose has sent out nearly a thousand circulars to the dairymen, offering a reward of \$25 for a case. For their information he gives a concise description of the disease. He believes that he found one case in Vacaville, but arrived too late to obtain the matter at the best time.

We believe, that with a little encouragement, and if time be given him, Dr. Du Bois will prove that he can furnish virus, which will be most acceptable to physicians, and satisfactory to their patients.

The State and City authorities are not the only ones who should give this encouragement, but private individuals should take an interest. Six hundred circulars and twelve hundred points were sent out lately by Dr. Du Bois, requesting trial of points and a report of success or failure. Of these six hundred only six were returned.

Concluding that few are philanthropic enough to work without reward, Dr. Du Bois will issue a second circular and enclose postal card. Those who test the virus properly, fill out the postal and return it, are promised a full package of virus.

In testing virus it is of the utmost importance to test it upon primary cases for it cannot be expected that it will succeed in even half of those which are secondary.

We call our readers' attention to the communications received from Drs. Osborne, Anderson and Durant in regard to the value of the "Pacific Coast" virus. Dr. Osborne is evidently a competent and unprejudiced judge, being only anxious for the sake of his patients that the home production should succeed. He, in common with so many physicians who give their results, fails to state whether the vaccinations were primary or secondary. Judging from the age of the children and from the per cent of successes, it is evident that most, if not all, were secondary. In this case forty per cent is an excellent result. Neither does Dr. Anderson state whether his per cents of successful cases are primary or secondary vaccinations. Ninety-five per cent should only be expected in primary cases, and would be good in those. If this result includes secondary, the Alexander virus must be very powerful and unnecessarily so, and it must produce very sore arms and often swelling of the glands. Unless a majority of his cases were primary ones, even seventy-seven per cent is higher than we should believe ought to be required of any virus to prove its efficacy. Dr. Durant's testimony should be given much weight. While in San Rafael we heard him countermand an order for 1,500 points of the San Rafael virus

and make it 500, as he wished to compare this with the Alexander (?)

We shall be glad to hear the experience of other physicians if they can give the results of careful observation.

CITY HEALTH REPORT.

The month of January for San Francisco was an exceptionally cold month, we believe the coldest for many years; in fact the coldest within the memory of the oldest inhabitants. Certainly never before has it been possible to enjoy the luxury of a skate within the city limits as did, for several days, a gentleman and two ladies, who were fortunately provided with skates. The lowest daily mean temperature, 33.8° , occurred on Sunday the 15th, and the lowest temperature, 28.7° , was registered on the same day. For the benefit of our Eastern friends we will explain that this means 28.7° above, and not below zero.

With this cold weather there were many deaths among those with weak lungs; deaths from pneumonia, bronchitis and phthisis accounting for more than one-third of the total mortality from all causes. Among the zymotic diseases, measles and smallpox play an important part. Nine of the eleven deaths from this disease occurred in infants under two years of age.

Two-thirds of the deaths from smallpox took place in those who were between twenty and forty, one in an infant under one year and two between the age of fifteen and twenty. These figures are significant. The infant in all probability had not been vaccinated, and there were only two deaths, among those who might have been school children. As it is not known that these were school children, we may safely state that among the very large number of children who are attending school in this city no deaths have occurred. The good results of compulsory vaccination could hardly be made more evident than by this fact, but it is impressed more deeply upon the mind when it is observed that after the school age the mortality begins.

Of the twenty-seven deaths twenty-three were among men. This great difference might be explained by men being more generally exposed in the course of their vocations and perhaps to a greater indifference on the part of men to the danger of disease, and consequently indifference to vaccination.

While upon the subject of the Health Report we should like to ask how it comes to pass that alcoholism is placed under the head of zymotic diseases. Is it placed there as a joke because zymotic is derived from a Greek word meaning fermentation? Is it because fermented liquors produce this disease?

We should much prefer, in all earnestness, to place it where it rightfully belongs, under "Suicides." This heading might then be divided as are most diseases into acute and chronic, for what is chronic drunkenness but a gradual, long drawn out suicide; as fatal as the quick poison, only entailing far more suffering upon the victim and his family.

Again, does it speak well for the profession that out of forty-three cases of heart disease there should have been a failure to make a diagnosis as to the particular affection of the heart in thirty-three. Such ignorance or such carelessness must throw a very considerable doubt upon the statistics, for with what certainty can a physician declare that a patient has died of heart disease if he is unable to say whether the valves or the muscular structure of the organ be affected.

Let there then be more care demanded in this respect, for we prefer to believe that carelessness rather than ignorance is the main reason for such an indefinite and unsatisfactory report.

Under the head of atrophy, inanition and marasmus, thirty-four deaths are recorded; twenty-four of these were under one year of age. This means almost without exception, death from preventible causes. It means that these children have literally been starved to death; perhaps not from insufficient food, but from what is the same from insufficient digestible food or even from digestible food improperly given.

In noticing where these deaths occur we find that fourteen
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were in the 11th and 12th wards of the city, and that fifteen were in public institutions.

The difficulty of raising children in public Foundling Asylums and the like, is fully appreciated, but with proper knowledge of the needs of infants the majority and not the small minority, as is too frequently the case, should live.

UNPROFESSIONAL CONDUCT—AN IMPORTANT DECISION.

A recent issue of the *Chicago Times* reports the trial of Dr. J. Cresap McCoy, for practicing medicine after his license had been revoked by the State Board of Health for unprofessional conduct, which consisted in the advertisement of his purported cures. Judge Waterman decided in favor of the defendant and declared that, although the State Board might regard it as unprofessional for a physician to advertise his calling and his cures, nevertheless, it was the constitutional right of every practitioner so to do, and he could not be deprived of his inalienable privilege of "earning his bread in the calling and manner easiest to his peculiar abilities."

Such a decision, coming from a state in which medical legislation has been particularly successful, is of more than ordinary significance and clearly demonstrates that the only legal qualifications for a medical man must be of an educational nature. If the newspaper account contains a verbatim report of the judge's opinion the decision is a very rash one, and, in the interest of humanity, we earnestly hope that the time is very far distant when a man will be allowed to practice medicine "in the manner easiest to his peculiar abilities."

At the approaching meeting of the State Medical Society some plans will be introduced for placing medical legislation for the State of California upon a more solid and firm basis, and it is hoped that every one will be prepared to discuss them unfettered by the trammels of prejudice and tradition.

Under the head of "Does Regulation Regulate" will be found

some remarks on this same subject by the *St. Louis Medical and Surgical Journal.*

THE Thirty-ninth Annual Session of the American Medical Association will be held in Cincinnati, Ohio, on the days of May 8th, 9th, 10th and 11th. Secretaries of medical societies are earnestly requested to forward *at once* lists of their delegates. The following extracts will show how and through whom delegates receive their appointments:

"The delegates shall receive their appointment from permanently organized State Medical Societies, and such County and District Medical Societies as are recognized by representation in their respective State Societies, and from the Medical Department of the Army and Navy, and the Marine Hospital Services of the United States.

"Each State, County and District Medical Society entitled to representation shall have the privilege of sending to the Association one delegate for every ten of its regular resident members, and one for every additional fraction of more than half that number: *Provided*, however, that the number of delegates for any particular State, territory, county, city or town shall not exceed the ratio of one in ten of the resident physicians who may have signed the Code of Ethics of the Association."

IN looking at the last Health Report issued by the late Dr. Meares, we notice that the most prominent causes of death for the past year were: Diphtheria, 247; Typhoid Fever, 145; Phthisis, 738; Pneumonia, 300; Diseases of the Heart, 289; Encephalitis, 129; Apoplexy and Paralysis, 224; Violence, 280.

Doctor Meares attributes the deaths from diphtheria to our "elongated cesspools, miscalled sewers." He cries earnestly to the people that they remedy the fearful system of drainage which lies under the city, and recommends that the whole matter should be placed under the control of some eminent sanitary engineer. We quote from this report on another page.

Correspondence.

San Rafael Virus.

CALIFORNIA HOME FOR FEEBLE-MINDED CHILDREN.

SANTA CLARA, CAL., Feb. 16, 1888.

Editor Pacific Medical and Surgical Journal and Western Lancet.

DEAR DOCTOR—In your editorial of Feb. issue, in speaking of vaccine points, you made the statement that the Board of Health of your city have declared the San Rafael virus to be worthless. This I was surprised to learn. I am not acquainted with the proprietors or officers of the San Rafael Farm, nor am I interested in the enterprise, except on the one important point, that when I buy vaccine virus I want the best obtainable, and have a right, in common with every other physician in demanding that only a pure and reliable article shall be sold. It occurs to me that unless the Board of Health have positive and convincing proofs of the worthlessness of this virus, their statement, as quoted by you, is too sweeping and tends to unjustly discriminate against a home enterprise, that if properly conducted will prove of incalculable value to the practitioners of this coast. All other things being favorable it is an indisputable fact that the best virus is the freshest virus of a uniform strength. This should be more easily obtained from a farm in our own State than from a commercial agency or establishment three thousand miles away. For several years I have used almost exclusively the Pennsylvania (Chambersburg Farm) virus, with fairly satisfactory results, but I was then a resident of Pennsylvania and obtained the virus personally from the proprietors. Recently in vaccinating the inmates, officers and employees of this institution, I have tested the relative merits of these two brands, and it is to give you the results that I write this letter. Not knowing of the San Rafael Farm I first purchased seventy points of the Chambersburg virus—all I could obtain at the time from the dealer. These were used upon the children with an average success of twenty per cent. Later I purchased forty points of the San Rafael virus, and had fully forty per cent of "takes." I have watched the course of the latter carefully and critically, and am convinced that it is a superior virus to that used by me

at first. I like the nearness of its preparation, the vaccinations were nearer the type, their course [was free from all annoying complications, and the scars promise to be deeper and better defined. Altogether, from the samples used, I have no hesitancy in declaring the San Rafael product to be fully 100 per cent better than the Pennsylvania virus. My pleasure in using it, the satisfactory results obtained, and my firm conviction that it is a truly meritorious article explains my surprise at the action of the Board of Health.

Let me say in conclusion, that I firmly believe the best results will be obtained when every State shall establish its own vaccine farm, and leave the control and guidance of the same in the hands of its State Board of Health, or more preferably its State Medical Society. Let it be supported by the State Medical Society if you choose, and under the special attention of the local Medical Society in the county in which the farm is located. It is not necessary that the establishment be either extensive or expensive. It would pay the State to contribute yearly to its support. It would pay the State and county societies to take hold of the matter, and secure for its members the best virus at a fair charge. It would pay the taxpayer—everybody. Much of the feeling of anti-vaccinationists,—and I must also confess the chief reason for there being an anti-vaccination feeling—rests upon the mistrust and suspicion directed against the purity of the virus used. Just as there should be rigid inspection and examination of foods, beverages, and drug supplies to protect the citizen against fraud and injury, so ought there to be rigid supervision of vaccine preparation. I know of no more competent or better qualified body to assume this responsibility and use this authority, than the medical profession itself, through and by the various State and county societies.

Respectfully yours,

A. E. OSBORNE, M. D.
Superintendent.

SAN QUENTIN, CAL., February 28, 1888.

J. G. Sheppard, Agent, San Rafael, Cal.:

DEAR SIR—Your note of 25th inst., requesting me to give results of your vaccine, came to hand last night, and I hasten to reply. It is impossible, on such short notice, to give a correct

estimate of the per cent, but I can safely say that it is over 40 per cent, and, I think, will reach 50 per cent or more. I think your virus the best I have ever used. Sincerely yours,

(Signed)

T. C. DURANT, M. D.,

Physician to San Quentin Prison.

SAN RAFAEL, CAL., February 25, 1888.

DEAR DOCTOR:

In answer to the questions put to me in your note, "What have you to say for the San Rafael vaccine farm," I would briefly reply as follows:

The station was begun some four months ago to supply the region west of the Rocky Mountains as well as foreign countries closely connected by steamship lines, with active but unirritating virus. I personally for a number of years had experienced much trouble in my practice in obtaining satisfactory virus from the East or in San Francisco. The majority of virus that I received from the best Eastern propagators was spoilt in transmission by mail. Thinking that other physicians had had a like experience, and living in Marin county, the largest dairy county, I believe, in the United States, I supposed that a permanent station managed by one who felt a deep interest in animal vaccination would be welcomed, not only by the State and city Boards of Health, but by the profession generally in California. This is our *raison d'être*—the apology for our existence. Now as to what we have done.

We have put up convenient stables and an operating room, have secured grazing land and made arrangements for an ample supply of healthy calves. Have made diligent search for cases of the so-called "spontaneous cowpox," and also experiments with most of the virus propagated in the United States. This has involved an expenditure of about \$2,500. Upwards of one hundred animals of the bovine species have been inoculated, and the greater portion of the resulting virus has been tested thoroughly by vaccinations of other animals and in children by myself and others. For some time we continued our inoculations without issuing the resulting virus, but owing to a sudden demand, before the station was fully in working order, we reluctantly furnished the San Francisco Board of Health (who, we were told, were being cornered by dealers) with a number of

thousand points, and at the same time placed our virus on the market. Owing to the suddenness of this demand we were unable to hold back the virus from each animal for the four or five days necessary to test it by human vaccination, but unfortunately for us only made frequent tests, issuing the virus as produced—but only virus taken from calves in whom the vaccine vesicles seemed to be perfectly formed. To make this keep the better it was dried over sulphuric acid. We have since found that some of the animals whose virus we issued were barren, and we have so far as possible called it in, replacing it with active virus or returning the amount paid.

That much of the virus at first issued was active, our own vaccinations proved as well as the reports from other physicians. Thus, Dr. Winslow Anderson of San Francisco, one of the vaccinators of the Board of Health of that city, and whose vaccinations in the last few months have amounted to upwards of 4,000, reported to the Board of Health the testing of 400 of our points in primary and secondary cases as they presented themselves to him, with success in 280 or 70 per cent. He explains to me that by successful he did not mean raspberry excrescences or scrofulous scales, but a circular vesicle with a depressed center and a well formed areola.

Since our unfortunate experience with the Board of Health of San Francisco we have endeavored to protect ourselves from hostile criticism by a careful testing of the virus of each animal before issuing it, and we believe that the virus since issued has given satisfaction. At any rate, our order book shows repeated orders from the same persons, and letters inform us of it taking where other virus had failed, and of the absence of undue irritating effects. Out of 1,100 points sent last week to the State Prison at San Quentin, Dr. Durant reports over 50 per cent successful, almost entirely in secondary cases, as every prisoner is vaccinated on admittance to the prison.

Not to be tedious, I will only add a few words. It is our intention to furnish active but non-irritating virus to all who need it west of the Rocky mountains, and to do so not for a month or a year, but gradually to build up a permanent station, and in furtherance of this object we have and are now making numerous experiments and are collecting an ample library on this subject, and also corresponding with those who have devoted much time to animal vaccinations.

In conclusion I would mention that out of some 600 samples of virus—many doubtless from barren calves—sent some time ago to physicians in this State, with a request that they report the results of vaccinations, only six answers have been received—one per cent. It seems evident that the profession in California does not feel much interest in the propagating of animal virus on this Coast.

Four thousand six hundred points were furnished the San Francisco Board of Health. These were sold “with the knowledge that each batch had not been separately tested, and with our usual guarantee of making good any points failing in primary cases.” In the daily papers they report 300 points used with one “take,” and this at a time when Dr. Anderson’s report was in the pocket of one of the members, giving 70 per cent of successes. This Board has taken our time and labor, as well as material, and have refused to audit the bill that they requested us to send them, at six cents a point. No reclamation for inactive points in primary cases has been made on us. Neither the action of the profession nor of this Board of Health is calculated to encourage an enterprise of this kind that can from its very nature do little more than pay its expenses, and must necessarily be accompanied by much annoyance. I have, however, to return thanks to many physicians and others who have reported results *without being asked to do so*.

This, my dear doctor, is my answer to your question, and you are at liberty to publish it if you see fit.

H. A. DuBois, M. D.

Clark Bell Medico-Legal Society.

NEW YORK, January, 1888.

MY DEAR SIR:

It is proposed to nationalize the Medico-Legal Society by extending its membership into each State and Territory of the Union, where members do not now reside, and to elect at least ten names in each.

We have at present members in all the States except thirteen, and in all the Territories except four, and steps will at once be taken to address distinguished and representative men in those States and Territories.

We wish to be on more intimate relations with those men in

each State who take an interest in medical jurisprudence, and we shall ask Judges and prominent men of both professions in each of the States and Territories to unite with a view of placing the progress of the science in America upon a higher and more important basis, which, if successful, cannot fail to be of the greatest possible advantage to its advancement, and add to the dignity and usefulness of both professions in America.

The plan proposed is:

First—To reduce our annual dues, to the members residing outside the State of New York, to \$2 per annum.

Second—We shall send the *Journal* free to such members, the subscription price of which alone is \$3 per annum.

Third—We now vote by mail by ballot, at our annual elections, and the presence of members at meetings is not indispensable. The *Journal* contains full accounts of our transactions and the papers read.

Fourth—It proposes to elect a Vice-President of the Society from each State and Territory, and to ask the members from each to report all cases of interest to the science at once to the editor of the *Journal* or the President of the Society, with a view of bringing the study of the science, and of all questions arising within this country, at once to the attention of the Society and its members.

This plan and movement has met the approval of distinguished gentlemen in various sections of the Union. Judge Somerville, of the Supreme Court of Alabama, and Dr. P. Bryce, Superintendent of the State Lunatic Asylum at Tuscaloosa, will lead the movement in that State, and have consented to favor it actively in the Southeastern States. Gov. Robert S. Green, of New Jersey, will lead in that State. Dr. McClellan, of Knoxville, Ill., and some friends in Chicago, will lead there. Wm. M. Taylor, Vice-President of the Connecticut Mutual Life Insurance Company, and Dr. Gieb, of Stamford, will lead the movement in Connecticut. Dr. R. E. Young, Superintendent of Asylum No. 3, in Nevada, Mo., will lead the movement in that State, aided by distinguished members of both professions, while prominent gentlemen in various other States have consented to aid the movement.

I send herewith current number of the *Medico-Legal Journal*, which contains a list of our active and corresponding members at the present moment. As this movement will be addressed

largely to the judiciary, upon the legal side, it may be proper to mention the following Judges and ex-Judges in this State who are now members of the body:

Ex-Chief Justice Noah Davis, of the Supreme Court; ex-Judge William H. Arnoux, Judge Miles Beach, Judge Richard W. Busteed, ex-Surrogate D. C. Calvin, ex-Judge R. Dillon, ex-Judge A. J. Dittenhoefer, ex-Judge Charles Donohue, District Attorney John R. Fellows, ex-Judge S. Burdett Haight, ex-Judge M. S. Isaacs, Judge George L. Ingraham, ex-Judge P. J. Joachimson, ex-Judge J. M. McCarthy, Chief Justice David McAdam, ex-Judge Markus Otterburg, Judge Calvin E. Pratt, Chief Justice Sedgewick and ex-Judge G. M. Speir.

If this meets your approval, sign enclosed consent, and I will propose your name for membership.

I will thank you to send me the names and addresses of such leading men of both professions in your State, and the State adjoining your own, as you think will be likely to unite with this body in the proposed movement. I remain, sir, with great respect,

Very faithfully yours,

CLARK BELL.

Tait-Sanger Controversy.

SAN FRANCISCO, February 20, 1888.

Editor of the Pacific Medical and Surgical Journal:

DEAR SIR—In the February number of your journal there appears an address by Lawson Tait, on "The Development of Surgery and the Germ Theory," which is highly interesting. In consequence of the universal celebrity attained by Tait, any production from his pen is accepted by the majority of readers without controversy. A part of the "Address" deals with invectives against German medical science, and chiefly against Dr. Sanger, of Leipsic, one of the most noted gynaecologists of Germany. Tait, in his address, says: "I am induced to select this (the discussion of inflammatory disease of the Fallopian tubes) because I have been savagely attacked recently by several German authorities, notably by Dr. Sanger, of Leipsic, and by others, at the recent Surgical Congress. Dr. Sanger's style of language is such that I could not emulate it, and should be sorry to attempt an imitation of it. Dr. Sanger has such a low

opinion of my abilities and my work, that he goes so far as to recommend me to learn to read German, and to read the works of German gynæcologists." Dr. Sanger, in an elaborate letter to the Gynæcological Society of Chicago, in answer to a communication by Tait to the same Society, pointed out in detail his views on salpingitis. Believing that Sanger will no longer enter into a polemical discussion on purely personal grounds, I deem it necessary, in the interest of truth and justice, to briefly review their correspondence.

At a meeting of the Gynæcological Society of Chicago¹, held February 19, 1886, a paper on "Laparotomy for Pelvic Abscess," by Dr. Jackson, was read by the Secretary, Dr. Sawyer. In the discussion which followed, Dr. Christian Fenger said: "Concerning the etiology of pelvic abscess, I should like to call attention to the literature of the subject. Sanger, whose statements regarding etiology I have found to be the most complete, says that one out of nine of all gynæcological affections is of gonorrhœic character. He further says that fifty per centum of these are diseases of the uterine appendages; although, of course, any part of the genital tract may be primarily invaded. In the Fallopian tubes, he finds that disease most often has its principal focus, where it begins and whence it spreads. He distinguishes six kinds of salpingitis: (1) septic, puerperal and non-puerperal; (2) tuberculous; (3) syphilitic; (4) actinomycotic; (5) gonorrhœic; (6) a mixed form. The gonorrhœic is the most common form of the disease, and it produces the most severe cases of pelvic inflammation."

At a meeting of the same Society², held May 28th, 1886, the Secretary, Dr. Sawyer, read a letter from Lawson Tait, the following of which is an extract: "If not too late, I should like to take part in the discussion which was entered at the Gynæcological Society of your city upon Abdominal Section for Pelvic Abscess." * * * I object to the use of words ending in 'otomy.' * * * I wish also to protest against the absurd distinctions drawn by Sanger, which are quoted by Dr. Fenger on the subject of pelvic abscess. He distinguishes six kinds of salpingitis:

"1. Septic, the evidence of which I entirely dispute as a specific ailment.

(1) *The American Journal of Obstetrics, etc.*, June, 1886, page 645.

(2) *Ibid.*, September, 1886, page 971.

" 2. Tuberculous, which again I deny, except that it has a existence as the third and contracting stage of pyo-salpinx.

" 3. Syphilitic; not one particle of evidence of this have ever seen.

" 4. Actino-mycotic, which is an equally ridiculous subdivision based on nerve theory, not on fact.

" 5. Gonorrhreal; to which the great half of the cases belong

" 6. A mixed form. Instead of this sixth, or mixed form I would say, that there are a great many cases to which we can not attribute any actual origin."

At a meeting of the same Society, 3rd December, 1886 the Secretary, Sawyer, read a communication from M. Sanger M. D., in reply to a letter by Mr. Lawson Tait, read before this Society May 28th, 1886.

Dr. Sanger in his letter replies, that the etiological division of salpingitis are not the products of the imagination, but based on clinical and pathological observations by himself and others. The following are a few literal extracts from his letter.

" Nobody will dispute that up to the present time Mr. Lawson Tait, of all laparotomists, has had the best results, at all event in regard to ovariotomy and salpingo-oophorectomy. His practical results have, however, raised his conceit to so high a degree that in pathological questions, also, he assumes a certain infallibility, which vents itself in numerous sallies and attack upon others."

With reference to tuberculous salpingitis Sanger says: " Alfred Hegar's lately published work, Elsdeburg, Diagnos und Chirurgische Behandlung der Genital tuberkulose der Weibes, relieves me of the necessity of entering more fully into the consideration of this form of salpingitis. Lawson Tait denies the existence of this form or rather he admits it, but only for the third and contracting stage of pyo-salpinx. This admission simply discloses his ignorance of the true nature of tuberculosis infection."

Referring to actino-mycotic salpingitis, Sanger remarks " This form is called by Lawson Tait, 'an equally ridiculous subdivision based on mere theory, not on fact.' It seems to me before making such an unintelligible assertion it would have been his duty to inquire whether there really is no case on record to support me in including this form in my enumeration. I

my paper above mentioned I named the author who had furnished this case. * * * What Lawson Tait does not know has no existence for him."

With reference to the septic salpingitis, Sanger writes, "What I desire to prove is, briefly, as follows: 1.—Numerous cases of salpingitis purulenta (pyo-salpinx) are due to traumatic infection —are septic forms of salpingitis. 2.—There are as many forms of septic salpingitis as there are forms of traumatic infection, and of microbes producing the same. There is, however, an additional reason why Lawson Tait denies septic salpingitis to be a specific ailment. As we see from his startling remarks in the *Medical News*, April 24, 1886, he does not believe in sepsis at all, does not believe in infection, and denies the principles on which the practice of modern surgery and obstetrics is based. He has been taught nothing by the researches of Semmelweis and Lister, Pasteur and Koch. And why? Because his own success in combating septic infection is to him proof of the non-existence of septic infection."

Sanger concludes his communication with the following remark: "In a man like Lawson Tait, so great in his own estimation, it seems rather small to conceal his ignorance by resorting to insulting and scurrilous remarks in regard to German scientists. I advise Mr. Lawson Tait to learn German and to read the works of German gynecologists; he may perhaps come to the conclusion that there is much which he might profitably study."

It is not difficult to conceive that the tone of Tait's address is, as far as Sanger is concerned, nought else but a reply to the latter's letter written to the Gynecological Society of Chicago. We can undoubtedly say that Lawson Tait has been more successful with his laparotomies than in discussion with Dr. Sanger. I hope that with the facts here presented your readers may be enabled to draw their own conclusions.

Yours respectfully,

HENRY KREUTZMANN, M. D.

728 Sutter St., San Francisco.

The St. Louis druggists put up powerful drugs and poisons in rough, prickly bottles to avoid any mistakes through carelessness or handling in the dark. The device is a simple one, and worthy of imitation.—*Western Medical Reporter*.

Translations.

By D. W. MONTGOMERY, M. D.

The Opening of Retropharyngeal Abscesses.

By DR. BURKHARDT, of Stuttgart.

Opening retropharyngeal abscesses through the mouth in infants when the infection is deep seated, and there already exists great difficulty in breathing, is a very difficult operation, and one not altogether devoid of danger.

When the operation is performed through the mouth you must forego thorough antisepsis, and very seldom can take advantage of narcosis, and keeping the abscess opening patent till the healing has taken place from the bottom, is not always easy. All these disadvantages may be gotten over by making an external opening, which is much more easily done than at first sight appears. This method has also the advantage of permitting a direct digital exploration of the abscess cavity. This same operation may also be taken advantage of in removing foreign bodies from the retropharyngeal or upper retro-oesophageal space before an abscess has had time to form.

As for the abscesses, only those are referred to in this article which are limited to the post visceral space; for if the abscess has reached a point where it can be palpated externally, then opening it by an external incision is undoubtedly the proper course to pursue.

The operation is to be carried out as follows: An incision is made through the skin and platysma, parallel with the inner border of the sterno-cleido mastoideus, at the level of the larynx. The vessels running to the thyroid gland are encountered at the level of the thyroid cartilage, and are to be shoved outwards, and the operator goes down between these vessels and the thyroid cartilage, holding well up alongside the cartilage. In this way the inner side of the carotis communis may be reached through the loose connective tissue without using the knife. At this level no vessels are given off from the inner side of the carotis communis. At the bottom of this opening, on a level with the lower pharynx, a small opening is made with the knife through the thickened connective tissue into the abscess, and then this opening is to be enlarged with a pair of fine dressing forceps. Sometimes there is a small vein beneath the platysma

which had better be tied with two ligatures and cut between.

Dr. Burkhardt has already opened three postpharyngeal abscesses. One of these abscesses was caused by a splinter of glass, which had been swallowed, and which was easily removed by the above described operation.

The author believes that the mortality of these cases, which is already very good, might be still further reduced, if the very large and deeply seated abscesses accompanied by great distress in breathing in little children were opened externally. It seems that this method of operating ought to be especially advisable in those cases of spondylitic abscess, where they have to be opened on account of danger of suffocation, or where they threaten to open into the throat. It would also be indicated in those abscesses of septic origin where it is particularly advisable to have permanent drainage, or where the abscess cavity ought to be washed out with antiseptic solution.—*Centralblatt fur Chirurgie.*

Extracts.

The Treatment of Ulcers by the Transplantation of Large Pieces of Skin, After Thiersch's Method.

By JAMES BELL, M. D., Surgeon to the Montreal General Hospital.

[Read before the Medico-Chirurgical Society of Montreal.]

While skin-grafting by Reverdin's method, which consists in the placing of small pieces of skin at intervals on a base of healthy granulations, is known to, and practiced by surgeons everywhere, the treatment of ulcers by the removal of the diseased tissues and the transplantation of large pieces of skin—a process which is known in Germany as Thiersch's method of skin transplantation—is, I believe, but little known to English and American surgeons, and but rarely practised by them. The essential principles of this method are:

- (1) That the part to be treated be prepared by the removal of all unhealthy granulations and diseased tissues generally, and be rendered thoroughly aseptic.
- (2) That the skin to be transferred to the bed thus prepared be thoroughly cleansed, rendered aseptic, and carefully removed

and applied with its under surface closely in contact with the base of the wound in such a manner as to cover it completely.

(3). That the wound be kept aseptic throughout, and disturbed as little as possible.

In preparing the ulcer it will often be necessary to dissect away the skin on which it is situated throughout its whole thickness. Sometimes, even, especially on the shin—one of the commonest sites for old ulcers—it will be necessary to remove the periosteum and perhaps chisel away the outer surface of the bone over a considerable area. This, of course, involves a good deal of bleeding, whether an Esmarch's bandage has been used or not; and it may be necessary to apply a compress firmly over the wound for an hour or two before transplanting the skin. In many cases, however, it will be sufficient to scrape away the granulation bed with a Volkmann's spoon, in which case there is usually no delay from hemorrhage. The skin to be transplanted may be taken from any convenient part of the patient's body, or from another person altogether. It is removed in strips with a sharp knife, or, preferably, a broad-bladed razor. The skin is to be taken to a depth sufficient to secure as nearly as possible the whole thickness of the epidermic layer, the rete Malpighii being the most desirable part. It does not matter if the papillary layer of the true skin is partially removed, but the corium should not be included. I do not intend to discuss this subject from a physiological or histological standpoint, but I may be permitted to say *en passant* that Prof. Thiersch, of Leipzig, after whom this operation is named, demonstrated, in 1875, on a leg which was about to be amputated, that union occurred between the skin and subjoined tissues without any intervening connecting layer, and that blood-vessels, or at least blood-spaces, which soon developed into blood-vessels, extended from the wound into the skin in as short a space of time as eighteen hours. These facts were demonstrated by injecting the leg after amputation. It was in the same year also that he (Prof. Thiersch) recommended the cutting away of the granulations before transplanting the skin. Surgical methods have, however, undergone so many changes since 1875 that I shall describe the details of the operation as I saw it generally performed in Germany during the past summer, notably in Schede's clinic in Hamburg, and as I have performed it myself in the cases which I am about to bring before you.

CASE I.—Wm. J., a healthy-looking man, but somewhat pale, an old soldier and ex-lighthouse keeper by occupation, had been exactly two months in hospital under regular treatment for an ulcer extending across the lower third of the right leg. This ulcer had originated thirteen years prior to his admission to hospital, from the stab of a game-cock's spur. It had gradually extended, and never healed in the least degree in any part, and at the time of operation covered an area of about four by five inches, its prominent features being hard, raised edges and indolent, painless granulations. During the thirteen years of its existence he had been treated at different times by a great many surgeons, but without any appreciable benefit. The operation was performed on the 7th of August last, in the following manner: The patient was anaesthetized, the leg thoroughly washed with soap and water, and irrigated with a solution of corrosive sublimate of the strength of one part in two thousand. Thinking that probably from its long standing the periosteum underneath the ulcer would be diseased, I dissected out the whole space covered by the sore, cutting through the healthy skin just beyond the margin of the granulation surface. Finding the tissues quite healthy, however, beneath this flap of skin, I merely twisted a few small vessels and applied a temporary gauze-dressing very firmly and proceeded to shave, wash and irrigate the anterior surface of the thigh. Then removing the temporary dressing, I shaved off strips of skin with a razor and carefully covered the wound with them. (A strip of skin can easily be removed with a good razor from three-quarters of an inch to an inch and a half in width and as long as you want it.) These strips of skin were placed transversely across the wound, and across them again were placed strips of silk-isenglass plaster about half an inch wide and at intervals of about half an inch apart, the plaster being wetted in the sublimate solution. The whole was then dressed with a sublimated gauze dressing. The dressing was changed on the fifth and again on the thirteenth day, and finally removed on the thirtieth day after operation, when the wound was perfectly healed. A gauze pad was then applied over the lower third of the leg to protect the newly-formed skin, and the patient was kept in hospital for about two weeks longer as a precautionary measure and then discharged. I may say here that it is not necessary to wait until the wound is absolutely dry and bleeding completely arrested before transplanting the

skin, but as soon as it has been arrested to such a degree that the strips of skin can be applied without danger of their being washed away by the blood the process may be completed.

CASE II.—R. McC., aged 50, an old soldier and an inveterate drunkard, had a chronic indolent ulcer of four and a half years standing on the middle third and anterior surface of his leg, covering an area of two and a half by three inches. He had been under treatment in hospital for seven weeks, but his ulcer had made no progress towards healing. On the 22nd of August I dissected out this ulcer and transplanted skin from the thigh, as in the last case. The dressing in this case was never changed, and was finally removed on the 15th of September, twenty-four days after operation, when the wound was found to be perfectly healed. A light gauze pad was applied over the new skin for protection and the patient discharged.

CASE III.—Jas. E., aged 14, was admitted to hospital on the 5th of July, 1887, with a crushed foot. It was found necessary to amputate his first and second toes, and extensive sloughing of the skin followed. He came under my care about the 1st of August, with a granulating sore extending from the instep, in front, to a corresponding point on the sole, continuous over the points of the metatarsal bones, from which the toes had been disarticulated, and over the inner margin of the foot, covering an area of about three by five inches. I kept this sore under observation for three weeks, and on the 23d of August, as it had made practically no progress, I operated. In this case I removed the granulation layer with a Volkmann's spoon, and transplanted from the thigh, as in the previous cases. The dressing was left undisturbed until the 14th of September, twenty-two days after operation, when the wound was perfectly healed and the boy discharged.

CASE IV.—Sarah C., aged 44, a pale, unhealthy-looking subject, was operated upon on the 26th of September. In this case the ulcer, which was about an inch and a half in width by four in length, was treated by scraping away the granulations with a Volkmann's spoon and transplanting from the thigh. The dressing was removed on the 18th of October, the twenty-second day after operation, and the wound found to be perfectly healed. A gauze pad was applied, and finally removed on the 4th of November and a flannel bandage substituted. This patient had been four weeks in hospital under ordinary treatment, and the

ulcer, which was of four and a half years standing, was making gradual, but very slow progress at the time of operation.

CASE V.—H. O., aged 43 years, was admitted to hospital for erysipelas on the 1st of August. On the 1st of September I saw him for the first time. He was then suffering from a suppurating bursitis and subcutaneous suppuration all about the right knee, with a large irregular patch of ulceration about one and a half by four and a half inches in area, on the outer side of the joint, caused by sloughing of the skin. At this time I drained and cleansed the suppurating cavities, and on the 17th of October, everything being healed but the ulceration already mentioned, I transplanted skin from the thigh. In this case, as the granulation layer was very healthy and presented an even surface, and the parts were quite aseptic, I did not remove any of the granulation tissue. The dressing was removed on the 9th of November, twenty-three days after operation, when the wound was entirely healed. This patient is still in hospital for treatment for the stiffness of his knee and a small sinus leading to the almost completely obliterated bursal cavity.

CASE VI.—A. B., a factory girl, aged 17, on the 18th of October last, got the third finger of her left hand caught in machinery, the result being that the whole of the soft tissues in front of the distal phalanx, and the skin and subjoined cellular tissue on the anterior surface of the second phalanx, were completely torn away. I saw the patient almost immediately after the accident, and as the bones, articulations and tendons were intact, I determined to try and save the finger. I could not at the time and under the circumstances transplant skin to it, but cleansed it and dressed it with sublimated gauze. On the 24th of October I transplanted a strip of skin from her arm. On the 9th of November, fifteen days after operation, I removed the dressing and found the wound entirely covered with a delicate bluish, semi-translucent film of skin.

I have since operated upon two other cases, but as the dressings have not yet been removed I cannot say anything as to the results. I may add, however, that I have given you full reports of all my cases up to date, and that I have not had even a partial failure.

These cases have no special interest in themselves, but they demonstrate the ease, certainty and rapidity with which skin

may be reproduced by this method on ulcers which cannot otherwise be induced to heal. As to its applicability, there is no class or variety of non-specific ulcer which cannot be immediately prepared for the reception of flaps of skin, nor does the size of the ulcer increase the difficulty or delay the healing. In very large ulcers, skin may be taken from a limb about to be amputated or from one or more volunteers independent of the patient. The wounds made by the removal of the skin flaps being very superficial heal rapidly, and are not followed by contraction or other ill effects of cicatrization. Every surgeon will recall cases of extensive ulceration following mechanical or chemical injury to the skin, burns, frostbites or cellulitis, or cases in which it has been necessary to remove large areas of skin for malignant growths upon or closely beneath it (as in carcinoma of the mamma for example), and in which, after months or years, a poor contracted cicatrix was the best obtainable result, while oftener, perhaps, the ulceration remained, or developing into an epithelial cancer, proved rapidly fatal. Again, how many men and women past middle life go for years and years with chronic, irritable or indolent ulcers, especially on the lower extremities, occasionally for a period inactive, or even tending to heal a little, but, on the whole, gradually increasing in superficial area and depth until amputation is called for in many cases? In all these cases we have, I believe, in this method of skin transplantation a line of treatment absolutely safe and ascertain and satisfactory as we have for any other class of surgical diseases. Its advantages over the older method of skin-grafting are obvious. It is applicable to all kinds of ulcers without preparatory treatment. It covers the whole area with skin instead of isolated points, which merely act as starting points for epithelial growth. The end is attained in an infinitely shorter space of time and with much less trouble; and finally the result is a sound skin, not a tense tissue-paper covering which will give way again on the slightest provocation.—*Canada Medical and Surg. Journal.*

SALICYLATE OF SODIUM.—It is asserted that considerable quantities of this salt are now offered which contain much more sodium than is necessary to make the salt; in other words, a large amount of uncombined carbonate or bicarbonate is present as an adulterant.

San Francisco Drainage.

The number of deaths from Diphtheria during the last eleven years, was 2,453. This is a fearful mortality to occur from a single disease usually considered preventable. It is due, in my opinion, to the disgraceful condition of our drainage system, particularly south of Market street. This portion of the city is the hot-bed which propagates this disease, and from which the germs are transplanted to other localities. I desire to refer you to my recommendations in regard to these conditions in my former reports.

San Francisco has never been in a more prosperous condition than we find it to-day. The best evidence of this fact is, that the mechanic and laborer have no difficulty in finding employment at more remunerative prices than for many years.

The continued construction of cable roads, not only giving employment during their construction, but affording employment for vast numbers after their completion; the construction of the Union Iron Works; our various canning factories, added to other great industries, have advanced the prosperity of the city to an extent which was not anticipated a few years ago. It is this prosperity which has, more than any other cause, awakened the intelligence of the city to the importance of sanitary reform. The lethargy which has characterized our administration heretofore ought not hereafter to be tolerated by the citizens of San Francisco. The Press, and the intelligence of the city generally, demand that San Francisco shall be no longer cursed with disgraceful streets, sidewalks, and disease-breeding elongated cess-pools, miscalled sewers.

It is true, our death rate is less than that of most cities of the same population, yet the above table shows that Diphtheria is a fixed disease here—more so than in any other city. Our mortuary report also shows that of the 247 deaths from Diphtheria 240 were under 20 years of age. This cold statement of a fact, that a certain number of deaths were caused by any disease during the year, tells not of the distress and suffering caused thereby; of the loss of entire families of children; of the blasted hopes and utter despair of parents, who continue to live with nothing to live for, their hearts pierced by arrows of mourning, distress and unutterable woe. These deaths occur, not among the old and decrepid, whose life of usefulness has passed away forever, but, as the statistics show, it seeks for its victims those under

the age of 20, without regard to sex or condition—those whose lives of usefulness are just beginning, and upon whom the future prosperity of San Francisco so much depends. No one, except he were absolutely ignorant of the condition of affairs, will suppose that the drainage system of this city can ever be reconstructed properly by ordinary taxation. The issuance of bonds is absolutely necessary, and nine-tenths of the taxpayers, in my opinion, would so vote if they believed the money would be honestly and economically expended. To pay the interest on these bonds would cost less money than now expended in the construction and reconstruction of sewers and the improvement of streets.

It must be remembered, also, that a great deal of the work which is now done must, in the near future, be thrown away. A brick sewer is frequently constructed to replace an old and decayed wooden one, but, the fall being insufficient, you are frequently substituting an elongated cesspool made of brick instead of wood.

This whole matter, as I have been recommending for eleven years, should be under the control of some eminent sanitary engineer.—*Dr. Meares' Health Report.*

*Does Regulation Regulate ?

A recent decision made by an Illinois Court, in reference to the rescinding of a license to practice medicine, is one which we fear will be far-reaching in its effects for evil. The defendant had his license revoked by the Board because he advertised in the newspapers, this being considered unprofessional conduct by the Illinois State Board of Health. The Court in its decision made two points which are undoubtedly sound law. In the first place it maintains that the board cannot take action without first notifying the defendant of the contemplated action and thus affording him an opportunity of defending his position. In the next place, the Court contends that the right to advertise one's business is one which every citizen enjoys and of which he cannot be deprived; that physicians as a class cannot be discriminated against any more than the members of any other profession, trade or of any mercantile business. If this is true, and it looks that way; or if the Court is upheld in its decision, the most disastrous results, so far as the controlling powers of the Board are concerned, are very apt to follow. The prestige so long en-

joyed by this body will slip from its grasp and quacks and charlatans will have things pretty much as they like.

If a State Board of Health is not permitted to regulate the issuance of licenses to physicians, what is the proper remedy? This is a question the solution of which is of vital importance to reputable practitioners of medicine, not only in Illinois, but in every State of the Union. In such a contingency there can be but one course left, and that is to adopt the system pursued in some countries of Europe, viz.: Accept the diploma of no school and make the qualification of a physician the passing of a successful examination, before a board appointed by the government. Of course several boards could be appointed to act in different sections of the country, but a uniform system of examinations conducted by competent and honest men would give us a better class of physicians and we will venture to assert that there is not a reputable medical college which would oppose such a system.

The State Boards of Health have endeavored to perform some things not only beyond their domain, but also beyond the ordinary powers of individuals. They have endeavored to make some physicians reputable who have no tendencies in that direction, a function which we think should be relegated to the domain of pure ethics. Moreover, they have not yet succeeded in educating the public to the level of this moral code and until they do, the former task will be a well nigh hopeless one.—*St. Louis Med. and Sur. Journal.*

Cutaneous Photography Made Easy.

By HENRY G. PIFFARD, M. D., New York.

The desirability of keeping a permanent pictorial record of important and interesting cases of cutaneous disease is fully appreciated by every working dermatologist; but thus far the difficulties in the way of giving this practical effect have been so great that comparatively few pictures have been taken except by those who have given the matter special attention.

The chief obstacle has been the difficulty of securing in the consulting-room a sufficient and a proper distribution of the light, making it necessary in most cases to take the patient to the operating rooms of the professional photographer. To this many patients object. Even when they consent, an hour's time is lost for each negative secured.

My purpose this evening is to bring to your notice a simple method, devised by myself, whereby these inconveniences may be reduced to the minimum. The method referred to relates to the illumination of the subject, and not to any special construction of the photographic apparatus.

In my own office if diffused sunlight be used on a bright day, an exposure of thirty to sixty seconds has often been necessary; but with the new method equally good pictures may be taken in the night or in a darkened room in a fraction of a second. This is brought about by the use of an artificial light produced by the instantaneous combustion of magnesium powder. This gives a momentary flash of light of surprising brilliancy and amply sufficient for the purpose.

Magnesium by itself will not ignite or burn as rapidly as when in contact with some more easily inflammable substance, and I find by experiment that ordinary photographer's pyroxylin, or gun-cotton, is admirably adapted to the purpose in view.

The magnesium and cotton are arranged for use in the following manner: A tuft of cotton weighing about seven or eight grains is spread out as a thin layer on any metallic surface, as a stove-lid or tin plate. Ten or twelve grains of magnesium powder is next sprinkled evenly over the cotton.

The patient is then brought into position and the focus obtained in the usual manner. If in the day time, daylight may be used for focussing, but if at night or in a darkened room, a candle or lamp held near the patient will answer as well.

The cotton-magnesium is now adjusted or held by the side of the camera and slightly in advance of the lens, care being taken not to bring it within the view angle of the lens. The plate holder is then affixed to the camera and the slide withdrawn. The room is then absolutely darkened, and the lens is uncapped. All being now ready, a lighted taper is applied to the cotton. This is followed by an instant flash which takes the picture. The lens is capped, the slide of the plate-holder is returned to its place, and the plate is ready for development, either by the operator if sufficiently skilled, or by a professional photographer, if desired.

Since my first publication of this instantaneous flash process, a large number of substitutes for the cotton-magnesium combination have appeared. These are all in powder form and many of them contain chloride of potassium as an ingredient. Such

mixtures are liable to premature and unexpected explosion and are not to be recommended when absolute safety is a desideratum.* Care, therefore, should be taken to obtain a mixture entirely free from this objectionable substance.

When a full-length figure is to be taken, in order to show the generalization of an eruption, I am in the habit of using the photogenic mixture in a pistol cartridge, and firing it from the weapon in the usual manner.

As regards the photographic apparatus available for office photography, I would strongly recommend for general use a rectilinear lens of eight to nine inches focus and a camera taking a 5 x 7 plate. The pictures that may be taken by the method here described are fully equal to those taken by daylight in a regular gallery, but in each case the excellence of the picture will depend in great measure on the quality of the lens and the skill displayed in the development of the plate. With the exception of development, all other manipulations may be learned in ten minutes from any practical photographer.—*Jour. of Cutaneous and Genito-Urinary Diseases.*

Jeffries' Anti-Bacterial Action of Iodoform.

The germicidal power of iodoform has again been called in question, and a fresh series of experiments have been performed without materially changing the dictum of the majority of observers. Mikuliez, the first who really attempted to study the matter, apparently showed a slight inhibitory action of the iodoform in bacterial growth. Others followed in about the same lines, until Heyn and Roosing made elaborate experiments, and declared that iodoform was "no antiseptic," and was "not indicated in surgery as at present applied." Lubbert confirmed this conclusion; and Roosing, by inoculation experiments, still further showed the uselessness of iodoform as a germicide, and Lubbert again corroborated his result. Sattler, experimenting with infected threads, reached similar conclusions. Up to the time of the author's own experiments, this was the universal result, except that Sanger claimed that iodoform limited the growth of the anthrax bacillus, and prevented their taking in a reinoculation. The author reports in detail sixteen experiments and control experiments. The result was uniform, no matter what

*Since the above was written, an explosion, causing death, has resulted from one of these chloral or potash mixtures

bacillus was used, or what medium in which it was grown—no matter in what manner or how much iodoform was used. In every instance bacillary growth took place, and pure cultures were possible from the growth. The best that could be said for the drug was that, in some instances, in these and other experiments, it seemed to retard growth; but the getting of cultures disproved Sanger's statement of the impossibility of the reinoculation with anthrax. Finally cultures were made and colonies were counted, and here, for the first time, was proof "from laboratory experiments" of a detrimental action of iodoform on bacteria; for, by counting, the difference "was clearly brought out." From "two to four" times as many colonies developed in culture medium *not* containing iodoform, as in that which did contain it. This substantiates the original statement of Mikulicz. Culture experiments done on old ulcers of the leg agreed in result with this. How the iodoform acts is not clear. Behring claimed that it was decomposed and set free acetylen; the author failed to distinguish free iodine; he suggests that it may have acted mechanically in the experiments. He summarizes, that, "looked at from the clinical side, the ultimate object of all medical research, the following rules may be accepted:

"1. Iodoform, not being a germicide, is not a fit substance to use to procure asepsis of instruments, materials or wounds.

"2. Iodoform is allowable, with the present state of our pharmacopœia, in infected wounds, where true germicides are contra-indicated, as by danger of poisoning or impracticability.

"3. As has long been known, iodoform has a decided tendency to stop serous oozing, and, therefore, may be indicated in wounds where the moisture threatens the integrity of the aseptic or antiseptic dressing."

Some experiments by the author with iodol and salol gave results similar to those with iodoform. H. M. S.

—*American Journal Medical Sciences, January, 1888.*

Munoz: Apomorphine in the Treatment of Diphtheria.

The state of asphyxia which results from the presence of false membranes in the larynx often prevents the action of emetics, and the child dies unless tracheotomy is hastily performed. In such cases apomorphine has been found very effective, for its emetic action is not interfered with whatever the

degree of laryngeal obstruction may be. The quantity which may be given should not ordinarily exceed one centigramme, though Dujardin-Beaumetz thinks that fifteen milligrammes may be given with safety in some cases. Other authors advise more cautious use of this powerful drug, and think that not more than two to four milligrammes should be given, for fear of collapse and syncope. The drug may be dissolved in cold, but better in warm, water. It should be prepared freshly for each occasion, and should be administered hypodermically. Some writers see no advantage in fresh solutions, and insist that there is no danger of decomposition. It is thought that the accidents from the use of the drug have occurred in cases in which it was impure or badly prepared. The same emetic effects may be produced with solutions of the hydrochlorate of apocodeine or aponarceine.—*El Prog. Ginecol.*, July 10, 1887.—*Archives of Pediatrics.*

Obstetric Practice in Rural Districts.

In the Edinburgh Medical Journal, Dr. Wm. Fairbanks writes a very sensible and practical paper on this subject. He says that he has kept a careful register of all his obstetric cases, and that the series reported at present comprises the cases treated between 1874 and 1884. He hopes that the statistics which he presents, while inadequate in themselves, may serve to modify in the direction of truth the equally insufficient data of other records.

The series comprises: Natural labors, 538; operative labors, 107; total, 645. Forceps cases, 82; turning, 10; craniotomy, 10; induction, 5. Presentation: Vertex, 614; brow, 1; face, 1; breech, 17; foot, 5; shoulder, 2; hand, 5. Maternal deaths, 5; infantile deaths, non-viable, 14; premature, 7; full time, 40. Mortality in forcep cases: Mother, 1; child, 0. Twins, 8; placenta previa, 3; placenta adherent or retained, 5; post-partum hemorrhage, 8; spontaneous evolution (seven months,) 1; hydrocephalus, 1; intra-uterine amputation of forearm, 1. Youngest mother fourteen years and three days. Longest interval between two pregnancies, during married life, twenty-one years.

Of the five maternal deaths, none seem to be fairly chargeable to the accoucheur.

Turning now to the infantile mortality, this must be largely

reduced before the accoucheur can account himself responsible for it. Deduct cases in which the fetus was not viable, 14; cases where the child was born before Dr. Fairbanks was called in, 11; cases in which the child had long been dead, 6; total, 31; and the infantile mortality for which he is accountable is thirty, or nearly 5 per cent. The causes of death in these thirty cases were: Premature birth, 6; *ante-partum* hemorrhage, 5; craniotomy, 8; turning, 1; prolapsed funis, 2; prolapsed funis and turning, 3; breech presentation, 1; hydrocephalus, 1; induction, 2; induction and turning, 1; total, 30.

With reference to craniotomy, he says: "Many things must happen, and a new generation arise, before the various cutting operations will supplant craniotomy in moderate degrees of pelvic contraction." For this he gives the following reasons: (1) Craniotomy in such cases, when done at the proper time and carefully, does not add appreciably to the mother's risk. (2) The cutting operation does add to the mother's risk, and she and her friends know it. (3) Patients refuse to be operated on.

With reference to the use of forceps, he says that the more frequently a practitioner uses the forceps the larger in all probability will be his proportion of easy forceps cases, and therefore his statistics will look better in this respect than those of a man who postpones the use of the forceps until the case is desperate. Yet it may reasonably be a subject of inquiry, whether any percentage of instrumental interference should lay one open to the charge of meddlesomeness. His rule is never to interfere except in the best interests of mother and child, never merely to save his own time. This is the best and only test a practitioner need regard, and in applying it with cultivated judgment he has no censor but his own conscience.

As to the time at which it is desirable to interfere instrumentally in labor, Dr. Fairbanks says: "The length and character of the first stage helps to determine the point. The strength and temperament of the patient are also factors in the case. But the great question to be settled is this: Are the pains telling upon the patient in a degree out of proportion to their effect upon the progress of labor? If they are, it will not be very long before help is called for." He seldom allows strong expulsive pains to go on for more than one and a half to two hours after full dilatation of the cervix, unless they are manifestly equal to the occasion; and if pains become feeble, after having

been in good force for an hour or so, the forceps are generally resorted to.

With regard to the use of ergot he says: "In three-fourths of the foregoing cases the older practitioners would have used it, and sooner or later let us hope, the babies would have been born, but the mortality table would probably have been very different. Angus McDonald's words in, if I mistake not, his first course of lectures to four of us students, have a permanent place in my memory. 'In midwifery practice always prefer steel to ergot,' and so I have. My rules for giving ergot have been: Never give it to a tired uterus. Never give it in a first labor. Never give it in a case of grave disproportion. Don't give it in cases of slight disproportion. Hardly ever give it till the head is born. From the present series of cases it would be easy to illustrate and establish these rules, but I fancy they are almost generally accepted."

He is in the habit of inducing labor by means of the elastic rubber catheter or with Barnes' bags. Chloroform, he says, is seldom needed for the women among whom he has practiced, even in forceps cases, turning or craniotomy. He speaks disparagingly of the value of chloral as an anodyne in painful and tedious dilatation of the cervix.

With regard to rupture of the perineum he does not seem to think that sewing up slight tears is necessary. He speaks confidently of having saved severe lacerations by using the forceps, while the bad tears which occurred were in cases in which the forceps had not been applied.—*Am. Practitioner and News.*

The Cold-Bath Treatment of Fevers.

The modern use of cold applications in exanthematous and continued fevers may almost be said to date from Currie, who made a specialty of this treatment toward the close of the last century. Currie preferred cold affusions to cold baths. Then came Giannini, of Milan, about the beginning of this century, who employed cold baths, defended his practice on scientific grounds, and was the real founder of Brand's method. In 1812, Recamier, in the Hotel Dieu, Paris, treated typhoid fever by cold baths; patients were kept fifteen minutes at a time in a bath of 68° to 70° F., and were given two or three baths a day. In 1822, Fröhlich, in Germany, published a prize treatise on the treatment of acute febrile affections by cold water. He re-

ported a number of successful cases, and claimed superior efficacy for this mode of treatment. About the year 1843, we find Scontteten and the physicians of the Faculty of Strasburg employing the hydrotherapeutic procedures of Priessnitz in typhoid fever; and, a few years later, Jacquez, of Lure, and Leroy, of Bethune, published valuable monographs on the refrigerant treatment of fevers.

The first work of Brand, who is distinguished by the precision and rigorousness with which he has conducted the hydrotherapeutic management of fevers, and whose name is now everywhere connected with this mode of treatment, was published in 1861; and since that date, a succession of treatises from the same hand, from 1861 to 1877, have appeared on this subject. This method soon became generally adopted throughout Germany, where it was advocated by Liebermeister and other of the leading medical authorities of that empire. It was introduced into France by Glenard about the year 1871, and has been the dominant therapeutic system at the hospitals of Lyons, although not adopted to any extent in the other French hospitals. It need hardly be said that the cold-water treatment of fevers has never become popular in this country or in England.

At the onset of his clinical experimentation, Brand made use of affusions and of the partial half-bath of Priessnitz; in his later publications he abandons all these hydrotherapeutic procedures, and replaces them by the cold bath. The temperature of the patient is taken every three hours, night and day, and, whenever it is found to be above 103° F., the patient is plunged into a cold bath. Brand has claimed for this method, when carried out in all its rigorousness, and from the very inception of the fever, extraordinary results.

At the close of a series of "conferences" on "hydrotherapy" in recent numbers of the *Bulletin General de Thérapéutique*, and *Therapeutic Gazette*, Dujardin-Beaumetz, to whom we are indebted for the above concise summary of facts, takes up the cold water treatment of fevers. The fact of a physiological depression of temperature, amounting to several degrees, under the influence of cold baths, is unquestionable; the main question, however, according to Beaumetz, is whether this artificial bringing down of the fever heat does any good or not. This inquiry must be answered in the negative if it shall be found, on careful experimentation, that the production of heat in the organism is

increased, rather than diminished, by the cold baths. It seems to have been sufficiently demonstrated that the danger from hyperthermia results not so much from the elevation of the temperature itself, as from the exaggerated activity of the phenomena of organic combustion which produce this hyperthermia, and that the real indication is to combat this excessive thermogenesis. Whether cold baths fulfil this indication or not, must be determined by experimentation.

Within the past few years, careful series of experiments have been made by Fredericq, of Liege, and by Quinquand, of Paris, which seem definitely to have settled the dispute. Fredericq made use of the wellknown apparatus of Regnault and Reisset, devised for the study of the gases of respiration. He modified the apparatus so as to make it applicable to man, in order to show that cold, "when acting on the cutaneous surface of the human subject, markedly augments the absorption of oxygen and the production of carbonic acid, and, consequently, the production of heat." Fredericq concludes that, far from slowing the interstitial combustions, cold powerfully excites them.

Quinquand, by very careful experiments made on animals, confirms the conclusions at which Fredericq had arrived by his experiments on man. He also states that, under the influence of cold baths, both the absorption of oxygen and the elimination of carbonic acid are markedly increased. Then, taking up the study of the influence of cold baths on the elementary nutrition by the aid of the simultaneous analysis of the gases of the arterial and venous blood of the peripheral circulation and of the right heart, Quinquand finds that cold baths augment the activity of the interstitial combustions. Completing his researches by calorimetric studies, he has, lastly, shown that the heat-units emitted in a given time increase under the influence of cold baths.

"These accurate experiments," says Beaumetz, "ought henceforth to settle this question; and we are now warranted in affirming, as a physiological truth, that under the influence of cold baths the organic combustions are enhanced, on condition, always, that the refrigeration shall not exceed certain limits, and shall not reduce the rectal temperature of the subject under experimentation below 86° F."

It would seem, then, that apart from the tonic effects of the baths (which are doubtless considerable) but a sorry benefit can

be derived from a mode of treatment which increases the combustions of the economy. This it is which explains the superior efficacy of antithermic medicines, such as acetanilide and antipyrine, which in some yet unknown way restrain thermogenesis. A ten-grain dose of antipyrine or half the quantity of antifebrine, given to an adult patient, and repeated every hour till the usual physiological effects are obtained, will bring down the pyrexical temperature quite as certainly as a cold bath, and with greater safety, comfort and benefit to the patient.—*Editorial in Boston Med. Jour.*

RAPID ANÆSTHESIA.—A novel suggestion has been made by Dr. Corning, with the object of facilitating the administration of and recovery from anæsthetics. He applies a strong, flat, elastic tourniquet round each of the patient's thighs, so as to arrest both the arterial and venous blood flow in the same. By this procedure each limb is converted into a species of receptaculum for a considerable portion of the total blood mass, or, as somebody expressed it, "about one-third of the mass was cut off," and consequently it was only necessary to saturate the remaining two-thirds (of the total blood mass). The ligatures being in place, the ether cone is applied over the mouth and face of the patient, and in about three minutes by the watch, the patient is anæsthetized. On the completion of the operation the ligatures are removed, and the patient recovers from the effects of the ether instantly. This rapid recovery from the effects of the anæsthetic in the patients experimented upon elicited considerable comment from the medical gentlemen present, and it is certainly a very interesting phenomenon from whatever physiological standpoint one chooses to view it.—*Medical Press and Circular.—The Cin. Lancet-Clinic.*

A SIMPLE METHOD OF DISLODGING IMPACTED GALL-STONES.—Lawson Tait describes the following simple procedure, which he has used in one case successfully. It consists in passing a fine needle through the wall of the intestine from below (that is from the empty part of the intestine) into the gall-stone. The stone is thus easily and immediately split up into fragments and passes readily along the intestine, and the grave complication of opening the intestine is rendered unnecessary. The operation is, in fact, little more than an exploratory incision.—*Lancet, Dec. 10, 1887.—Medical Age.*

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Original Articles.

CHOLECYSTOTOMY.

By C. VON HOFFMAN, M. D.

[Read before the San Francisco County Medical Society, January, 1888.]

November 8th, 1887, Miss L—— came to my office. She was about fifty years old. She complained of pain in the right side in the region of the liver. Her appetite had been poor for two or three weeks. The bowels were constipated. The skin showed the characteristic yellow color of jaundice. The liver was enlarged for about the width of two fingers below the ribs. Pressure was very painful. She never had icterus before. November 14th she entered the German Hospital. The color of the skin had become darker. The worst pain was localized between the cartilages of the 7th and 8th ribs, but often extended to the median line. The usual remedies were given, but without any result. The stools always showed the absence of bile. If at any time there was any change in the color of the skin, it tended to a deeper yellow brown. The appetite was very capricious. Itching of the skin was not constantly present and could be controlled by hot baths. In the first week of December the temperature began to rise in the afternoon, and in the second week chills appeared. After putting her under the influence of ether, the lower edge of the liver could be felt very plainly, and about three and one-half inches from the umbilicus to the right a tumor of the size of a hen's egg could be made out. This

tumor felt rather hard and could be moved a little from right to left. It extended up to the liver and then disappeared to the touch, apparently continuing to the posterior surface of the liver. This tumor was, therefore, the gall-bladder, and the diagnosis was enlargement of the gall-bladder through the presence of gall-stones, which were causing suppuration. This diagnosis was confirmed two days later by Dr. Morse. He made a puncture with the needle of a hypodermic syringe. A stone could be felt very plainly, and a little brown fluid mixed with pus was drawn out. The patient consented to an operation, and on the 20th of December the operation was performed.

I made the incision of the abdominal walls vertically over the fundus of the bladder about three inches long. After opening the peritoneum the gall-bladder could be seen in the wound. The exploring finger found that it was adherent on the lower end and both sides to the omentum and intestines. These adhesions were too strong to be broken with the finger, and as I was afraid to tear the walls of the gall-bladder, it took a long time to divide them. Smith says in his "Abdominal Surgery:" "It must never be forgotten, that the walls of the bladder and its ducts are thin, friable and by no means distensible; that they may very easily be torn through; and that, if such an accident happens, the result, the creating of a biliary fistula, opening into the peritoneum, will almost certainly be fatal. Cholecystectomy is then the only resource."

After the bladder was free, I examined the ducts with the finger, but could not detect any stones in them, especially not in the common duct. Then a small trocar was pushed into the bladder but, as no bile came, withdrawn. By putting two stitches through the abdominal walls at the lower end the wound was diminished in size, so that it was filled out by the gall-bladder. Taking hold now of the bladder with a haemostatic forceps I opened it, and found that the walls were very thick, and that in this case the great precaution I took, not to tear the walls, was unnecessary. As soon as the bladder was opened, stones commenced to pour out. A small quantity of bile mixed with pus also flowed out. The stones were small ones. I then stitched the edges of the wound in the gall-bladder to the abdominal walls with a continuous suture. I tried to remove as many stones as possible with the finger, but even the fluid I used for injecting the bladder brought a good many stones out.

As the operation had lasted already one and one-half hours, I put a drainage tube into the bladder and applied the dressings.

The patient did well after the operation—had no more fever, no more chills. The next day six small stones came out. The bowels moved the second day after the operation without medicine, and the stool was brown. The icterus did not disappear. A large stone could be felt in the depth of the gall-bladder, and I tried several times to move it, but it seemed to be impacted in the neck of the gall-bladder. The stitches were removed the tenth day and the wound was healed. The opening in the gall-bladder of course remained. I tried repeatedly to extract the remaining stone, but did not succeed till the 5th of January. After it came out about twelve more stones appeared while injecting the bladder. In all about 115 stones have been found so far. In the last few days the urine has become natural; the skin, especially on the hands and arms, is becoming white, but the passages are still white, although the bowels move without purgatives. The opening in the gall-bladder remains, and a good deal of bile is found every morning in the absorbent cotton, which is used as a dressing.

The history of the operations on the gall-bladder is given very extensively by Dr. Roth in *Langenbuch's Archiv.*, XXXII, 1. Thudicum says that, as early as 1618, Johannes Fabricius removed two large stones from the gall-bladder, but it is not quite clear whether the operation was not done post-mortem. In 1733, Petit was the first one who studied the diseases of the gall-bladder and ducts, and describes how to open the gall-bladder, especially when it is adherent. Besides that, he knew of puncture of the bladder and lithotomy. Since his publications very little advance was made. All physicians who wrote about the operation wanted to open the bladder, either when the bladder was adherent to the abdominal walls, or they tried to secure adhesions between the gall-bladder and the peritoneum by means of caustics or trocar. In 1859 Thudicum recommended abdominal section, stitching of the unopened gall-bladder to the abdominal wound and opening at the end of six days.

The first operation of cholecystotomy, as it is done now, was performed by Dr. Bobbs in Indianapolis, 1867. Before the operation the diagnosis was doubtful, it not being certain whether the tumor was an ovarian cyst or not. After the incision he opened the gall-bladder and removed some fifty small

calculi. The patient recovered. The next operator was Marion Sims, who made his operation in 1878. His patient died, but he gives the indications for the operation, and gives the name we use now. He advises an exploratory incision in cases of hydrops of the gall-bladder, echinococcus, abscess of the liver and gall-stones, to ascertain the true nature of the disease, and then to carry out the surgical treatment the necessities of the case may demand.

Lawson Tait made his first cholecystotomy in 1879, and he has published the largest number of operations. In 1882 Langenbuch proposed the extirpation of the gall-bladder, and published three operations. Several operators thought favorably of it, while others were opposed to the procedure, but showed in their publications that they did not fully understand Langenbuch. Thus, Lawson Tait says that he would have lost three patients if he had operated as Langenbuch does, namely, in cases where obstruction of the ductus choledochus existed. Now, Langenbuch distinctly states that, where the ductus choledochus is closed, the operation of cholecystectomy should not be performed.

I believe that cholecystectomy is a perfectly justifiable operation, because, through the operation, every chance of a reproduction of new stones is removed. When, after cholecystotomy, all the stones have been taken out and the fistula has healed, everything is exactly as it was before the stones were formed. I can imagine that new stones might then be reproduced, as we have the same gall-bladder, the same mucous membrane, the same bile and the same individual. There are no cases on record in which this has happened, but here it is noteworthy that it generally takes a long time before stones cause any symptoms. The operation is useless when the ductus choledochus is closed, and in these cases v. Winiwarter proposed the establishment of a fistula between the gall-bladder and the bowels.

The best method of procedure in a case of gall-bladder filled with biliary calculi, and where jaundice is present, seems to me to be, first, to do cholecystotomy. After this operation, a biliary fistula remains, which will probably close in a few weeks, if the ducts are pervious. If there remains an obstruction in the common duct, the whole of the bile will be discharged through the fistula, and attempts to close will fail. In such cases, if Tait's daring expedient of crushing a stone left in the duct cannot be

adopted, v. Winiwarter's plan of establishing a fistula between the gall-bladder and the intestine may be attempted.

The indications for the operation, as given by Dr. Roth, and Smith, who follows, in his words, very much those of Roth, are cholelithiasis, dropsy and empyema of the gall-bladder, obstructions in the common duct, and wounds and perforation of the gall-bladder.

The great majority of operations on the gall-bladder are performed for conditions arising from the presence of gall-stones. There are many cases in literature where the strangest conditions were found. Cases have been reported where the effects of simple colic have been fatal. The stones may set up inflammation, suppuration and even gangrene in the walls of the bladder. They may close the *ductus cysticus* and then produce dropsy of the gall-bladder; they may pass the *ductus cysticus* and come into the *ductus hepaticus*, or they may come into the common duct and cause obstruction. They may get into the stomach and cause vomiting. They may pass into the bowels and cause obstruction there. Many cases are reported in which the stones perforated the bladder; either directly into the abdominal cavity, causing fatal peritonitis, or, after the formation of adhesions, into any of the hollow viscera, even into the urinary bladder, or they may perforate the abdominal wall, forming biliary fistulæ. Cases have been reported where even the *vena portæ* was ulcerated through. After ulceration of the diaphragm fistulæ into the air passages have been found.

Cancer of the bladder caused by gall-stones has been recorded by several observers. These are the dangers, which may arise from the presence of gall-stones, and yet it is not necessary, that an operation should be performed in every case of gall-stones. We are to try all the different internal remedies, but this should not be prolonged till the patients are almost dead, especially in cases of persistent obstructive jaundice. Cholæmia, not only as weakening and depressing the patient, but also as predisposing to bleeding, is an unfavorable element.

Dropsy and empyema, the second indication for operation, are generally caused by gall-stones. But other conditions, as stricture following localized inflammation, obstructive catarrh and collections of parasites, are also reckoned as causes. Constrictions by external growths are rare.

When the operation is done, based on these two indications,

we strive to heal the disease, but the third indication, obstruction of the common duct, justifies the operation, even when we can only prevent the worst symptoms and save the patient's life for a certain time. The obstruction may be caused by any foreign body in the duct as stones, worms, by stricture, by compression externally, by inflammatory exudation or new growths of the pancreas, duodenum, stomach and kidney. The bladder may become distended to considerable dimensions. Jaundice passing into profound cholæmia is to be expected; few cases last more than six months before symptoms of cholæmia appear, and death usually supervenes within the year. This will be the best indication for v. Winiwarter's operation of entero-cholecystotomy.

The last indications are those of wounds and perforations of the gall-bladder. Ten cases are reported, where the patients lived, but the general experience is, that wounds of the gall-bladder with extravasation of bile are nearly always fatal. Therefore, it is worth trying, to save the patient's life; after opening the abdomen and cleaning the peritoneum, to extirpate the gall-bladder, or if possible to sew the wound itself, or to stitch its edges to the abdominal walls.

Greig Smith recapitulates the indication thus:

"In every case of wound or perforation of the gall-bladder, operation ought at once to be performed. An operation gives the only chance of recovery."

"In every case of empyema of the gall-bladder operation is indicated. Aspiration is only a temporary measure and it is by no means free from danger."

"In every case of dropsy of the gall-bladder operation is indicated. Aspiration may do no harm and it may detect the presence of stone. But it is useless towards the removal of the stone and generally has no beneficial effect on the disease."

"In cases of cholelithiasis, the indications to operate must be guided by the effects produced by the disease. The dangerous sequences of the gall-stones are: frequently recurring attacks of hepatic colic, which wear out the patient's strength; jaundice, proceeding to dangerous cholæmia; and suppuration in the gall-bladder. The indication in each instance is strengthened by the presence of an enlarged gall-bladder."

The general way to perform the operation is that I followed in my operation and it is not necessary to repeat it.

The mortality so far is very small. Tait has published sixteen cases without a death. In October, 1884, Musser and Keen gave in the *American Journal of Medical Sciences* thirty-five cases with ten deaths. But since then more cases are published, so that if the operation is performed before cholæmia supervenes a death rate of not more than six per cent may be predicted. The most common cause of death is collapse or collapse accompanied with hemorrhage, to which cholæmic individuals are peculiarly liable.

FIVE CASES OF ABDOMINAL SECTION.

By CLINTON CUSHING, M. D.,

Professor of Gynecology in Cooper Medical College.

[Read before the San Francisco County Medical Society, March 13, 1888]

I am induced to report the following cases of laparotomy in order to call the attention of the members of the Society to the fact that there are constantly occurring in the community cases of pelvic disease that can only be treated satisfactorily by abdominal section. In the hands of those who are familiar with the work, and who keep everything about them clean, the risk is but slight, even in those cases where the peritoneal cavity becomes flooded with purulent matter, as was the case with two of the instances which I report to-night.

SUPPURATING PELVIC HÆMATOCELE.

Mrs. E. F., æt. 37; four children; youngest 17 months old; married eight years. First noticed a small enlargement in left ovarian region, eight years ago, after being thrown from a horse. Never has been robust, but has been failing in health since the birth of last child. Thinks that growth has been enlarging for over a year.

Two weeks before I saw her she began to have severe pain in left ovarian region after an unusually hard day's work. The pain, however, subsided the following day, but recurred a week later so severely as to require the attention of her physician, who gave her an opiate. She had no fever, and upon examination he found a movable tumor attached to the left side of the uterus, apparently by a pedicle. Three days later the pain became much worse, and her temperature ran up to 102° . I was then asked to see her. She was much emaciated, and on the

left of the uterus was a mass the size of a large orange, firmly fixed and extremely tender. Pulse, 132; temperature, 101°.

The diagnosis was a probable case of pyosalpynx, that had been in existence for years. Upon aspirating through the roof of the vagina, pus was found, and a free opening was made with the dilating trocar and a drainage tube introduced. In making the opening the bladder was punctured and a fistula was created. This subsequently healed without interference. Following these procedures the temperature was lowered, but never became normal. The pain still existed and the discharge of pus continued.

At the end of a month, her condition being very unsatisfactory, I opened the abdomen November 13th, assisted by Prof. Steele and Drs. Akerly and Montgomery. I at once came upon a pus cavity lying in front of and upon the uterus and bladder. This cavity contained about six ounces of pus and a decomposing blood clot the size of the closed hand, the odor of which was well nigh unendurable. The blood clot was removed and the pus cavity thoroughly washed out. The uterus and ovaries were crowded backwards and downwards, and were buried in a mass of lymph. Before opening the pus cavity, I had already opened the peritoneum above. This I at once closed with sutures, when I discovered the true state of affairs. The abdominal opening was closed in the usual way, a drainage tube being left in the lower angle of the wound. Convalescence was slow, but uninterrupted by any serious symptoms. She is now able to attend to her housework and suffers no pain.

From the history of the case I think it probable that this patient had chronic disease of the left Fallopian tube, and that this was the cause of the haematocele.

LAPAROTOMY FOR ABSCESS OF OVARY.

In July, 1887, A. B. consulted me regarding some obscure disease of the pelvic organs. She was 26 years of age, and had never been pregnant, although married for eight years. Nine years previously she had suffered from an attack of pelvic inflammation, since which time there had been more or less pain in region of left ovary.

A digital examination showed a retrocession of the uterus and an enlargement and tenderness of either the left tube or ovary. She was placed in the knee-chest position, a Sims speculum introduced, the roof of the vagina painted with iodine, and a tam-

pon applied behind the cervix, against the body of the displaced uterus, so as partially to replace it. At the time this caused no suffering, but at the end of twenty-four hours there was increased pain in pelvis, with fever. The tampon was removed and vaginal injections of hot water used, and opium given to control pain. Nevertheless pelvic inflammation ensued, and at the end of two weeks an abscess formed on the left of uterus, which was opened and drained through roof of vagina.

The more dangerous symptoms then subsided, but at the end of another month the case was not progressing satisfactorily. Every day the temperature was a degree above normal, and the patient was becoming more emaciated. There was continuous pain in left ovarian region.

In consultation with Dr. Burgess, it was decided to open the abdomen, which was accordingly done on November 15th. It was now found that the left ovary was simply a sac partially filled with pus. The left tube was enlarged and contained muco purulent matter. The right ovary was cystic and the right tube enlarged and much congested. Both were removed.

Shock was very marked, and recovery was slow but uninterrupted, except by the formation of a small abscess in the abdominal wall. The patient is now able to go out of doors, but has not yet fully recovered her strength. Menstruation has occurred once since the operation.

I believe that in the above case chronic salpingitis existed since the pelvic inflammation of nine years before, and all that was required to set up an acute inflammation was the thorough manipulation of the parts required to make a diagnosis; this inflammation terminating in an abscess, which, I believe, would have resulted in the death of the patient except for the laparotomy.

PYO-SALPYNY AND RETRO-UTERINE ABSCESS.

Mrs. B.; æt. 30; no pregnancies; native of Germany; married five years. Dysmenorrhœa before marriage. Pelvic pain began immediately after marriage, since which time has suffered constantly from pain in region of uterus and ovaries, at times incapacitating her entirely from any kind of work. Her sufferings were much increased at the time of menstruation and by the sexual act.

An examination proved the existence of an enlarged and tender mass in region of left ovary and a similar one in Douglass'

pouch. Her temperature was 100°. The diagnosis was made of pyosalpynx, and a laparotomy recommended.

On Nov. 24th, assisted by Dr. Whitwell and Dr. Jas. Akerly, the abdomen was opened in the usual manner, and the right Fallopian tube was found to be enormously elongated, measuring fully eight inches and was an inch in diameter. The tube was filled with pus and studded over with cheesy looking nodules as large as peas beneath the peritoneum. The tube passed backwards and downwards, and terminated in an abscess in Douglass' pouch, containing about ten ounces of pus. The left Fallopian tube was enlarged and contained some muco-purulent matter, and the ovary was enlarged and cystic. Strong adhesions of organized lymph existed on every side, which required much force to break up. Both tubes and ovaries were removed, and a rubber drainage tube passed from the abdominal opening through Douglass' pouch into vagina. The peritoneum was closed with chronic cat gut and the tissues of abdominal wall with deep silk sutures. Iodoform dusted over abdominal wound, and this covered with a compress of absorbent cotton. Before closing abdomen, the cavity was several times thoroughly irrigated with water, in which hydro-naphthol was dissolved to saturation.

The shock was not marked, but persistent and troublesome vomiting of bile continued for three days. Nothing given to control this troublesome symptom was of any avail, until calomel in two grain doses was given every two hours until purgation ensued, after which, recovery was uninterrupted. The drainage tube was removed at the end of a week and the patient returned home at the end of four weeks from the date of operation. She is now attending to her household duties, and has nearly recovered her strength.

No case could better illustrate the value and advantages of abdominal section than this.

LAPAROTOMY FOR PROLAPSED AND ENLARGED OVARY.

On October 15th I was asked to see a patient, who gave the following history: Aet. forty; two children; menstruation regular, but very painful. Nine months previously had suffered from an abortion followed by pelvic inflammation, since which time she had been in almost continuous pain in region of left ovary, the pain extending down the left leg; stomach very irritable, and nutrition much impaired.

An examination showed a retroversion of uterus, and a prolapsed, enlarged, and tender left ovary. Notwithstanding that, I replaced the ovary and uterus in nearly their normal position, and retained them there by tampons of cotton, introduced while the patient was in the knee-elbow position. Full doses of opiates and bromides were given, and galvanism was used thoroughly through the part, but nothing that was done proved of any except temporary benefit. After explaining the situation fully to the patient and her husband, it was decided to make an exploratory incision, and if necessary, to remove any disease that might be found.

On December 12th, assisted by Dr. D. W. Montgomery, I opened the abdomen and found the left ovary enlarged, prolapsed, and adherent to rectum. The left tube was also enlarged and was of a dark red color. The right ovary and tube was much congested. Both ovaries had extravasation of blood into their tissues around what was apparently a recent escape of an ounce. It was decided to remove both ovaries and tubes. In removing the left ovary, an opening was made in the rectum three-fourths of an inch in length, where the adhesions were very firm. The opening in the gut was closed with a double row of Lembert's suture. As a matter of precaution, a glass drainage tube was left in lower angle of the incision for five days, when it was removed, and convalescence was not interrupted by any serious complication.

The patient is slowly regaining her strength, but still has some pain in the left ovarian region, and in the left leg. Her digestion is good, and she is able to walk about her room, so that the probabilities are that her health will be fully restored.

LAPAROTOMY FOR OBSTRUCTION OF THE BOWELS.

January 23d, 1888, I was asked by Dr. Perrone and Dr. Bazzan, to see a case of obstruction of the bowels of twenty-one days standing in a woman fifty-nine years of age. She had given birth to two children many years before. Until the present sickness she had enjoyed fair health except frequent attacks of obstinate constipation for which she was compelled to resort to cathartics. At the beginning of the present illness, Dr. Rottanzi had prescribed for her the usual cathartics and purgative enemas, but without success.

In consultation with Dr. Perrone, a rectal tube was passed high up and stimulating injections given, and various powerful cathartics administered. In consultation with the above mentioned gentlemen, it was decided to open the abdomen, and if possible, to discover and remove the obstruction. The operation was done the following morning.

Upon opening the abdomen, the intestines, which were much distended, were found to be of a purple color. Upon introducing the hand into the abdomen, the obstruction was immediately found to be at the sigmoid flexure of the colon, and was caused by a fibrous band entirely surrounding the gut and involving its tissue, so dense being the tissue as to seem almost like cartilage. The choice now lay between the formation of an artificial anus, or a resection of the gut and union by suture of the divided ends. The latter plan was decided upon, and carried out, the Lembert suture being used. The operation was attended with difficulty on account of its site being so low in the pelvic excavation, and by the reason of great distension of the intestines with gas. It became necessary to remove a part of the small intestines from the abdominal cavity, and cover them with towels wrung out of hot water, but in spite of the heat they soon became almost black in color from poor circulation. The patient expired upon the table just at the completion of the operation, apparently from shock, for it must be remembered that she had taken almost no nourishment for twenty-one days, the excessive venous congestion of the intestines contributing, doubtless, to produce the fatal result.

The case is interesting as illustrating through what a minute opening the discharges could pass, and probably did pass for many years. At the time of the operation the lumen of the gut was entirely closed. There was no indication that any acute inflammation had recently occurred, or that the disease was of a malignant nature. The fatal result must be attributed to the enfeebled condition, and to the overdistended and congested condition of the intestines rather than to the effects of the operation. While it is true, that laparotomy for intestinal obstruction, has thus far not proved a very successful experiment, it is true, that the only way to make it so, is to explore, and to seek out the causes, and to develop better methods, as has already been done in ovariotomy and hysterectomy.

**DEFICIENT CLOSURE OF THE ABDOMINAL WALLS
IN THE FŒTUS.**

By D. W. MONTGOMERY, M. D.

The following case occurred in the practice of Dr. Charlotte B. Brown, of this city, who requested me to make the post-mortem examination:

The mother healthy and no history of malformations in the family. Labor came on at full term, the head presenting, but the feet and even the buttocks remained in the vagina until the placenta was loosened, owing to the short cord, which was only four inches in length. The infant lived about ten minutes after delivery.

Post-mortem Examination:—Infant; female; born at full term; weight, six pounds; head of good size and shape; limbs well formed. A large dark-colored tumor was seen on the right side of the body, extending from the lower margin of the ribs to the crest of the ilium, and from the median line in front to a line dropped perpendicularly from the right axilla. This tumor was recognized as consisting of the liver and large and small intestines, which all could be easily seen through the transparent membrane which covered them. This membrane was intact, and was continuous on all sides with the walls of the abdomen, the skin shading off into it by a smooth, bevelled margin. The vessels of the cord ran along the left side of the tumor, and entered the abdominal cavity in the median line, after which their course was normal.

On section, the major part of the tumor was found to be composed of the liver, which was rounded in shape, the upper surface looking well forwards, while the rest consisted of stomach and intestines. The heart lay with its base immediately beneath the xiphoid process, its apex pointing directly downward. During the ten minutes of life, the heart could be plainly seen beating at this point. The pancreas was divided into two about equal parts—one part lying on each side of the spinal column. It was not clear whether there were two pancreatic ducts or only one. The stomach, intestines, spleen and kidneys were normal.

There was a well-marked deformity of the skeleton. The spinal cord was bent sharply forwards and to the right in the upper lumbar region; the left shoulder and the left crest of the

ilium were thus brought near together, and there was apparent shortening of the left lower extremity. The angles of the ribs on the right side were very acute, and the right pulmonary cavity was very much smaller than the left. On the left side the angles of the ribs were very obtuse. The right lung was small and badly distended, on account of the small space. The placenta was abnormal, in that the vessels separated and ran along the membranes before entering it. The membrane covering in the tumor could now be split into two delicate layers, the outer layer being the amnion, the inner the peritoneum.

References to this condition as a cause of dystocia are not very frequent in text-books on midwifery. Schreeder mentions it in his excellent work on obstetrics, and Galabin gives a short description of the condition. I wish to thank Dr. Von Hoffman for drawing my attention to Ahlfeld's work in Vol. XI of the *Archiv fur Gynäkologie*, from which I have drawn much information.

In the normal fœtus the duct forming the communication between the intestine and the umbilical vesicle is attached to the gut at the junction of the large and small intestine, and as the fœtus grows, this duct, persisting, drags the gut out through the umbilical opening, forming the normal umbilical hernia. In the normal course of events this duct gradually grows thinner and thinner, till it disappears altogether, thus cutting off all connection between the bowel and the umbilical vesicle. A loop of intestine now lies outside the abdominal cavity and in the umbilical cord lying alongside the blood-vessels of the cord. Retraction of the gut within the abdominal cavity then takes place; so that, at birth, the gut lies inside the abdomen, and the walls of the abdomen close in about the cord forming the navel ring. Should the connection between the umbilical vesicle persist, when, in the normal course of events, it should have been absorbed, the filling up of the amnion with fluid and the growth of the cord forces away the umbilical vesicle from the fœtus; and the gut being still attached to the umbilical vesicle, is necessarily dragged farther and farther out of the abdominal cavity, and the condition known as congenital umbilical hernia is present. Naturally there may exist all degrees between a mere knuckle of intestine protruding from the navel, or a hernia of almost all the abdominal viscera, as in the case reported in this paper.

When the amnion is spread out over the abdomen, the cord is necessarily short. The cord being short, traction takes place between the placenta and the foetus, along the cord, and the foetus is suspended by the middle, the head and feet falling backwards, causing the deformity of the skeleton, which may be so great as to give the appearance of the lower limbs growing from the middle of the back. I think there can be no doubt that the division of the pancreas in this case was owing to the acute angle of the vertebral column springing forward and dividing it.

**REVIEW OF SMALLPOX IN SAN FRANCISCO FROM
MAY 3, 1887, TO MARCH 21, 1888.**

By S. S. HERRICK, M. D.

The present outbreak dates from the discovery of a sick Chinaman, who was sent from the Steamship "City of Sidney" to the Twenty-Sixth-Street Hospital May 3, 1887. The accompanying table gives the most important particulars of the cases, by months, up to the present time. Toward the close of December the prevalence of the disease was such that the Board of Health decided to proclaim the existence of an epidemic. In this course it is probable that they were greatly influenced by their inability otherwise to obtain extra appropriations from the City Supervisors for the maintenance of the Pesthouse, the free vaccination of the population, and other necessary expenses. The total amount of extra expenditures, up to March 16th, has been \$32,654.32, including the cost of a new building for the accommodation of the sick, \$6,718.72; but this is to be diminished by \$1,845, charged to steamship companies for cases taken from their ships to the Pesthouse.

TABLE OF SMALL-POX AT SAN FRANCISCO, MAY 3, 1887-MARCH 21, 1888.

MONTH.	TOTAL CASES	MALE	FEMALE	WHITE	MONGOL.	AFRICAN	DEATHS
May	1887	8	8	3	5	..	..
June	1887	11	6	10	1	..	2
July	1887	9	6	9	..	..	3
August	1887	6	6	6	..	..	..
September.....	1887	6	4	6	..	..	1
October	1887	6	2	5	1	..	4
November	1887	33	20	31	2	..	4
December.....	1887	86	67	79	7	..	10
January	1888	224	190	193	30	1	27
February	1888	115	84	97	18	..	9
To March 21.....	1888	21	18	19	2	..	3
Total.....	525	411	114	458	66	1	63

At the meeting held March 15th the Board decided to declare the epidemic at an end, which debars it from the right to call for funds additional to the legal monthly allowance.

The number of gratuitous vaccinations recorded from June 20, 1887, to March 15, 1888, is 64,407, at an expense of \$7,434.50 for bovine virus, and \$4,230 paid to physicians. Since the last date there is a record of 1,948 additional vaccinations, performed at the Health Office. A portion of the previous number were made at private residences, hotels, lodging-houses, factories, workshops, etc.

It has been claimed that successful vaccination with bovine virus affords infallible protection against smallpox, and no positive refutation of this, as a universal proposition, has so far been given, to the knowledge of the writer. Recent observations by Dr. H. A. Gale, Acting Health Officer, are to the point, as follows:

(1) A girl, 7 years old, was vaccinated in October, 1887, and had two marks as evidence. Had variola discreta January, 1888.

(2) A lady, 32 years old, had a successful secondary vaccination during the present season, followed by an abundant eruption of smallpox not long after.

(3) A boy, 11 years old, had discrete smallpox in January, 1888, having two marks of vaccination performed four years previously.

(4) His sister, having one scar from vaccination at the same date, had discrete smallpox in February.

(Under personal observation of the writer.)

(5) A boy, 10 years old, had a primary vaccination in October, 1887, and one scar as evidence. Variola discreta in January, 1888.

(6) A girl, 6 years old, was vaccinated on three spots January 25th, only one sore resulting. A light attack followed ten days later.

In the early part of January the Board of Health was notified of the establishment of a vaccine farm at San Rafael, and the present writer was sent to inspect its methods and operations. He felt warranted at the outset in assuring Dr. DuBois, the proprietor, of the gratification of the Board of Health in the existence of such an institution at our very doors, and of its intention to make use of its products, if found satisfactory on trial. The first visit was made without previous announcement, and only

partial opportunity could be afforded for examination. The second visit was entirely fruitless, for no opportunity was granted to prosecute the inspection. The writer was informed that it had been decided to allow no further examination into the details of the business, whereby any rival establishment might profit. This course was a surprise to the writer, who had become familiar with the methods of a similar establishment at New Orleans, some years before, where no such secrecy or reserve was practiced.

Inasmuch as the previous issue of this journal contains some statements relative to the trial of the San Rafael virus by the San Francisco Board of Health, it seems to the writer proper to offer the evidence which determined the Board to discontinue its use, and which is contained in the following reports of the public vaccinators who gave it trial:

SAN FRANCISCO, January 19, 1888.

To the Honorable Board of Health:

GENTLEMEN—I hereby submit to you my report on vaccination with San Rafael virus:

Number of vaccinations (all secondary) between the ages of 15 and 45 .....	.....	80
Number of unsuccessful vaccinations.....	.....	71
" " unascertained (not reported).....	.....	9
" " successful vaccinations.....	.....	00
	—	80

Respectfully yours,

(Signed) K. URBAN, M. D.

To the Honorable Board of Health:

GENTLEMEN—I have the honor to report the result of my trial with the San Rafael virus:

Total number of vaccinations.....	85
Number of primary vaccinations.....	12
The youngest of whom is 17 months; the oldest, 31 years.	

Of that number (12), nine reported, one week from date of vaccination, negative results; the remaining three have not reported.

Number of secondary vaccinations, 40; youngest of whom is 11, and the oldest, 51 years of age. Negative results from

18; 23 failing to report. * * * (Remainder omitted, as unimportant in this connection.)

Respectfully submitted,

(Signed) FRED. W. LUX, M. D.

SAN FRANCISCO, January 19, 1888.

To the Honorable Board of Health:

GENTLEMEN—After due trial with the San Rafael points—having used and watched over 200 vaccinations of the San Rafael points—I find that not one took.

Respectfully,

DR. M. NEWMAN,

205 Turk Street.

SAN FRANCISCO, January 18, 1888.

To the Honorable Board of Health, San Francisco, Cal.:

GENTLEMEN—The undersigned begs leave to submit the following report:

From December 31, 1887, to date, inclusive, he has made 1,143 vaccinations. 71 of these vaccinations were made with the San Rafael virus. So far only 23 of those vaccinated with San Rafael virus have reported at the undersigned's office, and in no instance has a successful result been recorded.

The balance of the vaccinations have been made with the "Alexander" virus, and the undersigned can only endorse the favorable opinion given of this virus by other vaccinators.

Very respectfully,

(Signed) WM. C. EIDENMULLER.

It should be considered that this trial of a new virus was made in the face of an epidemic. We have excellent authority that it is not a good time to swap horses when swimming on them over a river. It may be added that no real battle is won with blank cartridges.

DR. D. W. MONTGOMERY states that, through the kindness of Dr. Bowhill, he has been furnished with a specimen of actinomycosis bovis, which was taken from a cow in San Francisco. The ray fungus was found in large numbers in the tumor.

REPORT ON VACCINATION.

By G. F. G. MORGAN, M. D.

As one of the public vaccinators in this city, during the late epidemic, the following may be of interest.

Counting private as well as public vaccinations and re-vaccinations, I performed more than 1,300 operations. Of these, 50 points were of St. Louis, 50 New York, 250 San Rafael, and the balance of Alexander virus. Not having been previously informed as to their source, I kept no account of the St. Louis and New York virus. Of the San Rafael and Alexander virus, I kept an exact account; but the failure of many persons to report to me in person the result of their vaccination, renders my record partial and conclusions imperfect.

To guard against imperfect vaccination among our school children, I also only gave provisional certificates to such, on vaccination; but as a large number of those vaccinated were not children, and did not need certificates, and were not enough interested in statistical matters to cause them to inconvenience themselves in any way, they very naturally would not report at my office.

Some persons vaccinated at the Health Office, and some by Dr. Anderson, came to me for re-vaccination; and I presume the opposite of this is true—some first vaccinated by me visited other vaccinators for re-vaccination.

My operations were carefully performed thus: A narrow, dram homo vial was fixed in a little foot-stand and a small bottle of water stood near by. Before touching the arm that was to be vaccinated, I dipped the vaccine point into the water and then placed it across the mouth of the vial, there to soften the virus. Then I scarified the arm, carefully, and well rubbed in the now thoroughly softened virus, and finally covered the wound with a piece of gold-beater's skin. I thus operated with all the San Rafael virus received.

The same measures were adopted in all my vaccinations, except that later on I used isinglass plaster—having no more gold-beater's skin on hand.

With the Alexander virus the results were good, and often very severe; yet I had failures with this, much larger than that represented by Dr. Anderson's report.

My infant boy I vaccinated twice before it took. This was

primary. My older daughter I vaccinated three times, and my younger four times, with no external result remaining. These were secondary. I know of other cases with the same results; but, for the reasons above given, I cannot even give a fairly approximate result of my labors. Nor do I think that a vaccinator in a city, who usually does such a large number of cases, who come from far and near, can so report—first, for the reasons before given; and, secondly, because he would have to visit the patients at their homes and there inspect their arms. Of course, such a procedure would involve too much time for a private practitioner to entertain for one moment. Hence, we are largely dependent upon the verbal report of others, that "so and so's arm took well." I know of a whole family who thus reported to me, through another person; and not a scar remains on them by which to testify to their vaccination.

Of course, this applies to public and wide-spread vaccination.

Of the 250 San Rafael points, I reported 45 cases, exclusive of 4 others obscured by re-vaccination with Alexander virus. These 45 cases were "raspberries," though there had been fever and axillary and constitutional involvement in a number of them. Among these 45 cases were at least 10 primary cases, in whom were signs of constitutional disturbance. Having been requested by the Board of Health to make a report on the San Rafael virus, I did so, and presented the above 45 cases as successful ones. I presented before the Board 8 children, cases I had taken from a school near by; but the Board promptly decided that such cases would finally lack the evidence of vaccination—the pit-mark. After the lapse of sufficient time, I am, in truth, bound to testify to the correctness of the Board's decision; for out of the whole 250 points used by me, I can only hear of one pit-mark to testify to the activity of the San Rafael virus. This includes primary as well as secondary cases.

The San Rafael virus did not act typically. Seven days after using it, reports came in that it was a failure; but about the twelfth day after its use, reports came in that it was doing very well. I, therefore, concluded that my previous judgment, based upon the reports sent in to me, had been wrong and unjust to the promoters of the San Rafael vaccine farm. I, therefore, prepared the report abovementioned, and gathered up the children near at hand, and reported to the Board in person, and with cases in the flesh, that the Board might judge for itself. The result was as above given.

I have been at special personal pains to gather these facts; and I feel sure that the San Rafael people will not charge me with having any prejudice against their virus; indeed, I have given them direct personal proof to the contrary.

What we need on this question is cold irrefutable fact; and I feel sure that we shall not aid in the development of this new institution in our midst except as we treat it on a fair business basis—"a fair field and no favor" (other than preferring our own institution, *all things else being equal*).

In this connection, it is much to be regretted that the promoters of this laudable enterprise have thought proper to antagonize the San Francisco Board of Health, thus contracting the legitimate sphere of the San Rafael virus, and raising enemies where none but friends might have been found. It is due to the Board of Health to say, that through its executive officer, Dr. Gale, it gave special instructions to me to report the first 20 cases of successful primary vaccinations with the San Rafael virus; that the Board wished to give the San Rafael vaccine farm a helping hand. I was not able to report as desired.

Dr. Perry, himself, told me that the Board hoped to prove the San Rafael virus trustworthy, and that the embarrassment the Board then labored under from lack of virus would thus be obviated by our home supply.

That the newly-fledged institution was then unequal to the demand, and that a combination of circumstances operated unfavorably upon it, is to be regretted; but that the Board of Health was responsible therefor, or could be said to be prejudiced, because it would not accept as good that which had failed to stand the acknowledged test, no ordinary business man would affirm.

By all right means, let us help on the good enterprise so well begun at San Rafael; but let not unverified reports made to us, hasty generalizations and imperfect conclusions be accepted as bed-rock facts, or confusion will be ours in the hour of need.

Through the courtesy of Messrs. Lea Brothers & Co., we have received specimen plates of Prof. Robert W. Taylor's *Clinical Atlas of Venereal Diseases* which will shortly be published. The work will be issued in eight parts aggregating 58 large folio chromo-lithographic plates measuring 14x18 inches and containing about 200 figures. The work will be a valuable guide in the treatment of these diseases.

SEVERE RESULTS OF VACCINATION.

By C. L. ANDERSON, M. D., of Santa Cruz, Cal.

"I do not consider the sore limb, with swollen glands, septic ulcerations, and severe constitutional disturbances, successful vaccination." — *Dr. Winslow Anderson, in PACIFIC MEDICAL AND SURGICAL JOURNAL.*

I was pleased to learn of a physician of such large experience as Dr. Winslow Anderson adding his testimony against the too popular desire for severe effects from vaccination.

Having lately seen so much suffering in our little city from vaccination, I am inclined to add a few words on the subject. Some of these sufferers might as well have gone through a genuine course of variola.

And yet the popular demand is for sore limbs, and severe constitutional disturbances, by many doctors and a great many people. An ordinary old-fashioned kine pox pustule is considered of but little value, and the vaccine propagator who can make the biggest show in the form of a septic ulceration can sell the greatest number of points. The lightning is measured by the amount of thunder.

Now, I am inclined to think that successful vaccine disease is not to be measured by the amount of local sore or constitutional disturbance. A continuous residence in one locality, where I could see the babies that were vaccinated by me grow up to maturity, has in many cases shown that slight sores and constitutional disturbances, when regular, and typical of vaccine, have proven efficient. Although exposed to smallpox, and being often vaccinated with good active virus, neither has "taken."

I think I may safely go further, and assert that a local external "sore" is not always necessary in vaccine; provided there are the characteristic constitutional symptoms. I have vaccinated children that evinced these symptoms without a vesicle, or other sign, at the point where the virus was introduced. And these children have been repeatedly revaccinated without effect. This assertion is verified by experiment. Variolous poison in other animals has shown its characteristics without external eruption. (See *Bacteria*, by Drs. Sternberg and Magnin.) The blood and lymph, acting as culture fluids, seem to convey the poison to all parts of the body, the constitutional effects are produced, and the system becomes sterilized, as it were, against the propagation of similar microbes in the future.

What have we gained by the use of bovine virus more than intensity? I fail to see that septicæmia has been lessened. The bovine genus of animals is the subject of equally as virulent diseases as the genus homo; and equally as liable of transmission. I am informed that ignorant and dishonest persons, inspired by cupidity, have taken a full-grown cow and made large scarifications on the flanks; and after vaccine inoculation, they obtain large quantities of serum, with which they charge fifteen to twenty thousand points. These points *may* contain vaccine virus; but they surely contain septic matter, the result of inflammation, which remains active for a long time, and will "take" in nearly every case, whether the person has been successfully vaccinated or not. They contain an independent poison, and I verily believe that a severe attack of variola—confluent, if you please—would be no impediment to their "taking"!

Now, it is a well-established fact that many of these microbes which cause infectious diseases may be, by cultivation through a number of successive generations, apart from the animal body, so modified and deprived of virulence as to act beneficially. Looking towards this result, the Grocers' Company, of London, offered a prize of £1,000 "for a method by which the vaccine contagion may be cultivated apart from the animal body in some medium or media not otherwise zymotic," so as to prove of identical potency with vaccine lymph, yet understood to be free from other septic matter.

Some one or more persons claim to have done this, but I have not learned that anybody has claimed the Grocers' Company prize.

May we not secure the desired virus by passing it through other animal bodies than the "bovine"? And why should it be thought any better or more effective by returning to the original host? Such a course seems to me to be inconsistent and out of time with facts established by experiment and observation.

I readily admit that bovine virus in many respects has advantages. I do not admit, however, that intensity is one of them. And while I may continue to use the bovine article, I still hope that, by research, or accident, some better material may be discovered; at least, that we may have fewer ignorant and dishonest propagators.

Licentiates of the California State Board of Examiners.

SAN FRANCISCO, March 7, 1888.

The following persons having complied with all the requirements of the law and regulations of the Board of Examiners, were unanimously granted certificates to practice medicine in this State:

- JOSEPH EMILE ARTIGNES, M. D., San Francisco; Cooper Med. Coll., Cal., November 17, 1887.
- THOMAS MOORE BLYTHE, M. D., Ocean Side, San Diego; Bellevue Hosp. Med. Coll., N. Y., March 1st, 1880.
- THOMAS A. CRAVENS, M. D., Los Angeles; Long Island Hosp. Coll., N. Y., June 25th, 1874.
- JAMES C. DEATON, Jr., M. D., San Diego; Med. Coll. of Virginia, March 1st, 1871.
- EDMUND ELWOOD FALL, M. D., Oakland; Coll. of Phys. and Surgs., N. Y., May 12th, 1887.
- JAMES C. FORD, M. D., Sacramento; Missouri Med. Coll., Mo., March 4th, 1859.
- LEVI HULBERT FULLER, M. D., Tustin City; Med. Dept., Dartmouth Coll., New Hamp., Nov. 22d, 1887.
- FRANK GARCELON, M. D., Pomona; Med. Dept. Bowdoin Coll., Maine, July 4th, 1870.
- FREDERICK GUNDRUM, M. D., San Diego; Miami Med. Coll., Ohio, March 1st, 1868.
- ISAAC B. HAMILTON, M. D., Los Angeles; Univ. of Pennsylvania, Penn., April 13th, 1883.
- JOSEPH E. HALL, M. D., San Diego; Jefferson Med. Coll., Penn., March 12th, 1869.
- LUTHER P. HESS, M. D., Oakland; Bellevue Hosp. Med. Coll., N. Y., 15th, 1882.
- HENRY HILDRETH, M. D., San Diego; St. Louis Med. Coll., Mo. March 17th, 1874.
- WILLIAM WESLEY HITCHCOOK, M. D., Los Angeles; Rush Med. Coll., Ill., Feb. 25th, 1879; Bellevue Hosp. Med. Coll., N. Y., March 10th, 1881.
- H. W. HUGHES, M. D., Los Angeles; College of Phys. and Surgs., New York, May 12th, 1885.
- FREDERICK LOUIS MARCOTTE, M. D., San Diego; Chicago Med. Coll., Ill., March 20th, 1877.
- ISABEL M. MEADER, M. D., Santa Barbara; Women's Hosp. Med. Coll. of Chicago, Ill., April 1st, 1887.
- ROBERT WARREN MILLER, M. D., Los Angeles; Coll. of Phys. and Surgs., Keokuk, Iowa, June 20th, 1876, and Bellevue Hosp. Med. Coll., N. Y., March 14th, 1887.
- NATHANIEL BOWDITCH MORTON, M. D., Coronado; Harvard University, Mass., June 29th, 1881.
- JOSEPH ALLEN OWEN, M. D., Vina; Louisville Med. Coll., Ky., February 16th, 1888.

- ANDREW P. OWENS, M. D., Santa Ana; Louisville Med. Coll., Ky., February 27th, 1877.
- THEORILDA C. PARK, M. D., San Francisco; Med. Dept. Univ. of Cal., November 15th, 1887.
- JAMES ASHER RICHARDSON, M. D., San Jose; Toland Med. Coll., Cal., October 2nd, 1866; Bellevue Hospt. Med. Coll., N. Y., March 1st, 1870.
- FRANCIS FENELON ROWLAND, M. D., Pasadena; Jefferson Med. Coll., Penn., March 12th, 1873.
- JOHN S. SARGENT, M. D., Los Angeles; College of Phys. and Surgs., Ill., February 21st, 1887.
- WILLIAM S. TREMAINE, M. D., Los Angeles; Univ. of Pennsylvania, Penn., March 17th, 1859.
- JAMES PAULDING WALLACE, M. D., Los Angeles; Bellevue Hospt. Med. Coll., N. Y., March 1st, 1875.
- HERBERT S. WILLIAMS, M. D., Fowler; Royal Coll. of Phys. and Surgs. Queen's Univ. Ontario, Canada, April 2 th, 1884.
- ALBERT H. PRATT, M. D., Oakland; Bellevue Hospt. Med. Coll., N. Y., March 1st, 1878.

Wm. M. LAWLER, M. D.,

Secretary.

How to Make Koumiss.

The *National Druggist*, in answer to the question, "How is koumiss made?" publishes the following directions for its manufacture : Fill a quart champagne bottle up to the neck with pure milk; add two tablespoonfuls of white sugar, after dissolving the same in a little water over a hot fire; add also one-quarter of a two-cent cake of compressed yeast. Then tie the cork on the bottle securely, and shake the mixture well; place it in a room of the temperature of 50° to 95° F. for six hours, and finally in the ice-box over night. Drink in such quantities as the stomach may require.

It will be well to observe several important injunctions in preparing the koumiss, and they are: To be sure that the milk is pure; that the bottle is sound; that the yeast is fresh; to open the mixture in the morning with great care, on account of its effervescent properties; not to drink it at all if there is any curdle or thickening part resembling cheese, as this indicates that the fermentation has been prolonged beyond the proper time. Make it as you need to use it. The virtue of koumiss is that it refreshes and stimulates, with no after reaction from its effects. It is often almost impossible to obtain good fresh koumiss, especially away from large towns. The above directions make it possible for any physician to prescribe it. —*Medical and Surgical Reporter.*

Proceedings of Societies.

San Francisco County Medical Society.

SAN FRANCISCO, February 14, 1888.

The meeting having been called to order by the President, Dr. J. D. Arnold, the minutes of the former meeting were read and approved.

Dr. Walter Otto, a graduate of the University of Leipzig, was proposed for membership by Dr. C. M. Richter and Dr. H. Ferrer, and referred to the Committee on Admissions.

Dr. J. C. Sundberg read a paper on "Hygiene in its relation to Sociological Problems," in which he briefly referred to many of the leading questions in public health, and their influence upon our customs and habits of life.

Dr. M. M. Chipman, the Corresponding Secretary, read a communication from the Georgia Medical Society, in which the San Francisco County Medical Society, together with other Medical Societies throughout the United States, was requested to endorse resolutions asking that drugs and surgical instruments should be imported into the United States free of duty, and that a copy of said resolutions should be forwarded to the Committee of Ways and Means and to our representatives at Washington.

Dr. G. F. G. Morgan moved that the Society courteously acknowledge receipt of the communication, but decline to endorse the resolutions. Seconded by Dr. R. I. Bowie. Dr. Chismore expressed himself as being in sympathy with the resolutions, and did not think that political opinions need interfere with the other members doing the same.

The question was called for and the motion lost.

Dr. Chismore then moved that the Society endorse the resolutions drawn up by the Georgia Medical Society. Seconded by Dr. D. W. Montgomery.

Dr. W P Gibbons believed it to be prejudicial to the interests of the Society to introduce any question which might be viewed in a political aspect, and advised that the matter should lie over until a subsequent meeting.

Dr. Chipman thought that we should leave this matter alone, as it was not of sufficient importance to warrant the profession agitating it.

Dr. Morgan also opposed the motion, as it touched upon the

most prominent political question of the day, and was, therefore, sure to interfere with the harmony of the Society.

Dr. Montgomery called attention to the fact that many drugs and surgical instruments were not manufactured in America, and the medical man, therefore, had to obtain them from Europe with a heavy import duty attached to the price, or do without them.

Dr. Chismore said that the majority of instruments were the result of the surgeon's ingenuity who, on account of medical ethics, could not patent them, and consequently it was the instrument-maker who derived the sole benefit, for he charged an exorbitant profit on the manufacture.

The question was called for and the motion carried (10 to 4).

There being no further business the Society adjourned.

W.M. WATT KERR, M. D.,

Recording Secretary.

SAN FRANCISCO, February 28, 1888.

The meeting having been called to order by the President, Dr. J. D. Arnold, the minutes of the former meeting were read and approved.

The Committee on Admissions reported favorably on the credentials of Walter Otto, M. D., Univ. of Leipzig, who was forthwith elected to membership.

The resolutions in memory of the late Dr. Meares, were referred back to the committee.

Dr. Martinache read a paper entitled "How some escape removal of the eye. Ocular and aural diseases related to digestive troubles." The paper included a report of several instances in which Dr. Martinache believed that the eye might have been removed; one of these was a piece of steel which entered the eye and was allowed to remain behind a fold of the iris without the patient experiencing any annoyance, also two cases of granular conjunctivitis in which removal of the eye had been suggested as a probable necessity, but was obviated by means of thorough scarification. He also mentioned cases of conjunctivitis, ulceration of the cornea and glaucoma associated with digestive disturbance, all of which speedily disappeared after the disorders of the alimentary system had been rectified. Similarly in one patient an attack of deafness which had lasted for four days disappeared after a dose of cathartic pills, while a similar case was cured by sweating.

Dr. Powers wished to know whether Dr. Martinache in treating a case of granular conjunctivitis endeavored to puncture each granule or simply scarified the whole lid.

Dr. Barkan asked whether Dr. Martinache regarded depletion as a positive cure in ophthalmia. He was anxious to know, as the only case of gonorrhœal ophthalmia he had lost was one which he had ceased to treat at the end of a week, but was afterwards scarified by another practitioner.

Dr. Pardee had not used scarification, because in the results of others he had seen it to be either of no avail or positively injurious. In his experience, glaucoma was not rare in California, neither had he found that operative interference was by any means an invariable necessity for the cure of this disease.

Dr. Martinache said that he did not regard scarification as a panacea, but it had in his hands succeeded where other methods had failed, and had found light scarifications of the whole eyelid the most reliable treatment in cases of chronic congestion.

Dr. Morse exhibited some urinary calculi taken from the bladder of a patient in the City and County Hospital. On admittance the patient was in a semi-comatose condition, experienced great difficulty in passing water, and a catheter could not be passed as the patient was too weak to endure either the pain or the anæsthetic. After death the bladder was found to be very small, containing about half an ounce of water and thirty-two stones so closely packed together as to be faceted on their surfaces.

Dr. Stallard exhibited a specimen of ulcerative endarteritis of the aorta valve following an attack of acute rheumatism. During life a weak aortic sound took the place of a murmur and lead to the diagnosis that only one cusp was affected as was verified by the autopsy.

Dr. R. I. Bowie moved for reconsideration of the resolutions requesting the removal of duty from medical and surgical appliances, not because he was opposed to the sentiments contained in the resolutions, but because they were so closely allied to political issues that the discussion would cause discord in the Society. Dr. Frisbie seconded the motion which was carried.

Dr. W. W. Kerr moved that the resolutions be laid upon the table. The motion was seconded by Dr. Kenyon and carried.

There being no further business the Society adjourned.

Wm. Watt Kerr, M. D.,

Recording Secretary.

San Francisco Society of German Physicians.

Regular meeting March 6, 1888, the President, Dr. Cohn, in the chair.

Dr. Bayer reported nine cases of catarrhal icterus, among whom were children, treated after the manner recommended by Henoch, with hydrochloric acid and "Wildunger" water. The relief achieved by the latter water were excellent. One-half bottle was recommended to be drank by children and an entire bottle by adults daily. The urine after its use became clear on the second day. As a matter of experiment no Wildunger water was given in one case, and the icterus lasted ten days, whereas, in the other cases, the average course of the disease was two or three days.

Dr. Cohn observed that the carbonated alkalies had a solvent action on the mucous, which is assumed to be the cause of this form of icterus, and referred the good results of the water to such alkalies.

Dr. Regensberger, Sr., maintained that many cases of catarrhal icterus were alike benefited by regulation of diet.

Dr. Kreutzmann attributed the good results of the "Wildunger" water to the increased diuresis, which facilitated the elimination of biliary substances. He called attention to Niemeyer's sententious directions with regard to treatment, viz.: Carlsbad salt, avoidance of fats, drinking large quantities of water.

Dr. Ferrer demonstrated an interesting specimen obtained after trephining the left mastoid process. The man from whom the specimen was removed is 24 years of age, and has suffered from otorrhœa from the left ear for many years. The left mastoid region is painful on pressure, and attacks of vertigo have been frequent. Facial paralysis of the same side exists since eight months. Trepanation of the mastoid process to the depth of two and one-half cm. was practiced through bone in a state of eburnation without attaining any cavity; caries of the pyramid was diagnosed. The patient continued treatment. A fistula was afterwards observed in the upper part of auditory canal, from which was removed a small piece of bone, which plainly showed a canal (for the facial nerve). Facial paralysis then gradually improved. A few weeks after another body was removed, which proved to be the entire cochlea. Since the removal of the latter suppuration ceased.

During the last two years speaker has performed trepanation

of the mastoid process thirty-seven times with good effect. In a case operated upon eight days ago, he penetrated to the depth of three ctms., notwithstanding Prof. Schwarz, of Halle, cautions penetration to a depth of two and one-half ctms. Speaker furthermore demonstrates, on an exquisitely prepared temporal bone, the course of the cochlea, and wonder is expressed that no symptoms of meningitis developed. (This case will be published at length in *Knapp's Archives of Otology*, with a series of forty other cases.)

Dr. Morse reported two cases which were brought into the hospital in a moribund condition. At the necropsy in one case the bladder was very much contracted and contained thirty-two faceted calculi. In the same case there was an hypertrophy of the middle lobe of prostatæ and purulent pycto-nephritis. In the second case the bladder was likewise in a contracted state, and contained a single calculus of the size of a large hen's egg. (Demonstration of specimens.)

Dr. Kreutzmann opened the discussion on vaccination, the subject for discussion at this meeting. He referred to the important conclusions arrived at by the Commission on Vaccination, which met in Berlin on October 30, 1884. A few of the conclusions are as follows:

1. Primary variolar infection is, with few exceptions, a preventive against reinfection.
2. Vaccination accomplishes the same effect.
3. The length of time that vaccination affords security against variolar infection is various, the average being about ten years.
4. To pronounce on the thoroughness of vaccination, at least two pustules must have developed.
5. Revaccination, after ten years, must follow the primary inoculation.
6. Vaccination is occasionally fraught with danger. Vaccination practiced with humanized virus may transmit syphilis, although this very rarely occurs; the other danger consists in occasional wound infection. These dangers can readily be overcome, and, consequently, in reality constitute no real danger.
7. Knowing that all dangers can be obviated by the use of animal virus, the latter should entirely supplant humanized virus.

The following directions are advised for vaccination and re-vaccination:

Infants should not be inoculated until after the third month. Children suffering from acute or chronic disturbances of nutrition should not be vaccinated, exceptions being allowed during epidemics. The instruments used in the operation must be thoroughly clean and dried with some disinfected cotton. Instruments not capable of thorough cleaning must be discarded. The instrument should be purely a vaccination instrument and used for no other purpose. The upper arm is the usual site for inoculation. In primary vaccinations, three to five superficial incisions or punctures, and in revaccinated individuals five to eight incisions or punctures are necessary. Bleeding is to be prevented. The development of two pustules is necessary in primary vaccination, and renders the same satisfactory. If, however, only one pustule develops, then auto-revaccination should be immediately practiced. In revaccinated individuals, the mere development of papules or vesicles may be deemed satisfactory.

The discussion on vaccination will be continued at the next meeting.

DR. KREUTZMANN, Secretary.

PARALDEHYDE has no anodyne properties, but is an efficient hypnotic and has no disagreeable after-effects. Double the dose of chloral is given, but the drug is always diluted on account of its very acrid taste. It has no effect on the heart or respiration, but is generally disagreeable on account of its taste.

Urethrane has a neutral effect on heart and respiration, half the dose of chloral being given. It is not unpleasant, and has no bad after-effect.

Hyphone is not an anodyne, but a powerful sleep-producer. It has no effect on the heart or respiration, but may cause subsequent headache, without nausea, however. Dose, three to four mm. dissolved in ether and given in a capsule.—*Medical Register.*

SOLUTIONS FOR WASHING OUT THE BLADDER.—Ultzmann, of Vienna, uses the following with good results: For an irritable bladder luke-warm water with a little tincture of opium; or solution of cocaine, $\frac{1}{2}$ per cent; or resorcin, $\frac{1}{2}$ per cent; or carbolic acid, 1-6 per cent. When urine decomposes in the bladder, solutions of potassium permanganate, 1-10 per cent; or 3 drops of amyl nitrite to a pint of water. For phosphaturia, 1-10 per cent salicylic acid.—*Centralblatt fur Chirurgie.*

PACIFIC MEDICAL AND SURGICAL JOURNAL

AND

WESTERN LANCET.

EDITOR:

WILLIAM S. WHITWELL, A. M., M. D.

The Editor is not responsible for the views of contributors.

All communications relating solely to the editorial management of the JOURNAL, should be sent to No. 438 Bryant St., San Francisco.

All business communications should be addressed to L. H. Bonestell, 401 Sansome St., San Francisco.

SAN FRANCISCO, APRIL, 1888.

Editorial.

THE STATE MEDICAL SOCIETY.

The coming meeting of the State Society promises to be a notable one, and it is earnestly hoped that all members who are able to do so will attend, and by their presence at least, aid in assuring success.

The meetings will be held in this city at B'nai B'rith Hall, 121 Eddy St., on the days of April 18th, 19th and 20th.

Those members who are desirous of coming to the city at that time should note the fact there has been a very considerable reduction in the rates for railroad transportation and at hotels. Round trip unlimited tickets will be issued to all physicians, and to the immediate members of their families at the very liberal reduction of 33½ per cent. The Pacific Coast S. S. Co. have also granted a rebate of 25 per cent. A receipt for money paid for ticket should be taken. On presentation of this ticket endorsed by the Committee of Arrangements the rebate will be made.

The Baldwin, Palace, Grand, Lick, Occidental, Russ and

Brooklyn hotels have granted a rebate from their regular charges of 33½ per cent.

The facilities for joining the association have been increased, for application can be made in writing to Dr. Jules Simon, 323 Geary St.

The application should be endorsed by two members, or by two physicians and one member, and should be accompanied by five dollars.

At the meetings after the reading of each paper of the several sections, discussion will be opened by a member who has been especially appointed by the President.

The following is a list of the Chairmen of each Section and their names are followed by those who are to open the discussion:

Practical Medicine and Medical Literature:

Samuel O. L. Potter, San Francisco,
W. F. McNutt, San Francisco.

Surgery:

W. E. Taylor, San Francisco,
T. W. Huntington, Sacramento.

Obstetrics:

Walter Lindley, Los Angeles,
W. A. Briggs, Sacramento.

Gynecology:

Clinton Cushing, San Francisco,
John Wagner, San Francisco.

Diseases of Children:

H. W. Sherman, San Francisco,
H. Gibbons, Jr., San Francisco.

Diseases of Women:

I. E. Oatman, Sacramento,
W. A. Saxe, Santa Clara.

Ophthalmology, Otology, Laryngology and Rhinoscopy:

Geo. C. Pardee, San Francisco,
A. P. Whittell, San Francisco.

Mental Diseases and Medical Jurisprudence:

W. W. Macfarlane, Agnew,
J. W. Robertson, Napa.

Histology and Microscopy:

Julius Rosenstirn, San Francisco,
H. Ferrer, San Francisco.

Public Hygiene and State Medicine:

Washington Ayer, San Francisco,
Jas. Simpson, San Francisco.

Medical Topography, Meteorology, Endemics and Epidemics:

J. B. Trembly, Oakland,
W. LeMoyne Wills, Los Angeles.

Indigenous Botany and Domestic Adulteration of Drugs:

W. P. Gibbons, Alameda,
M. M. Chipman, San Francisco.

Graduating Exercises:

O. O. Burgess, San Francisco,
F. B. Kane, San Francisco.

Medical Education:

Jos. P. Widney, Los Angeles,
Jos. H. Wythe, Oakland.

Besides the regular papers the following will be presented during the session:

Electricity in Obstetrics, by Mary W. Moody, San Francisco.
Some forms of Endo-arteritis, by J. H. Stallard, San Francisco.
Electrolosis in the Treatment of the Male Urethra, by A. M. Gardner, Calistoga.

Neurasthenia or Nervous Exhaustion, by R. K. Reid, Stockton.
Criminal Responsibility of the Insane, by N. S. Giberson, San Francisco.

Midwifery Without Ergot, by Walter Lindley, Los Angeles.
Experience of a Country Doctor, by H. J. Crumpton, Sausalito.

In addition to the usual programme, and to add greater interest to the meeting, a large room has been set apart by the Committee of Arrangements, adjacent to that for the meeting of the Society, in which there will be an exhibition of surgical instruments, pharmaceutical preparations, and books, etc. The following firms will be represented.

San Francisco—

The Bancroft Co., books,
W. S. Duncombe & Co., books, instruments,

Redington & Co., pharmaceutical preparations,
Folkers & Co., instruments, etc.
Hatteroth & Russ, instruments, etc.
Downing & Sons,
Carson & Co.

New York—Fairchild Bros. & Foster.

Horlick's Food Co.

Philadelphia—John Wyeth & Bro.

Detroit—Parke Davis & Co., Phillips & Co.

The President has worked most energetically and unceasingly to render the coming session a most interesting one, and we expect that a full attendance and an interesting series of papers will show that he has not labored in vain for the welfare of the Society.

The first Triennial Prize of fifty dollars, under the Deed of Trust of Mrs. William T. Jenks will be awarded to the author of the best essay on "The Diagnosis and Treatment of Extra-uterine Pregnancy." The prize is open to any one. The essay must be written in English and should be sent to the College of Physicians of Philadelphia addressed to Ellwood Wilson, M D., before January 1st, 1889. Each essay must be accompanied by a sealed envelope bearing the same motto as the essay and containing the name and address of the writer. We should like to see this prize tried for by some one from California.

FROM Messrs. Parke, Davis & Co. of Detroit, we are sorry to learn that the "Index" is not yet self-supporting. We urge that our readers look into this matter, and if possible give the energetic publishers some encouragement to continue to issue a work which is of indispensable value to the scientific worker. It does not speak very well for the profession of California that to such a valuable work as this there should be but three subscribers.

The *Mississippi Valley Medical Monthly* has lately changed its name to the *Memphis Medical Monthly*. It is edited by Drs. Sims & Keely.

We understand that it is the intention of Dr. DuBois to exhibit at the meeting of the State Society the methods employed at the Pacific Coast Vaccine Farm at San Rafael. A calf will be brought to the hall and the points will be charged from the ripe vesicles. The process is interesting, and we hope that this plan will be carried out.

The last number of the JOURNAL contained an error which we desire to correct. In speaking of the Medico-Legal Society of New York, it was called the "Clark Bell Medico-Legal Society." Mr. Bell is much interested in this Society, and very desirous of its welfare, but we know that he has no desire, even if he had the right, to have his name attached to the title.

The concluding paper on the "The Campaign of Waterloo," by John C. Ropes, which is to appear in *Scribner's Magazine* for April, will be a careful, critical estimate of the significant movements made by the leading Generals, and an analysis of Napoleon's mistakes. The illustrations will be of unusual beauty, from drawings by such artists as Smedley, Zogbaum and Edwards.

The title of Robert Louis Stevenson's paper in the April *Scribner's* will be "Pulvis et Umbral." It is one of the strongest examples of his virile style, and is said to be a remarkable plea for a brave attitude toward life "in our isle of terror and under the imminent hand of death."

On The Therapy of Gonorrhœa.

Dr. Ledetsch (*Prager Med. Wochensch.*, No. 32, 1887) has during the past three years frequently employed injections of quinine in the treatment of gonorrhœa with results which in some cases may be termed brilliant.

Several chronic cases which for months had persisted in spite of all treatment, to the author's astonishment were cured in a few days. He employs the following injection:

R. Quinine Bisulph.....	1.0	grs. 15
Glycerini.....	25.0	ʒ vi.
Aq. Destil.....	75.0	ʒ ii.

At first, three times daily, then twice, and later only once.

A slight burning sensation is alone complained of.—*Jour. of Cutaneous and Genito-Urinary Diseases.*

Health Reports.

San Francisco Health Report.

ABSTRACT.

	1887	Jan	Feb.
Total, 1887.....	5649	522	451
Total, 1888.....		650	
Phthisis.....	858	89	78
Pneumonia.....	320	103	56
Bronchitis.....	127	25	31
Heart Disease.....	273	43	27
Aneurism.....	27	0	3
Apoplexy.....	147	11	15
Typhoid.....	121	23	8
Paralysis.....	109	16	8
Cancer.....	174	18	21
Diphtheria.....	222	10	15
Croup.....	92	10	6
Infant Convulsns.....	156	12	13
Meningitis.....	130	18	20
Casualties.....	174	12	15
Suicides.....	84	8	5
Homicides.....	21	2	5
Small Pox.....	24	27	9
Enteritis.....	..	17	..
Measles.....	..	11	5
Alcoholism.....	..	..	5
Daily mean tem.....		46.3°	52.8°
Precip. moist're.....		6.81	0.94

Population according to U. S. census, July 1st, 1880, was 234,520; Caucasian, 212,520; Chinese, 22,000. Estimated population, June 30th, 1886, 280,000.

Report of State Board of Health.

Mortality reports received from eighty cities and towns for the month of February show a gratifying decrease in the death rate for the month, including, as it does, those killed by the disaster at Vallejo. The decedents in an estimated population of seven hundred and twenty-two thousand five hundred were one thousand and eighty-four, giving a percentage of 1.5 per thousand. The percentage for the month previous was 1.8.

Consumption. The mortality from this disease was high during the month, one hundred and sixty-seven deaths being attributed to it.

Pneumonia caused one hundred and seventeen deaths, which is a large decrease from the record of the previous month.

Bronchitis. Thirty-seven deaths are attributed to bronchitis, which is a slight decrease from last report.

Congestion of the lungs is credited with six deaths only, which is a large decrease in fatality, and may be attributed to the meteorological conditions existing during the month, which were quite favorable to those suffering from pulmonary disease.

Whooping-cough was fatal in one instance.

Diphtheria was much more fatal than smallpox, being the cause of forty-three deaths, fifteen being credited to San Francisco, four to Sacramento, four to Willits, three to Oakland, two to Maxwell, Los Angeles and Calico; one each to Azusa, Cedarville, Colton, Chico, Los Gatos, Riverside, San Diego, Santa Clara, San Jose, Sausalito and Fresno.

Scarlet fever caused six deaths during the month.

Measles is credited with twenty-two deaths, which is a decrease of ten from the preceding month.

Smallpox was fatal in thirteen instances, which is a marked decrease from the deaths in January, when the mortality reached thirty-six from this disease. In San Francisco nine deaths were recorded, two in Los Angeles, one in Riverside, and one in Ione.

Typho-malarial fever caused two deaths.

Typhoid fever is credited with twenty-two deaths, which is a marked decrease from last report.

Remittent fever is recorded as causing six deaths.

Cerebro-spinal fever had a mortality of eighteen, which is a large increase over last report of deaths from this disease.

Alcoholism caused the death of eleven persons.

Heart disease was fatal in forty-seven instances.

Erysipelas caused only one death.

The following cities and towns report no deaths during the month of February: Anderson, Bodie, Colfax, Castroville, Downieville, Gonzales, Healdsburg, Hopland, Lemoore, Lockeford, Millville, North Bloomfield, Susanville, Truckee and Williams.

PREVAILING DISEASES.

Reports received from over one hundred localities, in different parts of the State, indicate a very great amelioration in the prevalence of disease.

The absence of violent storms, severe rains, and the unusually warm weather that prevailed during the month of February, had

a salutary effect in lessening the tendency to diarrhoea and dysentery, and mitigating the frequency and severity of pulmonary affections.

Diarrhea and dysentery are mentioned in reports from Lemore, Arbuckle, Anderson, Tulare, Fresno, Ione and other towns. The diseases are, however, not prevalent, occurring only in sporadic form.

Measles are epidemic throughout the State, and, in some cases, are so severe as to be mistaken for smallpox; especially in those cases where the eruption is very dark and markedly papular. It is a strange fact that there is seldom an epidemic of smallpox that is not preceded, or accompanied, by measles. This was the case in the great epidemic of 1670, when, according to Dr. Thos. Sydenham, the measles of that date introduced a kind of smallpox which he chose to entitle "Anomalous Smallpox," as he found it different in some particulars from the epidemic form that preceded it. This distinguished physician was the first to describe the differences that existed between measles, scarlet fever and smallpox, and laid down rules to distinguish one from the other. Up to his time, measles and smallpox were often described together, as if one was a modified form of the other.

Scarlet fever, in sporadic form, is noticed in Sacramento, Oakland, San Francisco, Sissons, Wheatland, Fort Bidwell, Ontario, Los Gatos, Etna Mills, Soledad, Lockeford, Anderson, Salinas, College City and Maxwell. The disease is of a mild type, and attended with a very limited fatality.

Diphtheria continues to prevail, but in an endemic form only. Although inspiring much less fear than smallpox, it is really much more fatal. In San Francisco thirty-seven cases were reported during the month, and of these fifteen died, a mortality of over 40 per cent. In Sacramento some twelve cases were reported, with four deaths. The disease is also present in Azusa, Calico, Cedarville, Cloverdale, Chico, Los Gatos, Los Angeles, Oakland, Maxwell, Riverside, San Diego, San Jose, Sonora, Stockton, Santa Clara, Sausalito, Willits, Fresno, Truckee, Etna Mills, Millville, Elk Grove and Anderson. In these towns the disease appears to be of a mild type, and not as fatal as usual.

Croup is mentioned as present wherever diphtheria prevails. It is the most fatal of all forms of diphtheria. The isolation of the patient and the most rigid sanitary supervision cannot be too earnestly enjoined in dealing with these cases.

Smallpox, we are glad to say, is on the decrease, and at present shows no evidence of epidemicity. In San Francisco, during the month of February, one hundred and fifteen cases only were reported; of these eighteen were Chinese—fifteen of them directly importing the disease from China. San Francisco is pre-eminently a city that shows the value of vaccination and revaccination, and its positive power to preserve a community from an epidemic of the disease. San Francisco has had smallpox in her midst for months; many of her streets reeking with filth, hundreds of her tenement houses hot-beds for contagious disease, and yet smallpox is kept well under control, solely by the good sense of her people in getting vaccinated and revaccinated. If it were not for the constant importation of fresh cases from China, San Francisco would very shortly exhibit a clean bill of health as far as smallpox is concerned.

In Stockton, eight cases were reported during the month. Dr. Ruggles, the efficient Health Officer of that city, says the disease is under control, and with the extensive protection afforded by vaccination, he does not fear any further spread of the disease. In Sacramento, two cases were reported in the early part of the month. They are convalescent, and no new cases have appeared. San Diego reported seven cases in the early part of the month. They are convalescent, and no new cases appearing since the sixth of February, the city may be declared free from the disease.

In Los Angeles there have been several cases; the exact number has not been furnished this office, but will probably not exceed twenty. Vaccination has been so actively carried on in Los Angeles that no epidemic need be expected there. In San Pedro one case was observed. In Sau Fernando a case occurred; also one in Santa Barbara, three in Riverside, five in Salinas, and sporadic cases in Napa, Redwood, Santa Cruz, Cloverdale, Wheatland, Sissons, Red Bluff, Lockeford, Redding, Ione, Sierra City, Lincoln, Fresno and Tulare City; in the latter three cases were reported. In Dunsmuir, Dr. Van Meter reports three cases; in Gibson, three cases. It is also reported in Edgewood, Mokelumne Hill, San Andreas and Murphy's. In Oakland there were seven cases during the month of February, which is a decrease of one-half from the previous month. Vaccination is vigorously enforced, so that there is hardly a chance for the disease becoming epidemic in that city. In San Jose the number of cases has

not been reported, but probably did not exceed a dozen. We notice that the "inevitable fool" predicted in a late circular, has arisen, and, through the press, is endeavoring, by misleading statements, to destroy public confidence in vaccination. This unwise course, being absolutely false in fact, is nothing less than favoring the spread of smallpox, and bringing misfortune and death where it might have been prevented. In Sheffield, England, where smallpox was epidemic, owing to the prevalence of anti-vaccination theories, it was found that out of ninety-five thousand vaccinated children only *one hundred and eighty-nine* contracted smallpox, and of this number *two died*, whereas, out of five thousand children unvaccinated, one hundred and seventy-two contracted the disease and *seventy died*. But to still further exhibit the protective value of vaccination, it was found that of two hundred and ninety postoffice officials, including postmen, carriers, messengers, telegraph operators, etc., who cannot obtain employment except they are successfully vaccinated, and whose services constantly brought them in contact with the disease, of this number *not a single one* contracted smallpox. Surely this one single incontrovertible fact ought to convince the most skeptical of the saving power of successful vaccination. We trust that in California, the most enlightened of States, we will hear no more of these senseless obstructionists to the welfare and safety of our people, whose only object in thus raising doubts in the minds of the illiterate is the incitement to a controversy which, without a basis of fact, is certain to convey a germ of distrust to the minds of many who are more easily controlled by their fears than convinced by the truth, no matter how skillfully or unequivocally presented.

PACIFIC COAST WEATHER FOR FEBRUARY.

Signal Service, U. S. Army, Division of the Pacific, San Francisco, Cal., March 1, 1888. Weather.—The month has been marked by an absence of violent storms on the Pacific coast, and by unusually high temperatures. The rainfall has been light in all districts. Rain fell in Northern California on the 1st, 10th, 11th, 12th and 14th; in Southern California on the 1st, 16th, 17th, 28th and 29th, and in Oregon and Washington Territory on the 1st, 2d, 10th, 11th, 12th, 17th, 18th, 19th, 20th, 21st, 27th, 28th and 29th.

Temperature.—The mean temperature for the north was higher

than the normal temperature for February, in all districts. The departure from the normal increases northward and eastward from Southern California, where it is about one degree, becoming about ten degrees in Eastern Washington Territory and Northern Idaho. Mean temperatures at selected stations were as follows: Walla Walla, 45°; Portland, 44°; Roseburg, 44°; Eureka, 48°; Sacramento, 53°; San Francisco, 53°; Los Angeles, 54°; San Diego, 55°.

Rainfall.—The rainfall was markedly below the February rainfall along the entire Pacific coast. The deficiency was greater in Western Washington Territory, where it amounted to five and one-half inches. Along the coast of Oregon and California the deficiency was about three inches. From the coast eastward the deficiencies become less, the rainfall becoming about normal in Idaho and Utah.

GERRARD G. TYRELL, M. D.,

Permanent Secretary California State Board of Health.

SACRAMENTO, March 10, 1888.

DIABETES AND GLYCERINE.—From a series of experiments performed recently, Dr. Ransom, of Trinity College, Cambridge, concludes that certain forms of glycosuria may be checked by glycerine.

Glycerine acts more efficiently when introduced into the alimentary canal than when injected subcutaneously.

Glycerine checks glycosuria by inhibiting the formation of sugar in the liver.

In this way glycerine may lead indirectly to an accumulation of glycogen in the liver.

Viewing the formation both of glycogen and sugar as a process of cell metabolism, quite independent of ferment action, he is unable to suppose that glycerine produces its effect by acting on a ferment in the blood, but considers it probable that it exercises some direct influence on the protoplasm of the liver cells.

Of a possible therapeutic use of glycerine in diabetes mellitus Dr. Ransom is not now in a position to speak. The reports of clinical observers are very various, and his own observations are as yet too few to form a basis for definite conclusions.—*The Journal of Physiology.—The Dietetic Gazette.*

Correspondence.

Letter From Edinburgh.

February 28, 1888.

To Editor of Pacific Medical and Surgical Journal:

MY DEAR DOCTOR:

Since I wrote to you last, we have had some little excitement here in Edinburgh regarding the action of the London Colleges of Physicians and Surgeons. A great effort is being made by these colleges, which are quite distinct from the London University, to obtain from the Queen in Council the right to confer on their licentiates the degree or title of M. D. The recipients of this degree will not be required to pass any higher examination than that for the ordinary license. Should the movement succeed, it will strike a serious blow at Scottish medical education, and especially at the Edinburgh School in all its branches. Practically, it means that the licentiates of the English colleges will be placed on a level with graduates who have passed through a complete university curriculum, or perhaps on a higher level, for as you know, we Scottish graduates are only at first M. B., and C. M., while the proposal is to register the English licentiates as M. D. right away. This, of course, will affect our university very seriously indeed. Students finding they can obtain the degree of M. D. by merely passing the examination for licentiateship from the London Colleges of Physicians and Surgeons, will not think it worth their while to spend four or five years at a university to obtain the degree of M. B. Now, we look upon a university degree, as something higher than a mere license to practice, as something more than the exact equivalent of a corporation license. Hitherto in this country, only universities have had the right to confer degrees, and there seems no reason why this rule should not still hold good. Hence, you see what a serious matter this is for our Scottish Universities. It is, however, much more serious for the Scottish corporations—the Royal Colleges of Physicians and Surgeons of Edinburgh, and the Faculty of Physicians and Surgeons of Glasgow. The license granted by these bodies will appear utterly worthless, compared with that of the English Colleges, which will carry along with it the right to use the title M. D. If the English Colleges get what they want, the

universities of Scotland will be greatly injured (as regards the number of students attending them), but the Scottish corporations will suffer very much more. Hitherto these bodies have shared in the benefits arising from the influx of medical students to their respective localities through the superior educational advantages offered by the University Medical Schools. The "triple Board" enjoys a prestige not far inferior to that possessed by the universities, so that if the London Colleges, without in any way improving their present system of examination, or establishing better institutions for medical education, obtain the power they are asking for, students will readily avail themselves of the opportunity offered, and the necessity for the Scottish Colleges will to a large extent disappear. What the Scottish Colleges have now decided to do, is to petition for a charter similar to that sought for by the English Colleges, and thus boldly insist that whatever rights and privileges are granted on one side of the border, be also granted on the other. The universities both in England and Scotland are, I believe, petitioning against the movement altogether. The petitions have now been presented, but as yet the result has not been made public.

Early in the year Edinburgh University sustained a great loss by the death of Dr. Alexander Dickson, Professor of Botany. He was a man eminently fitted for his post, and greatly beloved by the students. Last week Dr. Bayley Balfour, Professor of Botany in Oxford University, was appointed to the vacant chair, and the appointment promises to be a popular one.

The illness of the Crown Prince of Germany is still a subject of much discussion in the journals. His case is a peculiar one and the physicians and surgeons in attendance seem to be undecided as to its exact nature. Since tracheotomy was performed, many discouraging rumors have gone about. Now, however, the royal patient is making satisfactory progress. The tracheotomy tube, inserted at first, did not fit well, and caused much irritation to the windpipe and coughing accompanied by sputum tinged with blood. A new tube, specially constructed in England, has now been inserted and the irritation caused by the badly fitting one is rapidly disappearing. The swelling too in the larynx is said to be very much less.

We had a most interesting paper the other night at the Medico-chirurgical Society on "Animal Tuberculosis in relation to Consumption in Man," by Principal Walley, of the Royal Dick

Veterinary College, Edinburgh. He dealt first with the disease as it is met with in the cow and other domestic animals, and then showed how, by flesh and milk consumption, it might be communicated to human beings. His paper was illustrated by many pathological specimens which give rather unpleasant assurance of the wide distribution of the disease. He advanced a strong plea for the more thorough inspection of dairies and places where cows were kept, and advocated the necessity of more summary powers for stamping out the disease by killing the affected animals and giving compensation to their owners. He saw animals every day in the public abattoirs, and nearly every day in the markets affected with the disease, and yet no steps could be taken for its eradication. Medical men took too little interest in the matter, which was one of vital importance to the community. A long discussion followed which was taken part in by Prof. M. Fadzean of the Royal Dick Veterinary College, Prof. Greenfield, Dr. Sims Woodhead, Dr. Littlejohn, Medical Officer of Health for the City, who said we ought to co-operate with our veterinary colleagues and petition the Privy Council for powers to destroy all animals manifestly tuberculous, Dr. James, Dr. Peel Ritchie, President of the College of Physicians, and others.

R. H. BLAIRIE, M. D.

THE VALUE OF IRRIGATION IN EPISTAXIS.—Alvin, consulting physician at Mont-Dore, recently treated a case of serious epistaxis by irrigation. The bleeding came from the right nostril. The blood trickled through the plugs, and forced its way through the puncta lachrymalia. The nose was swollen, owing to the collection of blood in the nasal fossæ. The dressing was removed. The blood flowed abundantly. Irrigation was performed with water at 149° to 158° F. by means of an English irrigator. The water returned through both nostrils and through the throat. In two or three minutes the bleeding was checked. The operation was not painful, notwithstanding the high temperature of the water; it was repeated twice during the evening. Alvin concludes that irrigation with hot water is an efficient, safe and painless method of treating epistaxis. The patient should be watched for ten hours after the operation, in case it may be necessary to repeat it.—*Exchange.*

Notices of Books, Pamphlets, etc.

A PRACTICAL TREATISE ON DISEASES OF THE SKIN. By JOHN V. SHOEMAKER, A. M., M. D. New York: D. Appleton & Co.

The author says in his preface that all he claims to be original in his work is the value and relative effects of numerous agents for the treatment of skin diseases tested in his own practice, which would lead one to expect rather a work on the therapeutics of skin diseases, than a work embracing the whole field. We find, on looking over the work, that the so-called practical part on therapy has received a very marked amount of attention, fifty-nine pages being devoted to a formulary. The formulary is so arranged that the practitioner has only to look up the disease, and under it he will find a large collection of prescriptions. In his classification he puts psoriasis among the hypertrophies, instead of among the exudations. In this he certainly follows a good authority, viz., J. R. Robinson, but it seems to us that all the phenomena of psoriasis may be accounted for, considering it as an inflammation, and that it ought to be put among the inflammations. From its practical nature we are certain the treatise will find a large sale.

ESSENTIALS OF CHEMISTRY AND TOXICOLOGY for the use of Students in Medicine. By R. A. WITTHAUS, A. M., M. D., second edition. New York: Wm. Wood & Co.

The first edition was issued so long ago that the present one is essentially a new work. It is written for the use of students, not that they may "cram" for an examination, but that it may be used with benefit by both teachers and students in reviewing the important points which are the foundation of this branch of medicine.

OPHTHALMIC SURGERY. By ROBERT B. CARTER, F. R. C. S., and WILLIAM A. FROST, F. R. C. S. Illustrated with a Chromograph and 91 Engravings. Phila.: Lea Brothers & Co. San Francisco: W. S. Duncombe & Co.

This is another of the set of the valuable "Blue Books" which have from time to time been issued by Messrs. Lea Brothers & Co.

The authors do not pretend to aspire to the production of a treatise for this would be impossible in the space at their command, but merely to place before the student and professional

man a concise account of the present state of Ophthalmic Surgery, noticing the advances which have been made within the past few years. The book is of convenient size for reading, the type excellent, and the illustrations ample.

ELECTRO-THERAPEUTICS. By WILHELM ERB, M. D., with 39 illustrations.

New York: William Wood & Co. San Francisco: W. S. Duncombe & Co.

This work is one of those forming the "Hand-book of General Therapeutics" of Von Ziemssen, and will, we believe, prove to be one of the most valuable. Professor Erb is pre-eminent among those who have made Electro-therapeutics their study, and his views on the subject will be eagerly read by those interested.

The "First Section" deals with the history of the subject from its early beginnings up to its present aims and development. Section Second gives what the author calls a physical, while "Section Third" gives a physiological introduction. In Section Fourth Electro-diagnosis is investigated, and Section Fifth deals with Electro-therapeutics in general. To the subject of Special Therapeutics more than one-half of the work is devoted, and it is to this part that most reference to the opinions of the author will be made. We deem it a very valuable addition to this branch of medicine, and consider that the profession in America are fortunate in having an important work like this so ably translated.

VON ZIEMSEN'S HAND-BOOK OF GENERAL THERAPEUTICS in seven volumes.

Vol. vii. Therapeutics of Circulatory Derangements by PROFESSOR M. J. OERTEL, M. D., of Munich. New York: William Wood & Co., 1887. San Francisco: W. S. Duncombe & Co.

This work is devoted chiefly to the treatment of chronic venous stasis from whatever cause produced, but it deals more especially with the consequences following obesity and fatty heart. The author has studied not so much the use of drugs, but rather has shown how very much may be accomplished by purely physiological means.

On this point much light is thrown, and the author has taken an important step in the right direction, which will prove to be of great benefit in these cases.

We trust the book will receive from the profession the thoughtful attention it deserves.

- ON THE USE OF THE VAGINAL TAMPON IN THE TREATMENT OF CERTAIN EFFECTS FOLLOWING PELVIC INFLAMMATIONS. By T. A. EMMET, M. D.
- TRAUMATIC HÆMATOMA OF THE LARYNX. By J. W. GLEITSMANN, M. D.
- HYPERTROPHY OF THE TONSIL OF THE TONGUE. By same author.
- DYSTOCIA FROM SHORT OR COILED FUNIS, and its Treatment. By A. F. A. KING, M. D. Reprint from *Jour. of Am. Med. Assn.*
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Extracts.

Antiseptic Methods in Midwifery.

By FAYETTE DUNLAP, A. M., M. D., Danville, Ky.

[Read to the Boyle County Medical Society, Dec. 28th, 1887.]

Mr. President and Gentlemen:

I undertake the presentation of this question with some degree of diffidence, so deeply am I impressed with its significance and a knowledge of the fact that in the brief time accorded me, I will be unable to deal with it in a manner commensurate with its importance.

It can be safely said that the methods presently to be described, or some modifications of the general principle on which they are based, have taken a stronger position in modern medical science than any of the improvements in the collateral branches.

The methods are so simple that their application is readily intelligible and the principles underlying them so rational that, when once explained, they impress themselves upon us as an intuition. As prefatory to what will soon follow a brief resume of the history of the unfolding of the germ theory of disease and its application to the treatment of wounds will be necessary and I hope interesting.

The belief that atmospheric air contained myriads of organisms capable of indefinite multiplication is centuries old, but it remained for the acute observation and brilliant genius of Louis Pasteur to actually demonstrate the truth of this conception. By a series of ingenious experiments it was proven that decomposition instantaneously began with exposure of animal extracts to atmospheric air. If the air was excluded or rendered sterile by passage through heated chambers, or certain chemicals, these fluids remained pure indefinitely. It then followed, as a logical sequence, that a solution of continuity of an animal surface furnished a culture bed for development of these organisms

and that their presence and activity were of necessity harmful. This knowledge having reached this point in its development, the philosophical mind of Joseph Lister, an Edinburgh surgeon, grasped the idea at once and set about devising a method of purifying every wound, either accidental or intentional, that came under his care. The blood and tissues of human body invited the presence of this atmospheric life and furnished them a suitable home wherein to dwell and multiply.

To exclude atmospheric air was impossible, but to free the wound of this active, poisonous life, seemed to offer some hope. What followed is familiar to every one present and need not be recounted here; and out of it has grown a principle which with this application forms the greatest advance in surgery, since the discovery of anaesthesia.

Viewing then every labor as a traumatism, we can see wherein this principle of Listerism can find a fluid for its utilization. The placental site is an open wound and the mucous and cutaneous surfaces of the parturient canal are subject to lacerations during labor and furnish a suitable habitat for their microscopical life.

All atmosphere free from germ life exists only in theory, and an attempt at complete asepsis is chimerical.

There is then left open to us another point of attack, and what has been accomplished and what it promises for the future is the object of this paper.

A great many views of the nature of puerperal fever have been held at different epochs in the history of medicine. Hippocrates, Galen, Sydenham and Smellie believed it was due to suppression of the lochia. Later on the opinion became general throughout the world that it was in some way caused by milk metastasis; this in turn gave way to the localist's theory that it was metritis, peritonitis, phlebitis, and was in some way the result of the puerperal state.

This was followed by the theory so ably defended even at the present day by Fordyce Barker, namely, that it is a specific essential fever belonging to that class of zymotic diseases. During the past decade the view has gradually gained ground that it is blood poisoning, or septicaemia, due to causes acting mainly from without and associated directly or indirectly with micro-organisms. This is the accepted view of to-day, and it is

interesting to note the circumstances that have led to the adoption of this doctrine.

In 1847 Semelweiss began teaching the modern view of the causation of child-bed fever and held that puerperal patients were chiefly attacked with puerperal fever when they had been examined by physicians fresh from contact with poisons engendered by cadaveric decay; that fewer ensued in the practice of those who after post mortem examinations washed their hands in the usual manner, whereas but few, if any, cases occurred when the accoucher had washed his hands in a solution of chloride of lime.

Thus thirty years prior to Pasteur and Lister, was antiseptic midwifery being practically carried out though in a crude way, not as application of a principle, but as the result of the close scrutiny of facts as seen by an acute observer. In 1850, Sir James Simpson, with extraordinary genius and foresight, wrote a paper on the Analogy between Puerperal and Surgical Fever, in which he compared the uterus, after delivery, to an amputated stump.

The opinion held by Barker and his followers held a foremost place for many years, and was chiefly cultivated by those endorsing that enunciated by Simpson.

The discoveries of Pasteur turned the balance largely in favor of the septicæmia view, and as above stated, is almost universally accepted to-day.

Another strong point in its favor was the appeal to morbid appearances and the similarity of the lesions of surgical septicæmia and puerperal fever.

This position is further reinforced by the discovery of micro-organisms in the puerperal uterus identical with those in septicæmia. These organisms like those found in erysipelas, and in decomposing animal tissues, are antagonized by certain chemical agencies, and as a result of this knowledge of such an antagonism, the application of safe means for the destruction of them. The promise has been completely fulfilled in the brilliant results obtained in maternities by the routine use of antiseptics.

A study of the mortality tables before and after the introduction of the antiseptics furnishes convincing evidence of their value. There can be no other reason for this gratifying improvement as a rigid use of the antiseptic method is the only change made in the management of puerperal in these maternities.

I have not the time to devote to the investigation of these statistics, but it is incontestably demonstrated that this diminished death rate is due alone to this principle of antisepsis.

Prior to its introduction the mortality in five continental, and three English maternities was something over 4.2 per cent for ten years including two or three epidemics in the Lying-in Hospital in Munich. The same institutions now give the astounding record of only $\frac{1}{2}$ of one per cent.

The methods vary in the different maternities, and in the wards of different attendants in the same hospitals, yet all have in mind one grand principle, cleanliness first, that is a near approach as possible to an aseptic condition and this supplemented by antiseptics.

It is now admitted that normal labor is a traumatism. Every case furnishes an opportunity for the entrance of these micro-organisms into the blood current, and when once lodged there they cannot be expelled.

It is further admitted that this antagonism between these bacilli and their spores, and certain chemical agencies, places a weapon in our hands with which we may protect the avenues through which they enter.

The principle being so simple and its application still more so, the question now arises whether it is not our duty, with these facts before us, to bring it into requisition in our midwifery practice. Some will claim, that cleanliness, which they habitually enjoin and practice, is a sufficient protection. I will aver that it is not; and while it is absolutely necessary, it in no wise insures such protection as scrupulous cleanliness supplemented by a rigid adherence to antiseptic rules.

In no department of science is any principle more firmly established than this one. It is no fashion, but fixed principle, and though it may be greatly modified and, certainly, simplified in the range of its application. Medicine, surgery and midwifery will make its further progress directly in this line of reasoning.

From the results thus secured by the employment of antiseptic measures in the lying-in hospitals, we are assured of its value and the question naturally arises how we are to apply them in domiciliary practice.

Setting aside the question of infection, we will inquire how it is that the poison that gives rise to the disease may be analyzed.

1st. It may arise through defective sanitary arrangements in the home where the confinement occurs.

2d. It may be conveyed by the nurse.

3d. Finally, the accoucher may be the means of carrying the disease.

Those of us engaged in village and country practice, have little concern about the dangers that beset puerperal woman in a crowded city. The poisonous emanations from sewer pipes and defective drains in the homes of the urban population have no counterpart in country practice. While the general principles of ventilation and cleanliness are necessary factors in the accomplishment of thorough antisepsis, they are much easier under control.

The teaching of Playfair, as well as the practical experience of others, has made it evident that puerperal septicæmia is identical in its symptoms of course with that which arises from other causes.

If typhoid fever, diphtheria and certain forms of sore throat arise from foul air can we not argue that the poison of puerperal fever may spring from the same source. With the attention given to sexual cleanliness and the avoidance of contact with impurities there has been at the same time great consideration manifested for the sanitary surrounding of the puerpera. The improvement, then, is attributable to both causes.

The nurse who has an intelligent conception of what is the purpose of antisepsis and will carry its methods into practical operation, will add greatly to the success of the accoucher's practice. It must not be routine merely, but in addition has some knowledge of principles upon which it is based. This extreme degree of cleanliness is a necessity.

We have now reached the point where the duties of the accoucher himself are to receive consideration. The experience in the maternity hospitals above referred to while not absolutely convincing to every one, should at least persuade all that a fair trial is asked for. An attempt to carry out antiseptic precautions, slovenly done, will cast discredit upon the method. Its rules are simple, and at first seem superfluous, but when once understood and employed become so easily a part of one's routine practice that they will be no longer regarded as great tasks, one falls easily into the habit.

It is a wise precaution to have the nurse to syringe out the

vagina thoroughly with warm carbolized water during the first stage of labor. Unless there have been repeated examinations by the attendant or nurse, or the labor has been unduly prolonged, there need be but one of these douches. Furthermore, every woman going into childbed should, as matter of course, decently and as a precautionary measure have the rectum thoroughly emptied by a large enema.

W. Winckel, whose success has been marvelous, directs, that the vulva, nates, thighs and abdomen, be cautiously cleansed by a bi-chloride lotion immediately upon the beginning of labor. This can certainly do no harm, and does lessen the chances for poison entering the parturient canal. When we fully consider the value of a woman's life during the childbedding period, it devolves upon us to bring to our aid every measure that scientific research and common sense endorse. The results of these simple measures are before us and we cannot disregard their teachings.

The accoucheur should, if possible, avoid contact with pus, erysipelas and all sources of contamination; and, just here, it will be well enough to say a word as to the advisability of attending cases after such exposure. Time does not destroy the vitality of all infecting material. A change of clothing, a warm bath, with free use of soap, and disinfection of the hands, will sufficiently purify the practitioner even though his exposure has been but a few hours before.

Catheters, forceps, cloths, in fact, all instruments necessary to the completion of the labor should be scrupulously cleansed preparatory to their use about the parturient canal.

It is a custom, almost universal, to place under the patient to catch the enematic fluid, blood and other discharges, an old quilt that has seen years of service. It may have been used on the bed, covering patients having erysipelas, scarlatina, measles and fetid ulcers, and having been numberless times soiled by urinary and fecal discharges of the children in the nursery. If we are to have respect for the prevailing views as to the origin of puerperal septicæmia, we must inaugurate a reform, and introduce some innovations into the lying-in chamber. This will be difficult to do, for in no department of our calling is custom so powerful as in that circle that presides over the functions where a being is to be ushered into this breathing world.

As a rule, it is not necessary to make a routine practice of

washing out the vagina when the safeguards have been employed. This is seldom called for except when the labor has been tedious, or when there has been instrumental interference. If there is a fecal discharge, whether the temperature has risen above the normal or not, safety demands that the stream of a disinfectant solution be forced into the womb. There is some risk attending the use of the sublimate solution and it should only be used by the medical attendant, never by the nurse.

The above precautions are based upon the view that all cases of puerperal septicæmia are in their origin heterogenetic, but many hold that the fever may originate from within the patient's body, or be autogenetic. In cases supposed to be autogenetic, the woman is most frequently a multipara, the labor long and perhaps complicated, with a dead and putrid fœtus or with cancer, or there has been postpartum hemorrhage from a badly contracted uterus, followed by the formation of clots or retention of portions of the membranes or placenta. The uterus being badly contracted, air enters the vagina, and decomposition of contents is the result.

It is readily understood how infection can then be caused, and it is wisdom on the part of the attendant not to take risks, but wash out a uterus whenever a suspicious discharge appears. Do not wait for the chill and fever. It will then be too late. It will be argued that atmospheric air comes in contact with the discharge from every womb after delivery, and why are not all poisoned?

"The doctrine of autogenesis," says Dr. Parvin, "is a confession of ignorance, the creed of fatalism, the cry of despair.

"It is more rational when we meet with cases of puerperal septicæmia whose origin we do not know, but which have the same history as others, the source of which we can trace to an external cause, and which have the same evolution and the same infecting power—to conclude that they too come from like sources though the connecting thread is so fine as to elude our vision than to erect an altar to the unknown god of autogenesis and imagine we have explained the mystery.

"Self-infection means that the house sets itself on fire, and that the powder magazine is exploded without any mischievous spark. What security can the practitioner have when the foe which brings swift death is created within her, and when she kills herself. This doctrine of the autogenesis of puerperal sep-

ticeæmia is, to my mind, the very pessimism of obstetric medicine. Why should the city guard its gates when the enemy can already be in the citadel and begin the battle there?"—*Progress.*

Exsection of Extrauterine Pregnant Cysts.

Although there are forms of extrauterine pregnancy in which the Fallopian tube is not a factor, as is clearly demonstrated by the remote location and attachment of the placenta in well authenticated cases, the great majority of ectopic cysts will be found to be, or to have originally been, tubal. There is nothing in the inherent vital power of a human ovum, to make an original abdominal development of it impossible; the only thing strange about it is, that this so rarely happens.

An ovum has, prior to its attachment to some vascular base, an independent life, like that which exists in a seed, a bud, and a bird's egg. This life continues long enough for the ovum to travel from the ovary into the uterine cavity, and there form an attachment, by which its independent power of living is no longer required, and it consequently ceases. Is there any reason why this independent living and moving body cannot do in the abdominal cavity what it does in the uterus and Fallopian tube? Heat starts the process of incubation in a bird's egg; take away this stimulus long enough, and its reapplication only produces decomposition; the inherent life is destroyed by the interruption in the development of the bird. Reasoning analogically, a human ovum once attached to the lining of the Fallopian tube, has lost its independent life, and can no longer live, if *entirely* separated and cast out, by the bursting of the said tube; to continue its development below the tube, or within the abdominal cavity, its vascular dependence must not be interrupted; its blood supply is now essential to life. If, then, we find a placenta attached to the abdominal wall on a level with the umbilicus, as in the celebrated Weist operation, of Richmond, Indiana, 1884, we have a right to infer that this placenta did not commence to develop in the Fallopian tube, and was thence transferred to the abdominal wall. The same may be said of other cases that are historical, where the placenta was found at still more remote and singular locations, high up in the abdominal cavity. There are those who would have us believe that all abdominal pregnancies were originally tubal; but this is much

more difficult to credit than that some are *ovarian* and others truly *abdominal*, as the great majority believe.

The large majority of cases being Fallopian, and in their early stage of growth capable of exsection without very great difficulty or danger, it becomes a question whether this should not be done to secure the woman against the risk of death from the laceration of the cyst and resulting hemorrhage, an accident which is most common, according to Parry, from six weeks to three months after conception, the height of danger being at eight weeks. More recent observers place this point at ten weeks. In considering this question of the propriety of exsection, as advocated by Martin, of Berlin, and others, we must carefully take up two points of vital moment, viz.: 1. Can the presence of an ectopic foetal cyst be detected prior to laceration? 2. Shall foeticidal measures be adopted; or the operation of exsection in preference?

We must admit that a differential diagnosis is not absolutely positive; but there have been such diagnoses made, and exsections performed successfully, as we can bear witness to. Mr. Tait denies that a diagnosis can be made prior to rupture, which may be correct so far as his personal observation has extended; but American gynecologists, who have taken time to examine cases historically, as well as by touch, make much more positive claims. A thin hand with long fingers and a delicate tactile sense, are essentials to perfection in examining the pelvic organs. There is certainly a great difference in operators as to their delicacy of touch with a probe, sound, or the finger, and what may be quite possible with one, is impossible with another. Quite recently we heard a surgeon charged with untruthfulness, because he claimed a power in differential diagnosis by the touch, which he honestly believes, from repeated tests.

Granted that the diagnosis is correct, should the life of the foetus be destroyed by galvanism, and it be possibly a cause for future trouble, as has several times happened; or should the cyst and its contents be exsected, so that there shall be no foreign body, left, as a center of inflammatory mischief? Recent discussions by leading gynecologists, show that there is a decided opinion held by many, that exsection is to be preferred, in many cases, and particularly where the foetus is of a size to give trouble. Martin advocates this operation at all ages of the foetus, and has removed with success to the mother, a moribund child, with much of the cyst and placenta, at seven months.

It should be remembered that it is only in exceptional cases of advanced ectopic pregnancy that *entire* exsection of the sac and contents can be accomplished. This was done in October last, by Breisky, of Vienna, in a case of intra-ligamentous gestation at full period, and both mother and child lived. But in thirty cases of primary laparotomy, for the saving of child and mother, the placenta was cut into in the line of abdominal incision five times. In such subjects the placenta cannot be removed, unless, as in the Breisky case, where it had no attachment to the abdominal wall. In a few instances the sac has been exsected after foetal death in the latter months of gestation; but here, again, the location of the placenta among the intestines and elsewhere, has rendered its removal impossible, in the great majority of cases. The Martin method will have to be confined almost exclusively to tubal cases, and to these chiefly, in the early months, where its application may become one of much value. Martin is said to have operated upon twenty cases, with excellent result.—*Medical News.*

The Artificial Feeding of Infants.

In view of the present diversity of practice and opinion in regard to the important subject of artificial foods for infants, it is well that some attempt should be made to state clearly and succinctly the conditions of the problem, and the results to be aimed at. The high relative mortality of bottle-fed infants emphasizes strongly the necessity there is for bringing the artificial food into closer correspondence with the natural one. The healthy digestion and proper nutrition of an infant are of course dependent on two main factors—the quantity of the food given, and its quality. The error generally made in regard to the quantity of food is one of excess rather than defect; and this is especially so during the earlier periods of life. The capacity of the stomach in an infant five days old is only 25 cubic centimetres, and the quantity of food required for each meal is therefore smaller still. On tracing the stomach capacity onwards through the successive epochs of infantile existence we find that, generally speaking, there is a rapid increase during the first two months, followed by a pause of three months, in which increase is very slight. From the sixth to the tenth month the demand for food rises once more. Dr. Rotch gives a table showing approximately the proper intervals of feeding, and the amounts

necessary at each meal. During the first week the interval should be two hours, one ounce each time being sufficient; first to sixth week, one and a half to two ounces, at intervals of two and a half hours; from sixth to twelfth week, and thenceforward with trivial increase to the sixth month, three to four ounces, at intervals of three hours. From six months onwards the amount at each feeding should be six ounces, which may be raised to eight ounces when the tenth month is reached. These figures are calculated for the ordinary child; but a larger and heavier infant will of course require more than a smaller one. The general formula appended to the table is stated thus: At each meal the amount should be 1-100 bodyweight plus one gramme for each day during the first month. As regards the *quality* of the food, most of the substitutes for human milk consist of the milk of the cow variously modified, either by simple dilution with water, or by dilution and addition of other ingredients, such as cream, milk and other sugars, and the patent foods. Lime-water and barley-water are also employed as adjuvants.

On examining the analysis of cow's milk we see at once that dilution with simple water is insufficient to produce even a rough approximation to human milk. If the proportion of water be high enough (4:1) to make the albuminoid constituent correspond, the fats and sugar fall so low as to make the compound a very innutritious one. The reaction of cow's milk is, moreover, acid, while that of human milk is alkaline, and instead of being a sterile fluid, like the latter, it is swarming with bacteria. Condensed milk is a comparatively sterile substance of neutral reaction, and is so far superior to cow's milk; but when diluted, as it usually is, with 10 parts of water, the fats and sugar are notably deficient. Dilution with 6 parts of water raises the sugar to something more nearly approaching its proper standard, but the amount of fat is still only about one-third of that present in human milk. Other artificial foods (Imperial Granum, Mellin's and Nestle's) are considered, and a table given showing their percentage composition. The author takes exception to them all, at the start, on the ground that their composition is not constant. However carefully prepared, they are liable to the accidents of manufacture, and cannot be relied on implicitly. This refers more especially to the presence of starch, which occurs in all, even in Mellin's food, which is usually understood to be starch-free. The table indicates, moreover, that though the

albuminoids are present in proper quantity in the mixtures prepared with these foods, and digestion is in consequence easy, the fats and sugar fall decidedly short of the natural ratio. Peptonised milk is rejected on the ground that the use of a food already digested must be prejudicial to the normal physiological education of the stomach. On the whole, Dr. Rotch comes to the conclusion that cow's milk, modified to the proper percentage composition without the use of patent foods or other foreign ingredients, sterilised, and rendered alkaline, is the food likely to produce the best results. The mixture recommended by Dr. A. V. Meigs, which he considers to fulfill most nearly the essential conditions, consists of—average milk, 1 part; cream, containing 14 to 16 per cent of fat, 2 parts; lime-water, 2 parts; sugar-water (consisting of $17\frac{3}{4}$ drachms milk-sugar to the pint of water), 3 parts. The resultant is an alkaline mixture very closely resembling in composition average human milk.

To make the correspondence of the two still more complete, Dr. Rotch sterilises the food by means of a very simple and easily worked contrivance. In the first place, he discards altogether the ordinary feeding-bottle, and substitutes a simple glass tube, with a rounded end, like an enlarged test tube. The tube tapers somewhat towards the mouth, so as to allow the India-rubber mouth-piece to be slipped on, and the neck is pierced with a small hole, which can be covered at will by drawing the mouth-piece over it so as roughly to regulate the pressure in the tube. The tubes are blown in a glass standard for convenience in sterilising. The apparatus recommended for household use consists of a round tin pail, mounted on three legs, and carrying in its interior a perforated tin diaphragm, on which to stand the tubes while they are being sterilised. Three tubes are provided, one a measuring glass graduated to 2 oz., which is used as a feeding-tube, during the first six weeks, and as a measure for the larger tubes afterwards. Of the other two, the smaller (4 oz.) is used from the sixth week to the sixth month; the larger (10 oz.) from sixth month onwards. To prepare the food for use, he puts the quantity appropriate to the age into the feeding-tube, adjusts the nipple, then draws over the nipple and well down on the tube a strong, non-perforated India-rubber cot, which effectually excludes air and steam. A small quantity of water is placed in the bottom of the pail, the tube is stood on the diaphragm, and the water is heated by means of a spirit-

lamp. When the pail is full of steam, the cover is put on and the vessel kept closed for twenty minutes. This process seems to sterilise the milk very efficiently, without altering its chemical constitution, as boiling would.

The author recognizes that to carry out his system efficiently, involves no small expenditure of time and trouble; but, as he justly remarks, far more of both is readily given up to the preparation of food for adults, whose digestive apparatus is infinitely less sensitive than that of the much-enduring 'infant.—*Archives of Pediatrics.—Med. Chronicle.*

London Letter.

Mr. Lennox Browne, Senior Surgeon of the Central London Throat Hospital, in a lecture before a large audience of the medical profession, the subject of which was Benign and Malignant Growths of the Larynx, prefaced his remarks by stating that he was prompted to speak on this subject because it was largely occupying the public mind at the present moment, and it was therefore one concerning which it was very necessary and desirable to give some accurate information; but at the outset he disclaimed any intention of impertinently interfering with a case he had not seen, far less speaking in a spirit of jealousy or caviling criticism which might be calculated to harass those charged with a terribly anxious responsibility. Benign growths of the larynx he divided into three classes: (1) Those which, once removed did not recur; (2) Those which recur, but in which the recurrent element is not strongly manifested; (3) Those in which recurrence is so persistent as to practically constitute a local malignancy, without however, infecting the system with the elements of a fatal constitutional disorder. He considered benign growths to be rare and to occur in not more than one per cent of chronic laryngeal disease. The commonest primary cause was active congestion of the mucous membrane, and at least half the cures on record occurred to those whose occupation obliged them to exercise their voice professionally. With regard to the treatment Mr. Browne insisted that many small growths might be reduced by astringent applications, and that all should, as far as possible, be removed by instruments so guarded as to be incapable of wounding healthy tissue. Some injury was believed to be a not infrequent cause of malignant degeneration of growths which were primarily benign, and the lecturer had been the first

to draw attention to this fact as long ago as 1875. The proposition had met with opposition in one or two quarters, but it had been again brought forward prominently during these last few days as if it were something new. Evidence appeared to accumulate in confirmation of the correctness of the lecturer's conclusions on this subject, and doubtless, he had no doubt, they would soon be generally accepted. The distinction between benign and malignant growths was carefully elaborated, as well as the varieties of malignant formations; such variations denoting varying degrees, both of local malignancy and of constitutional infection. In justification of those who advise delay of radical treatment by excision, statistics were given to show that, while an enormous percentage of such cases have a rapidly fatal issue, in none is there any recovery of voice, or any thing more than prolongation of a few years of life of considerable discomfort. No physicians would dream of advising such a hazardous procedure so long as microscopic examination showed the disease to be of an innocent character. The milder operation of tracheotomy, while less immediately fatal, possesses all the advantages as to extension of life, and a minimum of the dangers and miseries of so-called radical extirpation.—*Am. Practitioner and News.*

A FABLE.—“A Recent Graduate, who had but lately ceased to manipulate a plow, was basking in abundant leisure, when he was accosted by a Lacerated Uterus.

“Are you a doctor?” asked the Uterus.

“‘Yes,’ replied the Recent Graduate, ‘let me sew you up.’”

“‘Hands off!’ exclaimed the Lacerated Uterus, holding up her Fallopian Tubes in horror. ‘I have been sewed up too much already, and what I came here for is to know why you doctors can’t let me alone. Once I was young and handsome [here the Lacerated Uterus sighed so loudly that the Recent Graduate murmured ‘Physometra’] but a long course of local treatment, injections, swabbings, applications, and operations have left me in this disfigured condition. Why are all the ills of humanity heaped upon my neck?’ continued the Uterus, wiping her lips with the fringed extremity of the left Fallopian Tube. ‘Why am I responsible for everything from consumption to corns?’

“At this moment a Rectum came strolling along with his hands in his pockets, just in time to hear the last remark of the Lacerated Uterus.

"‘‘Rats, sister !’’ exclaimed the Rectum.

“‘‘Brats, you mean,’ said the Recent Graduate, at which the Rectum winked, but he continued.

“‘‘Rats, sister; it is I with my little pockets that have to bear everything. My papillæ are cut off for paralysis, and my pockets are cut out for boils, and my sphincter is stretched for headaches, and I am maltreated in every way for the ills of other organs.’’ Here the Rectum sighed in an audible manner.

“‘‘Pockets ! papillæ !’’ exclaimed the Recent Graduate in a frenzied tone. ‘‘Great Heavens ! let me cut them out.’

“‘‘Not much,’ said the Rectum, as he rubbed one of his piles in a soothing way. I have seen too much of it already. Only yesterday my brother arose from his downy bed after such an operation, very much disfigured, but still in the ring.

“‘‘Brother,’ said the Lacerated Uterus, ‘possibly your words are true, and I am going to have a protracted rest. But I must be going; will your Hemorrhoidal Highness accompany me ?’

“‘‘Certes,’ said the Rectum, with a smile upon his wrinkled countenance, and together they went out, leaving the Recent Graduate searching his pocket with an air of anxiety for a nickel wherewith to purchase beer.”—*Medical Visitor.—New England Medical Monthly.*

ANTIPYRINE AND ANTIFEBRIN.—Dr. G. Walter Barr, of Bridgeport, Ill., has made a most careful clinical study of antipyrine and antifebrin on himself whilst suffering from neurasthenia complicated with malaria. He thus sums up his experience:—

Antipyrine.

Lowers temperature in half an hour.

In an hour or more.

Effect lasts two hours.

Effect lasts six hours.

More diaphoretic.

More diuretic.

Depressing after-effects.

No after effects.

Cerebral sedative.

Cerebral vaso-motor and muscular (?) stimulant.

Dose, 15 to 30 grains.

Dose, 5 to 15 grains.

Tolerance from continued use.

Tolerance from continued use.

Antifebrin.

This table, he says, will suggest the selective use of the two drugs. From the patient’s point of view (which is really coincident with the physician’s), antifebrin is much to be preferred in

continued fevers, because the dose is one small capsule instead of three; the effect lasting so long requires one-third the number of doses; the tonic stimulation excels the depression and after malaise; and the cost is one-fourth that of antipyrine. The antipyretic action of antifebrin is as strong or stronger than that of antipyrine, and its only objection is its slowness of action. In isolation and other cases where a quickly acting antipyretic is necessary, and when it has a specific action on the pathology of a disease, as is claimed in rheumatism, antipyrine is to be preferred. Whenever one can wait an hour for the antipyretic action to begin, he greatly prefers antifebrin, and so he believes will the patient also. He regards its stimulant or tonic effect as very valuable in weak patients. (*Practitioner Oct., p. 294.*)—*Braithwaite's Retrospect.*

How to LIVE WITHOUT EATING.—From a study of the subject of rectal alimentation, Dr. Weaver (*Transactions of the Luzerne County Medical Society*) has formulated the following conclusions:

1. By the use of enemata life can be sustained indefinitely with little, if any, loss of weight to the body.
2. In a large proportion of cases in which rectal aliment is used, true digestion of albuminous, saccharine and fatty food takes place, by virtue of inhaustion, or a reversal of the normal peristalsis of the alimentary tract.
3. While this is the case, there are doubtless instances in which retrostalsis does not occur, and for that reason the food used should first be artificially digested before being injected into the rectum.
4. While milk, eggs and brandy are the best aliment for rectal nutrition, no one article should be used for too long a time, but frequent changes should be made, observing the greatest care to prevent irritation of the rectum, or intolerance of that organ for the nutriment required.
5. The enemata should, if possible, be administered by the physician himself. Where difficulty in retaining the aliment is encountered, the colonic method is preferable, the food being propelled through a rectal bougie. The food should be of the temperature of the body.
6. The rectum having once become intolerant of enemata, *absolute rest* must be given to that viscus for a few days, and

reliance be placed on nutritious inunctions of the surface of the body.

7. For rectal alimentation there exists a wider range of usefulness than has heretofore been assigned to it. It is not only appropriate in the severer forms of chronic diseases of the stomach and oesophagus, but is indicated and should be utilized in the management of all *acute* diseases when, from any cause, the stomach becomes intractable and rebellious.

8. In diseases of the stomach, even where a portion of the food ingested is retained by that organ, only to undergo fermentation, inducing thereby pain and distress, it is more logical to resort to rectal alimentation, not as an *adjunct* to, but a *substitute for*, stomachal ingestion.

9. Certain organic lesions as well as functional disturbances of the stomach are curable by means of rest to that organ, and by no other means. In rectal alimentation we have a safe and sure means of nutrition, pending the necessary period of rest to that organ.—*The Dietetic Gazette.*

STRANGE SCENE AT A FIRE.—At the burning of the Homœopathic Medical College at Cleveland, Ohio, December 17th, the firemen were fighting the flames at close quarters, when suddenly, to their consternation, the nude bodies of five persons came sliding through a hole which had been burned through the floor over their heads. When the men recovered from their astonishment the bodies were dragged out of the room and strenuous efforts made to resuscitate them. A physician opportunely arrived to inform them that the bodies they were so nobly at work upon were subjects that had been dead a week or more, and belonged to the dissecting department, the fire having burned through the floor of the dissecting-room and partially destroyed the supports of the table on which the cadavers lay, causing it to incline toward the hole—*College and Clinical Record.*

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THORACIC ANEURISM.

By C. M. RICHTER, M. D.

[Read before the San Francisco County Medical Society.]

In speaking to you of the aneurisms of the aorta I shall first refer to their causes. I wish to call your attention to the fact that the aneurisms which are most commonly found in the aorta, namely the dilatation aneurisms, are invariably associated with endarteritis. Generally the entire aorta exhibits the changes which this disease produces. We know that endarteritis is produced by syphilis, gout, and other similar disturbances, also by miasms, therefore if one would wish to prevent the formation of an aneurism of the aorta, he must seek to avoid the diseases which cause endarteritis. And if an aneurism be once established it would still be necessary to prevent the furtherance of endarteritis. This I consider the cardinal point of the question. In a paper published in Langenbeck's Archiv., vol. 32., I have analyzed this subject, and have considered chronic alcoholism and continuous physical exercise the most dangerous elements for one suffering from endarteritis.

After an aneurism of the aorta has been found, the possibility still exists that it may be cured by the natural process of a compensating endarteritis fibrosa. Such a process has certainly sometimes taken place in an aneurism, although so far as I know only in those of the smallest caliber. Then again we must bear

in mind that a large aneurism of the aorta will probably require from five to ten years or even a longer time for its development. Often therefore an aneurism may appear for years to be stayed in its growth, but still be imperceptibly increasing. Our first endeavor in treating an aneurism of the aorta, if imminent danger of life does not call for an immediate operation, must be to exclude everything that may tend towards an endarteritis. It has been the belief that an aneurism could be cured by a process which would increase the facility of the blood to coagulate, or by diminishing the energy of the heart and reducing the amount of blood in the system; but even Morgagni ascribed the deaths of many patients to such procedures. And how can we expect a weak heart to become the savior of a patient when the means by which the heart is weakened exercise at the same time a deleterious influence on the wall of the artery. The extremes meet also in this question; on one side an increased tension in the arteries is blamed for causing endarteritis, and other men like Traube and Thoma pronounce a slow blood current to be the real cause of it. From a number of very interesting researches it has lately been made probable that bacilli of some type may be the cause.

Whatever may be the cause it must be our endeavor to give back to the wall of the artery its firmness if we wish to arrest the progress of the aneurism or cure it. As the endarteritis and with it the aneurism is developed, in the course of diseases which impoverish the blood and debilitate the patient; therefore, the first step must be to enrich the blood and to increase the patient's power of resistance. Thus I would recommend to lay special stress upon properly nourishing a person who presents the first symptoms of an aortic aneurism. When such patients come to us they present generally a haggard look, are thin, emaciated as if a malignant disease had taken a deep hold upon them, and they complain of the characteristic pain about the region of the aneurism. Such patients are extremely nervous and agitated about their condition. I think such patients should be put to bed, should have perfect rest of mind and body, somewhat as Weir Mitchell advises for his rigid treatment; that they have the richest food and in larger quantities than they would partake of as healthy persons. The food to be principally of a solid character. I have treated quite a number of patients in this manner and I can assure you the result has been gratifying.

both to me and the patients. Generally after they have gained from five to ten pounds within two to four weeks they regain their lost spirits, the pain is relieved, the pulse is less frequent and the pulsation of the aneurism is lessened. This improvement continues for many months, as far as I can judge now, after they have resumed their ordinary avocation, provided they abstain from alcohol and from excessive mental and physical labor.

It is advisable to give during this treatment large doses of iodide of potassium, from one to four drachms, in one day. It is noticeable that patients will very often enjoy a better appetite when taking the iodide. One of my patients, who was in the habit of taking daily five grains of morphine hypodermically, reduced the dose gradually to one-sixth of a grain, increasing in like proportion the doses of iodide. For this mode of treatment such cases of aneurism are best adapted which have not yet penetrated the intercostal space and which therefore cannot be safely reached by any operative measure.

After an aneurism has forced itself outside the thorax, then I think an operation becomes an imperative necessity. Two different operations have been recommended lately for such aneurisms; one is the introduction of wire; the other, galvano puncture; both were combined by Richard Barwell in 1886. According to Robert Abbe, 13 cases of the use of wire had been reported up to April, 1887—only two of these had been successful, one of them being the case of a fellow-member, Dr. Morse, whilst the outcome of the others, as Abbe says, has not been curative. Barwell's case of his modified treatment died one week after the operation. Another case of this operation reported by Abbe, terminated fatally on the twenty-third day. A third case operated by Abbe was relieved by death on the second day. Thus the roll-call for this operation is a very sad one. It is difficult to understand how Moore's and Barwell's operation could gain any ground, or even be invented, after such good results had been achieved by Aniselle and his followers with galvano puncture. Abbe writes in April, 1887, that only occasionally a case of galvano puncture succeeds, and refers to one reported by Dr. Simpson, in Manchester, in 1881, "an aortic aneurism that had eroded the rib and threatened to rupture, continued well five years after repeated electro puncture." But this single case deserves more credit than any case of the wire operation so far reported.

In 1884 I read before this society a report of some cases of Intra-thoracic Aneurism, which I had treated by galvano puncture. I then could refer to eleven cases of other operators, in which the relative improvement had lasted four years. I have the pleasure to-night to report that one of my cases, presented to you over four years ago, still continues well—four years and five months since the first operation. The patient has been following the occupation of engineer of a water company in a flourishing town in Southern California, where for many months he has had to inspect canyons in the Sierra Madre mountains, where he was exposed to great heat, and to the herculean task of finding his way up and down such canyons looking for water. The aneurism must indeed have been solidified to stand such work, but such work probably produced the chances for a fresh endarteritis, and the result was a new aneurism, somewhat higher in position than the first with which the patient presented himself to me last November. In December I again used galvano puncture on this new aneurism, with the gratifying result that he is to-day attending to his work in full vigor.

I add to this case a very interesting new one. Mr. C. L., æt. 48, a special policeman for the C. P. R. R., was kindly sent June 8, 1887. He presented a large aneurism of the innominate. It had tilted the clavicle out of the joint at the sternal end, and appeared to extend from the middle of the manubrium sterni to a point three inches to the right, showing even a larger diameter from above downward. I used galvano puncture June 10th and both diameters were reduced to less than $2\frac{1}{2}$ inches one week after the operation. The patient was entirely relieved of his excruciating pain, resumed work, which he had not been able to perform for nearly a year, and was able one night to throw a strong offender to the ground and cope with him successfully without injury to his health. He remained in such good health until $6\frac{1}{2}$ months after the operation. I then was called to see him and found him suffering from an attack of suffocation. The old aneurism seemed to be perfectly solid, but apparently a new one had formed which could not be detected by the eye or any other means than by the symptoms of pressure upon the trachea. He died two days afterwards and I shall now lay the specimen before you. It shows about the same good result as I obtained in another case presented to you some time since where the aneurism had been cured, but the patient died from extreme exhaustion and not in consequence of the operation.

Galvano puncture has therefore proved to be a success in these cases. In these three instances the aneurisms have been filled with solid clots, sufficiently strong to resist any danger from undue pressure of the blood, and to insure life for an indefinite period; but in every instance the endarteritis has remained master of the situation, and whether my remarks in regard to the treatment of endarteritis have a grain of truth only time can tell.

ACTINOMYCOSIS.

By D. W. MONTGOMERY, M. D.

[Read before the San Francisco County Medical Society.]

Since Schoenlein, of Wurzburg, discovered the fungus which is always associated with, and considered to be the cause of, favus, the number of mycotic diseases discovered has been increasing. We have the trichophyton tonsurans, causing the diseases tinea circinata, or ringworm of the body; tinea tonsurans, or ringworm of the head; sycosis parasitica, or ringworm of the beard; eczema marginatum, or ringworm, where two opposing surfaces of skin come in contact, as in the axilla, beneath pendulous mammae, and between the thighs. We have the microsporon furfur, giving rise to pityriasis versicolor; oictium albicans, associated with thrush; aspergillus growing in the external meatus of the ear and on the membrana tympani, and associated with or causing an eczema of these parts.

Practically, we consider that ringworm, favus and pityriasis versicolor are caused by their respective fungi; for, although culture and inoculation experiments have either failed or have proved unsatisfactory, still, the diseases do not exist except associated with their particular fungus, and if the fungi are killed the diseases are cured. With thrush, and with eczema of the ear associated with aspergillus, the medical profession are not so in accord with regard to their etiology.

The disease actinomycosis is, however, undoubtedly caused by the fungus actinomyces, for it fulfills the following scientific requirements:

- (1) When the fungus is present in a tissue, it is always surrounded by a new growth of granulation tissue.
- (2) The extension of the disease is dependent on the extension of the fungus.

(3) The disease may be caused in healthy animals by inoculation with the fungus.

The name actinomycosis was first proposed by Harz, and is derived from the Greek root *aktin*, a ray, and the generic ending *mycosis*, first proposed by Virchow, to indicate a disease caused by a fungus.

The "ray fungus" itself consists of a central part composed of a matted interlacement of fibres, and springing out from this central part in all directions, in a ray-like manner, are club-shaped processes. The central part is the mycelium, and the club-shaped processes springing out from it are the conidia. It is these latter which give it its rayed appearance, and its name, the "ray fungus." Its exact botanical position has not yet been determined.

The true nature of the disease was first discovered by Bollinger, who was at the time pathologist in the veterinary school in Munich. He sent the fungus to Harz for examination. In the same year, 1877, James Israel, of Berlin, observed, independently, the disease in a human being. A woman, aged 36, applied for treatment for abscesses of the skin. Many of these abscesses were opened, and a thin, foul-smelling pus, in which floated peculiar sulphur-yellow bodies about the size of a grain of wheat, was evacuated. Ferdinand Cohn examined the fungus, but was unable to classify it. This case died of marasmus. Abscesses were found in the lungs, spleen, kidneys, intestines and liver. All of these abscesses contained clumps of the actinomycetes fungi. Tonfick was the first to show the identity of the disease in cattle and in man. Johne showed that the disease could be inoculated into healthy animals. It is thought that a breach of continuity is necessary for it to gain access to the body, and carious teeth seem to be particularly adapted for its inoculation, although some cases have been reported where it seems to have been inhaled with the breath, and to have entered through the walls of the bronchi. At the Surgical Congress in Berlin, in 1886, James Israel reported a case where the autopsy showed an actinomycotic cavity in the left lung, and in this cavity a piece of carious tooth. Israel thought that the piece of carious tooth, harboring the fungus, had been drawn into the lungs by an inspiration, and had formed a nidus for the disease. In the discussion which followed, Esmarch laid great stress on the fact that, almost always, the patient had, for years before

showing signs of the abscess, been occupied with the care of cattle.

A curious fact is that it has only been observed either in herbivora or omnivora, never in purely carnivorous animals, and these facts have led to the idea that it is conveyed into the mouth on vegetable foods. There are two principal forms of the disease, viz.: a localized form, and a generalized form.

In the localized form the disease usually first appears as an infiltration in the neighborhood of the lower jaw. This infiltration gradually becomes more circumscribed and nodular, but is not accompanied by any, or at most by very little, pain. The nodule at last softens, fluctuates, and is either opened by the surgeon's knife, or discharges spontaneously. The contents of the abscess consist of a thin, purulent, and very foul smelling pus in which float peculiar sulphur-yellow bodies, the fungus. The cavity now shows no disposition to heal, but goes on enlarging by its walls breaking down. As a rule it will be found that the patient has carious teeth. In the generalized form of the disease it will usually be found that the starting point is somewhere near the lower jaw. Secondary deposits have been found in the plura, heart, spleen, kidneys and subcutaneous tissue.

On Feb. 24th, of this year, 1888, Dr. Bowhill sent me specimens of a tumor from the neck of a cow. The pieces I got were solid fleshy masses with small sulphur-yellow patches here and there on the cut surface. These yellow patches used to be looked upon as fat previous to Bollinger's demonstration of their real nature. At first sections were stained with the ordinary alum carmine stain, which brought out the lesions very plainly. The fungi could be seen here and there over the field, generally single, but sometimes in groups of two and three. They were immediately surrounded by new formed granulation tissue, which shaded off into cicatricial tissue. I afterwards at the suggestion of Dr. Abrams, stained some sections with picro-carmine. After taking the sections out of the picro-carmine staining fluid, I allowed them to remain in a solution of one part of hydrochloric acid to one hundred parts of glycerine for about two hours. This procedure gave a beautiful contrast stain, a rich yellow for the fungus, and a deep red for the surrounding nuclei.

The veterinary surgeons, Drs. Bowhill and Fitzgerald have sent

me the following account of the cases of actinomycosis bovis, which they have met with in cattle in this state.

" We have met with several cases of the disease actinomycosis bovis in this state. The first cases were found in a herd of twenty cattle, some of them young, near San Jose. The diseased animals were destroyed, and microscopic examination showed the presence of tuberculosis in one animal, in the others actinomycosis. In these cattle some of the lesions communicated externally, whilst others were in the retro-pharyngeal space. There was the usual formation of abscesses, and strong cicatricial bands. One tumor was connected to the base of the sphenoid bone by strong connective tissue adhesions, and weighed two pounds.

" The next case was in a cow imported from England, and because of the value of the animal it was decided to operate. Two tumors were removed from the neck weighing two and three pounds respectively. After the wounds were healed, another tumor began to grow, which was also removed. Then another tumor began to develop, but could not be operated upon because the cow was near her time for calving. After calving a very large tumor was removed, and now both the cow and calf are doing well.

" The next cases were in cows at the *abattoir* of San Francisco. The cattle were said to come from Kern County. In these we found the bones of the jaw affected, and tumors in the submaxillary space, and parotid gland, and from the emaciated appearance of some of the animals we had no doubt that in some the internal organs were also affected. No autopsies were made on these animals.

" The next case was at Menlo Park. The tumor was situated in the parotid gland; it was excised, and the cavity washed out with a solution of copper. The characteristic fungi were found in this case also."

DR. HENRY D. CHAPIN at the last meeting of the Section on Public Hygiene and State Medicine of the Academy of Medicine, read a paper on "The Survival of the Unfittest," in which he maintained that the methods of our modern civilization tended to perpetuate unfitness and defective types, such as were represented by criminals, lunatics and paupers.—*E.R.*

Licentiates of the California State Board of Examiners.

SAN FRANCISCO, April 4, 1888.

The following persons having complied with all the requirements of the law and regulations of the Board of Examiners, were unanimously granted certificates to practice medicine in this State:

- G. A. ANERSWALD, M. D., San Diego; St. Louis Med. Coll., Mo. March 5th, 1880.
- EUDOLPHIA CONCKLIN ARMSTRONG, M. D., Santa Ana; Woman's Med. Coll., Penn., March 11th, 1869.
- RHODES W. BUNNEL, M. D., San Francisco; Med. Coll. of Ohio, Cincinnati, O., March 1st, 1848.
- H. C. CLARK, M. D., Auburn; Med. Coll. of Ohio, Cincinnati, O., March 1st, 1871.
- GEO. W. DAYWALT, M. D., San Francisco; Med. Dept. Univ. of Tenn.; February 26th, 1884.
- PAUL DEGROOTE, M. D., San Bernardino; Univ. of Liege and Brussels. Belgium, April 2d, 1864.
- SHELBY MARTIN DODSON, M. D., Santa Clara; St. Louis Med. Coll., Mo., March 4th, 1864.
- CHAS. C. GORHAM, M. D., San Diego; St. Louis Med. Coll., Mo., March 4th, 1887.
- BARTLETT YANCY HARRIS, M. D., Eureka; Coll. of Phys. and Surgs., of Chicago, Ill., Feb. 28th, 1888.
- HERON WHITE HORTON, M. D., Earlham; Med. Dept., Univ. of Iowa, February 10, 1863.
- J. M. HURLEY, San Bernardino; Cincinnati Coll. of Med. and Surg., Ohio, June 19th, 1865,
- MARTIN B. KELLAR, M. D., San Diego; Miami Med. Coll., Ohio, March 1, 1868.
- LOUIS GEO. LE BEUF, M. D., Los Angeles; Tulan Univ. of Louisiana, Med. Dept., March 30th, 1887.
- WILLIAM MCNAUL, M. D., Traver; Med. Dept. Univ. of Wooster, Cleveland, O., July 3d, 1884.
- JOHN D. MENG, M. D., Oakdale; Coll. of Phys. and Surgs., Keokuk, Iowa, June 14th, 1877.
- CHARLES EDWIN PARENT, M. D., Dunsmuir; Bishops' Coll., Montreal, Canada, March 31st, 1885.
- WILLIS J. PEAK, M. D., Pomona; St. Louis Med. Coll., Mo., Feb. 22d, 1861.
- JAS. J. POWERS, M. D., Tulare; Coll. of Phys. and Surgs., Baltimore, Maryland, March 1, 1881.
- ELBERT PINNEY, M. D., West Los Angeles; Sterling Med. Coll. of Columbus, Ohio, February 22d, 1848.
- JOHN ELLIS RODLEY, M. D., Chico; St. Louis Med. Coll., Mo., March 2d, 1881.
- HOWARD W. SEARIGHT, M. D., Folsom; Med. Dept. Western Reserve, Cleveland, O., March 14, 1882.

E. C. THATCHER, M. D., San Diego; Univ. of Pennsylvania, Penn., March 14th, 1866.

TEY WATANABE, M. D., San Francisco; Med. Dept. Univ. of Cal., Cal., Nov. 15th, 1887.

PHINEAS S. WATSON M. D., San Jacinto; Cincinnati Coll. of Med. and Surg., Ohio, February 21st, 1872.

CLARENCE ALFRED WEAGANT, M. D., Rialto; McGill College, Montreal, Canada, March 31st, 1879.

CECIL EARNEST WASGATT, M. D., Los Angeles; Bowdoin Med. Coll., Maine, July 13th, 1882.

WM. A. WHITLOCK, M. D., San Jacinto; Med. Dept. Univ. of Tennessee, February 24th, 1885.

W.M. M. LAWLER, M. D.,
Secretary.

Poisoning by a Ten-Grain Dose of Antipyrine.

By S. PETERS, M. D., Cohoes, N. Y.

For a severe headache, of a nervous character, in a lady—Mrs. H.—of about twenty-five years of age, and otherwise healthy, I prescribed two powders (ten grains each) of antipyrine, one to be taken an hour after the first, if needed. She took one about 9:30 p. m., and in two or three minutes she began to experience a “snapping” in her head, along with an itching and burning in the mouth and throat, particularly in the roof of the mouth. This feeling also extended to the eyes, nose and ears, and became so violent that she involuntarily thrust her fingers into her mouth and ears to seek relief. The “snapping” in the head increased in intensity till she became almost frantic, and ran up and down the room screaming, partially losing control of herself, and apprehending acute insanity. Sneezing soon commenced, and became extremely violent, the act being repeated at least fifty times, while the nose and eyes were running a very copious watery fluid. The turgescence of the mucous membrane was so extreme that she could not breathe through the nostrils for several hours—indeed, not until the next day. Following all this, there was a stupid, tormenting feeling, with swelling of the nose and eyes, till, exhausted, she finally fell asleep. This sleep was disturbed and tiresome, but the headache proper was relieved. The most violent part of the process continued for only about ten minutes, but recovery was not perfect till the next day.—*Medical Register.*

Proceedings of Societies.

San Francisco County Medical Society.

SAN FRANCISCO, March 14, 1888.

In the absence of the President and Vice-President, Dr. W. P. Gibbons, was called upon to preside. The minutes of the previous meeting were read and approved.

Dr. Washington Ayer was reported seriously ill.

Dr. A. S. Siefkes was proposed by Drs. DeWitt and Kenyon. Referred to Committee on Admissions.

Dr. Chismore, in the absence of Dr. Ayer, chairman of the Committee appointed for the purpose, read the report and resolutions in honor of the memory of the late Dr. J. L. Meares.

Your committee, appointed to report upon the death of Dr. John L. Meares, respectfully submit the following:

When a good man dies, when an honorable physician passes from his field of useful labor and his body is consigned to the silent tomb, it is eminently fitting that his surviving friends should offer a tribute to his memory, in words of loving kindness. Dr. John L. Meares, was well known as a gentleman of high integrity and honor; he held the position of Health Officer of San Francisco for many years, and even the changes of party politics did not make his office vacant for a single day, for all felt that he was "the right man in the right place." He was kind and courteous to all, faithful in the discharge of his duties and harbored no sentiments of malice towards anyone. It was necessary to know him intimately to appreciate the depth of feeling which influenced him in all the walks of life; and a more honorable gentleman the medical profession could not name. His early life and his record, as an officer in the Confederate army, are matters of history and are familiar to us all. Fearless in the discharge of duty, he was the champion of justice and honorably closed a life unstained by reproach.

Without attempting to pronounce a eulogy worthy of his memory, your Committee respectfully offer the following preamble and resolutions:

Whereas: John L. Meares, an esteemed friend and fellow member of this Society, is dead and all that was mortal of the man has been laid in the grave; and

Whereas: In the hour of bereavement we desire to express

the sentiment of sorrow experienced by those who knew him well and to have the same placed upon the records of this Society; therefore

Resolved: That in the death of John L. Meares, the medical profession has lost one of its best, ablest and most honored members; and the public a true, devoted friend and a faithful and earnest servant, who never failed in the honest discharge of his sacred trust.

The resolutions were approved, ordered spread upon the minutes and a copy sent to the relatives of the deceased.

Dr. C. Cushing read a paper entitled "Report of Some Cases of Laparotomy."

Dr. Bazan was of opinion that the operation (for obstruction of the bowels) last described in the paper was only unsuccessful because the patient was in so prostrated a condition when it was undertaken and that the life of the patient would have doubtless been saved if it had but depended upon the results of the operation.

Dr. Chismore said that opening of the abdomen in the early stages of obstruction is hazardous, as it is impossible to definitely prove that obstruction then exists, and when the diagnosis can be made with certainty it is too late to save life, as the damage is already done and cannot be remedied even by exposing the parts.

Dr. Cushing considered that the exhausted condition of the patient's vitality should be a warrant for proceeding. An exploratory incision is attended with so little risk when made under proper precautions and unaccompanied by some serious inflammatory lesion, that it should be more frequently resorted to.

Dr. J. A. Miller thought that if the diagnosis of obstruction could not be fully determined within forty-eight hours from the time it is suspected there should be no further delay in performing laparotomy.

Dr. Wm. P. Gibbons believed that the record of laparotomies for obstruction is not favorable enough to warrant resorting to it as a step of urgent necessity, and he believed if cases of obstruction could be seen and recognized soon enough they could generally be relieved by remedial measures, in support of which the Doctor cited several cases which came under his observation.

Dr. Whittell remarked that the time will soon come when it will be considered culpable negligence or incompetence *not* to open the abdomen when the symptoms of disease or injury within its cavity clearly point to a fatal issue, and it will be considered, to say the least, as censurable to allow a patient to die without attempting to save him by operating, as it now is in ophthalmic surgery to allow a patient to become blind by sympathetic ophthalmia by needlessly postponing or neglecting the timely removal of the injured eye.

Dr. Jerome Anderson said that, if, in the case last reported by Dr. Cushing, the operation for artificial anus had been made, the chances for recovery would have been better, considering that the symptoms pointed to obstruction low down in the bowel.

Dr. Bazan considered such an opening was an infirmity worse than death itself, in which Dr. Cushing concurred, and stated it was the reason why he had chosen the method of operation described.

Dr. Bowie cited a case in which fecal obstruction occurred in the lower bowel and rectum and had lasted three weeks but finally yielded to treatment. He believed the cases referred to by Dr. Gibbons were probably of this kind, and that in all cases of obstruction, before resorting to laparotomy this source of error in diagnosis should be carefully excluded.

There being no further business, the Society adjourned.

A. P. WHITTELL,
Assistant Secretary.

SAN FRANCISCO, March 27, 1888.

The meeting having been called to order by the President, Dr. J. D. Arnold, the minutes of the former meeting were read and approved.

The Committee on Admissions reported favorably on the application of A. L. Siefkes, M. D., who was forthwith elected to membership.

Dr. C. M. Richter read a paper upon the treatment of Thoracic Aneurism, referring to treatment by rest, diet, and iodide of potassium, but chiefly to the benefits derived from electrolysis. He reported several cases in which this method had yielded the most gratifying results, and exhibited specimens taken from one or two patients who had died some time subsequent to the

operation. In all of these a well organized clot was found lining the aneurism and increasing the thickness of the walls by more than half an inch.

Dr. Stallard spoke of the prevalence of aneurism in this city. No doubt the disease was in most cases associated with endarteritis and, therefore, the treatment of this latter affection should form the basis for other curative measures. The number of cases adapted to galvano-puncture was small, and it was surprising to see the lasting benefits that resulted from palliative measures. Eight years ago he examined a patient who presented all the symptoms of thoracic aneurism and prescribed absolute rest for three months, at the end of this time all the evidences of the disease disappeared, and were absent for more than six years, when they re-appeared and the patient died from cardiac asthenia. An autopsy could not be obtained.

Dr. J. Rosenstirn thought that some distinction should be made in the treatment of thoracic aneurism according to the situation of the tumor. He believed then in aneurism of the ascending aorta simultaneous ligature of the subclavian and carotid had been the most successful, twelve in thirty-two cases reported having lived for one year and upwards after the operation. Electrolysis was not so innocent as it seemed, for in more than one case death had followed the operation in less than one hour. Balfour and Teufnel's methods had also given excellent results. Electrolysis was best adapted to aneurism of the transverse and descending portions of the arch.

Dr. Wm. Watt Kerr did not think that iodide of potassium had any direct influence in promoting the formation of clot in the aneurismal sac since the addition of the iodide to blood, removed from the body, prevented or retarded coagulation, and although the influence of the drug after absorption into the circulation might not be exactly the same, nevertheless the fact that formation of clot is itself an abnormal process in the circulation entitled us to expect that this potassium salt would have still less power to produce a clot when absorbed into the circulation. He thought that the great value of this drug in such cases lay in its power of reducing arterial pressure, and by its alterative effects bringing about a healthier condition of the vessels and other tissues. He reported three cases of combined wire and electrolysis operations for aneurism of the ascending aorta. The first died sixteen days after the operation from a

subsequent dilatation of the transverse aorta pressing upon the trachea. The second made an excellent recovery, and left hospital more than three months ago. In the third, a woman, the operation had to be abandoned as the wire first introduced was too stiff to pass away in loops from before the canula, and the patient refused to allow the operation to be resumed.

Dr. Whittell suggested the following preliminary precautions in using the wire. Render the interior of the canula perfectly smooth by passing through it a piece of copper wire covered with oil and emery and this will diminish the chances of the wire kinking during introduction. When silver or platinum wire is used let it be drawn through a plate so as to give it sufficient spring without making it too hard; any excessive hardness is easily diminished by slightly warming the wire in a spirit lamp. The last part of the silver wire might be forced into the sac by a steel wire passed down the canula and then withdrawn.

Dr. J. D. Arnold said that the discussion had chiefly referred to those cases in which operative interference was deemed necessary, but it often happened that the symptoms were too obscure to locate the disease with any precision. Recently he had seen a patient who complained of aphonia, together with slight pain near the larynx, and on examination there was evidence of well marked aortic stenosis, although the second sound was pure, and no indications of aneurism in the way of physical signs could be discovered. The probability was that an aneurism existed, but its presence was concealed by other organs.

Dr. Chismore said that the *post mortem* specimens exhibited by Dr. Richter showed the power of galvano-puncture to form a good clot and he, therefore, preferred this to the wire operation in which the wire passes in any direction, and is away beyond the control of the surgeon.

Dr. Richter replied that he had not been able to find one instance upon record in which failure followed the introduction of the positive pole alone into the sac; in unsuccessful cases the negative or both poles had been introduced. Instead of starving his patients he highly nourished them so as to accelerate the formation of new and healthier tissues.

The Secretary asked whether the Society intended to take any steps for providing a banquet to the visiting members at the meeting of the State Society.

Dr. Stallard moved that a committee be appointed to confer with the Committee of Arrangements as to providing a banquet or other entertainment for the members of the State Society, and that they have power to act in the matter.

The motion was carried, and the following committee appointed: Dr. Stallard, Dr. Kenyon, Dr. Fitzgibbon, Dr. Hart, Dr. Kerr.

There being no further business the Society adjourned.

Wm. Watt Kerr,

Recording Secretary.

SAN FRANCISCO, April 10, 1888.

The meeting having been called to order by the President, Dr. J. D. Arnold, the minutes of the former meeting were read and approved.

G. W. Fuller, M. D., Cooper Medical College, 1887, was proposed for membership by Dr. J. D. Willson and Dr. S. O. L. Potter. The application was referred to the Committee on Admissions.

The Committee on Admissions reported favorably upon the credentials of Dr. S. E. Windell, who was forthwith elected a member of the Society.

Dr. Stallard reported that the Banquet Committee had met with the Committee of Arrangements for the next meeting of the State Medical Society, and after discussing the matter had decided that it would be better to dispense with the usual custom of providing a banquet. The report was received and the committee discharged.

The following bills were read and reported upon favorably by the Auditing Committee, after which they were ordered paid by draft on the Treasurer:

Postage.....	\$13 50
Duncombe & Co., binding journals for library....	35 00
Mr. Shiels, Hall rent for April.....	10 00

Dr. D. W. Montgomery exhibited a heart with very well marked mitral stenosis in which the auriculo-ventricular orifice was so small as to hardly admit a pencil, nevertheless the patient had taken ether during the performance of a lengthy operation without experiencing any difficulty.

He afterwards read a communication on actinomycosis. Al-

though ringworm, and favus, and some other fungi are generally accepted by the profession as the etiological factors of several well known diseases, yet they do not fully answer the scientific requirements, for culture and inoculation experiments have either altogether failed, or have proven unsatisfactory. The profession have accepted these fungi as the causes of the respective diseases attributed to them, because, in the first place, the diseases do not exist without the fungi being present, and secondly, the fungi being killed the diseases are cured. It is different with the fungus under consideration, for it answers all the scientific requirements, for

(1) When the fungus is present in a tissue, it is always surrounded by a new growth of granulation tissue—

(2) The extension of the disease is dependent on the extension of the fungus—and

(3) The disease may be caused in healthy animals by inoculation with the fungus.

The fungus itself consists of a matted central part, or mycelium, which sends out in all directions club-shaped processes, the conidia. This is what gives it its rayed appearance and its name, the ray fungus.

The disease usually enters the body by a solution of continuity in the mouth, for example a carious tooth. It may remain localized in the lower jaw or its neighborhood, as a circumscribed nodular tumor, which breaks down in its centre forming an abscess, or it may become generalized.

The cases so far observed in California have been in cattle, and we are indebted to the veterinary surgeons, Drs. Bowhill and Fitzgerald, for the present specimen.

Unfinished business. The report of the Banquet Committee came up for discussion, and after an informal conversation in which most of the members took part, it was decided to dispense with the banquet in accordance with the repeated request of many of the visiting members, and as the custom was a barrier to the State Society meeting in other parts of the State where the number of practitioners was small.

There being no further business the Society adjourned.

Wm. Watt Kerr,
Recording Secretary.

Health Reports.**San Francisco Health Report.****ABSTRACT.**

	1887	Jan	Feb	Mar.
Total, 1887.....	5649	522	451	445
Total, 1888.....		650		483
Phthisis.....	858	89	78	87
Pneumonia.....	320	103	56	62
Bronchitis.....	127	25	31	14
Heart Disease.....	273	43	27	26
Aneurism.....	27	0	3	4
Apoplexy.....	147	11	15	22
Typhoid.....	121	23	8	6
Paralysis.....	109	16	8	7
Cancer.....	174	18	21	17
Diphtheria.....	222	10	15	7
Croup.....	92	10	6	4
Infant Convulsns.....	156	12	13	13
Meningitis.....	130	18	20	16
Casualties.....	174	12	15	10
Suicides.....	84	8	5	9
Homicides.....	21	2	5	2
Small Pox.....	24	27	9	4
Enteritis.....		17	..	12
Measles.....		11	5	2
Alcoholism.....		..	5	3
Daily mean tem.....		46.3°	52.8°	52.5°
Precip. moist're.....		6.81	0.94	3.60

Population according to U. S. census, July 1st, 1880, was 234,520; Caucasian, 212,520; Chinese, 22,000. Estimated population, June 30th, 1887, 300,000.

Report of State Board of Health.

Reports received from eighty-seven towns, with an estimated population of seven hundred and thirty-four thousand seven hundred and fifty, record ten hundred and sixty-six deaths, giving a percentage of 1.4 per thousand during the month, which is a still further decrease from the preceding month.

Consumption. The mortality from this disease was very high during the month of March, one hundred and eighty-eight deaths being attributed to it. From the number occurring in the southern part of the State, we may truthfully surmise that they were in a great part strangers seeking health.

Pneumonia had also a high death rate, one hundred and thirteen decedents being so recorded. Sixty-two of these occurred

in San Francisco, although the weather was not particularly unfavorable during the month.

Bronchitis caused twenty-eight deaths, which is a decrease from last report.

Congestion of the lungs was fatal in fifteen instances.

Whooping-cough caused three deaths.

Diphtheria shows a decreased death rate during March, twenty-eight deaths being attributed to it, which is less by fifteen than the report for February. There were only seven deaths from diphtheria in San Francisco, which shows a great diminution in the prevalence of the disease in that city. The other cases were sporadic.

Croup, which may really be classed with diphtheria, is credited with eleven deaths.

Scarlet fever caused ten deaths during March.

Measles had twenty-four deaths credited to it, which is about the same mortality that is recorded in the preceding month from this cause.

Smallpox caused fifteen deaths, of which only four occurred in San Francisco, three in Los Angeles, three in Murphy's, one in Alvarado District, Merced, one in Stockton, one in Redding, one in Riverside, and one near Downey.

Typhoid-malarial fever caused but one death.

Typhoid fever is credited with eighteen deaths, which is a slight decrease from last report.

Remittent fever is reported as causing nine deaths.

Cerebro-spinal fever had the large number of twenty-three deaths attributed to it.

Alcoholism caused seven deaths.

Heart disease had sixty-three decedents.

Erysipelas was the cause of the death of six persons, which is an increase of four over last report.

The following towns report *no deaths* during March: Merced, Igo, Williams, Ontario, Gridley, Hill's Ferry, Anderson, Bodie, Wheatland, Alturas, Castroville and Rocklin.

PREVAILING DISEASES.

Reports of sickness from ninety-nine localities indicate a very favorable diminution of diseases throughout the State for the past month. This is especially noticeable in acute diseases of the lungs and inflammatory affections of the bowels. Smallpox

is still to be found within the State, more because of failure to recognize the disease and isolate it promptly, than from any virulence of the type prevailing.

Diphtheria is also appearing in many new quarters, from like cause, and until the public can be taught that prevention is much better than disease, we may expect a continuance, in a greater or less extent, of all these preventable maladies.

Cholera infantum seems at present to be almost entirely absent from the State, Lemoore, San Diego and Tulare being the only reports that mention it. As the warm weather approaches it will no doubt become a prominent factor in our mortality list.

Diarrhoea and dysentery are noticed in a few instances in Tulare, Anaheim, College City, Alturas, Downey, Lemoore, Truckee, Cottonwood, Anderson, Bakersfield, Calico and San Diego.

Measles still prevails extensively, and in some places is quite epidemic. The almost impossibility of quarantine in this disease makes it spread limitless, except by exhaustion of material. Fortunately the present epidemic is mild and the mortality limited. It is prevalent just now in Tulare, Castroville, Wheatland, College City, Lakeport, Rocklin, Sacramento, San Francisco, Oakland, Gridley, Weaverville, Downey, Susanville, Bodie, Colfax, Lodi, Knight's Ferry, Hill's Ferry, Sissons, North Bloomfield, Nicolaus, Lemoore, Truckee, Pomona, Cottonwood, Los Gatos, Anderson, Bakersfield, Auburn, Tehachapi, Redding, Ventura and Stockton.

Scarlet fever, in a mild form, is noticed in Wheatland, College City, Rocklin, Sacramento, Biggs, San Francisco, Oakland, Sissons, Angel's Camp, Auburn, Anderson, Redding, Murphy's, Douglas Flat and Chico.

Diphtheria during the month has exceeded its former boundaries in many directions, appearing in Etna Mills, Cedarville, Benicia, Cloverdale, Sissons, Truckee, Anderson, Bakersfield, Los Gatos, Calico, Railroad Flat, Oakland, Sacramento, San Francisco, Los Angeles, Redding, Ventura, St. Helena, Pasadena, San Jose, Colton and Santa Ana.

The general conclusion in regard to this disease is that it is a specific poison, not depending upon defective sewerage or sewer gas, as we find it in localities without sewers as well as those well sewered; among the rich as well as among the poor; in cities, and in remotely isolated dwellings. The disease is com-

municable, and can be carried long distances by infected persons, clothing and railway cars. It can only be arrested, or at least restricted, by the thorough disinfection of the persons and premises of those in contact with the dread disease. It should, therefore, be legally incumbent on every person to give notice of the disease whenever present on their premises, or in their families. We hope such a law will be enacted by our next Legislature.

Membranous croup, which is practically the same as diphtheria, was noticed in reports from College City, Lemoore, Truckee, Bakersfield, Riverside, Millville, San Francisco, Santa Ana and St. Helena, accompanied with its usual fatality.

Typhoid fever is remarkable by its general absence from the reports of prevailing diseases.

Remittent and intermittent fevers are beginning to again prevail, as the temperature increases; they are chiefly confined to the lowlands and river courses.

Cerebro-spinal fever is becoming quite a prominent feature in our reports. As this disease not infrequently takes on an epidemic form of great fatality, we cannot be too careful in insisting upon the perfect cleanliness of the surroundings of the patient; the strongest evidence being now adduced that the disease is nurtured in filth and distributed in vitiated air.

Erysipelas is likewise mentioned in many of our reports as prevailing to some extent. This is another aerobic poison that can be exterminated by due attention to cleanliness of person and premises.

Smallpox, although no longer declared epidemic in San Francisco, still lingers in that city. Twenty-three cases were reported during the month, three of them Chinese, recently imported. In Oakland there were only four cases reported during the month. In Eureka, Humboldt, five cases occurred. Two in Millville and three in Redding. In Stockton there were nineteen cases, all convalescent; two more cases were since discovered. In San Bernardino two cases were quarantined. In Riverside six cases were reported, all nearly recovered; as two weeks have elapsed without any new cases, it is hoped the disease is there " stamped out " by vaccination. In Los Angeles there were many cases, the number of which the Health Officer has neglected to report. It also appeared in Oceanside, Downey, Monrovia, Ontario, Point Reyes, Gilroy, San Jose, Santa

Cruz, Watsonville, Sissons, West Point, Murphy's, Duncan's Flat, San Andreas, Sheep Ranch, Alvarado District, Merced, and perhaps other points not reported. The danger this State encounters from smallpox is in the great desire for concealment which exists not only among individuals, but among officials; it is with the greatest difficulty this office gets the necessary information to enable it to take the proper steps for the suppression of the disease. In San Andreas, for instance, the disease there was mistaken for chickenpox. This sad blunder caused the death of some and the diffusion of smallpox throughout the county. Had the physician promptly quarantined the first case, even if it were chickenpox, the disease could have been arrested, and the county saved from the pestilence. In Watsonville a similar mistake was made, and although the qualified physicians there declared the disease was smallpox, the assurance of other physicians, not so qualified, that the disease was not smallpox, seemed to meet with such favor that for a time isolation and quarantine were neglected, and the disease, as a matter of course, spread.

The fact, therefore, that the largest cities have practically stamped out the disease, does not relieve us from its extension in the State where sanitary precautions are either ignored or neglected. Fortunately, the type so far has been exceedingly mild. So much so, that many with the disease were not even confined to bed; but from these the most virulent cases may be developed, and they should be as sedulously guarded from contact with the public as if they were confined to bed. It is these mild cases that have caused such extension of smallpox over the State, and if vaccination is not thoroughly and systematically performed throughout the length and breadth of the land, there is no telling when and where the disease will stop. For the "stamping out" of a disease like smallpox in a community, there must be co-operation, there must be individual interest and union. The concealment of a case of smallpox increases the epidemic tendency, and intensifies its capacity for indiscriminate extension, which injures not only the guilty parties, but also their neighbors. In fact, the concealment of a case of smallpox, which thereby is communicated to another who is innocent of the presence of the disease, renders the parties concerned guilty of murder, should death ensue.

PACIFIC COAST WEATHER FOR MARCH.

Signal Service U. S. Army, Division of the Pacific, San Francisco, Cal., April 1, 1888. Weather.—Four well defined storms appeared on the Pacific coast during March. The first was central off the coast of Oregon on the 1st, and was noteworthy for heavy rainfall in portions of Southern California. This passed to the northeast and was quickly followed on the 4th by the second, which passed from Cape Mendocino to the northeast, accompanied by high winds and heavy rainfall, particularly in California. The third remained central near the mouth of the Columbia river from the 11th to the 13th, giving rain over Oregon, Washington Territory and Northern California, and then passed eastward. From the 14th to the 29th the weather was generally fair along the Pacific coast, local rains, however, falling at intervals in Washington Territory, Northern Oregon and Southern California. On the 29th the fourth storm of the month appeared off the coast of Oregon and passed to the north, giving rain from Puget Sound as far south as Fresno.

Temperature.—The mean temperature for the month was slightly above the normal in Washington Territory and Northwestern Oregon, and slightly below the normal in other Pacific coast districts. Mean temperatures at selected stations were, to the nearest whole degree, as follows: Olympia, 44°; Portland, 46°; Roseburg, 47°; Red Bluff, 54°; Sacramento, 53°; San Francisco, 52°; Los Angeles, 55°; San Diego, 56°.

Rainfall.—The monthly rainfall was less than the average rainfall for March in Oregon, and slightly in excess of the average in Washington Territory and California.

GERRARD G. TYRELL, M. D.,

Permanent Secretary California State Board of Health.
Sacramento, April 10, 1888.

WIFE (to Sick Prohibitionist)—“The doctor says, my dear, that you must take whisky to tone up your system.”

Sick Prohibitionist—“Well, if I must, why of course that settles it, but whisky is an awful curse. How much may I take?”

Wife—“A teaspoonful twice a day.”

Sick Prohibitionist—“Great Heavens! Is that all?”—*The Chicago Medical Times.*

PACIFIC MEDICAL AND SURGICAL JOURNAL
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WESTERN LANCET.

EDITOR:

WILLIAM S. WHITWELL, A. M., M. D.

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SAN FRANCISCO, MAY, 1888.

Editorial.

ANNUAL MEETING OF THE STATE SOCIETY.

The Society met in annual session at B'nai B'rith Hall, San Francisco, and was called to order by the President, R. H. Plummer, at 10:30 a. m., April 18, 1887.

The address of welcome was delivered by C. G. Kenyon, chairman of Committee of Arrangements. On motion of Dr. Crumpton the address was referred to the Committee on Publication.

The report of the Committee of Arrangements on Registered Members etc. consisted in the reading of names of registered members.

In pursuance of the President's suggestion, roll-call was omitted on motion of Dr. Lawler.

The President, Dr. R. H. Plummer, delivered the annual address, which was referred to the Committee on Publication.

On motion of Dr. Kenyon the following was adopted: That the recommendations of the President in his address, that a committee be appointed to revise the statute and by-laws of the Society be concurred in.

In consideration of the fact that at the last session it was suggested that no hasty action should be taken by the censors, the ladies and gentlemen present were requested to scan the list of appointments, and if they knew aught against any name to make the same known to the members of the committee.

Minutes read and approved. Adjourned.

AFTERNOON SESSION, April 18, 1888.

Dr. H. Gibbons, Jr., chairman of the Committee on Publication, stated that the report of said committee was contained in the front part of the volume "Transactions of the Medical Society of the State of California, session of 1887."

In accordance with the recommendations in his annual address, the following committee on the revision of the by-laws was appointed by the chair: C. E. Blake, W. W. Kerr, S. O. L. Potter, H. J. Orme, J. H. Parkinson.

The Board of Examiners recommended the following applicants for membership: L. T. Holland, C. C. Barber, A. C. Rogers, W W Murphy, Chas. A. H. De Szigethy, H. H. Maynard, Geo. W. Lasher, F. L. Haynes, M. B. Pond, D. B. Northrop, Chas. C. Valle, Thos. C. Stockton, J. M. Forrest, M. E. Van Meter, Chas. M. Johnson, F. A. Alford, J. W. Reading, J. F. Boyce, A. M. Taylor, J. H. Miller, J. R. Todd, T. A. Davis, G. W. Merritt, W D. McDougall, J. G. Bailey, F. X. Trembley, J. L. Siefkes, L. Melton, C. J. W. Henry, H. J. Borde, Hugo Senftleven, H. G. Brainard, E. R. Smith, F. D. Bicknell, J. Kurtz, H. A. Du Bois. On motion the report was accepted.

On motion the following gentlemen were appointed Auditing Committee upon the financial report of the Board of Medical Examiners, G. F. G. Morgan, J. W. Robertson, W. H. Mays.

On account of the absence of certain members who were to take active part in the afternoon proceedings, Dr. Gihon of the U. S. Navy read a most interesting paper upon the Rush Monument. Referred to Committee on Publication.

In view of the fact that considerable clapping of hands ensued,

Dr. Gibbons, of Alameda, moved that each member should clap his hand into his pocket and pull out a dollar. Motion was carried and Dr. Tyrrell and Dr. Gibbons were appointed as a committee to receive the silver.

On motion of Dr. Gibbons, of Alameda, a committee of which Dr. Gibbons was elected chairman, was appointed "to go out and draw in the members."

C. E. Blake, chairman, read the report of the Committee on Medical Legislation.

On motion of Dr. Graves, it was made a special order for 11:30 Friday.

The amendment to the constitution offered last year by Dr. G. W. Davis, was adopted.

Dr. W. W. McFarlane, as chairman of the Committee on Mental Diseases and Medical Jurisprudence, read an interesting paper on the Diagnosis and Treatment etc., of Insanity. In the course of his remarks the speaker stated that California had hardly become a State, before she made provisions for her insane. Over 60 per cent of the insane in California are foreigners. There are over 150 Chinese in the asylums now, at an expense of \$2,000 per month. Insanity is produced largely by saloons, opium joints and the like. Moreover in these days, when it is unfashionable to have a family, the consequent abortions certainly have a most deleterious influence upon the female mind, and next appears upon the scene, the shyster lawyer, with promise of easy divorce. No wonder that women become insane. There are over 2,000 insane in Stockton and Napa. The speaker also touched upon the interesting question of the increase of insanity.

On motion of Dr. Crumpton, the paper was referred to the Committee on Publication.

The discussion was opened by J. W. Robertson of Napa. Dr. Robertson took the standpoint that insanity was not on the increase; for when insane asylums were first established they were looked upon as only another name for jail, and where very few

could be induced to send their insane. The Dr. considered this an erroneous belief for, said he, the less restraint put upon the insane, the better they get along; there being not over 12 patients in the asylum now under restraint. The patients arise early and retire at a fixed time and this with other hygienic measures seems to act very beneficially.

Dr. Mays followed Dr. Robertson and gave a few statistics upon the comparative prevalence of insanity in the State. He stated, that in round numbers, there were 1,500 insane in Napa, 1,600 in Stockton, a total of 3,100. Taking the population of California at 1,250,000, we have an average of one insane in every 400, which is a low per cent as compared with New York, which had 1 in every 352; Massachusetts, 1 in 360; Illinois, 1 in 345; Great Britain, 1 in 348.

Dr. McFarlane stated that an asylum for chronic insane was being established at Agnew, which will soon be completed.

Dr. Robertson, of Yreka, remarked that he had frequently observed that patients had been discharged from the asylum as bad if not worse than when they entered.

Dr. Mays replied that if some of the ladies and gentlemen present were in an asylum for a few months they would soon perceive that the question was not whether the patient was insane, but whether he could be trusted in the world at large.

Dr. Grover spoke of the criminal insane who crowd the state asylums and strongly recommended that each state prison should have attached to it an asylum for insane criminals.

Dr. Grover made a few remarks upon abortion as a cause of insanity in which he concurred with Dr. McFarlane.

On motion, the report of the Board of Medical Examiners was referred to the Committee on Publication.

On motion, 3 o'clock was appointed as the time of meeting of the Committee on Prize Assay.

On motion, the report of the Auditing Committee was received.

Dr. Morgan moved that the Society take the same course this year as last in the matter of publication of the transactions of the Society.

Dr. Gibbons, chairman of the Committee on Publication: I think that this subject should be left to the consideration of a larger number than present now. It is a great labor to prepare a volume of that size for publication and I should not be inclined to undertake it again.

Dr. Morgan: I think that that was fully discussed last year. I am sure that the members must feel grateful at the result of Dr. Gibbons' labors, but I feel sure that they do not wish a re-hash of the matter.

President: I have reason to believe that if the Society will postpone the matter it will be to its interest.

On motion the matter was laid on the table.

Reading of minutes of afternoon session. Adjourned.

EVENING SESSION, April 18, 1888.

Dr. W. E. Taylor, chairman of the Committee of Surgery, read a paper on the "Operative Interference of Internal Cancer." The gentleman commenced with a reminder of the antiquity of the subject, etc., and assumed as a clinical type the disease called cancer, including therein none of the various forms of sarcoma, but only carcinoma, and remarked that his remarks were only upon the cutting procedure. The term cure, applied to cancer, seems to have a different meaning than when applied to non-malignant disease. In cancer operations three years has been the limit of cure. One object of the paper is to sound a note of warning to consider well before we advise these operations. The time is not far distant when operations for internal cancer will be more rare than now, and in the few cases they will be done for palliation rather than cure. We know how difficult it is to make an early diagnosis in internal cancer, and by the time it is made, the surgical interference is no longer of avail. The doctor here gave some statistics of operations on internal organs for cancer, showing a fearful mortality. He doubted whether there had been a case of complete recovery from removal of cancer of uterus. In most cases of reported cure following operations, death ensued within three years, and

where complete cure followed he could not but doubt the diagnosis. As far as his personal experience went he had never seen a case of carcinoma recover, either with or without treatment. The speaker remarked that in citing successes in ovariotomy, as a reason for operation for carcinoma, the fact was lost sight of that one was non-malignant while the other was malignant.

On motion the report was referred to the Committee on Publication.

The discussion was opened by Dr. T. W. Huntington, who said that in his opinion, Dr. Taylor had left no room for discussion. He heartily concurred in all that his predecessor had said, and cited several cases of his own to substantiate his views.

Dr. Robertson, of Jackson, resuming the discussion, said that he had had a limited experience in these operations himself. He agreed with his predecessors as to the inefficacy of operations for removal of cancer, citing instances in his own experience, and concluded with the remark that all cases of reported cure were cases of mistaken diagnosis.

Prof. Lane, of Cooper Medical College, opened the discussion for the negative: I am glad to say that I disagree with Dr. Taylor in the view which he has of the incurability of cancer. I am thoroughly satisfied that it can be cured, and I am thoroughly satisfied that I have cured it a number of times by operation. Take the mammary gland of the breast;—since November, 1876, I have made a record of my cases on that organ, and have operated some 87 or 88 times. It is true a number died, but I can safely say that at least one-fifth of the cases are living and cured. The great trouble is when we do not get the case sufficiently early. I will select a single case where an error in diagnosis was impossible. A family which I knew 27 or 28 years ago, was essentially a cancerous family. Both father and mother had died of cancer, and a daughter had inherited the disease, and had cancer unmistakably on the mammary gland. I operated eight or nine years ago. She recovered and has remained well ever since. The granddaughter had the disease.

I removed the breast four or five years ago, and she is well to-day. In St. Mary's Hospital, among the Sisters, there was an unmistakeable case of cancer I operated 20 years ago, and it has not returned; but later the other breast became affected; I operated, and that Sister is still living. A patient on whom I operated 16 or 17 years ago is still living and has remained cured. In consideration of these facts and others, I must disagree with the gentlemen who have spoked before me. Billroth, in his work on Pathology, says he has cured one-third of his cases by operation, and there is no room for doubt as to the correct diagnosis. I believe cancer of the uterus is curable. I have operated twelve times and cured two of those cases. One nearly four years ago has yet remained cured. All these cases were examined under the microscope and no room left for doubt as to their nature.

Dr. McNutt next followed. He stated that the statistics on the removal of uterus for malignant diseases are very much better in Europe, especially in Germany, than in this country, and there must be a reason for it. The earlier the removal the less likelihood for a return. The Germans rely upon the microscope for a diagnosis, not waiting for other late symptoms to develop, and then decide on operation early.

Dr. Arnold considered that in deciding such a question recourse should be had to the true pathology, for if the cancer was a local manifestation of a general infection, operative interference was manifestly unavailable. If, on the other hand, the general infection followed the local trouble, operation was certainly justifiable.

Dr. C. Cushing: I agree in the main with Dr. Taylor with regard to operation for cancer of internal organs. My private experience has been limited to malignant disease of the uterus. If cancer is a local disease, which will ultimately affect the general system, then, surely, operative interference is warranted. It seems to me that in operating upon cancer of the uterus, only one condition warrants active interference with the knife: that the disease shall be limited to the uterus; that it shall not affect

surrounding tissues, and that the disease has extended sufficiently far to produce an amount of hemorrhage and discharge that seriously imperils the comfort and health of the patient. When there is not sufficient discharge I do not think they are proper cases for operation.

Dr. Rosenstern took the ground that if the removal of the mammae was successful, operations on the womb for similar diseases should be successful likewise, and cited cases of successful operations.

In conclusion, Prof. Taylor remarked that his paper related only to internal cancer, and he did not wish to be understood as considering these operations unjustifiable. He considered operations justifiable when made with a view to palliation. Moreover, the chances of success are much better in external than in internal operations, and justifiable in many cases with a view to relief, both physically and mentally. In conclusion he again wished to remind those present that the paper was intended to check the indiscriminate operations for cancer.

Dr. Julius Rosenstern read the report of the Committee on Histology and Microscopy, which was referred to the Committee on Publication. After the report the Doctor gave stereoptican views of typhoid, lepra, erysipelatous and other bacilli.

On motion of Dr. Stallard a vote of thanks was given to Prof. Runyon, of the College of Pharmacy, for his kind assistance.

The supplemental report on "Some Forms of Endoarteritis," with microscopical exhibition, by J. H. Stallard and Albert Abrams, was announced as open for examination in the adjoining room.

Minutes read and approved. Adjourned.

MORNING SESSION, April 19, 1888.

Ira E. Oatman, chairman of Committee on Diseases of Women and Children, read a very interesting paper on Eclampsia. He said that if every pregnant woman would put herself under the care of a competent physician and obey his instructions during gestation and until after delivery, puerperal

eclampsia could be averted in every case, for its premonitory symptoms portend sufficiently the grave conditions that follow. Although prophylactic treatment herein contemplated is well described in books, he suggested that saline or other active laxations, diuretics, with anodynes, if indicated, tincture iron, etc., and if there is fever with periodical exacerbations; or if patient resides in a malarial locality, quinine sulph. gr. iv., morph. sulph. gr. 1-16 to 1-12 or more, may be given 4 to 6 times in 24 hours. Any active treatment should be accompanied by anodynes and, if premature labor is threatened or already exists, opiates. The treatment herein recommended may be used in all above conditions. He illustrated the treatment by a hypothetical case with the salient points, premising that we have not seen or treated the woman during gestation. When called, the woman is in labor and has violent convulsions; or is soon to be attacked with puerperal eclampsia. The stomach contains sour ingesta, the bowels are costive, urine retained and highly albuminous, pain is severe, face flushed, conjunctivæ suffused, convulsions frequent, once in 5, 10 or 15 minutes, pulse tense, full with stertorous breathing and *wholly unconscious*. The obvious indications are to relieve the convulsions, deliver the child as speedily as safe, prevent other convulsions, treat the general system for relief of the pathological condition.

Veratrum viride, a drug wholly free from danger, the dose of which is small, easy of administration by mouth, hypodermically, or per rectal enema, will arrest convulsions about as speedily as either chloroform or cloral hydrate, or venesection. First of all, give tinct. veratrum viride, m. x., with pure magnesia or soda bicarb. and pulv. ipecac of each ʒ ii. Then use large enemata of warm camphor water once in 30 minutes until bowels are freely moved. Then empty bladder with a catheter while waiting for injection to act; if there is time, give tinct. veratrum in doses of m. v. to viii. and ipecac ʒ ss. every 30 to 40 minutes until stomach is freely emptied and the pulse reduced to 60, or, if convulsions occur or threaten, to 40. As soon as rectum and

bladder are also emptied, give pure ether, or chloroform by inhalation until profound anesthesia. Then deliver at once. With tinct. of veratrum in doses of 6 to 10 drops once in 3 to 6 hours, the pulse can be kept down to 60 or 40 a minute. If excessive quantity of veratrum be given, the nausea and severe vomiting that follows is not dangerous, because it can be readily and effectually checked and controlled by stimulants given immediately after each vomiting; and he preferred brandy or whisky. Paregoric is also very effective in relieving the nausea and vomiting. After convulsions are arrested, give of quinine sulph. gr. iv. four times a day with some anodyne if indicated, and tinct. ferri (chloride) m. xv. in a glass of water three times a day after meals.

Infantile eclampsiae are extremely liable to occur in malarial, or so called' mountain fever, or in typhoid, or typho-malarial fever; and may occur in severe fever from local inflammatory origin. In these cases he gives a large emetic dose of some form of ipecac, combined with pure magnesia 3 i. or 5 to 10 gr. of soda bicarb. followed by copious draughts of warm water repeated until free vomiting. During intervals between vomiting, give large injections into rectum of warm water every 30 minutes until bowels move freely. As soon as stomach is probably empty, or before if urgent, give tinct. veratrum viride, in doses proportionate to the age of the child, once in an hour or two or oftener, until brain, nervous and blood tension is sufficiently relaxed, to arrest the convulsions. Then continue the veratrum in doses sufficient to maintain adequate relaxation. If pulse is depressed, and fever of a malarial origin, as soon as the stomach will retain it, use once in 3 hours of quinine sulph. gr. i. to iii. and a few drops spt. aeth. comp. ext. hyoscyamus fl., and continue sufficient veratrum and ipecac to keep pulse and fever under absolute control. The quinine and veratrum should be alternated if necessary so as to keep pulse and fever down, day and night. During convulsions keep head high and cool. The drinks should be demulcent. The diet for the first few days

should be breast; or milk 7 or 8 parts to 1 of lime water. Should vomiting continue, a weak sinapism over the stomach with a few teaspoonfuls chicken tea gives relief. Continue quinine and anodyne for 4 or 5 days. To avoid return give 1½ to 4 gr. quinine 4 times a day, for child 1 to 12 yrs. of age, 3 days before expected attack.

On motion this paper was referred to Committee on Publication.

On motion the report of the Committee of Arrangements was accepted.

On motion the report of the Board of Censors was accepted.

Dr. J. B. Trembley, chairman of the Committee on Medical Topography, Meteorology, Endemics, and Epidemics, being indisposed, requested that his paper be referred to the Committee on Publication. So ordered.

Dr. Washington Ayer, chairman of Committee on Public Hygiene and State Medicine, being indisposed, only read a portion of his interesting paper.

After the discussion, the following resolution was adopted:

Resolved, That this Society especially indorse that portion of Dr. Ayer's paper referring to medical expert testimony, and that it be referred to the committee with request that steps be taken to have it incorporated in the laws of the State.

Minutes of morning session read. Adjourned.

AFTERNOON SESSION, April 19, 1888.

Report of Committee of Arrangements accepted.

Report of Board of Censors accepted.

John Fife, of Red Bluff, read a supplementary report to the Committee on Medical Topography, Meteorology, Endemics and Epidemics. Referred to Committee on Publication.

The following resolution offered by Dr. G. F. G. Morgan was adopted:

Resolved, That the best interest of this Society requires that it should itself print and publish its transactions in volume

form, as last year; and the Committee on Publications is hereby instructed and authorized to print and publish the transactions of the present session.

A paper entitled "Criminal Responsibility of the Insane," by Dr. I. S. Titus, of San Francisco, as a supplementary report of the Committee on Mental Diseases and Medical Jurisprudence, was referred to Committee on Publication without reading, as Dr. Titus was unable to appear.

On motion of Robt. K. Reid, the supplemental report on Neurasthenia or Nerve Exhaustion was referred to Committee on Publication without reading.

Dr. H. M. Sherman read a supplementary report entitled, "Diseases of Children." Referred to Committee on Publication.

Dr. J. Simpson offered as a resolution, that the Society cordially indorse the memorial, with regard to a quarantine station, signed by the State Board of Health, Board of Health of San Francisco, Supervisors, Chamber of Commerce, Board of Trade, etc. Carried.

Dr. Murphy suggested that each member attach his name to the same.

Motion was carried that the resolution be telegraphed to Washington.

The following resolution was offered by Dr. Lawler and passed:

Resolved, That the Society cordially endorse the efforts of the State Board of Health in their endeavors to procure a law to forbid interment and cremation of human bodies in this State without first having obtained a permit from some proper constituted authority, and also

Resolved, That the Society cordially endorse the efforts of the State Board of Health in their endeavor to procure a law whereby vaccination will be compulsory upon all children entering the public schools, and also in their endeavor to make the law relating to birth, marriage and death effective.

The following resolution was offered by Dr. Tyrrell and accepted:

Resolved, That the Secretary be instructed to communicate with the Presidents of local Societies throughout the State, instructing the Presidents to collect \$1.00 from each member in aid of the Rush monument.

Dr. W. A. Briggs presented his resignation from the Secretarship of the Society, which was accepted.

ELECTION OF OFFICERS.

Dr. Lane nominated Dr. J. Simpson for the Presidency for the ensuing term. The Secretary was instructed to cast the ballot, and Dr. J. Simpson was elected President.

Dr. Dudley, of Los Angeles, and Dr. Agard, of Oakland, were nominated for 1st Vice-Presidency, and on the second ballot Dr. Dudley was elected.

Dr. Agard withdrew from the nomination for 2nd Vice-President.

Dr. W. J. G. Dawson, of St. Helena, was elected 2nd Vice-President.

Dr. W. A. Briggs, of Sacramento, 3rd Vice-President.

Dr. J. H. Parkinson, of Sacramento, and Dr. W. W. Kerr, of San Francisco, were nominated for Secretaryship, and Dr. Kerr was elected.

Dr. L. M. F. Wanser and Dr. H. M. Sherman were elected Assistant Secretaries.

Dr. J. F. Simmons was elected Treasurer.

The following were elected to constitute the Board of Censors: J. G. Fitzgibbons, S. F. Long, C. C. Valle, E. W. King, H. W. Dodge.

The Examining Committee was elected as follows: C. E. Blake, J. Simon, C. E. Farnum, C. H. Steele, A. H. Pratt, R. H. Plummer, W. S. Whitwell.

The hour being late, other business was postponed.

Minutes read and approved.

Adjourned.

EVENING SESSION, April 19, 1888.

The evening session opened with a report from Harry M. Sherman, of San Francisco, chairman of Committee on Diseases of Children. His paper was entitled "Acute Diarrhoea in Children." The speaker dwelt at length upon the various micrococci and bacilli in connection with foods, etc., the older and later views as to the cause of summer diarrhoea, and proving, by very elaborate statistics, that heat alone is not the only factor, but that moisture and dryness play an important role; showing, also, that the greatest morbidity and mortality have occurred with the minimum temperature, and that extreme heat alone is not capable of causing summer diarrhoea. The speaker dwelt upon the relations of ptomaines to diarrhoea; likewise a micrococcus found in ice-cream and milk, *i. e.*, tyrotoxicon; $\frac{1}{2}$ to 1 gr. of which, introduced into a cat, produced diarrhoea, vomiting etc. If milk reaches over 60° it will change its taste. Water, likewise, when it reaches 60°, changes its taste. The changes in both cases are due to micro-organisms. These micro-organisms will produce diarrhoea, and in post-mortems from diarrhoea these same organisms are found. One of these organisms, tyrotoxicon, stands alone. It has been found that it is capable of reproducing itself, both outside and inside the body. Micro-organisms are taken into the stomach daily, but are destroyed by the action of the gastric juice, and even digested. If indigestible substances remain lodged in the tract, these micro-organisms gather about it, and form a favorable receptacle for their growth. The gastric juice has also a marked influence on ptomaines. Finally, all proofs go to show that this diarrhoea depends upon these micro-organisms; nevertheless, it is not positive. In consideration of the facts, the author strongly recommended the treatment by antiseptic drugs. In support of his views as to the advisability of this new plan of treatment, he cited Holt, of New York, who treats with naphthalin; Ricord, who uses bismuth salicylate, 80 cgm., 3 times a day; Monti, benzoate of soda, bichloride of mercury, hydrochloric acid, soda chlor., with soda carb. and creosote. Cirdet de Cassicort recommends creosote,

carbolic acid, benzoate of soda, resorcine and naphthalin. Reliet and Barthey, nitrate of silver in a weak solution, frequently repeated. Some of these gentlemen commenced their treatment with a dose of castor oil, and then followed it with the antiseptic.

Dr. Sherman exhibited a boy, who, through an injury, had the last phalanx of the thumb driven out through an aperture on the other side, and it passed through the soft tissues of the phalanx much contused. The first treatment was to put the part in a bichloride gauze and bandage, until the boy had recovered his equanimity. On the next examination, he found this last phalanx entirely gone; a small piece, however, a cavity of soft tissue, was still there. Iodoform and bichloride gauze were used to wrap up the part, and so it remained for some time. He soon placed in this cavity a portion of bone taken from the scapula of a puppy, consisting largely of cartilage, which had in it a center of ossification; the size of the bone was $\frac{5}{8}$ inch in length, $\frac{1}{2}$ in width and $\frac{1}{4}$ thick. He wrapped it with bichloride gauze, and then left it four or five days. When he removed the bandage it seemed to be healed, and but very little discharge was upon the dressing. It went on so, until now it is all healed except a small sinus by the side of the matrix.

Discussion on acute diarrhoea was opened by Dr. Henry Gibbons, Jr. He expressed himself as in accord with all that had been said by Dr. Sherman. He wished to ask one question: whether the treatment was wholly antiseptic combined with no other; whether no opium was used. (In the cases reported no other was used, except castor oil followed by naphthalin etc.) As the knowledge of the bacterial origin of disease is extending, we are inclined to use remedies now known to be bacteriacides; and among these calomel. It seems at the present day, that the older physicians had a more practical knowledge of the value of various drugs than those of a later period. For you will remember that at one time calomel was almost removed from the *materia medica*. Now it is discovered that it is a germicide and accomplishes much good. Creosote was used by older physi-

ians. It had long been his practice in this disease, to commence with a dose of calomel guarded with a certain amount of opium, one dose being sufficient sometimes to cure quite a severe attack of diarrhoea.

Dr. Anderson, of San Francisco, in resuming the discussion, concurred in the bacterial cause of the disease. In speaking of the germicidal treatment he remarked that a train of symptoms sometimes appears, that no germicide will remedy. In a child with temperature of 104 or 105, suffering from cholera infantum, you may fill the child with germicides, but unless you lower the temperature you will not relieve the child. If you place it in a cold bath and give opium the temperature is lowered and the disagreeable symptoms pass away, and you have aided your antiseptic treatment very greatly.

Dr. Chismore, although concurring with Dr. Sherman, nevertheless did not see that for the general practitioner at present the antiseptic treatment was the exact thing, although justifiable if combining it with the older method.

Dr. Sherman closed the discussion by reminding the audience that in his paper he presented only those things that have been advised in the last year or so; the older methods of treatment were left untouched. Bismuth is an acknowledged germicide. Oxide of zinc is sometimes used in summer diarrhoea in children to stop vomiting. Astringents are used as much as anything in the treatment of diarrhoea.

Dr. G. C. Pardee, of San Francisco, chairman of the Committee on Ophthalmology Otology, Laryngology and Rhinoscopy, read a very interesting and exhaustive paper upon the most recent recommendations on the subjects above named. Referred to Committee on Publication.

A supplemental report was read by Dr. Henry Ferrer, of San Francisco. Referred to Committee on Publication.

Discussion was opened by Dr. A. P. Whittell, of San Francisco, and renewed by Dr. Arnold, upon galvano cautery as a cure for catarrh. Dr. Stallard, Dr. Baily and Dr. Barkan followed in the discussion.

After reading of the minutes the meeting adjourned.

MORNING SESSION, April 20, 1888.

Report of Committee of Arrangements and report of Board of Censors read and approved.

Dr. Walter Lindley, of Los Angeles, chairman of Committee on Obstetrics, read a paper on the use of Ergot in Obstetrics, as practiced by himself. When called to a case where there is a slight hemorrhage he gives 15 to 30 drops fl. ext. ergot, every 4 or 5 hours and a little opium, until the signs of hemorrhage have disappeared; and he does this with the exception of preventing abortion and not producing it. In inevitable abortion he dilates immediately and empties the uterus of its contents. He uses hot water for hemorrhage. In post-partum hemorrhage he prefers hot water or ice to ergot, since ergot is only a haemostatic. He uses ergot: (1) In threatened abortion as a preventive. (2) In inevitable abortion. (3) In post-partum inertia. (4) Close of labor and 2 to 3 days after.

Dr. Wallace A. Briggs, of Sacramento, opened the discussion. It is no more than 50 years ago, he remarked, that a celebrated surgeon arose before a medical association and exclaimed "thank God, I know nothing of obstetrics." He repeated this simply to show the improvement in obstetrics to day as compared with 50 years ago. Payot and Lachman, he said, discard ergot in every condition preceding the complete emptying of the uterus. He agreed in all that his predecessor had said and furthermore added that although ergot hastens involution it has a remarkable influence in the staying of post-partum hemorrhage. The doctor also spoke at length upon antisepsis and asepsis both in their application to surgery and more particularly to obstetrics.

Dr. C. E. Blake read the following which was adopted:

Your committee, appointed to report upon the address of the president and the revision of the constitution and by-laws of the Medical Society of the State of California, have examined the address and commend his zeal, fidelity and activity, in advanc-

ing the interests of the Society and most heartily concur in the recommendations therein contained, especially those relating to preventive and State Medicine; and hope that our legislators will enact the necessary laws to put them in force. We beg leave to submit the accompanying proposed constitution and by-laws, and recommend their reference to the Committee on Publication, for action at the next meeting of the Society.

On motion the report of the Committee on Medical Legislation was endorsed and ordered published in the transactions.

On motion of Dr. Orme the proposed bill was amended so that one-half of the fine should go to the informer, which will give stimulation to the prosecution.

On motion the words "and marine hospital" were inserted in Sec. 18.

Eighty votes were cast for selection of a place for next years meetings, of which there were 43 for San Francisco, 35 for San Diego, and 2 blank. San Francisco was decided upon as the place for the next meeting of the Medical Society of the State of California.

Dr. J. P. Widney, of Los Angeles, chairman of Committee on Medical Education, read a long and elaborate paper upon the ancient and modern methods of study in Medical Colleges and also in conclusion expressed his idea of an ideal system of medical education. On account of the lateness of the hour discussion was omitted.

The meeting adjourned after the reading of the minutes.

AFTERNOON SESSION, April 20, 1888.

The supplemental report on Surgery, Electrolysis in the Treatment of Organic Stricture of the Male Urethra, was read by Dr. Allen M. Gardner, of Calistoga. After a brief history of electrolysis, the author cited numerous cases of his own where electrolysis had succeeded where all other methods had failed. Dr. Newman, said the speaker, considers all strictures amenable to treatment by electrolysis. He can tabulate 100 cases from private practice under observation for from 5 to 10 years. The

names and favorable experience of many others might be added to those above mentioned. In the cases cited by Dr. Gardner 5 of the 7 were of traumatic origin, and it is a well recognized fact, that in the treatment of such strictures many difficulties arise. A choice of the following operative procedures is at our command, viz: external perineal urethrotomy, with a guide of the stricture is possible; internal urethrotomy, divulsion or electrolysis. Does electrolysis possess any advantages that should recommend it to our use, in preference to the other operative procedures before mentioned? There are many surgeons who would answer the foregoing question in the affirmative, and state as their reasons for so doing, the following:

1st. There being little or no pain anæsthetics are not required.

2nd. Hemorrhage seldom occurs, and if it does, is never dangerous.

3rd. It is applicable to all organic strictures, no matter where situated in the urethral canal.

4th. Experience has thus far shown that urethral or urinary fever is less liable to occur.

5th. Strictures so treated seldom require any further operative interference.

6th. Less time is required to effect a permanent recovery.

7th. The patient is not, as a rule, confined to his room, and can take outdoor exercise, which being beneficial to his general health, indirectly aids in the success of the operation.

He concluded after mature deliberation, that the choice of operative measures lay between external perineal urethrotomy without a guide, and electrolysis. He chose the latter, fully realizing that the former was a formidable operation, possessing many grave dangers for the patient, and not a few perplexing difficulties for the surgeon. The gratifying results obtained by the electrolytic operations, justified the choice of methods used. The first patient brought to notice, although possessing a hemorrhagic diathesis which made simple dilatation and careful ex-

ploration dangerous procedures, lost not one drop of blood during the entire treatment. If he were to hazard an opinion based largely on extended clinical experience, we may reasonably believe that the time is not far distant when electrolysis will be recognized by the profession at large as possessing decided advantages over every other known method in the treatment of organic stricture of the male urethra.

On motion referred to Committee on Publication.

Dr. W. P. Gibbons, as chairman, read the report of the Committee on Indigenous Botany and Domestic Adulteration of Drugs.

Dr. M. M. Chipman followed by "reading his discussion."

On motion of Dr. Wythe, referred to Committee on Publication.

Dr. E. B. Robertson, of Jackson, who was to read a report on Hernia (Inguinal); Lithotomy, with cases; Epithelioma, and Amputation of the Cervix Uteri, with case, being called away, requested that his paper be referred to Committee on Publication without reading. So ordered.

Dr. A. H. Pratt requested that his report on Necrology be referred to Committee on Publication without reading. On motion, so ordered.

Dr. Saml. O. F. Potter, both on account of indisposition and lack of time and a most exhaustive report, simply gave a short extemporaneous exposition on the principal subjects treated of in his voluminous report. Referred to Committee on Publication.

Dr. McNutt opened the discussion. He confined his remarks almost exclusively to etiology, considering that the most important feature in disease, leading to both pathology and treatment.

Dr. Stallard wished also to express himself as considering etiology the most important clinical factor.

Dr. Albert Abrams gave some very practical illustrations where etiology was utterly invaluable, therapeutically, as his predecessors had affirmed. He considered that therapeutics was not

materially aided by etiology. Admitting typhoid fever is caused by typhonoid, in what way has therapeutics been advanced by this discovery? Whereas etiology has improved pathology it has done very little for therapeutics.

Dr. Potter, who closed the debate, concurred most heartily in the views held by Dr. Abrams.

Dr. J. W. Westlake, of Red Bluff, read his supplemental report entitled "Two views of the Practice of Medicine." On motion it was referred to Committee on Publication.

Dr. Clinton Cushing read an interesting paper on the conditions of the pelvic organs in women, that justify abdominal section. Referred to Committee on Publication.

Report of Treasurer read and referred to Auditing Committee.

A supplemental report, "Electricity in Obstetrics," by Mary W. Woods, of San Francisco, referred to Committee on Publication without reading.

Report of Censors read out of order.

On motion of Dr. J. Simpson, a resolution was adopted to the effect that as compensation for his services, the Assistant Secretary be exempt from dues.

Reading of minutes. Adjourned.

EVENING SESSION, April 20, 1888.

Report of Committee on Prize Essays read by Dr. Chipman. For the year just now past, there has been only one essay, in competition for the prize offered by this Society, handed in to your Committee, which essay we have each and all of us read, and after careful consideration of the same have come to the conclusion that although the paper exhibits familiarity with the subject treated and is valuable in some respects, that yet it also has the demerits of being somewhat disconnected in style and containing matter which is irrelevant or but distantly connected with the subject; and that it lacks that finish and completeness to entitle it to the distinction of prize essay of this Society, and we therefore recommend that no prize be awarded.

(Essay submitted—"Etiology of Colds," by H. Partsch, San Francisco.)

Referred to Committee on Publication.

The supplemental report of John A. Miller, was referred to Committee on Publication without reading.

Dr. McNutt, reported as chairman of Building Committee, that he had called a meeting and the members of the Committee failed to respond.

Dr. Davy moved that report be received and Committee discharged. Carried.

Dr. O. O. Burgess read report of Committee on Graduating Exercises. On motion, referred to Committee on Publication and recommendation therein contained be concurred in by the Society.

Report of Auditing Committee on the Treasurer's report read. \$742.95 balance on hand. Accounts correct. Report received and Committee discharged.

A communication was received from the Yolo County Medical Society informing the State Medical Society that Dr. H. M. Kier had been unanimously expelled from their Society for unprofessional conduct.

An amendment to the constitution relating to unprofessional conduct and blackmailing was referred to the committee of revision of statute and by-laws.

The President's closing address—"FELLOW MEMBERS: The time has come for me to surrender the power that you placed in my hands one year ago. I received the power with a great deal of gratification, fear and tremor. Knowing my own shortcomings and inability, I feared I would not meet your expectation. I surrender it with a great deal of gratification, because I am glad to be free of the responsibility. It has been a great source of anxiety and pleasure to me. I remember that two years ago at the opening of the session, our Society numbered 200 active members. At that session we had added 135 members, making 335 active members of this Society. When we went into the canvass this

year, we had 350 active members and I am informed to-day that we have added during this session about 100 members; so that we go into the campaign this year with a membership of about 450 members. I congratulate the members upon the work that has been done. The papers have been numerous and creditable both to the authors and to the Society. I do not doubt that many will find places in the literature of medicine. It has occurred to me, that with the increase of the size of the Society the work is accumulating. I remember it was only 3 or 4 years ago that we were having only two days session, then three days session and we wound up with a banquet on the third. It may be a matter proper for this Society to instruct the Committee of Arrangements for the ensuing year, that in their judgment the proceedings can be spread out over four days. The interest in the discussions is as interesting as the papers and if we had more time more discussion could be heard. Some papers were cut short for lack of time to read them.

"To our Southern Brothers, who have travelled five hundred to seven hundred miles and lost a week, and who so kindly invited us to meet with them next year, where the oranges and lemons grow and who came so near carrying their vote, but for the vote of their friends in the North who prevented the Society from going there next year—and there was some little ground for objecting, on the plea that there were not a great number of members in the county societies—you have done nobly this year, coming up here in comparatively good force and bring up numerous applications. Many of the members this session have come from the sunny South and I wish to say to them that they should continue in their zeal. Spread the germs of enthusiasm throughout and gather in the members to your local societies, and next year come with renewed energy and renewed applications for membership and there is no question but that the Society will meet you in the South the following year.

"And now, fellow members, to whatever extent my feeble efforts have contributed to the success of your Society during the pre-

sent year, it has only been an atom in the mass of influence in connection with that exerted by each and every one of you who have taken part in the proceedings. I thank you, gentlemen, for the honor conferred upon me, I thank you for the honors you have repeatedly conferred upon me and I thank you for the kind courtesies and consideration you have shown me during the year that has passed. It now becomes my duty to introduce to you my successor, Dr. James Simpson."

After a few remarks from the new President, as to his bashfulness, the minutes were read and approved.

As the hour was still early, by request, Dr. H. J. Crumpton, of Saucelito, read his paper entitled "Experiences of a Country Doctor."

On motion of Dr. H. L. Orme, a vote of thanks was tendered the retiring President and officers.

A FASHIONABLE obstetric nurse is telling her lady patrons that her dates are all full up to a year in advance. The ladies desirous to stand next in her list will have to be endowed with an unusual amount of prescience.—*Ex.*

THE SMALLPOX EPIDEMIC AT SHEFFIELD.—The death-rate at Sheffield from small-pox stood at seventeen a week since, and the epidemic shows no sign of abatement. According to the Reports of the Registrar-General, the disease is spreading in the neighboring country, three other deaths having occurred in various directions. Seeing that in every densely populated community there must always be a certain proportion of the inhabitants who, either from non-vaccination or from defective vaccination, are susceptible of contracting the disease, it is essential that isolation should be enforced in all cases. As Leicester has shown, vaccination, reinforced with prompt and perfect isolation, can be relied upon to stamp out the disease. There is all the difference in the world, however, between extinguishing a fire at its very commencement, and attempting the same feat when the premises have been taken well hold of by the flames.—*Medical Press.*

Translations.

Resection of the Pylorus.

By DR. D. W. MONTGOMERY.

Dr. Salzer, Billroth's assistant, showed two cases before the Imperial Royal Society of Vienna, on whom Billroth had successfully performed the operation of resection of the pylorus. A woman who had suffered for a long time from abdominal pains and vomiting, was admitted to the clinic last November. A tumor was found extending from the epigastric region down to the neighborhood of the pubes. The difficulty of operating in this particular case was owing to adhesions between the surface of the tumor, and the abdominal walls. On incision into the tumor a quantity of brownish fluid escaped from it. On more thorough examination it was found that there were adhesions between the walls of the stomach and the tumor, and that to remove the tumor, a large piece of the walls of the stomach had to be removed also. It was decided to resect the pylorus, which was successfully done; in a short time the patient recovered. It was found that the tumor was a sarcoma, which had arisen from the muscular coat of the stomach.

The second case was a resection of the pyloris for carcinoma. The patient recovered. The particular interest in this case lay in the fact of adhesions of the tumor with the pancreas, and with the gastro-colic ligament. The pylorus was anomalous in that it was situated on the great curvature of the stomach.—*Le Progres Medical.*

Napthol-Alpha.

Maximovitch has studied in Bouchard's laboratory, and has delivered a communication before the Academy of Sciences of Paris on the antiseptic properties of napthol-alpha. He has analyzed its action on fourteen different species of microbes. With a solution of 0.10 to 1,000 he was able to stop absolutely the growth of the following microbes—the microbe of glanders, of mammitis of sheep, of chicken cholera, of anthrax, the micrococcus of pneumonia, the two staphylococci of suppuration, the microbe of Aleppo boil, the bacilli of typhoid fever, and those of the diphtheria of pigeons. This solution also stops the fermentation of urine. Napthol-alpha is less toxic, and more antiseptic than napthol-beta.—*Le Progres Medical.*

Extracts.

Inflammation of the Vermiform Appendix.

It has long been noted that remarkable phenomena seldom occur singly. It is a superstition among railroad men that when one serious disaster occurs there will surely be one or two others. In our term of service as hospital interne in the Cincinnati Hospital six cases of fracture at the base of the skull were brought in, while not a single case of that injury had come into the wards during a year or two preceding.

For the last two or three months there has appeared an unusual number of papers with relation to inflammations in and around the cecum and especially the vermiform appendix.

In connection with the recent case reported before the St. Louis Medico-Chirurgical Society, and published on page 203 of the present issue of the *Courier*, it may be of interest to our readers to call attention to some of these papers.

Going back a little farther than the period just referred to, a valuable paper was read before the Association of American Physicians by Prof. R. H. Fitz, published in the volume of transactions of that society, and also in the *Am. Jour. of the Med. Sci.*, for October, 1886, in which the subject is exhaustively discussed. Prof. Fitz states that in a majority of the fatal cases of the disease known under the several names of typhlitis, typhlo-enteritis or perityphlitis, the essential pathological element is an ulcerated and perforated appendix.

In the *Boston Medical and Surgical Journal*, January 12, 1888, Dr. H. F. Vickery reports four cases, all of which he had met in private practice during the last two years, and all of which occurred in males.

He states that this disease attacks four times as many males as females, and three-fourths of its victims are less than thirty years of age. "In children, and exceptionally in adults, prodromata may last for days or even months, consisting of anoxia, vomiting, irregularity of the bowels, more or less pain, felt chiefly in the right inguinal region, and a local swelling. The attack is usually sudden. There is a violent pain in the right groin, perhaps associated with a chill or with collapse. There may be no fever but usually the temperature ranges from 100° to 102°F. Frequently there are vomiting and hiccough. Con-

stipation is to be expected, but we may see diarrhoea or dysentery. It would not seem unnatural that the lower portion of the bowels should empty themselves in the early part of the attack. If, however, later on in the disease, there should be copious dejections, it would suggest that the cecum proper had thus far escaped. From its incipiency, appendicitis is accompanied by localized tenderness; and by the third day we may expect more or less dullness on percussion and a sense of resistance. If internal examination prove negative in its results digital exploration of the rectum should never be omitted."

"When the signs of inflammatory exudation are found, it is usually advised to insert an aspirating needle, in order to determine whether pus is present. In view of the frequent failures to find pus, when it exists, by this means, I believe that laparotomy should be immediately performed, provided the eliminative diagnosis has been a careful one. Fecal accumulations in the cecum tend to form a more elongated, vertical, nodular tumor, perhaps accompanied by a similar distension of the transverse colon, and seldom associated with fever or with so marked signs of local inflammation. In women, pelvic troubles must be considered, and a vaginal examination made. Hematocele has been mistaken for appendicitis and vice versa. Internal as well as external hernia should not be forgotten, nor in children the possibilities of intussusception. * * *

"The earliest treatment of the case can be described as an effort to limit the suppurative inflammation to its original seat. The patient must therefore maintain absolute physical quiet, have most simple liquid food in small amounts, and not merely his pain but the peristaltic action of his bowels must be subdued by opium pushed to incipient narcotism. Poultices, or, if these be too heavy, hot compresses will also be grateful to the patient and contribute somewhat towards the desired end."

In regard to the question of surgical operation for the removal of pus, as recommended by Dr. Vickery, it may be noticed that in only one of the four cases which he reports was any surgical interference attempted, and in that case it was ineffectual, for while an incision was made and an attempt to evacuate the abscess, the patient's condition demanded a cessation of the operation before pus was obtained, and between two and three weeks later the abscess burst spontaneously into the rectum, the patient making a complete recovery, not in consequence of the opera-

tion, but with that as an additional complication. The only fatal case of the four was one which was veiled in a good deal of obscurity, as the doctor says, "Trouble in the cecal region was considered, but the evidence of its existence seemed wanting."

At the meeting of the Philadelphia County Medical Society, Dec. 14, 1887, three papers were presented on the subject of pericecal inflammation (*Medical and Surgical Reporter*, Jan. 7, 1888). Dr. J. H. Musser, in discussing the morbid anatomy, endorses the use of the word appendicitis as indicating that in a majority the trouble originates in if it be not confined to the appendix.

Dr. Wm. Pepper spoke of the diagnosis of the affection. He calls attention to two classes of cases. In one the affection is more limited to the walls of the cecum and the pericecal connective tissue, and the appendix is affected to a comparatively slight degree, the vast majority of such cases terminating in resolution. In these cases he thinks that perforation has not occurred. They are marked by pain as the initial symptom, not intense, not accompanied with symptoms of collapse, though there are often nausea and vomiting and elevation of temperature gradually increasing till decided fever is present and considerable acceleration of the pulse. There is excruciating tenderness in the right iliac fossa, a sense of fullness and induration, not rarely with dorsal decubitus and flexed thigh with constipation, possibly preceded by one or two irritative movements during the first day. In proportion as the induration and swelling are early and marked, it has seemed to him probable that the appendix is not seriously involved, but the affection is chiefly an inflammation of the walls of the cecum and pericecal connective tissue.

If these cases are treated by absolute rest, abstinence from food, and absolute avoidance of interference with the state of the bowels, by local depletion, counter-irritation followed by application of ice-bag or warm fomentations, and the internal administration of opium and mercury commenced early, the vast majority terminate in resolution and complete recovery.

In the second class of cases the patient may have been in apparent good health, but there has been a catarrhal inflammation and the fecal matter which is present in nearly every healthy appendix, is no longer able to circulate and escape, because

the outlet is partially closed by the swelling of the mucous membrane; the pent up secretions and the irritating fecal matter excite more serious inflammation in the walls of the appendix; ulceration is established and finally perforation occurs and the symptoms of the attack begin. He regards this tendency to closure with the accumulation of secretions and of fecal matter as the essential cause of the more serious type of inflammation and perforation.

The symptoms are intense pain, sometimes so severe as to cause collapse, occasionally such as to be followed by death in a few hours. Then come signs of rapidly developing peritonitis, frequent pulse, marked tenderness, tympanites, without induration and sometimes with no fullness in the right ileo-cecal region. There may be only moderate febrile reaction for one, two or three days, with continued moderate pain, simulating an ordinary catarrhal attack, with intestinal colic. For one, two or three days the symptoms may delude the attendant into the belief that the patient is not seriously ill, but after a time there are symptoms of rapidly spreading peritonitis, and the case terminates in death from exhaustion in five to ten days.

Dr. Pepper emphasizes the importance of examination per rectum as the most important means of diagnosis in this class of affections. If such examination determines a fullness in the right side of the roof of the pelvis it indicates an amount of exudation which will end in abscess, and is a strong indication for operation. He also suggests as a possibly valuable means of diagnosis, puncture with a curved exploring needle introduced through the rectum in cases where the finger detects a sense of distention of the right side of the pelvic roof. In many of these cases he says there has seemed to be an unusual abundance of urine and increased frequency of micturition, the former associated with the absence of vomiting. The most marked symptoms in a majority of cases, he says, have been the intense pain at the onset of the attack, the development of the fever, the acceleration of the pulse, the distention of the abdomen, the pain referred to some point in the ileo-cecal region, the comparative rarity of vomiting, the absence of induration and tumor, possibly the detection of fullness or induration in the roof of the pelvis by rectal examination, the frequent micturition with abundant urine, the pain possibly radiating in the direction of the genitals.

Dr. Thomas G. Morton considered the treatment. The treatment of the simple inflammatory disorder before the formation of pus should consist of rest in bed, restriction of diet to nourishing liquids, hot fomentations or poultices, frequently renewed, perhaps local depletion, and possibly hypodermic injections of morphia to control pain; whilst the bowels should be kept open and free from accumulation of gas and feces by the administration of salines and enemas—perhaps with the addition of turpentine to the latter.

Prompt resolution should take place in cases which are not to go on to pus formation; and very long continuance of symptoms, or relapses or recurrences would be strong indications for surgical interference. Intense pain would often be as positive an indication for operative relief as for morphia.

When pus has formed he would regard operative interference as imperative. He says: "I should operate whenever the diagnosis of pus has been made—occasionally even without positive diagnosis." The aspirating needle, he says, should never be used, being unreliable and unsafe. The abdominal incision should be lateral not median, beginning at a point an inch above Poupart's ligament and to the outer side of the right linea semilunaris and continuing vertically upward about four inches, and carried downward until pus, cecum, or peritoneum encircling that organ be reached. If pus be found, the containing cavity should be washed clean. The appendix is almost always the seat of trouble, and he would favor ligating it as close to the cecum as possible and then excising it. Cecal perforations should be closed with Lembert sutures; ulcers which have not perforated should be turned into the bowel by the same means.

If the general abdominal cavity have not been involved, the abscess cavity or cecum should be gently curetted, washed out with a one to one-thousand bichloride of mercury solution, a large glass or rubber drain introduced, and the abdominal wound closed around it with silk sutures, and a dressing superimposed.

If there be general peritonitis of recent development he would thoroughly wash out the abdominal cavity with hot (105° to 110°) distilled water or one to ten-thousand bichloride of mercury solution, and cleansed with sponges, and the foreign body, if that be the source of trouble, searched for and removed. If more advanced peritonitis be discovered, he would withdraw

the intestines, separate adhesions with the finger or knife during the cleansing before returning them to the peritoneal cavity. When there is general peritonitis a glass drain must be carried to the bottom of the pelvis and kept in working order by means of absorbent cotton ropes acting by capillarity.

These papers, of which we have thus given abstracts, indicate the present status of medical thought which has been directed more than usually to this subject of late. The tendency among modern progressive surgeons is strongly in favor of early surgical interference whenever the symptoms indicate the existence of perforative inflammation. The most important line of investigation now is to be directed to the determination of more positive means of early diagnosis.—*Editorial St. Louis Courier of Medicine.*

Some Recent Contributions to the Study of Antipyrin.

Chouppe, we believe, first asserted that antipyrin was capable of relieving uterine pains after parturition or dysmenorrhœa. In *Le Praticien* for March, 1888, Queirel, of Marseilles, announces that he employs hypodermic injections of 5 grains of antipyrin, during labor. The medicine acts in twenty-five minutes, and relieves or diminishes the pain without interfering in any way with the labor.

Laget (quoted in *Therapeutic Gazette*, March 15, 1888), in a case where severe labor pains came on in the fifth month of pregnancy, prescribed an enema containing 30 grains of antipyrin, with the result of relieving the pains slightly. An hour later a similar dose was given, which relieved the pains to a great extent. The uterine contractions continued, however, and in three hours the foetus was expelled. The patient had no after-pains, and convalesced normally.

Netter testifies also to the fact that antipyrin relieves the pain, but does not diminish the force, of uterine contractions.

In the *Lyon Medical*, of Feb. 19, 1888, Dr. Molliére draws some unfavorable comparisons between the results of the treatment of typhoid fever by cold bathing and antipyrin. In eighty-five unselected cases treated by the cold bath, there were nine deaths, constituting a mortality of 10.5 per cent. Twenty-seven light cases treated by ordinary hydro-therapeutic methods gave a mortality of 7.4 per cent. In fourteen cases, of which four were of the lightest variety, antipyrin alone was used, with

a mortality of 14.2 per cent. Throwing out the four light cases, which would have recovered under any treatment, the mortality is raised to 20 per cent.

The author maintains that antipyrin, even in moderate doses, produces toxic effects, which should continually be watched for. He has often seen icterus, stupor, and the characteristic eruption, follow its administration, and other symptoms resembling those produced by carbolic acid, which has been justly discarded in the treatment of typhoid fever. He holds the remedy responsible for death in two of his cases.

Dr. L. C. Armstrong, of Taylorville, Ill., has seen alarming collapse follow the administration of 20 grains of antipyrin in a case of puerperal fever. The patient, however, soon responded to stimulants and atropin.

Barr (*Lancet*, Feb. 25, 1885; *Med. News*, April 7, 1888) reports a case of collapse and death following the ingestion of from 15 to 30 grains of antipyrin in two doses. It was a case of puerperal fever, in which the antipyrin produced a fall in the temperature of about six degrees, with vomiting and diarrhoea. Rigors now came on, the extremities became livid, and in thirty-two hours the patient died in syncope. At the autopsy the spleen was found contracted and kidneys shrunken, containing infarctions.

According to See, *L'Union Medicale*, Feb. 16, 1888, toxic effects following the administration of antipyrin are extremely rare. They occur, according to him, once in every twelve or fifteen cases among women, and once in fifty cases among men.

Dujardin-Beaumetz states that he has very seldom seen a rash from the administration of the drug, but, on the other hand, has observed quite frequently disturbances of digestion in cases taking the medicine for a considerable time. He suggests that these disagreeable effects may be produced by the benzine which is employed in the preparation of the drug.

Dr. S. Peters, of Cohoes, prescribed two 10-grain powders of antipyrin for a severe headache occurring in a woman of twenty-five, otherwise healthy. A few minutes after the administration of the first dose, she experienced a "snapping" in her head, along with an itching and burning in the roof of the mouth and in the throat. This feeling also extended to the eyes, nose, and ears, and increased in intensity till she became almost frantic. Sneezing soon commenced and became extreme-

ly violent, while the nose and eyes were discharging a very copious watery fluid. She could not breathe through the nostrils for several hours. Exhausted, she finally fell asleep, but recovery was not perfect till the next day.

The *Medical Press*, March 14, 1888, editorially says that antipyrin should be administered with, or immediately after, a meal, otherwise pain, nausea, and discomfort may result from its contact with the walls of the stomach.

In the same journal Huchard recommends antipyrin very highly in the treatment of polyuria. A patient of his drank large quantities of liquid, and passed in twenty-four hours more than twenty quarts of water. Antipyrin was given up to two drachms in twenty-four hours, and the result was a rapid decrease in the amount of urine, until three quarts daily were reached.

This effect of antipyrin upon the secretion of urine renders it unfit for administration in certain diseases of the kidneys where their secreting function is already impaired. While antipyrin eases the pain in the neuralgic form of angina pectoris, it would be dangerous to give it in true angina with stenosis of the coronary arteries, as collapse of the heart might result.

Guttmann (quoted by *New York Medical Journal*, March 24, 1888) has seen antipyrin in one case cause violent palpitations, intense cyanosis, and a feeling of the want of air. In another case there was great excitement (pulse 132), with oedema, amaurosis, together with pruritus and urticaria. The dose given was fifteen grains.

Dr. J. P. C. Griffith agrees with Sonnenberger that antipyrin is very efficient when given early in whooping-cough. Neither of them, however, claims a specific action of the drug. In only one case does the author report a total failure of the drug. He gives small doses at frequent intervals.

Thor (quoted by *Med. and Surg. Rep.*, March 31, 1888) finds antipyrin an excellent substitute for bromide of potash in nocturnal emissions. He prescribes from seven to fifteen grains just before going to bed.

Laurencin claims rapid recovery in the severe form of chorea by the administration of nine to fifteen-grain doses of antipyrin.

Ollivier, on the other hand, does not share the enthusiasm of certain observers concerning the efficiency of this remedy in chorea, having used it on children of seven to eight years of age

in daily quantities of one drachm, without modifying in the least the symptoms.

Dr. W. M. Powell, of Albany, Texas, testifies as to the local hemostatic power of antipyrin, having entirely checked serious hemorrhage by the application of a four-per-cent. solution of the drug in a case of circumcision, and in the bleeding following an injury to an old ulcer of the leg.—*Medical Analectic.*

Relation of Rational or Liberal Medicine to the Various Schools of Medicine.

By bearing in mind what Rational or Liberal Medicine is aiming at in its own development, it is easy to infer what must be its relationship toward the various schools, or systems of medicine, which from time to time spring up. It is itself aiming at freedom from dogmas, for these inevitably lead, as it has too often discovered in its own history, to narrow and one-sided generalization.

It has in all these ages of seeking after truth so often felt the evil of such things, that it has learned to beware of them. It, therefore, says to schools or systems basing themselves upon fixed dogmas:

These things belong to the past; modern science has grown beyond them. Such dogmas imply narrowness. It is a step back toward the dark ages again. Only the broadest freedom of investigation should be recognized in scientific research. Because you have thus abandoned the broader field, and have restricted your research to the narrow limits of a fixed and unchangeable creed, we cannot accord to you full recognition as broad and progressive members of a liberal profession. Science knows no boundary lines of creeds; and in the ranks of scientists the days for shibboleths have gone by. It is because you have abandoned the broader field of rational medicine, and because you are Hydropathic physicians, or Eclectic physicians, or Homœopathic physicians—men whose science is bound up by a preconceived and inflexible theory, and because you are not simply physicians, men free to seek for, and to use, truth wherever found, that you are not accorded recognition as worthy representatives of a liberal and rational medicine. It is because you load yourselves down with clogs in the shape of pathies, and tie the load on by a distinctive name. Liberal medicine refuses to so encumber itself with clogs; ties itself to no set theories;

binds itself by no name distinctive of a fixed creed: and so has to unload itself of no fixed burden of clogs when it would advance.

To the individual members of these schools Liberal Medicine says: Recognition is not withheld from you because you, as individuals, hold some theories of disease and of treatment which we consider narrow and ill-founded, for many individual men within the ranks of Liberal Medicine hold opinions probably deemed by their fellows equally odd, and yet are simply looked upon with a lenient smile as men who have some queer fancies; but it is because you elevate the fancy into a dogma, and build thereon a sect, and tie yourselves to it, making it a restrictive creed for education, and a test of standing. It is not because you, as an individual, are considered to hold only a partial truth, for many within the ranks of Regular Medicine fail to grasp the breadth of its teachings, and all their days are only as lame men in the pathway, but because you insist that this is all of truth and restrict yourselves to it.

Liberal Medicine has tenents and treatments which resemble from one point of view Homœopathy, others which resemble Hydropathy; but it recognizes the fact that these are only partial and incomplete views, and are not all, but that more lies beyond. It lifts its eyes from the single hills toward the eternal highlands which it knows must tower through the mists above and afar. It may as yet catch only partial glimpses of that higher ground of medical science, but it feels that somewhere, on through the mists, it lies; and will be content with no resting place that is short of that goal. And it may be that the limits placed upon human knowledge by human weakness make the goal an unattainable one. Still it will climb the higher by being content with nothing less.

Another reason why the profession of Liberal Medicine has declined to accord recognition to these various schools and systems, is the character of the educational work which they permit within their ranks.

The constant struggle of Rational Medicine is to raise the standard of education. Under this endeavor the standard has been raised, as has already been stated, from the old-time country reading and a certificate, or possibly a single course of lectures, to a three years graded course, with clinical work in the hospitals, and rigid examinations. And the tendency is toward

a still higher standard. It is not unfair to say that this effort to raise the standard of education upon the part of Liberal Medicine has not been met by a corresponding effort among the schools or systems enumerated. While there have been some honorable exceptions, the general standard has been low, and without a well expressed desire or intention of a change. It is no unfair or unjust rule which Rational Medicine applies to these schools, for it applies the same test to itself. The so-called college of Rational Medicine which does not conform to the requirements of the higher education, or which lowers its grade, at once loses caste, and is refused recognition. And this is the point in which those of the schools in these systems, which attempt the higher education, fail of reaping the just fruits of their more honorable work. For instead of declining to recognize the colleges which cling to the inferior standard of education, they continue to recognize them as legitimate institutions of learning, and admit their defectively educated graduates to an equal standing with their own who have honestly done better work. In this way they practically neutralize the effect of their efforts to elevate the standard of their colleges.

A very proper reply was given a few years ago by the English National Association of Physicians to an application upon the part of a numerous body of one of these schools for recognition by the regular profession. The reply was this:

"Before we were recognized as fitted to become members of the profession we had to go through a thorough course of study, and pass rigid examinations. Give proof that you can stand the same tests and you will receive recognition."

The offer was declined, and of course recognition was withheld.

This rigid stand is taken by the profession of Liberal Medicine upon the question of education, because it is felt that where human health and human life are at stake only the most thorough possible preparation for the work should be tolerated; for even then the physician will too often be made to feel how limited are his powers of relief, and how much yet remains to be learned.—*Southern California Practitioner.*

THE MOSETIG TREATMENT OF BURNS.—Professor Mosetig gives a detailed description of the treatment of burns adopted during the past five years, in which forty-five cases have been treated, some of them of marked severity, with very satisfactory results.

The vesicles are first freely opened and the whole cleansed with cotton-wool soaked in a half per cent solution of table-salt and well pressed out, so as not to drop over the sore. That portion of the integument which is burnt through and looks like parchment is dusted over with an insufflator with a very thin layer of iodoform, but in most cases it is simply necessary to cover the injured parts with a compress of the best iodoform gauze; over this is placed gutta-percha tissue a little smaller than the compress and over all a thick layer of absorbent cotton, which is kept in place by a few turns of a roller bandage. Such secretions as there may be drain off beneath the gutta-percha, and are taken up by the absorbent cotton. The gauze and gutta-percha dressing should be permanent, but in case of smell the external dressing only should be changed. In case, however, fever should set in, pointing by its character to septic causes, the entire dressing should be removed, the pus evacuated, and mortified shreds and eschars removed with forceps and scissors, after which the dressing may be applied as before. In scalds of the face an ointment is used of iodoform and vaseline 1 to 20, and covered with a gutta-percha mask.—*Weiner Med. Presse.*

A Physician's Experience in Self-treatment of Phthisis with Creasote.

The *British Medical Journal* of March 10, 1888, quotes the experience of a Russian physician as follows: The writer, who has been suffering from pulmonary and laryngeal tuberculosis for about two years, had tried the drug on himself in small doses (half a grain four or five times a day) some time ago, but without appreciable benefit. After perusal of the observations of Professors Sommerbrodt (*Berlin. klin. Wochenschrift*, Nov. 15, 1887) and Guttman (*Deutsche med. Zeit.*, No. 42, 1887), however, he again began to take creasote in gradually increasing large doses, beginning with four grains a day, and reaching, in about two months, a daily dose of forty-four grains. There took place, fairly rapidly, an unmistakable and permanent improvement in his symptoms. Fever disappeared in a week; expectoration, cough and dyspncea steadily decreased to a considerable degree; laryngeal spasm, which had formerly occurred once or twice every month ceased altogether. As regards the objective signs, however, there was only some diminution of dullness over a certain area with complete disappearance of fine crepitant rales. As to tubercle

bacilli in the sputum, they remained just as numerous as before the creasote treatment. The latter has lasted in all four months during which period not less than four ounces and two drachms of pure creasote have been ingested. The drug must be taken in doses of about five grains four times daily, in the form of capsules (filled up *ex tempore*), after meals. With regard to disagreeable after-effects, Dr. Bogdanovitch observed in himself, when, by way of experiment, he took as much as twelve grains at a time, or twenty grains in the course of an hour, only giddiness, cardiac palpitation, small and accelerated pulse, general weakness, pallor and anxiety; but all these toxic phenomena disappeared spontaneously and completely in about half an hour or an hour. On an empty stomach, however, he experienced epigastric uneasiness and pain even from small doses. Dr. Bogdanovitch resumed of late the use of creasote in order to study the effect of a six months' course.—*Medical News.*

The Orange Blossom Suppositories.

In *The Medical World* for February, page 82, I notice a recipe for the above credited to the *New Idea*. Its ingredients as given are sulphate of zinc, alum and hyoscyamus, with white wax as an excipient. It is also stated that these suppositories are used in "certain female disorders."

Now, this is all wrong, if they are the same as those that have recently come to my knowledge.

I have received from South Bend, Ind., Chicago, and from Philadelphia, specimens. Of these, one was called by the name of "Orange Blossom," and another the "Olive Branch." Both these were composed of powdered jequirity made into a suppository with butter of cocoa or white wax. What is a little remarkable, one of the proprietors gave the composition as being jequirity; and both these, the "Olive Branch" and the "Orange Blossom," were identical in composition. But what is not at all remarkable, both were recommended as infallible, not only in "certain female disorders," but in every form of uterine disease or disorder, from pain in the back to cancer.

The Philadelphia sample is sent out by one John Buchanan, and, though labeled "Ozone Uterine Wafers," is simply powdered jequirity in capsules. For these even more extravagant claims are made, curing not only all the above diseases but actually

causing an exfoliation of the mucous membrane of the womb. Of course such claims are false; but jequirity is certainly a valuable remedy in diseases of the womb having their origin in congestion, and, as a result of this congestion, causing dysmenorrhea, ulceration, prolapsus, etc.

Atlanta, Ga.

STAIRBACK WILSON, M. D.

—*The Medical World.*

CHLOROFORM WATER IN WASHING OUT THE STOMACH.—Prof. Bianchi recommends chloroform water for washing out the stomach, and says he has obtained wonderful results from its use. He reports seven cases of dyspepsia and chronic gastritis, in most of which dilatation of the stomach existed. He had first used alkaline water (4 grms. natr. bicarb. to one litre of water) as a wash, but with no beneficial result. He then employed very dilute chloroform water, and found it to have the following advantages:

1. It produces marked diminution of pain, and lessens the intolerance of the stomach for food.
 2. It reduces the dilatation of the stomach, on account of the antiseptic action of the chloroform upon the abnormal amount of decomposition taking place in the contents of the stomach, and on account of the reflex action, caused by the sudden administration of the water.
 3. It produces no unpleasant symptoms; at least none have been observed up to the present.—*Weekly Medical Review.*
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ANTIPYRIN AS A SUBSTITUTE FOR MORPHINE.—M. See affirms that antipyrin may with advantage replace morphine in nearly, if not all, cases where that alkaloid is injected subcutaneously for the relief of pain, antipyrin being free from many of the objectionable consequences attending the use of the opium alkaloid, especially that known as morphinism. He mentions, among others, a series of cases of articular rheumatism cured by two or three injections of 0.5 gram of antipyrin dissolved in an equal weight of water, aided by the administration of the medicine internally; also the relief of pain in acute and chronic gout, neuralgia, lumbago, angina, etc. The subcutaneous injection of antipyrin is said not to be followed by sleepiness, nor by vomiting or excitement, but after a short sensation of tension there is a considerable remission of pain from whatever cause.—*London Pharm. Jour.*—*Jour. of Materia Medica.*

THE *British Medical Journal* of Dec. 24th contains the following therapeutic notes from correspondents:

SODIUM FLUOSILICATE.—Dr. Hayward writes: This new antisепtic which has recently been coming into use, promises to prove an equally effective and much safer substitute for corrosive sublimate in midwifery practice. It is but slightly soluble in water, only to the extent of about two-thirds per cent at 60° Fahr.—that is, a pint of water will dissolve about fifty grains. It should be used in saturated solution. A few powders of fifty grains each will form but a trifling addition to the weight of the midwifery bag.

THE TREATMENT OF HABITUAL CONSTIPATION.—Dr. Althaus sends the following: At a time when not only the tedious proceeding of massage, but actually manipulation of the abdomen by cannon balls, is recommended for chronic constipation, a far simpler and more effective way of inducing peristaltic action of the bowels, which has recently been discovered, should be brought to the knowledge of the profession generally. This consists of the injection into the rectum, by means of an ordinary glass syringe, of about half a teaspoonful or a teaspoonful of glycerin.

The fact that glycerin thus used causes a ready action of the bowels was apparently discovered by a Dutch physician, Dr. Oidtmann, of Maastricht, who, however, deprived himself, at least to a great extent, of the credit of this discovery by advertising it as a nostrum in several medical journals. Dr. Anacker, of Chateau-Salins, who purchased the specific and found it to answer the purpose well, took the trouble to analyze the fluid supplied by Oidtmann for such injections and found it to consist principally of glycerin, to which a small quantity of a preparation of conium and a sodium salt had been added. Dr. Anacker found that glycerin alone, without conium or the sodium salt, had exactly the same effect as Oidtmann's mixture.

On reading Anacker's paper in the *Deutsche Medicinische Wochenschrift* for September 15th last, I lost no time in giving this proceeding a trial. A number of patients, including some medical practitioners of great experience in the treatment of this troublesome disorder, have spoken to me in the highest terms of the value of this new plan. An evacuation generally takes place either immediately or within a few minutes after the injection. The explanation of the effect given by Anacker, and

which is no doubt the true one, is this: Glycerin, when brought into contact with the mucous membrane of the rectum, withdraws water from it, thus causing hyperemia and irritation of the sentient nerves of the rectum, which in its turn leads reflexly to powerful peristaltic contractions, ending in defecation. The larger the accumulation of feces, the greater is the effect. There is no discomfort or pain, but the action takes place quickly, safely and pleasantly. Sometimes a little throbbing is felt in the rectum for a few minutes afterwards. I feel sure that this plan, on account of its simplicity and readiness, will be found to constitute a veritable improvement in the therapeutics of constipation.

DR. I. ALTHAUS speaks highly of the use of injections of glycerine in habitual constipation. It is best injected into the rectum by means of an ordinary glass syringe, a teaspoonful is found quite sufficient for an ordinary case. An evacuation generally takes place, either immediately or within a few minutes after the injection. The explanation of the effect is due to the fact that glycerine, when brought into contact with the mucous membrane of the rectum withdraws water from it, thus causing hyperemia and irritation of the sentient nerves of the rectum, which in its turn leads reflexly to powerful peristaltic contractions, ending in defecation. The larger the accumulation of feces the greater is the effect. There is no discomfort or pain although sometimes a little throbbing is felt in the rectum for a few minutes afterwards.—*Am. Practitioner and News.*

SUBCUTANEOUS INJECTIONS OF ANTIPYRIN IN PAINFUL DISEASES.
—Dr. Fraenkel, of Breslau, on the ground of numerous observations, has reached a conclusion similar to that of Germain Sée, that in painful diseases subcutaneous injections of antipyrin are followed by the best results. The dose recommended by Sée is a dram of fifty per cent solution (water and antipyrin equal parts). According to Fraenkel a half syringeful of a twenty-five per cent solution accomplishes the same result. The effects are perceived in from fifteen to twenty seconds, and last much longer than morphine.

Fraenkel concludes, therefore, that the subcutaneous injection of antipyrin will restrict the use of morphine, lighten the task of the physician, and conduct many patients to a more rapid recovery.—*International Olinic Rundschau.*—*Am. Practitioner and News.*

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Original Articles.

CASE OF CHOLECYSTECTOMY.

By J. F. MORSE, M. D., San Francisco.

Cholecystectomy is not of such frequent occurrence but that the publication of the following case may prove of interest.

The operation, as is well known, was introduced by Langenbach, and has had its defenders and its enemies. Dr. Therian, of Brussels, reported, at a recent meeting of French surgeons on the statistics of cholecystectomy, as follows:

"We know of twenty-five cases of cystectomies, with three deaths after the operation, which makes 13.65 per cent. Of these three failures, one is attributed to a cerebral tumor; the second was a perforation of the cystic canal by a calculus. In the third case there were two calculi in the ductus communis choledochus; one was pushed back, the other crushed, according to Lawson Tait's method.

"Cholecystectomy gives us, then, leaving the first case out, a mortality of 9.98 per cent, and all the operated patients were cured. In accordance with these results, he thinks we must interfere without hesitation. The biliary vesicle is of no use in the economy; it can be extirpated without inconvenience, and if we could demonstrate the existence of a painful cholezystitic

or irritable vesicle, as we have painful and irritable cystitis, the indications of cholecystectomies could be very much extended, we would have to resort to it in all painful cases having for their origin an irritable biliary vesicle."

For further information in relation to the subject, I refer to the paper recently read by Dr. Von Hoffmann before the San Francisco Medical Society and published in the April number of this journal.

J. F. F.—Occupation, barkeeper; native of Santa Rosa; aged forty-six years; admitted into German Hospital March 2nd, 1888.

History—In March, 1887, he began to feel neuralgic pain throughout his body and his strength began to fail him. This condition was soon followed by an exerutiating pain in his right side, which lasted for two hours. Three days after this, he had a similar attack, but cut it short by sending for a physician and getting some medicine to relieve his pain. After being confined to his bed for two weeks, he began to turn yellow, but he had no further return of pain in the side, his only other symptom being a gradual loss of flesh and strength and the development of a diarrhoea. The patient lost seventy-five pounds in weight in one year. He had been greatly annoyed by itching of the skin.

Status Præsens—Patient, medium-sized, is completely jaundiced, his face and hands being thin and of a bronze color. He is greatly emaciated. On physical examination it was found that his liver was enlarged about one inch below the arch of the ribs, and in the region of the gall-bladder there is a fluctuating tumor the size of a lime, evidently a distended gall-bladder. Temperature never above 38.3° C. in the evening; no chills; no dropsy; frequent colorless and offensive stools. Has no pain except on pressure over tumor. Patient denies ever having had syphilis. Has always been healthy up to time of present illness. From March 21st to April 2nd the patient was given all the ordinary remedies, administered under similar circumstances, without any effect whatever, and it was finally resolved to make an exploratory incision into the abdominal cavity, and to ascertain, if possible, the cause of the obstruction and remove it. The patient being etherized, I made an incision three inches long over the tumor, and soon had it explored.

It was found to be an enormously distended gall-bladder. The

ducts were found to be pervious, and the liver was of good color and with sharp, well-defined edge. It was resolved to remove the gall-bladder, hoping that thus the condition of the patient might be benefited. It was first aspirated, a quantity of purulent mucus escaping. The opening was enlarged and the bladder explored. It contained nothing but the fluid mentioned. The patient being greatly emaciated and jaundiced, which gave occasion to fear hemorrhage if the bladder was entirely detached, the major portion of it was cut away by the scissors and the edges carefully united by a double row of Lunbelt stitches. The abdominal cavity was then cleaned, closed and drained in the usual manner.

The evening of the operation the temperature rose to 39° C., but was never higher than 38° C. subsequently, and that only two or three days. The patient rallied well, and, with the exception of hiccough for twenty-four hours, which distressed him, but which was controlled by camphor, he had no untoward symptoms, no peritonitis; and on April 14th, the wound being healed, all the stitches were removed, and two or three days afterwards he sat up in bed. He continued to improve, being wheeled about in an invalid chair until April 28th, when his diarrhoea again became violent, great quantities of colorless and offensive fecal matter passing from him. He sank rapidly and died May 1st. No change in the ieterus. The autopsy revealed the following state of affairs: The remnant of the gall-bladder was firmly healed to the peritoneum of the abdominal wall at the point of incision, as was the omentum. It was thoroughly united, and contained a small quantity of muco-purulent fluid. The ducts, hepatic, cystic and common, were all pervious. The liver was enlarged, and on cutting it open it was found to be infiltrated with a thick, stinking pus, the pus being contained in the ducts and not forming an abscess. The pancreas was in exactly the same condition, the pancreatic duct being filled with pus as well. There was no sign of inflammation of the peritoneum. The other organs showed no important pathological changes. This case presents many points of interest—for example, the very slight febrile symptoms and absence of chills during the time he was under observation, before and after the operation.

A CASE OF VAGINAL LITHOTOMY.

By W. WINTERBERG, M. D., San Francisco.

Considering the rare performance of this operation, a detailed account of the following case may not be devoid of interest. Mrs. McM., age fifty-two; native of New Brunswick, for the last eighteen years a resident of Placer County, Cal., married, had six children at full term, and two miscarriages, following great bodily exertion. Last child was born in 1872; in each case the puerperium was uncomplicated and of short duration. She reached the menopause at the age of forty-six. About six years ago, she fell, accidentally striking with her left side against a log of wood, and from this fall she dates the beginning of her ailment. She first complained of pain in the region of the left kidney, which would come and go at intervals; then she began to feel slight inconvenience in micturition; two years ago she passed a little stone and a quantity of pus and blood; four or five months later there was another discharge of blood and pus, followed by a sensation of great relief to the patient. Afterwards she became continually worse, and being remote from competent medical attendance, did not receive adequate treatment. She finally came to the city on April 19th, — . I found her on that day completely exhausted and prostrated by the sufferings she had to endure during her long trip and unable to leave the bed, since even the slightest motion would make her pains excruciating.

A continuous tremor was shaking her whole body, particularly the lower extremities, the pulse was very small and rapid (125), and there was a striking pallor of the face. She complained of great pains in back and loins, and of very frequent micturition, the end of which was always accompanied with unendurable pain. A digital exploration of the vagina proved to be negative in consequence of the enormous thickening of the vesical walls, as was seen later. Being without a sound to explore the bladder, I had to postpone further examination until the following day, when I at once after the introduction of the sound discovered the presence of a large calculus. The patient being told that an operation would be necessary, consented without hesitation, and April 22nd was fixed for that purpose.

Drs. Foulkes and Kreutzmann assisted me with their wonted courtesy and ability, the presence of more assistants being dis-

pensed with by the use of a leg holder, which keeps the patient in the lithotomy position. One-third of a grain of morphine having been injected hypodermically the patient was then anæsthetized, the A. C. E mixture being used. The pulse was very feeble first but soon rallied under the influence of the morphine. She was placed in the lithotomy position and an incision was made over a grooved staff through the anterior wall of the vagina commencing about at the neck of the bladder and extending exactly in the median line for about three inches, when after the introduction of the finger, the stone could be felt in the fundus of the bladder behind the trigonum, imbedded to over half of its circumference in a diverticulum and apparently firmly adherent. The adhesions were broken up with the finger, after which it was possible to grasp the stone and extract it with a pair of extracting forceps.

The longest diameter of the stone was two inches, the longest and shortest circumference being four and one-half to five and one-half inches respectively, and the weight being 900 grains. The bladder was then washed out with a weak solution (1.8000) of bichloride of mercury and the wound closed up with twelve catgut and six silk sutures; a soft Nélaton catheter was introduced through the urethra into the bladder, and fixed by strips of adhesive plaster for a permanent draining, and about a quart of a three per cent solution of boracic acid used twice a day for washing the said organ; simultaneously a 1.5000 solution of bichloride of mercury was used for irrigating the vagina twice daily.

The patient was placed in bed with hot bottles to her feet, and she soon recovered consciousness. She declared that she felt greatly relieved, being free from pain for the first since the last six months. The universal tremor gradually passed away, and she began to gain strength. When I saw her on Wednesday morning, the third day after the operation, I learned that the catheter had come out of the bladder the preceding night after a severe attack of colic, whereby she soon got relief. I found the instrument clogged, and reintroduced it after cleaning. On examination I further ascertained, that there was no urine passing through the vagina. The bladder would hold now easily four ounces of fluid without distressing the patient. The capacity increased, until two weeks later I could inject twelve ounces without incommoding her. On the eighteenth day of

the operation treatment was discontinued; there being no more symptoms of cystitis and the patient having left the bed at the end of the second week. On the 12th of May, twenty days after the operation I saw her for the last time; a firm cicatrix had formed over the line of incision; the silk sutures had been removed two weeks before. She felt now strong enough to go to her daughter in Washington Territory.

The principal point of interest connected with this case, is, of course, the rarity of lithiasis in women. On perusing the literature on this subject, I find that Klien in the Moscow City Hospital found in 1,792 cases of stone in the bladder only four (4) in females; M. Lett did lithotomy 106 times in men and only once in a woman during a period of fifty-seven years; I. Winkel found amongst 10,000 female patients examined by him during a period of twenty-four years (1860-84) only one affected with lithiasis. As to the various methods of operating for stone in females, colpocystotomy certainly will be the most eligible one in all those cases in which a bloody operation is necessitated by the size of the stone in adult females, while in children epicystotomy would be the proper method in a number of cases if the stone were too large for extraction through the pelvis without injuring the soft tissues. The vagino-vesical operation was performed the first time by Fabricius Hildanus (in 1628), and his example has been imitated repeatedly by different operators.

There is no risk of producing a vesico-vaginal fistula by this operation, if the wound be properly closed by careful coaptation and suturing. The material I should select for suturing in future cases would be catgut; that it will certainly resist absorption until union has taken place, was shown by the present case, the edges of the wound had been agglutinated firmly enough on the third day, to resist a pressure strong enough to force out the catheter, which had been attached quite securely by means of several strips of rubber plaster to the neighboring parts.

As to the use of the permanent catheter, I think it will be extremely beneficial in a case like this, where there was an immense thickening of the vesical walls. By its employment the organ is entirely set at rest, and consequently atrophy of the thickened tissues will take place; besides that, the urine, being drained off as soon as it enters the bladder, has no time to be

decomposed or act as an irritant, and the presence of a soft Nélaton catheter will not cause any trouble whatever, provided it be cleaned at least once in two days.

Lastly, it will be of interest to mention that vesico-vaginal incisions, made for the extraction of foreign bodies, have repeatedly healed spontaneously without any special treatment whatever. Bougué cites the following cases of that kind: One of France (1808), Clemot (1817), Cittadini (1826), Bellini (1827), Grillo (1827), Rigal a Blandin (1830), Tomasso (1836), Bossini (1847), Marzuttini (1862), de Luca (1863), Montini (1863), Burei (1866), A. Denant (1872). Such experiences will go far to bear testimony to the practicability of vaginal lithotomy.

A SOMEWHAT RARE ACCIDENT OCCURRING DURING LABOR.

By HENRY A. DU BOIS, M. D., San Rafael, Cal.

The following case presents, I think, some points of interest. A. B. a primipara, aet. 28, was confined of an eleven pound child. Her pelvis was man like, but moderately roomy, nevertheless it was completely filled with the head that passed through. Labor was assisted by assisting flexion and rotation by the short forceps and then removing them. Hot baths, hot sponges to the perineum, and the rubbing of cosmoline on the part aided dilatation of the tissues, but it was at length evident that the soft parts must give way before the child could be born. Short forceps were, therefore, applied, and chloroform given and the advance of the head retarded until the perineum had stretched to its utmost, when delivery was very slowly effected, causing a considerable laceration, but no more than was absolutely necessary for the delivery of the head. The laceration was extended along the floor of the vagina obliquely upwards by the descent of the presenting shoulder. Immediately after labor the perineum and floor of vagina were reunited by eight stiches, after the parts had been well washed out with corrosive sublimate solution 1-2000 made hot and the wound was covered with iodoform.

The next day the urine was drawn with the catheters night and morning. The urethra was found on one side of the median line, but as it immediately after labor is often more or

less displaced no attention was paid to it. Owing to the laceration the urine was drawn off night and morning, until the eighth day, when all the stitches had been removed. Upon then directing the patient to pass her urine I found her powerless to do so. As there was a certain amount of paralysis of sensation and motion in the lower extremity on that side I attributed the want of power to a temporary paralysis of the muscles of the bladder, due to pressure on the sacral nerves, and continued to pass the catheter while seeing her morning and night, and afterwards instructed the nurse in its use three times a day. After three weeks the patient was able to be up the whole day, and to use the commode, but had not regained control over the bladder. The catheter met no obstruction and graduated dilators caused no pain. There evidently was no stricture, and yet the urine was passed with a certain amount of force which did not indicate so considerable a paralysis of the bladder as would be required to produce so prolonged a stoppage of its secretion.

To settle this point, electricity in the form of the interrupted galvanic current was passed through the lower part of the abdomen from the sacrum to the pubes and down the thigh, and by an insulated electrode into the bladder but with no appreciable results.

There being no reason except this for my further attendance, I made a careful examination of the urethra. I had in previous labors met with a pouting of the mucous membrane of the urethra. The membrane being by the passage of the child's head slowly pressed along the interior of the inch and a half of this fibrous tube until finally it was extruded at its outlet as a well marked tumor. There was no appearance of this kind in the present case, but knowing that the female bladder had no special sphincter, but that the muscular fiber of the organ together with the folds of the mucous membrane took its place I could not help thinking that the passage of the head of the child had crowded down and rolled under the pubes folds of this membrane. Inserting "Weir's Male Urethral Dilator," and introducing a probe well coated with fused nitrate of silver, after the parts had been wet with a strong solution of cocaine, I was enabled to cauterize through the triangular opening left by the blades, the upper and lower part of the urethra next the bladder as well as the mucous membrane of that immediately adjacent to the urethra. More or less smarting resulted, re-

lieved but not entirely prevented by the cocaine, but in a few hours, the patient while out riding said she felt as if she could urinate, and on returning home did so, and since then has had no trouble in doing so.

I may add that she is not a nervous or hysterical woman, and I have no doubt that this thorough application of the caustic contracted and withdrew from the urethra into the bladder folds of mucous membrane, that had been forced down by the passage of the head pressing the lining membrane into and along the urethra, but not so far as its external orifice. The anatomical structure of the bladder and urethra as well as the location of the former under the pubic bones would explain the *modus operandi* of this accident of labor. An earlier recognition of it would have saved the patient and myself some anxiety, though fortunately in this case the getting up was not delayed thereby.

CASE OF LEUCOCYTHEMIA TREATED BY CHICKEN BLOOD.

By M. CZARTORYSKI, M. D., Stockton.

About a year ago an Italian girl, æt. 8 years, Letitia Martinelly, was brought to me from San Francisco by her parents, suffering and in the last stages of that almost incurable disease, leucocythemia. As the girl had been previously attended during the preceding five years by many of the most eminent practitioners of San Francisco, they will undoubtedly feel interested in my successful treatment of the case and the perfect restoration of the patient to health.

Some long forgotten therapeutic points out of the works of Avicenna have most materially helped me to the successful issue. When the girl came under my professional care she was almost "*in articulo mortis*," a living, moaning skeleton covered with skin; there was the utmost anaemia, debility, anorexia, dyspnea, cough, œdema, extremely painful swelling of all the joints, stupor, and, in fact, a condition that no person could have survived a week. From the names of the eminent physicians who previously attended the patient, I knew all had been done that medical science could suggest, and that I was only called in to allay the suffering and distress.

The only remedy that had not been tried—transfusion—sug-

gested itself to me; but not possessing the necessary apparatus, I concluded to use the next best substitute, one that had given the most marvellous results in cases of flooding or after excessive loss of blood. I had learned from the works of Avicenna, the Arabian medical sage of nearly 1,000 years ago, at the time I was studying medicine in the University of Breslau, Germany, that the fresh drawn blood of healthy poultry, chickens or pigeons, as it streams from the severed neck, beaten up in previously warmed coffee, wine, milk or warm lemonade (one or the other), well sweetened, was the method in those days of supplying blood. In cutting the neck special care must be taken that neither the trachea nor cesophagus be injured, as the liquids from these may cause vomiting, and it must be done in a warm place and allowed to flow into cups or salvers which have been previously warmed.

As the father of the child was cook in a restaurant, the above remedy was tried, with the most gratifying results. The girl took willingly the blood of two chickens on the first day—one in the morning and one at night—on an empty stomach. The blood appeared to be immediately absorbed. The corpuscles of chickens are oblong, and, if I recollect rightly, only one-eighth of the size of the human corpuscle, and are therefore more easily absorbed. The operation was followed in ten minutes or less by easy, quiet sleep. The girl took the blood of two to five, and even ten chickens, once or twice daily, and improvement followed from the first day. I relieved the cough with raw eggs, beaten up with honey and sherry wine. The girl was sponged once or twice a day with common grape brandy, in each quart of which a dram of bi-sulphate of quinine had been dissolved to overcome night sweats. For the enlarged joints, the lin. ammon. sap. camphor, with one-fourth lin. iodine, was ordered to be well rubbed in two or three times a day. Diarrhoea and vomiting disappeared absolutely within the first week of treatment, the only remedy used being compresses moistened with California brandy and teaspoonful doses of blackberry cordial.

Within four weeks there was general improvement; the child became lively. The fluid obtained from a needle prick in the finger showed no longer merely serum, but blood deficient in red corpuscles.

In February the child weighed twenty-two pounds; in Sep-

tember she weighed 46, and is now a healthy, romping child, full of mischief. No one would have thought it possible that she could have been so near death such a short time ago. She is now in the enjoyment of the best health; weighs fifty-four pounds; able to kill and dress chickens herself, and fond of taking a cup of coffee with chicken blood in it.

[Dr. West, in his "Diseases of Children," mentions equally hopeless cases treated successfully by meat juice and powdered raw meat, which remained upon the stomach when all other food was rejected.—*EDITOR.*]

CASE OF STRICTURE OF THE TRANSVERSE PORTION OF THE DUODENUM.

By G. W. MOORE, Surgeon.

A woman aged fifty, living at Bristol, had suffered for several years from severe colic at times, and latterly from a feeling of inward swelling and a something "breaking away with a gurgling sound." When seen there was considerable swelling over the upper part of the abdomen and much pain—there had been no proper passages for ten days, and the feeling that relief would follow if the bowels were evacuated, was very strong. Large and frequent doses of calomel were administered, but no action followed.

As the agony increased an operation was proposed. A small trocar was introduced (under chloroform) into the most inflated part of the bowel. Some liquid faeces followed—the trocar was left in. Soon after stopping the chloroform the patient became conscious—her agony was intense, and she felt that she was dying, and in fact, did die in about half an hour.

Autopsy.—Next day on opening the abdomen the transverse portion of the duodenum was seen to be enormously distended so as to look like the stomach. It was gangrenous in one or two places, and a vent existed in one of the gangrenous patches.

The transverse colon was constricted in two places where the gallbladder (which looked like a hen's egg) had lain at times, setting up inflammation. The gallbladder was packed full of gallstones, and its tissue was white. It was, of course, very hard. I took at least a handful of stones out of it. The other organs were healthy. In different states of distension of the transverse colon, the gallbladder (which in its state would be comparatively fixed) rested first on one and then the other of the spots which were the seats of cicatrical stricture caused by its pressure.

Licentiates of the California State Board of Examiners.

SAN FRANCISCO, April 16, 1888.

The following persons having complied with all the requirements of the law and regulations of the Board of Examiners, were unanimously granted certificates to practice medicine in this State:

- BEN. TURNER BURTON, M. D., Fresno City; Med. Dept. Willamette Univ., Or., April 27, 1880.
- D. D. HUNT, M. D., Los Angeles; Univ. of Michigan, Mich., March 29, 1871.
- JAMES H. PLEASANTS, M. D., West Fall Brook; Missouri Med. Coll. of St. Louis, Mo., March 13, 1873.
- CLARENCE B. PUTMAN, M. D., San Diego; Missouri Med. Coll. of St. Louis, Mo., March 6, 1883.
- THOS. D. ROSS, M. D., San Francisco; Detroit Coll. of Med., Mich., March 12, 1888.
- GRIER W. WHEELAND, M. D., Los Angeles; Rush Med. Coll., Ill., February 16, 1875.
- EMILY L. YEARGAIN, M. D., San Francisco; Med. Dept. Willamette Univ., Or., June 11, 1879.

Wm. M. Lawlor, M. D.,
Secretary.

SAN FRANCISCO, May 4, 1888.

- DANIEL B. AMICK, M. D., Oceanside; Med. Dept. Willamette Univ., Or., April 9, 1888.
- RICHARD HENRY BURKE, M. D., San Francisco; Rush Med. Coll., Ill., February 20, 1883.
- JANE STEELE DIVINE, M. D., Los Angeles; Woman's Med. Coll. of Penn., Penn., March 17, 1887.
- HIRAM BARBER EHLE, M. D., San Francisco; Rush Med. Coll., Ill., February 23, 1888.
- VIRGINIUS W. GAYLE, M. D., Santa Ana; Univ. of Maryland, Baltimore, Md., March 1, 1873.
- JACOB J. HOUSTON, M. D., Moore's Station; Univ. of Louisville, Ky., February 28, 1859.
- WILLIAM RUSSELL LEWIS, M. D., San Buenaventura; Rush Med. Coll., Ill., February 17, 1874.
- CARL LEWIS MULLER, M. D., Nevada City; Jefferson Med. Coll., Penn., April 4, 1868.
- JOHN RIDLEY NOTT, M. D., San Luis Obispo; Royal Coll. of Phys. and Surg., Ed., Scotland, July 16, 1887.
- CHAS. TEBBS PEPPER, M. D., Los Angeles; Jefferson Med. Coll., Penn., March, 1869.

JOHN B. RENSHAW, M. D., Lakeport; Med. Dept. Tulane Univ., La., March 28, 1888.

JAMES SHERBORN RIGGS, M. D., Redlands; Coll. of Phys. and Surg., Chicago, Ill., March 13, 1883.

FRANCIS MANON SPONOGLIE, M. D., Fresno (second certificate); Med. Dept. Wooster Univ., Cleveland, O., February 27, 1879, and Long Island Hosp. Coll., N. Y., June 3, 1885, and Bellevue Hosp. Med. Coll., March 15, 1885.

WM. CHAS. AUG. THIELE, M. D., Los Angeles; Coll. of Med. of the Univ. of Southern Cal., April 11, 1888.

GEORGE W. STEPHENSON, M. D., Yountville; Missouri Med. Coll., Mo., March 3, 1887; Coll. of Phys. and Surg., Keokuk, Ia., Feb. 14, 1878.

GEO. W. STRATTON, M. D., Nicolaus; Missouri Med. Coll., Mo., March 6, 1888.

GEO. E. WRIGHT, M. D., San Diego; Kansas City Med. Coll., Mo., March 16, 1886.

R. H. PLUMMER,
Secretary.

TO RENDER TINCTURE OF IRON TASTELESS.—The *American Drug-
gist* for January, 1888, gives two methods which are very effect-
ive in accomplishing the result desired.

1. Pour the measured quantity of tincture of iron, immediately before administering or taking it, into a sufficient quantity of *milk*, about a wineglassful for every 10 drops of tincture. This method was first recommended by Hager. The iron probably changes to phosphate in this case.

2. Pour the tincture into a sufficient quantity of *Vichy water* about 1 fluidounce for every 10 minims of tincture. This method is often practised in the public hospitals of New York. Our attention was first drawn to it by Dr. A. B. Pope. In this case, of course, the iron changes to carbonate, the carbonic acid being speedily disengaged, and ferrous hydrate being deposited on standing. In this form it has been found to be quite easily taken, and, so far as known, with best results.—*Medical News.*

THE PROPHYLAXIS OF DIPHTHERIA.—Johannsen, of Libau, has used with excellent results a clear, red solution of potassium permanganate as a gargle. Believing that bacteria taken into the throat during the day are very likely to multiply during the night the gargle is used before retiring. He is convinced that the procedure is rational and efficient.—*St. Petersburg Med. Wochenschrift*, No. 37, 1887.—*Medical News.*

Proceedings of Societies.

San Francisco County Medical Society.

SAN FRANCISCO, April 23, 1888.

The meeting having been called to order by the President, Dr. J. D. Arnold, the minutes of the former meeting were read and approved.

Dr. F. S. Cook, a graduate of the University of California, in the year 1887, and Dr. F. B. Carpenter, graduate of the College of Physicians and Surgeons, New York, in the year 1883, were proposed for membership by Dr. D. W. Montgomery and Dr. W. W. Kerr. They were referred to the Committee on Admissions.

A bill from Woodward & Co., for printing constitution and by-laws, meeting notices, etc., was presented, and, after approval by Auditing Committee, was ordered to be paid—\$72.90.

A vote of thanks was awarded to Dr. E. R. Taylor for his professional legal services rendered in revising the constitution and by-laws of the Society.

Dr. T. J. Le Tourneux presented a paper entitled "Antiseptic Measures for the Prevention of Puerperal Fevers." He gave a short history of the disease, showing that in the latter part of last century it raged in epidemic form throughout nearly all the large towns of Europe, and that it was only during the beginning of this century that the profession really awoke to its danger and the necessity for energetic remedial measures. The advent of the germ theory of disease called into play many antiseptic remedies, with the result that the mortality is now reduced to .5 per cent.

In hospitals and the higher ranks of society it was comparatively easy to take precautions against the disease, but, accepting the theory of its germinal origin, we might review the methods best adapted to general practice. Pure atmosphere, clean surroundings and attentive nursing were essential to the prevention of this disease, but it was particularly to the medicinal treatment that he desired to draw attention. Hot water, permanganate of potash, bi-chloride of mercury and carbolic acid were the chief germicidal injections that had been suggested, and of these he found carbolic acid to be the best for general use; for, while the bi-chloride was a more powerful germicide,

it was also more irritating, and more liable to produce constitutional symptoms. The injection he most frequently used was a two-and-a-half per cent solution of carbolic acid in warm water, and this same solution was used for cleansing the hands both before and after a digital examination.

Dr. J. H. Stallard said that, more than forty-five years ago, the general principles of cleanliness were inculcated, and the physician saw that they were carried out by a personal examination, both of the rooms and patient; nevertheless puerperal fever did occur, and under these circumstances such remedies as turpentine, poultices, bleeding, etc., were tried, and found to be eminently unsatisfactory when compared with the good results now obtained from the injection of a three-per-cent solution of carbolic acid. Many of the hospitals were closed for two or three months every year, notwithstanding the precautions of ordinary cleanliness, but since the introduction of Listerism the disease is exceptional. He preferred the bi-chloride for ordinary cases, but when there was much pain and swelling, carbolic acid appeared to be safer.

Dr. H. Gibbons, Jr., said that there were many points in the etiology of puerperal fever that still remained unsettled, the causative relation between this disease and scarlet fever, typhoid fever and erysipelas being generally accepted, although each of these was undoubtedly due to a particular poison. Although germicidal methods of treatment had generally been proved to be the most efficient, that fact did not alone prove the germinal origin of the disease. His usual custom, when there were any indications of septic or febrile processes, was to use the bi-chloride for the first and carbolic acid for subsequent injections, these being made through a Skene's double catheter. He also used Labarraque's solution, which, although objectionable, on account of the unpleasant odor, was efficient as a disinfectant, and free from the dangers of constitutional effects.

Dr. Wm. F. McNutt did not believe puerperal fever to be a specific fever, nor that it was of germinal origin. He did not think that a simple high fever should be regarded as an indication of this disease, but that the puerperal fever should be associated with local inflammation of the uterus or surrounding tissues. Many of the fevers met with in obstetric practice were simply the result of exhaustion and prolonged pain, for, during labor, the metamorphosis of tissue was very much increased;

while, during the subsequent period of exhaustion, the secretions were diminished and the effete products retained in the system.

Dr. J. A. Anderson had rather an unfortunate experience, which led him to believe that there were three or four distinct forms of puerperal fever. He mentioned an instance where the contagion had been carried by a priest from one woman to another, who was a patient of Dr. Anderson, and from this source the Doctor communicated the disease to several other women; so that, within a few days, ten patients were attacked, four of whom died. In one case he never touched the patient, but simply entered the room and retired again, as the child had been born for some time before his arrival. He had seen undoubted evidences of its origin from diphtheria and scarlet fever, which would tend to prove that the disease did not depend upon any one germ, but that there was some contagium or contagia, which, when absorbed by a woman in the puerperal state, tends to bring about this inflammation of the uterus. In all his fatal cases the patient had died with symptoms of exhaustion and septicaemia. Large doses of opium, by suspending the secretions, appeared to be the best remedy.

Dr. J. D. Arnold mentioned a similar experience in the practice of a friend in the East. He thought that the discussion had indicated that a distinction should be made between septic fever occurring in puerperal women, and true puerperal fever; also, that vaginal injections were the typical remedy in the former, but useless in the latter.

Dr. H. Gibbons, Jr., objected to injecting the uterus as a matter of routine practice, and thought that it should be done only in those cases where there was an offensive discharge, with other evidences of retained clots or secundines. His worst cases of puerperal had been in patients where there absolutely was not any vaginal discharge, and these were the cases that followed the physician from one patient to another. He thought that the poison must be capable of being transmitted in emanations from the body and lungs of persons exposed.

Dr. D. W. Montgomery called attention to the adaptability of the uterine sinuses for the cultivation of bacteria. A. naphthol is now one of the best of modern germicides, as it destroys bacteria in a solution of 1 in 10,000.

Dr. C. E. Farnum said that, in studying the disease, he had

started out with the idea that the fever might be due either to retained septic material in the uterus, or to absorption of microbes through the lymphatics. His practice was to observe simple cleanliness by means of pure water, giving attention to the complete removal of secundines, and he had never experienced any trouble, although daily engaged in the dissecting room. In one case the discharge became foul, but, after the removal of a small piece of membrane by means of the dull currette, and thorough irrigation with water, the unfavorable symptoms at once disappeared. He arrived at the conclusion that the great value of water and antiseptic injections lay in removing decomposition and hastening the healing powers, so that there was no proper soil for the development of microbes, rather than any power they might possess of destroying these microbes after they had been formed.

Dr. Stallard reported a case of gouty albuminuria in which he found sarcinæ in the urine.

Adjournment.

Wm. WATT KERR, M. D.,

Recording Secretary.

Proceedings of the German Congress for Internal Medicine.

By DR. E. S. MCKEE, of Cincinnati.

Wiesbaden was the place of meeting on April 7th of the 7th Annual Session of this Congress. Prof. Leube, of Wurtzburg, in his opening address, referred in touching terms to the great loss sustained by Germany and the medical profession, in the death of Emperor William. He pronounced Emperor Frederick the protector of science. He dwelt upon the great importance of diagnosis; the great advances made during the last two decades in bacteriology and hygiene, much of which is due to German medicine; the fact that the physician no longer stands alone in the battle against disease and death, but side by side with the State, and said the manner of living is much more healthy now than formerly. He concluded by naming as Vice-Presidents, Prof. Riegel of Giessen, Prof. Jurgenson of Tübingen, Sanitats Rath, S. Ortmann, Berlin.

Chronic disease of the heart muscle and its treatment, was the subject of an interesting paper by Prof. Oertel of Munich. He fully discussed the Oertel method of mountain climbing for heart disease at the Congress for Internal Medicine last year,

and has attained a world-wide reputation from the theory bearing his name. He noticed briefly the different changes in the heart muscle, not only in the quantity, but in the quality of the tissue. Methodical bodily exercise strengthens the soft and disabled heart muscles, especially in young persons. In connection with this is given nourishing food largely composed of meat. In 1875 the speaker began his investigations as to the curative treatment of chronic disease of the heart after the method described by Stokes. In order that he might not be accused of experimenting upon the lives of others, he first tried the method upon himself. It consists 1st: Of a regulation of the nourishment taken. This must be adapted to the habits of the patient. 2nd: The practice of methodical exercise, either gymnastic or mountain climbing; by this the muscles are strengthened and their ability increased. The consequence will be a better distribution of the blood, removal of the disturbance in the circulation, decided increase in the arterial pressure and the result of this the greatest possible similarity in the blood pressure in the arterial and venous systems. With the increase of the capabilities the labor of the heart muscles to perform their work will be increased, and this effort must be diminished. This may be accomplished through a reduction of the amount of water in the body as well through increased ingestion as increased expulsion. The latter follows exercise which produces increased heat and sweating; also the use of warm baths. Chronic inflammation of the pericardium in a severe form or diseases of the kidneys contraindicate this treatment, or at least only permit it under great precautions. We must proceed, carefully testing and observing each individual step to know how far we can use and recommend this method of diet and mechanical gymnastics. It is the opinion of Prof. Oertel, that the result is decidedly favorable in simple fatty degeneration of the heart muscles as a consequence of inordinate drinking or excessive nutrition. It is also favorable in cases of valvular insufficiency.

Prof. Lichtheim, of Berne, discussed the medico-pharmacological treatment.

Dr. Ziemssen, of Weisbaden, did not like the terrace treatment because the patients came from under the control of the physician.

Dr. Schott, of Bad Neuheim, thought the Oertel treatment

only applicable to a small number of patients. It is frequently harmful, resulting in nervous disturbance, sleeplessness, dizziness, tendency to faint, and disturbance of the stomach. Mountain climbing is only advisable for young persons of strong muscular systems and normal conditions of blood. During the last fifteen years he has had good results in from 1,400 to 1,500 cases of heart disease from a combined system of gymnastics and bath treatment.

Prof. Rumpf, of Bonn, spoke of his experience with five cases of wandering kidney; three of these were observed during treatment for obesity.

Prof. Unverricht, of Jena, gave the result of his experimental investigations on the mechanism of inspiratory movements. He found there were places in the upper portions of the brain which if irritated had an influence on the respiration.

On motion of Prof. Leube, Prof. Cantari, of Naples, was made Vice-President and was loudly cheered.

Dr. Binz, of Bonn, found spiritus vini an important means of cure and nourishment for patients, but the healthy person should beware of it.

Prof. von Jakob, of Gratz, said this remedy could also be too freely used with patients. It is a therapeutic remedy for diphtheria, and all are agreed that it is a useful medicine, but whether it is a food or not is still an open question. The discussion which followed was a very interesting one.

Prof. Erb, of Heidelberg, spoke against the use of alcohol. He advised that it be used with special care with women and children, also with those who have been for a long time accustomed to its use.

Dr. Markel, of Nuremberg, thought the young physicians just from the University are not clear on this subject. In numerous cases of severe sickness in the hospitals he had found the cognac bottle just by the bed. He asked of the clinical teachers that they pay more attention to their scholars in this respect.

Prof. Nothnagel, of Vienna, assured the previous speaker that the clinical teachers are not responsible for the frequent use of alcohol. It is the custom of physicians to give an illusionary remedy which accounts for much employment of alcohol. He considered it a shame that every child from two to three years of age is given wine or beer at the table. The great nervous irritability and little nervous resistance of the present day are a

consequence of the early use of alcohol. We should only give wine to children in exceptional cases, never as a food.

Prof. Leyden, of Berlin, spoke about a new method of treatment of stricture of the oesophagus. These strictures are mostly of a cancerous nature; the patients can take no nourishment, and are given over to starvation. The English have introduced a method of opening the stricture and holding it open by means of a short sound so that liquid nourishment can be taken. The speaker had tried this and in several instances was enabled to insert a canula to which the patient became accustomed and could continue to wear it. As it is sometimes necessary to remove the canula, threads are attached to it. If solid food be given it may become clogged. As the patient must exist solely upon fluid food which must be carefully prepared, much depends upon the will power of the patient. If the occlusion of the canula is not perfect it can be cleared by passing a small sound. A complete cure is impossible, yet life may be made longer and more tolerable. One of the patients of the speaker wore the canula ten months, and during his stay in the Charite gained ten kilogrammes in weight.

Dr. Ruhle thought stricture of the oesophagus very common in the Rhine region. So far he had not used the canula, for he was of the opinion that considerable force was required for its insertion, and in the case of a soft carcinoma this would result badly.

Prevention and treatment of Asiatic cholera was the subject of a paper by Dr. Aug Pfieffer of Wiesbaden. He was a decided believer in the contagion school, and was opposed to Pettenkoffer's theory of the local factor. Prof. Cantari, of Naples, talked about the treatment, and his remarks were followed by a warm discussion participated in by Prof. Berger, Dr. Stemm, Dr. Huepple, and Dr. Buchner.

The annual dinner was very largely attended, and was given in the Kurhaus. After the toast to the Emperor which was given by Prof. Leube the National hymn was sung. Dr. Curschmann, of Hamburg, gave the toast to the foreign visitors, Cantari of Naples, German Science, and Prof. Jurgenson, the charming City of Wiesbaden.

There were 300 present at the Congress, and Wiesbaden was designated the place of the next meeting.

Health Reports.

Report of State Board of Health.

Mortality returns from eighty-five cities and towns indicate that the condition of the public health is quite favorable. In a population estimated at seven hundred and nine thousand five hundred and fifty there occurred one thousand and five deaths, which gives a percentage of 1.4 per thousand during the month, or an annual average of 16.8, which will compare favorably with that of any State in the Union. Our greatest mortality is derived from visitors from the East, who with diseased lungs seek this coast in pursuit of health; without this constant addition to our death rate our percentage of mortality would be wonderfully small.

Consumption during April was fatal to one hundred and eighty-nine persons.

Pneumonia caused eighty-six deaths, which is quite a decrease over the previous month.

Bronchitis was fatal in nineteen instances, all of which occurred in counties in proximity to the ocean.

Congestion of the lungs caused ten deaths, which is a decrease from last report.

Whooping-cough, which is quite prevalent, caused six deaths.

Diphtheria shows a slightly increased mortality, thirty deaths being credited to it; of these eleven occurred in San Francisco, six in Rocklin, four in Los Angeles, one each in Oakland, Alameda, Benicia, Pomona, Santa Barbara, St. Helena, Stockton, Woodland and Truckee.

Croup caused ten deaths, all occurring in those towns where diphtheria prevailed.

Scarlet fever had the small mortality of four during the month.

Measles was fatal in thirteen instances, which is a large decrease from the last report; and indicates that the disease has spent its force from lack of material.

Smallpox is also declining, seven deaths only being reported from it during April; four of these occurred in San Francisco, one in Sheep Ranch and two in Los Angeles.

Typhoid fever is credited with twenty-four deaths, thirteen in San Francisco, three in Santa Ana, two in San Diego, two in

Los Angeles, two in Oakland, one in Sacramento and one in Yreka.

Remittent fever caused nine deaths, which is the same number as reported in March.

Cerebro-spinal fever is credited with fifteen deaths, which is a marked decrease from last report, but indicating a continued prevalence of the disease.

Alcoholism caused twelve deaths.

Heart disease was fatal in fifty-nine instances.

Erysipelas. Six deaths are attributable to this disease.

The towns reporting no deaths were Anderson, Biggs, Castroville, North Bloomfield, Ontario, Sonora, Folsom and Susanville.

PREVAILING DISEASES.

Reports received from one hundred localities, in different parts of the State, indicate that the improvement toward health noticed in our last report continues, and that the tendency toward epidemicity in disease, which was observed in the earlier months of winter, is fast subsiding.

The genial weather enjoyed during the month of April, had, without doubt, a marked influence in diminishing the spread of smallpox, measles, scarlet fever and whooping-cough. In diphtheria this observation may not apply, as the virus of the disease does not seem to be influenced to the same extent by meteorological conditions as the other zymotic diseases, being equally as virulent in the drier atmosphere of spring as in the more humid months of winter. To depend, however, upon atmospheric conditions only to rid ourselves of zymotic disease, would be placing our reliance upon a very uncertain factor. The prevention of the continuance and spread of these diseases must depend upon proper sanitation, and the very first move in that direction ought to be the enactment of a law making the notification of contagious disease compulsory, either by the physician attending it or by the persons upon whose premises it is. By timely notification, the health authorities could, by isolation, confine the disease to its place of origin, and subsequently, by thorough disinfection, destroy the contagion before it had time to get abroad. We notice in our reports that:

Cholera infantum is mentioned in Hill's Ferry, Bakersfield, Cottonwood, Lemoore, Lodi, Shasta and St. Helena. The cases are few and the mortality limited.

Diarrhoea and dysentery are becoming more prevalent as the warm weather advances; they are mentioned in reports from Calico, Sierra City, Lemoore, Livermore, Sissons, Fresno, Anderson, Yreka, Bakersfield, Lockeford, Williams, and Salinas.

Measles still prevail, to some extent, in Lockeford, Hill's Ferry, Pomona, Sacramento, Santa Ana, Dixon, North Bloomfield, Cloverdale, Bakersfield, Nevada City, Anderson, Sissons, Livermore, Cottonwood, Plymouth, Salinas, Lincoln, Lemoore, Napa, Lodi, Gridley, St. Helena, Jackson, Sonora, and Fresno.

Scarlet fever, in a mild form, is prevalent in Sacramento, San Francisco, Pomona, Wheatland, Anderson, Sissons, Angels' Camp, Livermore, and Fresno.

Diphtheria is noted in many localities. In Rocklin, quite an epidemic of the disease prevailed during the month. Dr. H. E. Stafford reports forty-four cases, with many other cases of sore throat, which, although quite mild, were probably diphtheritic. The origin of the disease was traced to a family whose sanitary condition was of the worst possible description. From this family, it was communicated to neighbors' children, who were playing close by. Another factor, in the spread of the disease, was an open sewer or ditch, that was used as a receptacle for a large portion of the filth of the town, and from which was constantly exhaled a most offensive odor. Owing to the comparatively dry winter, this drain was not washed out as usual by the winter's rain, and hence its putridity. If an example was needed of the close relation that filth bears to disease, it may be found in the history of this epidemic in Rocklin. Founded in filth, fostered in an insanitary home, the germs cultivated and diffused by the decomposition of animal and vegetable matter in an open ditch, polluting both air and soil, the result could be no other than it was, with its attendant deaths, that might have been prevented. In San Francisco, some thirty-six cases were reported; other cases were noticed in Cloverdale, Riverside, St. Helena, Cedarville, Anderson, Merced, Truckee, Woodland, Stockton, Santa Barbara, Pomona, Los Angeles, and Oakland.

Croup is reported in Rocklin, Pomona, Cloverdale, Bakersfield, Gridley, San Francisco, Santa Barbara, Oakland, and Grass Valley.

Whooping-cough is in Pomona, Cottonwood, Plymouth, Sierra City, Bodie, Jackson, Los Angeles, and San Diego.

Erysipelas was noticed as present in Castroville, Salinas,

Truckee, Bakersfield, Yreka, Anderson, Livermore, Lincoln, Cedarville, Brownsville, Sacramento, Biggs, Fort Bidwell, Fresno, Santa Ana, and Los Angeles.

Typhoid fever is noticeable by the infrequency with which it is mentioned in our reports. A few cases occurred in Lockeford, Dixon, Jolon, Yreka, Colton, Truckee, Lemoore, Santa Ana, San Diego, and Los Angeles.

Remittent fever was reported from Etna Mills, Bakersfield, Knight's Ferry, Lemoore, and Brownsville.

Cerebral fever occurred in Sissons, Alturas, Fresno, Oakland, San Francisco, Sacramento, and Amador.

Pneumonia was observed in Watsonville, Lockeford, Hill's Ferry, Etna Mills, Truckee, Jolon, Yreka, Auburn, Anderson, Colton, Forest Hill, Gridley, Williams, San Francisco, San Diego, Salinas, Santa Barbara, Los Angeles, Colton and Eureka.

Bronchitis was prevalent in Bakersfield, Yreka, Sierra City, Alturas, Brownsville, Bodie, Sonora, Plymouth, and Fresno.

Smallpox. Although its area of extension has been much contracted by vaccination and revaccination, it still exists in some parts of the State. In San Francisco during the month twenty-two cases were reported, three of them being directly imported from China. Two cases were reported in San Benito; two in Sissons. Cases were reported in San Andreas; two of them in the county jail. The disease was also in Sheep Ranch, West Point, sporadic cases throughout Calaveras County, except in Murphy's and Angels' Camp, which are free of it. In Oakland there were four cases during the month, all convalescent, without any further developments. In Stockton, Dr. Ruggles writes the disease is " stamped out " since March 24th. In Homestead, outside the city, there has been ten cases during the month, all convalescing. Watsonville has also gotten rid of the disease by thorough vaccination. In Napa quarantine was raised on the 13th of April, and no new cases have since appeared. In Gilroy there has been thirty cases, but we are not advised whether the disease is still present, or otherwise. No new cases have appeared in Ontario, Riverside, Santa Barbara, or San Bernardino during April.

In Los Angeles they have a great many cases, but owing to the neglect of the Health Officer to furnish returns, although requested to do so, we are unable to state just how many cases

- occurred during the past month. We believe, however, that the Health Officer does not desire the number known, which is a mistake on his part. We have advices from Bond County, Illinois, that smallpox has been imported into that county, directly from Los Angeles; the concealment, therefore, of such a disease, will create distrust in the minds of tourists, and always does more injury to a city than prompt notification of every case that occurs. San Francisco quickly acknowledged this truth, and by her daily reports of the progress of the disease, disarmed all suspicion of concealment, and restored perfect confidence in those who had occasion either to live there, or were transient visitors. The result has further been, that San Francisco is almost rid of smallpox to-day, and will very shortly entirely "stamp it out."

GERRARD G. TYRELL, M. D.,
Permanent Secretary California State Board of Health.
Sacramento, May 10, 1888.

Dietary of Chronic Tuberculosis.

UFFELMANN, quoted in the *Journal of Dietetics*, recommends several bills of fare which will serve as a guide in most of the cases.

For a consumptive who can bear only a small quantity of consistent food, he gives:—

I. MORNING—7 o'clock.—Milk, eight ounces, teaspoonful of cognac with toast bread, two ounces.

8 o'clock.—1 cup of cocoa, boiled with milk, 6 ounces.

10 o'clock.—Milk and cognac as at 7 o'clock.

NOON.—1 cup of beef broth with yolk of an egg, 5 ounces of milk and rice, 1 glass of red wine.

AFTERNOON—4 o'clock.—Sweetened coffee with milk, five ounces, and two ounces toast bread.

6 o'clock.—1 glass of milk and cognac as above.

EVENING.—8 o'clock.—1 plate (10 ounces) milk soup, with two ounces toast bread.

NIGHT.—1 glass of milk, 6 ounces.

II. MORNING—7 o'clock.—1 glass milk with cognac and two ounces toast bread.

8 o'clock.—1 cup sweet coffee with milk, six ounces.

PACIFIC MEDICAL AND SURGICAL JOURNAL

AND

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EDITOR:

WILLIAM S. WHITWELL, A. M., M. D.

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SAN FRANCISCO, JUNE, 1888.

Editorial.

THE AMERICAN ASSOCIATION OF OBSTETRICIANS AND GYNECOLOGISTS.

The advance in gynecology during the past twenty-five years has been remarkable. So true is this, that the time elapsing since 1860, will be looked back to by future generations as an era in the history of this special department of medicine. At that time the labors of Sims in America, of Simpson in Edinburgh, and of Simon in Germany began to bear fruit, and to be appreciated. The methods of diagnosis and treatment are becoming daily more perfect, and many women are now being restored to health that a generation ago would have been abandoned as helpless invalids.

The woman who bears children, and, in addition, attends to her numerous duties as a house-keeper, carries a burden that many a strong man would shrink from, and the sick or invalid wife and mother, with her many responsibilities unfulfilled, is an object of pity and commiseration.

Any new and worthy organization then of competent men, who have for their object the study of whatever may lead to the

better methods for the cure or amelioration of the ailments peculiar to women, should be cordially greeted by the profession.

A National Society has recently been organized in Buffalo that is in harmony with the Congress of American Physicians and Surgeons, that meet in Washington in September next. The Society is limited to one hundred members, of which there are already thirty-six on the roll. It is known at the "American Association of Obstetricans and Gynecologists," and commences its existence with a list of active and rising men, whose names are becoming known to the profession, as workers in this especial branch of medicine. The first regular meeting will be held in Washington, September 18, 19 and 20. The Secretary is Dr. W. W. Potter, Buffalo, N. Y.

QUARANTINE AT SAN FRANCISCO.

A recent paragraph in a San Francisco daily newspaper mentioned the fact that an Atlantic steamship had just arrived at Baltimore with several hundred European immigrants, among whom smallpox had appeared on the voyage. In two days the well passengers were forwarded to their destination in the interior. As no further account of the affair has reached us, we may presume that an occurrence of this kind is not unusual at Eastern ports. It is such a contrast to the late fifteen-day quarantine imposed upon all vessels reaching this port from Hong Kong, that the subject is worthy a little attention in these pages.

True, the conditions at Atlantic ports are more favorable, as regards character of the immigrants to be dealt with. In case of white people, there is no studied concealment nor systematic evasion of sanitary rules; while with Mongolians deception and evasion may be counted as certain and constant factors, and no room must be allowed for their exercise. But the most important difference lies in the quarantine methods at the different ports. The details of the Baltimore system are not at our hand, but it may be presumed that there is a station ashore, where the

passengers might be landed and their personal effects be rapidly disinfected by heat or fumigation; where the sick might be treated until thoroughly cured; where those not recently vaccinated might be detained under observation for the necessary period, after vaccination; and where cargoes might be transhipped, whenever this should be found necessary.

San Francisco claims a population of more than 300,000, and boasts of being the leading city of the Pacific Coast of America. Its quarantine establishment consists of a steam-tugboat and one medical officer, now temporarily supplemented by an assistant, for whose compensation there is no legal provision! No apparatus for disinfection nor accommodation for people under detention has been provided, for the law-making powers have furnished no means. In their absence, the steamship companies employ hired vessels anchored in the bay, where these persons, sometimes numbering hundreds, are maintained at heavy expense, estimated at about \$150,000 for the months of February, March and April. This is a single step in advance of the Turkish method of detaining ship, crew, passengers and cargo, for an arbitrary period. Fumigation has been practiced here, in a primitive fashion, but the principal element is specific detention for the maximum period of incubation, and the rule has been extended to white passengers and pock-marked Chinese, in common with the rest; justification being found in the discovery of two well-marked secondary cases of smallpox among the coolies. Vaccination has not been practiced at quarantine during the present season, until within the last month; and indeed this would be a poor reliance with such results as have lately been obtained at the Health Office among the inhabitants of the city.

If such a system of indiscriminate detention of Chinese laden ships were intended to counteract the *habeas corpus* proceedings of the federal courts, there would be no occasion for a new treaty or for congressional legislation, as long as it lasted; but the decline of smallpox at Hong Kong has resulted in the abandonment of the specific quarantine here. Yet there is ever recur-

ring danger, with the arrival of Chinese passengers, for the personal effects of well persons may bring the disease from an infected quarter in Hong Kong or some place in the interior of China, while the owners are insusceptible from a previous attack. Sound sanitary policy, therefore, requires habitual disinfection of the baggage of Chinese immigrants before landing, and their vaccination en route with a virus more trustworthy than the ordinary commercial article.

There is no reasonable prospect that the bill of Senator Stan-ford, for the establishment of several national quarantine stations, including one at this port, will pass during the present session of Congress, or in the near future; not but that the protection of the public health from foreign pestilence should be as much a function of the general government as the regulation of commerce, but the sectional jealousies which have prevailed from the colonial period are always excited by any proposal to extend federal powers. The people and their representatives mostly prefer to endure needless hardship, rather than surrender their privileges to deal with common evils by divided and independent, not to say discordant, action. Besides, neither national, State nor local authorities will ever appropriate the peoples' money or curtail the peoples' liberties, for any sanitary advantage, unless they are still smarting from the severe scourge of pestilence. At present there is no special danger of this kind to the country at large, nor vivid recollection of past calamity, and the question of national relief might as well be dismissed.

As to State legislation, undoubtedly something ought to be attempted next winter, but it is to be feared that smallpox will have lost its terrors before that time. However, if consideration for the public safety be wanting, we might suggest that our glorious climate and soil will look less attractive in the eyes of eastern people turning this way for permanent homes, or for travel and recreation, when they observe the continued neglect of those precautions which are used in other communities for the prevention and repression of a disease so amenable to control as smallpox. For California, this is a living and potent argument, and we trust that it will not be lost sight of when the peoples' representatives next assemble at Sacramento.

Correspondence.

Abuse of Quarantine.

SAN FRANCISCO, May 3d, 1888.

EDITOR WESTERN LANCET, SIR.—From time to time we hear of strong remonstrances from passengers from Hongkong against the “outrageous abuse of power” on the part of the San Francisco Board of Health, by which they are quarantined here for fifteen days, after being twenty-five days (or longer) on the voyage from Hongkong.

In cases where vessels arrive here with infectious disease on board, it is, of course, the duty of the Board of Health to take precautions against the spread of infection, but when a vessel has been over 25 days at sea without any appearance of sickness among crew or passengers, there is no justification whatever on medical grounds for quarantine restrictions, and to enforce a quarantine of fifteen days in such cases is nothing less than an “outrageous abuse of power.”

I have been much surprised that the medical societies of the city and county and of the State have not expressed themselves on this subject, for the action of the San Francisco Board of Health, implying as it does, either gross ignorance of medical science or an utter disregard of its principles, reflects upon the whole profession in the State as long as it remains unrepudiated.

What is everybody’s business is nobody’s business, but if by our silence in this matter we sanction the action of the Board of Health, we must also hold our peace when told that California is beyond the pale of civilization.

Yours respectfully,

C. J. WHARRY, M. D.

SAN FRANCISCO, CAL., May 8, 1888.

Editor of the Pacific Medical Journal:

DEAR SIR—In your report of the discussion which followed the reading of Prof. Taylor’s paper, read at the recent meeting of the State Medical Society, an error occurred. The operation in which there was double ablation of the mammary glands, performed in the Sisters’ Hospital, after which no recurrence ensued, should have been reported as done by the late Dr. A. J. Bowie.

Yours truly,

L. C. LANE.

Notices of Books, Pamphlets, etc.

SYNOPSIS OF THE PHYSIOLOGICAL ACTION OF MEDICINES, prepared for the use of the students of the Medical Department of the University of Pennsylvania with the approval of the Professor of Materia Medica. By LOUIS STARR, M. D., and JAMES B. WALKER, M. D. Assisted by W. M. POWELL, M. D. Third edition, enlarged. Philadelphia: P. Blakiston, Son & Co., 1912 Walnut street, 1888. San Francisco: W. S. Duncombe & Co.

This useful little manual is like one of the creator's smallest works, more wonderful than the large ones. It is less easy to make a one-fourth than a one inch lens for a microscope. The student who rushes up to the top step of this ladder to *Materia Medica* has little idea of the infinite amount of trouble it has cost the writers. It is chiseled out of the hardest granite. The blank page is very handy for jotting down any new fact or prescription opposite a drug. It is a wonderful little book, and bids fair to be an *Alphabet of Materia Medica*, which every student will have to commit to memory before taking other steps.

PRACTICE OF MEDICINE AND SURGERY APPLIED TO DISEASES AND ACCIDENTS INCIDENT TO WOMEN. By W. H. BYFORD, M. D., and HENRY T. BYFORD, M. D. Fourth edition, revised, re-written, and very much enlarged, with three hundred and six illustrations. Phila.: P. Blakiston, Son & Co., 1888. San Francisco: W. S. Duncombe & Co.

Of course, the point in treatises of this kind is the successful treatment of that bugbear of the gynaecological practitioner—prolapse of the uterus. The first thing a lover of women does on being presented with a book of this kind, is to see if any new light has been thrown on this sunspot. The paragraph on page 486, headed “Causes of Uterine Displacements,” sheds the very light we require to guide us to the successful treatment of the malady in question. I quote the paragraph: “Lightness of the organ (uterus), and the comparatively small surface presented to abdominal pressure above gave the uterine supports greater elevating power, * * * inflammatory or other contraction of tissues at the pelvic brim dragging the uterus up.” Next to this one, Chap. VII. is the most interesting in the book. If we mistake not, Dr. Byford has hit upon a sadly neglected tract of country. The minor

injuries of the pelvis and its organs are starting points for diseases, which silently and stealthily undermine the whole system. These injuries remain often undiscovered, or if discovered, unnoticed, until mind and body have become permanently injured. Another very important truth which Dr. Byford mentions twice in his index, is the necessity for gentleness of touch. We agree with him—woman, when she finds the enemy disease undermining that beautiful piece of mechanism given her by her Maker to reproduce his image is naturally anxious—hyperæsthetic. She requires of the friend in need—the gynæcologist—much loving sympathy touched with compassion; his touch must be tender. We are much pleased with the immense improvement in the work, since the first edition, which we remember criticising quite severely. The illustrations are very numerous and will prove a great help to the student.

A TREATISE ON DISLOCATIONS. By LEWIS A. STIMSON, B. A., M. D., Professor of Clinical Surgery in the University of the City of New York, etc. Phila.: Lea Brothers & Co., 1888. San Francisco: W. S. Duncombe & Co.

This is an extremely valuable book, and one for reference. The author has done his "level best" to communicate all that an experienced master of his art can. The print is very plain, easy to read, and the plates are particularly clear, so that anybody referring to the book in a hurry would not be confused by indistinctness of any kind. The way this book is gotten up reminds us rather of Gray's Anatomy, which everybody acknowledges now to be the standard text-book on Anatomy. We might suggest that the plates be colored in the next edition—color attracts the eye quickly, and different colors show different tissues which are difficult to distinguish by mere shading.

LESIONS OF THE VAGINA AND PELVIC FLOOR WITH SPECIAL REFERENCE TO UTERINE AND VAGINAL PROLAPSE. By B. E. HADEN, M. D., Austin, Texas. With eighty-three illustrations. Phila.: Records, McMullin & Co., Limited, 1888.

On page 143 infinite pains are bestowed upon the description of the round ligament, and how to find it when performing the Alexander-Adams operation. We quite agree that (as Alexander advises) the operation should be tried at least four times on the cadaver previously to its performance on the living subject. In a postscript, page 145, A. L. Smith shows the inutility of

shortening a few muscular fibers. The description of all the operations for prolapse of the pelvic organs gives the book its chief value, and is just the work an intending operator will buy who has not the time to plunge into the larger manuals.

THE INFECTIOUS DISEASES. Vol. I. By KARL LIEBERMEISTER. The Physicians, Leisure Library, No. 8. Published by Geo. S. Davis, Detroit, Michigan.

The first volume contains two articles, one on Malaria, and one on Typhoid Fever. Both articles are good, but the article on Typhoid Fever is especially interesting because it gives both the American and German plans of treating this disease, and also the treatment as carried out in some of our large hospitals e. g., New York Hospital, and Montreal General Hospital. The latest pathology of both diseases is well and clearly given.

THE CUSTOMARY TREATMENT OF THE HAIR considered in relation to the remarkable prevalence of premature baldness in the United States. Published by ARTHUR R. DEACON, St. Louis.

This little book is written by an English layman in the form of a letter to a friend in this country. He blames the too vigorous shampooing, and the use of too strong alkalies for the baldness of young people in this country, and he may be right. At any rate the book is small, and those interested in the subject may easily read it through in a quarter of an hour, and come to their own conclusions as to the correctness of his ideas.

THE LANGUAGE OF MEDICINE. A manual giving the origin, etymology, pronunciation and meaning of the technical terms found in medical literature. By F. R. CAMPBELL, A. M., M. D., Professor of Materia Medica and Therapeutics of Niagara University. New York: D. Appleton & Co. 1888.

This is book that everybody will like. There are too few of this kind written. We think it is just the sort of work to be put into the hands of a youth previous to his entry into a medical school. The exercises are excellent and are of more use than the ordinary Latin exercises usually given at school, for they bear directly on future work. There is too little preparatory work at schools for those who are intended for a special profession. We recommend it to practitioners, especially those engaged in literary work, as a good book.

PRACTICAL LESSONS IN NURSING.—Fever nursing; designed for the use of professional and other nurses, and especially as a text-book for nurses in training. By J. C. WILSON, A. M., M. D., author of *A Treatise on Continued Fevers*. J. B. Lippincott Company. 1888.

In his preface, Dr. Wilson expresses a wish that his book may get into the hands of workers outside the hospital amphitheatre. It is a work which will be read eagerly by those who are inside of this arena, but there are many technicalities which an outsider will not be able to follow. Each of the neat little outline sketches of the fevers contains technicalities and scientific terms which an illiterate nurse will not understand. However, those nurses whose common sense makes them pass on to the practical, will find many useful hints on nursing that they never knew before, to reward them for their trouble.

DOCTOR AND PATIENT. By S. WEIR MITCHELL, M. D., L. L. D. United States. "Introductory," "The Physician," "Convalescence," "Pain and its Consequences," "The Moral Management of Sick and Invalid Children," "Nervousness, and its Influence on Character," "Outdoor and Camp Life for Women." Philadelphia. J. B. Lippincott & Co. 1888. Price, \$1.50.

This is a book everybody should read. It is an original mind speaking truths to others for their good. The phraseology is at times ambiguous and may cause confusion of ideas if the reader is not careful. It is a work which should be read carefully, more especially as it is written by a true champion of that sex which rules the world.

HYOSCIN may be conveniently administered in

Hyoscin. hydrobrom.	gr. 1-6 to $\frac{1}{2}$
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Aq. destill.	3 $17\frac{1}{2}$
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Syrup. aurant. cortic.	3 $7\frac{1}{2}$.—M.
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Sig.—Dose one teaspoonful.

—*Deutsche Med. Wochenschrift*, January 5, 1888.—

Medical News.

THE MARTYROLOGY OF PSYCHIATRY.—Under this striking heading *The American Journal of Insanity* quotes the researches of a French physician who has collected twenty-four instances of murderous assault on asylum physicians by insane patients. The list includes four Americans.—*Medical News.*

Translations.

By D. W. MONTGOMERY, M. D.

Acute General Miliary Tuberculosis Following Phthisis.

Dr. Paul Langerham reports two very interesting cases of general miliary tuberculosis, in the April number of Virchow's Archives. Both cases had suffered for a long time from well-marked symptoms of tuberculosis of the lungs; spitting up both elastic fibers and tubercle bacilli, besides having frequent haemoptyses. Then came a time when the disease was apparently dormant, then a slight haemoptysis, followed in about nineteen days by symptoms of general infection, to which they quickly succumbed.

According to Felix Niemeyer, these would be cases of phthisis of the lungs, which suddenly become tuberculous, or according to our more modern way of looking at it, they would be cases in which the tubercle bacilli had lived a comparatively harmless parasitic life in the lungs for years, suddenly, after a slight haemorrhage, we have general infection, quickly followed by death.

How and when did the general infection take place? The author draws attention to the fact that the symptoms of general infection followed the haemoptyses, in both cases, after an interval of between eighteen and nineteen days. Now, the tubercle bacilli are slow growers, and when the tuberculous matter is so injected into the veins of animals, for instance rabbits, a period of eighteen or nineteen days elapses before the symptoms of general infection make themselves manifest. The bacilli are deposited in the tissues, but they do not grow to a sufficient extent to develop symptoms till about the eighteenth or nineteenth day.

Now, the explanation of the mode of infection in these two cases would be, that the local tuberculosis in the lungs had opened up by ulceration some bloodvessels which brought on the haemoptysis. The patent bloodvessels gave an opportunity for the entrance of tuberculous matter which was distributed to the various organs by the blood current.

The practical lesson to be drawn from this is, that in phthisical patients a slight haemorrhage from the lungs; which does not at first seem to have any bad effect, may be followed in about three weeks by general tuberculosis. Of course we do

not know, and we cannot find out whether any particular haemorrhage will be followed by a general infection, and even if we could find out, it would make no difference on the course of the disease. But still it is well to know that a seemingly unimportant haemorrhage may be followed in about three weeks by such a very fatal disease as general tuberculosis. It may help to give very great importance to what otherwise may seem to be, the bedside of the patient, unimportant symptoms.

Incised Wound of the Heart.

In the *Central blatt fur Chirurgie* a notice is given of the following case of incised wound of the left ventricle of the heart, where healing had taken place, reported by A. P. Kiawkoff in the *Russkaja Medizina*.

In a quarrel one Cossack stabbed another in the left side. When the surgeon arrived, the patient was found lying insensible and breathing stertorously. On inspection, a wound was found one and one half inches in length, in the fourth intercostal space, in the mammillary line, and running parallel with the borders of the ribs. The wound was washed off, a bandage applied, and restoratives given, on which the patient recovered consciousness. Next day the general condition was good. Pulse ninety and small, temperature 100° F. On percussion the upper border of the dulness was found in the fourth intercostal space; no apex beat could be made out; lower border of dulness at the upper border of the seventh rib; the right border lay to the right of the right parasternal line; the left border about one inch to the left of the left mammary line.

The day following the patient was taken to the hospital; after four weeks sojourn there, left apparently well. Five days after leaving the hospital he fell dead while in the act of lifting a heavy weight.

The autopsy showed the wound in the skin perfectly healed. The wound in the parietal layer of the pericardium was also found healed, with adhesions to the walls of the thorax. The pericardial cavity was filled with dark blood. A gaping wound half an inch in length was found leading into the left ventricle. The edges of the wound were thickened, and the outer layers of the surrounding muscular tissue were softened, slight fatty degeneration having taken place. There was subacute endocarditis.

We have here a case of healed wound of the left ventricle of the heart, from which, however the patient died because of overtaxing the heart at too early a period. The cicatrix was too recent and tender, and the endocarditis had not yet passed off, and because of this the effort of raising a heavy weight raised the blood pressure in the ventricle too high, and as a consequence the cicatrix gave way.

Up to the present time seven per cent of wounds of the heart have healed.

Extracts.

The Recognition of Incipient General Paresis.

By OGDEN BACKUS, M. D., of Rochester, N. Y.

(Late Assistant Physician State Lunatic Asylum, Utica, N. Y.)

General paresis, or general paralysis of the insane, is a disease which rarely comes under the care and observation of the general practitioner, except in its early stages, and is then often not recognized, or is mistaken for some other form of insanity or disease of the nervous system. During a period of over four years at the State Lunatic Asylum, at Utica, there was a large number of general paretics admitted, and in the majority of cases the disease was unrecognized by the medical men who had made the necessary examinations and certificates. Dr. Gray, in an article read before the State Medical Society some years ago, said, that in the entire number of cases placed in the asylum since his connection with the institution, but few were recognized by the physicians in attendance before admission, and that most of the cases were brought by friends, in the confident expectation of a speedy recovery, based generally on the opinion of the family physician.

Dr. McDonald, formerly of the Ward's Island Asylum, states that an examination of the certificates sent by gentlemen in private practice to that asylum, shows that they recognized the true character of the malady in but three cases out of the thirty-five in which they made affidavit. Corroborative evidence of the want of familiarity with the early symptoms of the disease is often met with in the newspapers. They record the illness of some prominent individual, with the detail of such symptoms as point strongly to general paresis, and often conclude with the

announcement that "in the opinion of the family physician, a few week's rest will restore the patient to his usual health." The case of the celebrated actor, John McCullough, who died a few years ago in Philadelphia, is an example. For months, he was permitted to wander about the country, indulging in visionary schemes and the excesses peculiar to this disease. The newspapers frequently chronicled his vagaries, but steps were not taken for his comfortable and safe maintenance, until a large part of his fortune had been squandered. More recently, a famous author was admitted to an asylum with general paresis, but not until he had brought financial ruin on himself and family, and was only a wreck of his former self.

That a malady so grave, destroying not only mind, but life itself, so important in its medico-legal aspects, should thus escape the diagnostic acumen of a large number of medical men, is a matter of more than ordinary interest, and yet the symptoms are often so obscure, and masked under such a variety of forms, that physicians even resident in asylums for the insane, are often chary of giving a positive diagnosis until the case has been under observation for a period.

General paresis remained unrecognized until fifty or sixty years ago, and the first published notice of this disease in America, was by Dr. Luther Bell, Superintendent of the McLean Asylum, in his annual report for 1843, where he described a few cases. At present, a considerable proportion of those admitted to every asylum are of this malady. In an analysis of eleven hundred and ninety cases of insanity admitted to the State Lunatic Asylum, at Utica, I found that ninety-one were patients suffering from this disease, or seven and six-tenths per cent of all persons admitted. In the Ward's Island Asylum, the percentage is somewhat larger, doubtless due to the fact that it draws the insane from the more densely-populated cities, where the exciting causes of this disease are more prevalent than in the rural districts of Central New York. Dr. McDonald, in an analysis of sixteen hundred cases admitted to the above asylum, classifies two hundred and five as paretics, or about thirteen per cent of the whole number admitted.

In order to recognize general paresis in its incipiency, a familiarity with its *aetiology* is almost indispensable. First among the predisposing causes is sex; a characteristic observed is its selection of the male in a large proportion; indeed, in the

early history of the disease, writers upon this subject were inclined to regard it as appertaining to men only. Sankey gives the average liability of the sexes to general paresis in England, as five men to one woman. McDonald finds that the statistics of the two public asylums of New York city, for three years, compare as follows: Asylum for females, seven paretics admitted in a total of thirteen hundred and thirty-five cases. In the asylum for males, one hundred and sixty-six were general paretics, out of twelve hundred and thirty-eight cases admitted during the same period. In other words, insanity has taken the form of general paresis in but one-half of one per cent. in the females, while it is found in twelve and six-tenths per cent. of the males admitted to these institutions. By these figures, we also see that twenty-four men to one woman was the ratio, a statement which does not concur with my own observation. At the Utica Asylum, in 1883, there were thirty male and four female paretics admitted; in 1884, there were twenty-seven male and five female paretics admitted; while in 1885, there were admitted twenty men and five women suffering with this disease. These figures show that in Central New York, at least, the proportion is six males to one female.

Age is another predisposing cause, for general paresis is usually a disease of middle life. From Dr. Mickle's calculations, based on the thirty-second report of the Commissioners in Lunacy, I learn that the relative age of patients is forty-four per cent. between forty and fifty years, and thirteen per cent. between thirty and forty years. In the Ward's Island Asylum, of a hundred and forty cases admitted during a given period, sixty-six were between the ages of thirty-five and forty-five; thirty were between twenty-five and thirty-five; and forty were between forty-five and fifty-five; only four were under twenty-five, the youngest being twenty-three. The youngest case I have met with was twenty-seven years of age, and I believe the disease to be rare under thirty years.

The age from thirty-five to fifty years is the period in which general paresis is most commonly developed, for, as Mickle most beautifully describes, "this is especially the age of ambition, pride, selfishness, of speculation, of daring attempts on the heights of fame, of wealth, power, prestige and social position—the age of excessive and protracted intellectual labor—of anxious and strenuous efforts to provide for and ensure future

success to a growing and exigent family—the age in which excessive physical labor is often undertaken, which, like intellectual labor, may be often sustained by too liberal potations, and which is no longer counteracted by the elastic power of accommodation of youth, or by its restfulness after fatigue. Then, too, it is the age most liable to chagrins, and mortifications of spirit, to losses, to disappointments—the age occasionally of sudden beggary after a life of toil and hard-earned success—the age at which so often the mirage of hope vanishes and its aerial castles dissolve; at which the projects of life fail, and crumble away, and its fire dies out. Then, also, it is too often that the spirit of the man wanders forlorn amidst the desolate groves of his affection, the desecrated temples of his noblest aspirations. No wonder that causes such as these acting upon those whose nervous systems have lost the elasticity of youth, whose blood and blood-vessels are further impaired by the effects of alcohol, whose naturally hyperæsthetic brains have been exhausted by irritable reaction to every strong impression—no wonder, I say, that in them, causes such as these should bring about a sudden or protracted hyperæmia—a slow, irritative form of degeneration, or even inflammation in the supreme centres of the organ of the mind."

Heredity may be an important factor, but, as Verga states, the hereditary affinities of general paresis are not with ordinary insanity, but with paralysis, apoplexy, cerebral-congestion and other brain diseases. Nevertheless, in a certain proportion of cases, I have found insanity to exist in one or the other of the family branches.

The causation of general paresis is a subject on which a variety of opinions are held. "The things that most excite and, at the same time, most exhaust the highest brain energy, are those that tend most strongly to cause this disease." Town, rather than rural life; a sanguine temperament; constant worry and irritation or intense intellectual work. Intemperance appears in every statistical table as a predominating cause of general paresis, and is often associated with exhaustive, heavy, physical labor or sexual excess. There is, however, a great difference of opinion in regard to sexual excess as a prime cause of general paresis. Dr. Maudsley lays great stress on it, and chiefly that which is carried on systematically by faithful married persons; but Dr. Mickle, on the contrary, says: "Having

for years sought, and usually in vain, for a history of sexual excesses in my own cases, I do not hold with the view that excessive frequency of sexual intercourse is, by far, the most fertile cause of general paralysis. No doubt, in some cases, and particularly among the newly-married, this may be the cause; in others, one of the several causes of the disease. But I venture to submit that it is erroneous to pay an almost exclusive attention to this cause, as has been done by some authorities on the subject, certain of whom have gone so far as to assert their belief that when not due to excessive sexual intercourse, general paralysis owns another form of sexual evil, namely, masturbation, as its exciting cause, as if forsooth the life, both marital and non-marital, of men was but as an orgy of satyrs, either consumed with secret lust, or filthy partnered in salacious revelry with Bacchantes, lascivious of eye and wanton of limb."

In my own experience with the cases in asylum life, sexual excess seems rather to have been one of the prodromic symptoms, and not a cause *per se* of the disease. In an analysis of fifty-six cases, I attribute the disease in twenty-six to excessive and prolonged mental strain and overwork, supported by alcoholic stimulants; in sixteen, to intemperance and irregular habits; in four, to syphilis; in one, to sunstroke; in the remaining seven, the history furnished was so meagre as to render an opinion as to its causation little more than a guess.

In order to recognize general paresis in its incipiency, careful inquiry should be made into the habits of the individual, the temperament, family history, age, etc., all of which will greatly aid in diagnosis. The symptoms, especially in the early stage, are somewhat vague; the mode of commencement is generally gradual, although the disease may begin suddenly, an epileptiform seizure being the initial warning to the patient or to his friends; or motor symptoms may be the first observed; some slight embarrassment or hesitancy of speech is noticed, especially if under excitement; aural tinnitus, flushing and heat of face and head, due to vaso-motor disturbance. If, however, the intellectual powers be involved, a change occurs in the disposition and habits of the individual. He becomes forgetful, is inattentive, his business transactions are ill-judged, he may be moody, dull, apprehensive, suspicious, irritable, full of hypochondrical fancies, his memory begins to fail, especially for recent events, and he is unable to apply himself thoroughly to

any work. It may be that his sexual appetite is increased; and not infrequently, in taking the history of these cases, the wife of the individual will admit that for some time previous to suspicion of disease on the part of friends, her husband's sexual desire has been almost insatiable.

More commonly, instead of depression, there exists an expansive, speculative frame of mind. He is exalted, active, busy, full of chimerical schemes, elated, easily excited, unnaturally loud in conversation; many of his friends, indeed, believe that he has taken a "wee drop too much," for the change in manner is the same which an extra glass of whisky produces. Although naturally reticent, he becomes loquacious, confidential, button-holes people on the street, relates matters of a private nature about his family, their prospects, what he intends to do for them, etc.; is sleepless, although he does not complain of insomnia. His appetite is good, and he digests his food well. Perversion of the moral sense is one of the most important of the prodromic symptoms, especially from a medico-legal point of view. For some time, there may have been unwonted acts of indelicacy or impropriety. He may be led into all kinds of folly or crime, may make extraordinary purchases, commit thefts in the most open manner, and yet, aside from these changes, there is no absolute loss of intellect; he may become a little duller, less initiative; perhaps, to the casual observer, appearing in his normal condition, but a characteristic feature is, with but few exceptions, that all these changes occur unnoticed by the patient. He affirms that he is healthier than ever before, and any insinuation to the contrary serves only to irritate him. In one case, the first symptom shown of this perversion of the moral sense, was the fact of the patient's deliberately rising from the dining-room table, urinating in the corner of the room, and returning to his seat, as if nothing had occurred, much to the astonishment of those present.

The following case is given by Folsom, in Pepper's System of Medicine, vol. 5, p. 200: "A gentleman once committed an offence characteristic of general paralysis, in marrying a pretty servant girl while temporarily away from his home. His wife, daughters and friends saw that the act was so contrary to his natural character, that he was placed in an insane asylum, and kept there several weeks under observation for an opinion as to his responsibility. He appeared so well in the absolute quiet

and rest, that he was declared sane, tried and sentenced to the State's Prison, where he showed his marked mental impairment as soon as he was set to work. He could not concentrate his mind sufficiently for the simplest labor, and, a couple of years later, he was sent to the insane asylum to die—a complete mental and physical wreck, in the last stages of general paralysis."

The motor symptoms are always to be most relied upon in making a diagnosis, and especially the character of the speech, and the slight fibrillary trembling of the tongue and muscles of expression, which quiver at times as if the individual were about to burst into tears. He does not articulate plainly, especially those words abounding in consonants; he drawls, slurs his words, as if there were some difficulty in bringing them out. The muscles about the alæ of the nose, and indeed, in marked cases, all the muscles of the face, may be involved. When the tongue is protruded, it is generally with a jerk, although this symptom is usually more marked in the later stages. These motor symptoms are of grave omen, and may not be noticed if the patient be calm and collected, but they manifest themselves under excitement, and often, in examination, it is necessary to irritate the patient in order to bring them out clearly. The finer movements suffer, as seen in the handwriting, which is sometimes shaky and irregular—letters, and even words, being omitted, from inability to concentrate the mind. In some few cases, the individual, especially in the melancholic type of the disease, appears to recognize impending calamity, as the following case illustrates:

"A—— B——, thirty-four; lawyer; good family history; ambitious, and a hard worker; indulges excessively in tobacco, often smoking fifteen cigars a day; has used alcohol steadily to support strength, writes: '*Dear Sir: I am suffering from mental and nervous prostration. I should have had advice and consultation before. My friends are much alarmed at my condition, but no more than I am. I am assured, myself, that the condition under which I am, must be controlled at once, or worse results may be apprehended.*'"

In this letter, the handwriting is unsteady, and, when admitted to the asylum, his friends stated that, in writing a brief, he would frequently misspell words, or leave them out altogether, much to his annoyance, and would often have to write a letter or legal instrument over half a dozen times to secure cor-

rectness. He attempted suicide shortly before being brought to the asylum, where he died two years later from general paresis, the motor and other symptoms being all well marked.

The following case is instructive, as showing the presence of motor symptoms before the intellectual faculties became involved, and occurred in the practice of the late Dr. John P. Gray. The history was related to me in the presence of a stenographer, so I am able to give it verbatim: "A New York broker consulted me in regard to his health. He was then forty-five years of age; married; family history excellent; of rather nervous temperament; a *bon vivant*, and inclined to over-stimulation, especially when under excitement on the Exchange. He told me that he felt nervous, that he left out a word now and then in writing a letter, and that, while in the midst of a column of figures, he would lose himself and become confused. He had some tremulousness of the tongue, and, in talking to me, the muscles of his lips quivered, and there was some drawling of the speech, but it was not marked. Of this, he was not conscious. He said he wanted a candid opinion as to his condition; that there were important monied interests which it was necessary for him to attend to, and if he was going to have an attack of a serious nature, he wished to settle up his affairs. He said further, that he was not himself conscious of any mental disturbance, or that he had failed to appreciate any financial transaction. He came again the following day, and I told him that, in my opinion, he was threatened with a serious affection, and advised him to settle his affairs as soon as possible. He then explained the financial transactions to which he referred. Some weeks afterwards, he came to see me again, and the symptoms had somewhat increased, but there was no marked mental disturbance. He said he wanted to understand my opinion very distinctly again. I told him that I now felt quite certain that he had general paresis. He closed out his business, settled all his financial affairs, and, in the course of a few months, he rather suddenly developed profound paresis, both in its mental and physical manifestations, with utter indifference with regard to it. He lived but eighteen months afterward."

General paresis may be mistaken for chronic alcoholism, but the history of the case, the difference in the character of the tremor—that of general paresis being fibrillary, and having points of election; that of chronic alcoholism being more uni-

versal, especially in the hands and arms, when outstretched—the speech, that of the general paretic, having the character already described, while that of the alcoholic subject is thick, the words being muttered; and finally, the mental state—the contentment and indifference of the paretic—will give, in most instances, sufficient data for correct diagnosis. Acute mania, with expansive delirium, may simulate this disease, but the absence of the true physical signs will serve as a guide. Then, also, the delusions of the general paretic are not of as fixed a character as those of acute mania, a contradiction not serving to irritate the patient so much. When, however, there is, in acute mania, great emotional agitation, together with muscular tremor, due to intense excitement, time may be required to make a diagnosis with any degreee of certainty. Dementia with paralysis may be mistaken for general paresis, but the apoplexy, and subsequent more or less complete paralysis, and the gradual dementia, progressive from the date of attack, will exclude general paresis. Multiple cerebro-spinal sclerosis of the descending form, intra-cranial tumor, some forms of chronic lead-poisoning, and especially diffused cerebral syphilis, may all simulate, in the early stages, incipient general paresis.

In conclusion, I would repeat that, in the diagnosis of general paresis, the motor symptoms are always most to be relied upon, and in no case should a positive opinion be hazarded without them. In practice, these are best brought out by observation of the patient when under some form of excitement, or when physically weary.—*Buffalo Med. and Surg. Jour.*

Wormian Bones in Fontanelles and Their Effect in Childbirth.

By GRACE PECKHAM, M. D., New York.

The occurrence of Wormian bones in the anterior and posterior fontanelles, as well as along the lines of sutures, is not perhaps infrequent, but the relation which these bear to the moulding of the skull in childbirth, so far as I can ascertain, has never been discussed. My attention was called to the possibility that such bones, if of considerable size and occurring in the posterior fontanelle, might exert a detrimental if not fatal influence upon the child, by three cases which occurred while I was interne at the New York Hospital for Women and Children.

The histories of these three cases were almost identical. The mothers were all primiparæ, and there was nothing abnormal either in the measurements of the pelvis of the mothers or of the heads of the infants. The presentations were all of them the usual left anterior occipito-iliac. The labors progressed slowly but normally through the first stage, but the second stage was very slow, lasting between two or three hours in each case. Instruments were not used in either instance, as there was a constant expectation that the labors would terminate naturally.

The irregularity of the fontanelle could be very easily detected. In the first two cases it gave rise to confusion in determining the position, but in the third and last case, having had the experience with the two others, there was no difficulty in discovering that the posterior fontanelle contained Wormian bones. Each child was stillborn. The skulls of two were preserved, one of which is now shown. The family would not permit an autopsy to be made upon the third child, but took it away for burial. It could, however, be easily felt that the condition was similar to that seen in this skull, and that the shape and number of the bones were the same.

In regard to the formation of Wormian bones, Meckel states that often isolated osseous germs develop at the circumference of the occipital bone and unite themselves with it. Sometimes, though rarely, thicker ones develop about the articular regions; when there is an arrest of evolution of one or more of these inferior centers, Wormian bones are formed. According to Broca and Gosse Wormian bones are an arrest of ossification; the latter attributes it to a rachitic or scrofulous condition, or the effects of violent pressure or hereditary transmission, and Topenjard also speaks of them as an arrest of development.

Considerable ethnological interest has centered upon the occipital bone, and a number of learned and interesting papers have been written by distinguished anthropologists upon the subject. M. Bellamy in 1842 presented the mummy of a small child which had the interparietal bone. M. Rivero and M. Tschudy in the "Antiquites Peruviennes," published in 1851, gave drawings showing the bone which Anoutchune, after making studies of skulls in various museums, announced was to be found in twenty per cent of the Peruvian skulls. The name "the bone of the Incas" was given to it. The question among the savants arose as to whether this was a mere anomaly or a

reversal to a lower type, since the interparietal bone occurs in rodents, ruminants, dogs, and cats.

It is not out of place to refer to this matter of the interparietal bone in the matter under discussion, since it may be confounded with Wormian bones in the posterior fontanelle. The upper portion of the occipital bone is supposed to develop from four osseous centers which are separate in early foetal life but gradually coalesce. The lateral union is accomplished first, and afterward the two segments above and below unite. When this latter fails to take place the interparietal bone is formed. The recent line of union shows very well in the skull of the new-born infant. Cuvier, Milne Edwards, Geoffrey St. Hilaire, and the other writers already mentioned insist that a distinction should be made between the interparietal bone and the large fragments occurring in the posterior fontanelles, which are true Wormian bones; the *os Eptactal* of some, the *os lambdoid* of others, so called because occurring more frequently in the posterior than the anterior fontanelle. These bones may be single or multiple, two, three, or four, and even as many as eight, according to one writer, quoted by Geoffrey St. Hilaire.

These cases are presented to the profession to call attention to the fact that large Wormian bones occurring in the fontanelles may prove at the birth detrimental to the child. Especially if present in the posterior fontanelle they would prevent the overlapping at the sutures, and at the time the pressure would be greatest during labor, that is, during the second stage, cause an injury to the contents of cranium, and inflict such damage to the nerve-centers, probably those at the base of the brain, as to prove fatal. The practical question then arises, could this be avoided by the prompt and early use of instruments?

It is hoped that obstetricians will record cases of a like nature and report upon them with a view to determining the effect of these Wormian bones occurring in the fontanelles at childbirth, a point upon which obstetric literature up to this time has preserved silence.—*The Medical Record.*

The Treatment of Warts by Internal Administration of Arsenic.

By BINGLEY G. PULLIN, M. R. C. S., &c., Sidmouth.

During the last two years many cases of warts on the hands of young children have come under my notice, for treatment; and the following cases will, I think, fully show the efficacy and

supreme advantage of arsenic, given internally, over the local application of the powerful caustics:—

C. P., æt 17, a young lady, consulted me in consequence of having suddenly developed innumerable warts on her hands, and which she said had grown with great rapidity, some of the largest of which had attained their growth within a week or ten days; the whole skin of the hands seemed to be filled with small growths, some not visible, but easily distinguishable to touch. To attack all with nitric acid would have been utterly impossible. I, therefore, applied the acid to about half a dozen of the largest, and put her on a mixture containing liq. arsenicalis, m iij. twice a day: at the end of a week she came to me in a state of great delight, for after having taken but two bottles of the mixture not a vestige of a wart was to be seen or felt, except the scars left by the application of the acid to the few I treated in this way.

John F., æt 8, was brought to me in consequence of his having several large warts on his hands, and which repeatedly bled. I decided at once to treat him by arsenic internally, and not apply anything externally. He took liq. arsenicalis, m ij. twice a day: at the end of a week all the warts assumed a dull leaden color. I repeated the medicine, and ordered him to see me again in a week's time; at the end of which, on seeing him, all the warts had disappeared but one, which I easily removed with my finger.

Minnie P., æt 4, I happened to see while attending her mother in a confinement, and was struck by the peculiar appearance of one of her little fingers, the unguial phalanx of which was apparently the seat of some abnormal growth, being irregular and bulbous; on closer examination, however, it proved to be nothing more than a crop of warts, which almost entirely covered the nail. On the same hand there were many others, and likewise on the opposite hand. After taking liq. arsenicalis, m j. for ten days, most of the warts had fallen off, and those which still remained I easily removed with my finger and without the slightest pain to the child. Several other cases, in which I have treated these unsightly and troublesome growths in the same way, I could record, but in every instance the cure has been complete and rapid; and I think the above cases in themselves alone prove the value of arsenic for treating warts; for it is certainly equally rapid in action, and moreover has the great

advantage over the caustics in being painless, which is of so much importance in treating young children.—*Bristol Medico-Chirurgical Journal.*

Pilocarpin in Acute Alcoholism.

By E. A. NEELEY, M. D., Memphis, Tenn.

[Read before the Memphis Medical Society, December 6, 1887.]

Revolutionary discoveries only brighten medical literature at intervals of long periods, but this does not signify a cyclic quiescence in medical science. Constantly and unceasingly the profession is engaged in testing the accuracy and value of known truths; in extending the scope and usefulness of existing measures and means, developing and perfecting them for utilization at the bedside. My contribution therefore is not pretentious beyond offering for your consideration a few original facts, if they be original, illustrating the value of pilocarpin in the treatment of acute alcoholism.

This, I believe, is a new application for a remedy whose intrinsic worth has already been unassailably established in the treatment of other diseases. I was led to employ it in this condition from observing its good effects in the case of a patient to whom I was hastily summoned during the past summer. I arrived to find a well-developed man in a most intense maniacal delirium, the efforts of half a dozen men being required to keep him on the bed, and from doing violence to himself and those about him. I was told he had sunstroke. An examination was impossible. At this juncture several other physicians arrived, having been called in the excitement of the moment. These, like myself, accepted the popular diagnosis, and one of them having treated several cases of sunstroke with it, suggested that we give him a good dose of pilocarpin. We gave him a half grain subcutaneously. In thirty minutes he was perfectly limp, his skin was cool and covered with profuse perspiration, the heart's action was increased and tension diminished, distressing vomiting occurred and his intellect cleared. With the cessation of the nausea and vomiting he sank into a profound slumber, from which he awoke some fourteen hours later much refreshed and perfectly rational. I then learned that his sunstroke was nothing more than a well-marked case of alcoholic delirium. Since then I have used pilocarpin in all cases of alcoholic poisoning coming under my care with unvarying satisfaction.

The first effect noticed after the subcutaneous injection of a physiological dose of the muriate of pilocarpin is a flushing of the face and neck. Almost simultaneously a profuse perspiration occurs, saliva in great quantities is poured out, the heart's action is increased from ten to twenty beats per minute, but its tension is greatly lowered, and the temperature falls from .5 to 1.5°. Nausea and vomiting nearly always follow its administration, and occasionally a serous diarrhoea. Much prostration may occur, especially if large doses be given, hence the necessity that the indications for its employment be well defined and appreciated. While it should be administered with care, I can find, in the literature at hand, no record of a death resulting from its use. Several instances of poisoning by its ingestion are recorded, but these were promptly relieved by subcutaneous injections of atropine, its physiological antagonist.

That I may more clearly outline its limit of usefulness in alcoholic poisoning, and at the same time illustrate the good results I have derived from its administration, I extract from my note book the records of six of the nine cases treated with the remedy, the remainder, because of circumstances and conditions, not being fair tests.

CASE I.—August 3. H., male, æt. 31, well developed. Has drank moderately for several years, with occasional excesses. For several days has been drinking heavily. At 4 o'clock in the afternoon fell on the street, and was carried home. When I saw him there an hour later he was raving with a maniacal delirium, threatening to do violence to himself and others, from which he was restrained by force. Pulse full and bounding. Face flushed and conjunctivæ congested. Pilocarpin, grs. ss., subcutaneously. In thirty minutes he was completely relaxed. Perspiration copious. Vomiting occurred, with great retching. Bowels moved several times. Arterial tension reduced and pulse rate increased. After two hours he was feeling comparatively comfortable, and was perfectly rational. Ordered quinine, grs. iii; hydr. chlor. mit., gr. ss.; podophyllin, gr. 1-20; morph. mur., gr. $\frac{1}{8}$, M. Every three hours during night. Next day felt comfortable, except a general muscular soreness. No elevation of temperature. Appetite returning. Discharged.

CASE II.—October 9. J. P., æt. 46, illly developed. Has drank habitually for years, but never to excess. While at work on above date was seized with very painful cramping of the muscles

of right leg. This condition soon extended to all his extremities, and when I saw him he was suffering exeruciatingly. Was told he had been drinking immoderately. His face was flushed; conjunctivæ congested; pulse rapid and arterial tension great; bowels constipated; tongue coated and flabby, and his temperature 100.5° . I gave pilocarpin, gr. 1-5, at once. In two hours he was completely relieved and sleeping. I ordered calomel, gr. ss., every two hours during night. On the following day I found his temperature 101° , but comfortable. Ordered salicylate of ammonium, grs. viii, every three hours. Under its influence his fever subsided in twenty-four hours, his appetite returned, and he convalesced rapidly.

CASE III.—October 22. R. B., æt. 36, male and very muscular. Accustomed to the daily use of alcoholic stimulants for twelve or thirteen years. Occasionally got on a spree, which always terminated in an acute gastritis. Jovial companions at the races tempted him into another one of these. When I saw him he was suffering most intensely with muscular cramping of all the extremities. His face was of a livid hue; conjunctivæ congested; eyes prominent, and a wild expression of contenance; tongue heavily coated, heart's action slow, and arterial tension very high; had vomited several times, and nausea constant. I gave him pilocarpin, gr. 1-5, at once. In twenty minutes he was relaxed, and his distressing symptoms relieved. I then ordered calomel and ipecac, aa gr. ss., every two hours. Six hours later he was comfortable, but sleepless. At his solicitation I gave him morph. sul., gr. $\frac{1}{2}$, hypodermically, under the influence of which he slept during the entire night, and was able to take some nourishment with relish the next day. He convalesced nicely for several days, when a jaundice developed, which yielded readily to the usual remedies.

CASES IV AND VI.—October 19 and November 17. These two cases occurred in the same individual, a man of studious habits and a man of exceptional intelligence, but one who cannot refrain from frequent sprees. H. E., male, æt. 41. On both these occasions I found him in a high state of nervous excitement; face flushed and wearing a weary, expectant expression. The slightest noise startled him; sleep was unknown; tongue coated; bowels constipated; respiration somewhat hurried; pulse ranging from 90 to 100, and arterial tension great; no desire for food whatever. In each instance three injections pilocarpin, 1-5 grain

each, repeated at intervals of three hours, relieved all the nervous symptoms. Insomnia, however, persisted, and necessitated morph. sul., gr. $\frac{1}{2}$, subcutaneously, for its relief. This was followed by quin. sul., grs. iii; calomel, gr. ss., every three hours till bowels acted. This constituted treatment in both cases. Convalescence in each in from thirty-six to forty-eight hours.

CASE V.—October 23. J. S. McL., male, æt. 49, railroad engineer. In early manhood drank excessively. Rarely takes a drink now, but when he does always winds up with delirium tremens. Began to drink a week ago. I found him exceedingly nervous at 4 p. m., face flushed, an occasional muscular spasm, tongue coated, bowels constipated, respiration hurried, pulse slow, full and bounding; had slept none in over forty-eight hours, and food was repulsive. Gave pilocarpin, grs. 1-5, and in thirty minutes left him comparatively comfortable. At 9 p. m., his symptoms not being completely relieved, I repeated the dose, combined with morph. sul., gr. $\frac{1}{2}$, and ordered calomel, pv. ipecac aa, gr. ss.; pv. Doverii, gr. ii, every three hours. The following day I found him much improved, having slept fairly during the night, and taken a plate of hot soup at breakfast. A saline to move his bowels, and a $\frac{1}{2}$ gr. morph. sul. at bedtime to guarantee a sleep, terminated the treatment. The next day he felt good, and the next returned to his work.

It will be observed that all of the cases in which I have used the remedy, have been those characterized by more or less nervous manifestations. It is in this class, too, that it is particularly valuable. It may be employed in the ordinary or typical forms before the stage of depression has occurred, the maniacal and the convulsive form, and in all forms of chronic alcoholism marked by psychical derangements. To generalize, it may be used in all cases exhibiting exaltation of nerve force, or tension of the circulatory system and derangement of the secretory system. On the other hand, it is contraindicated in all cases where depression exists, or is about to occur.

The effect of the excessive use of alcoholic liquors, apart from their transient influences, is to check the function of secretion, thus causing retention in the blood products of waste of the nitrogenous elements, which, reacting upon the nervous system, gives rise to those phenomena so familiar to us in all such cases.

In pilocarpin we have a powerful motor depressant. It relaxes muscular tonus, lowers vascular tension, and excites to a

wonderful extent glandular action, thus hastening elimination of waste products, removing in doing so the source of nerve irritability. This accomplished, the debauchee, exhausted by vigils, and a lack of proper and sufficient nourishment, sinks into a refreshing and recuperating slumber. If not, his system has been brought to that condition when this may be encouraged by the administration of morphia without any apprehension as to its evil consequences. The portal circulation may now be acted upon, and convalescence established in a period of time infinitely shorter than from any other plan of treatment with which I am familiar. Theoretically it suggests itself to our intelligence as a most rational treatment. In my experience it has practically stood the test.

I do not advance it as an agent to be solely relied upon in alcoholism. Its special value is at the beginning of the treatment, and its action must be supplemented by that of other remedies, as the exigencies of the case demands.

This may seem a limited field, but is indeed a large one, for it accomplishes for us in a few minutes what["]by older methods of treatment took us days to effect. The patient is tided over that period of high nervous excitement, restless insomnia and intolerable nausea. He is excused from the possible supervention of delirium and all its horrid phenomena, and put at once upon the high road to a speedy recovery. This is sufficient to commend it as a medicament of inestimable benefit in these cases, provided, of course, that my experience is corroborated by the profession.

To obtain the best results, it is necessary to administer the drug in doses sufficiently large to produce its full physiological effects at once. It should be given with full["]confidence in the indications and its power to meet them. Only in this way will it realize our expectations. Small but repeated doses accomplish no good whatever. The symptoms demand an aggressive remedy. To temporize with them may possibly expose the patient to serious results; at best, will only be a useless expense of time.

My experience leads me to conclude (1) that in pilocarpin we possess an agent of great value in acute alcoholism. (2) That because of its motor depressant and paralyzant effects we can act promptly and decisively. (3) With it we can shorten the duration of an attack, and establish convalescence much more

quickly than with any other remedy at our command. (4.) That we can always rely upon it. (5) That its minuteness of dose renders its administration an easy act, and (6) when judiciously employed is perfectly safe.—*Mississippi Valley Medical Monthly.*

Artificial Fecundation.

Professor Paolo Mantegazza communicates the results of his rich experience in a leading article in the *Gazetta degli Ospitali*, of Milan. He says that the act of artificial fecundation in itself requires no special skill, but that it is important to be able to determine with certainty whether there is hope of a successful result or not. There is always great repugnance on the part of both husband and wife to the operation, and, therefore, it is clear that unless there is good hope of success, it should be abandoned. It must first be determined whether the obstruction to conception rests with the husband or wife; and in this connection it is well to recollect that impotence is only rarely confessed. For example, the author once saw by accident that a man who was otherwise robust, but childless, had an extremely short penis. Here, if ever, was a suitable opportunity for artificial fecundation, because his wife had the appearance of blooming health; but the author was not successful in persuading them to it. In another case, the penis was of the proper length and strength, but the semen, on account of stricture or some other cause, was only expelled in drops, so that it with great difficulty reached the uterus. Also in men with only half or very slight power, the semen only reaches the anterior part of the vagina, and so sterility results. After the man is questioned with the utmost exactness upon the manner in which coition is completed, the semen must be examined microscopically. In this respect Mantegazza thinks he has discovered a new fact. In one case, having several times endeavored to obtain artificial fecundation in the same woman without success, although the semen had a good appearance and proper reaction, and the spermatozoa were numerous and active, he noticed that the crystals, which he noticed in 1860, but which were first described by Botteher, did not appear when the semen was allowed to stand. He is disposed to think that such absence constitutes an anomaly which deprives the semen of its fructifying power.

With reference to the causes of sterility in the female, he would divide them for the most part into two classes: mechanical and functional; and while not disposed to think the existence of the former class a contra-indication to artificial fecundation, thinks the latter class, which can be placed under the head of dysmenorrhœa, is. He admits that there are many cases of dysmenorrhœa which depend upon mechanical difficulties, which dilatation of the cervix will cause to disappear. As far as sterility is concerned, the worst cases are those in which removal of the dysmenorrhœa by mechanical measures does not result in fertility. In such cases Mantegazza thinks the fault lies with the ovum. Of what use is it, says he, to introduce semen into the uterus, if it finds there no ovum capable of fructifying? According to the author, artificial fecundation may be indicated in the following cases: 1. Hypospadias. 2. Very short penis. 3. In cases in which the semen is discharged without the necessary force, or in drops. 4. In all cases in which a decided change in position of the uterus, or a very narrow cervical canal hinders fecundation. 5. An unsuccessful treatment of the cervical canal by dilatation forms no contraindication to artificial fecundation. 6. In all cases in which dysmenorrhœa persists, and yet the cause of the sterility remains unknown.

After stating that he has found that it is generally the man who objects most to the operation, on account of the rather humiliating role which he is required to play, the author says that during the eight days following menstruation is the best time for the operation, which, if unsuccessful then, may be tried the day before menstruation. The method of obtaining the semen, which Mantegazza has found the best and most seemly, is the following: The husband has connection with his wife, but instead of emptying the semen into the vagina, he deposits it in a glass, which stands in water at a temperature of from 98° F. to 103° F., and then calls the physician. The latter then introduces a Fergusson speculum and makes two or three injections with Roubaud's syringe. The patient may then be advised to stay in bed several days, with the pelvis raised, though this does not seem necessary.

The author has never seen untoward results from making three injections, and thinks the fear expressed by other writers unfounded. After coitus, the mouth of the uterus was generally found not completely closed; if the act was entirely natural

(“without Malthusian retraction”), semen was always found in the posterior vaginal *cul-de-sac*; it is possible then to cause the semen to flow into the mouth of the uterus by means of the speculum, especially if retroflexion exists. In case the wife should positively refuse to let the physician interfere, Mantegazza would then propose that the husband attempt fecundation in this way, though he warns against allowing the husband to use Roubaud’s syringe.—*Deutsche Med. Zeit.*—*Med. and Surg. Journal.*—*American Med. Digest.*

Corpulence and its Attendant Evils.

Professor E. Heinrich Kisch, of Prague, has contributed to the “Deutsche Medizinal-Zeitung” an article on the cosmetic therapeutics of corpulence, and he justifies himself in viewing the evils of corpulence from the cosmetic point of view with the reflection that it is commonly not the involvement of the general health that leads corpulent persons to seek for medical advice, but the disfigurement that obesity entails. Foremost among the blemishes to which it gives rise he ranks excessive size of the breasts in woman, which, as he has often observed, leads them to undergo dietetic and medicinal courses of treatment so severe as to bring about a sort of marasmus. He alludes to the advice given by Galen and Cælius Aurelianus to the Roman ladies thus affected to use poultices of Lemnian earth, and adds that the fashionable ladies of Paris endeavor to restrict the growth of their breasts by compressing them with hemispherical cases. But he has not found compression to be of any avail, and he advises against the internal use of preparations of iodine, for, although it reduces the size of the breasts, it does it at the expense of the general health. Local applications are more to be recommended, especially an ointment composed of about fifteen grains of iodoform deodorized with Tonka beans, half an ounce of vaseline, and two drops of oil of peppermint. This is to be rubbed into the breasts, and they are then to be swathed with linen moistened with a warm solution of one part of alum and five parts of acetate of lead in a hundred parts of distilled water, impermeable paper being laid over the whole. The dressing should be changed night and morning, and its use should be continued for several weeks. To prevent flaccidity and wrinkling of the breasts as the fat disappears, he prescribes

frictions with some aromatic spirit and suspension of the organs with a bandage.

It is in the abdomen that corpulence is the most obstinate. Here iodine applications are of little avail, and massage is most useful. The author commonly prescribes frictions with a solution of potassium iodide in twenty parts of vinegar of squill and the constant use of a girdle; preferably of deerskin. The excessive sweating of the corpulent is best treated by the local and general application of cold water perfumed with simple or aromatic vinegar. The use of protective pieces of rubber, oiled silk, etc., in the armpits is injurious, because it interferes with the vaporization of the secretion and causes it to soak and irritate the epidermis. Irritations of the skin from chafing, as under pendulous breasts and in the fold of the groin, may be mitigated or prevented by dusting the parts several times a day with a powder composed of one part of salicylic acid and fifty parts each of Venetian talc and rice-starch. Over-activity of the sebaceous glands, comedones, rosacea, and brownish, rusty pigmentations are apt to accompany corpulence, and they are to be treated by measures aimed at the corpulence itself, especially careful regulation of the diet. For the baldness that is often associated with an excessive development of fat in young persons the author states that he knows of no good remedy.—*New York Medical Journal.*

Medical Men as Officers of the Court.

The recent work of Vibert, of Paris, on the medico-legal aspects of railway injuries still further emphasizes the truth of Sterne's saying "that they order these things better in France." M. Vibert, who has the title of Medical "Assessor," seems to occupy the position of adviser to the court in suits for damages received by means of tramways, railways, and other vehicles.

The medical jurisprudence of France has always been distinguished for acumen, ability, and impartial justice, and she has set an excellent example to other nations in this matter. There is no doubt that the ends of justice would be better served in this country by the permanent employment of a medical adviser to all courts of record where trials for damages and criminal suits turn upon the medical testimony in the case. The country would be spared much of the apparent conflict of medical evidence if the lawyer's questions to medical witnesses on all matters of opinion were submitted to the scrutiny of a

court expert, and the not uncommon spectacle of two or more alleged "experts" on the witness-stand, one after another, testifying to opinions diametrically opposite, would be a rare event. Not alone to the medical profession would the court expert be of service, but to the more important cause of justice and right dealing. A law providing for the appointment of a public medical referee, who should act as court adviser on all medical questions, would be of great advantage to the people.

The present practice has resulted in bringing discredit on the profession, and in some cases the defeat of justice, by developing biased testimony. In many of our most widely known trials the lawyers start out on a hunt for "experts" holding an opinion favorable to their side of the question, and they alone are subpoenaed. Such being the common practice, both sides to the controversy bestir themselves, and the consequence is, as already stated, two diametrically opposite opinions, and in such cases the jury often go wrong. Had there been a medical referee in the Guiteau case, for example, much time and money would have been saved, and justice reached more speedily. Such a position would need to be filled with great care, and, the responsibility being great, the compensation should be commensurate, and no man should be appointed to such a place except by the votes of those qualified to judge of his capacity. A medical expert to our highest city court, for instance, recommended for appointment by the Academy of Medicine, would at once command respect for his attainments and deference to his opinion. The world in general is said to move; why should not the wheels of justice move in the direction indicated?—*Ed. N. Y. M. J.*

The Treatment of Pruritus Pudendi by Peppermint Water.

Routh has used peppermint water as a lotion in pruritus at Charing Cross Hospital, and describes his mode of use and results as follows:

The B. P. preparation of aq. menth. pip. answers well, but is bulky for carrying about, and is incapable of concentration unless rendered alkaline. This is best done by borax, as being in itself soothing and antiseptic. Patients can easily make their own lotion, as required for use, by putting a teaspoonful of borax into a pint bottle of hot water, and adding to it five

drops of ol. menth. pip., and shaking well; the parts affected to be freely bathed with a soft sponge.

If no cracks or sores are present, this lotion will remove the itching, but if there be eczema, etc., or rawness from scratching, it is inapplicable, olive oil, with five grains of iodoform to the ounce, being then more useful. The greatest and most permanent relief is afforded in the neurosal form, especially in the reflex pruritus which often accompanies pregnancy, and which then may take the place of reflex sickness or vomiting. It is also very useful in the pruritus which occurs in the climacteric, or in elderly women, in whom it may be only part of a general pruritus, and also in those cases of women of all ages, where the urine simultaneously becomes of very low specific gravity, without any evidence of having a gouty or granular kidney as a remote cause.

In pruritus due to pediculi, ascarides, an irritable urethral caruncle, an endocervical polypus, early cancer of the cervix, distention of Bartholini's ducts or glands, the leucorrhœa of vaginitis, endocervicitis, and metritis, or the irritating discharges of advanced carcinoma uteri, or to a gouty or diabetic diathesis, the drug excels all others, cocaine inclusive, in affording relief, whilst endeavors are being made to remove the cause.

In two obstinate cases of uncontrollable pruritus of pregnancy, where this remedy gave only temporary relief, the patients were cured by applying iodine liniment to the angry-looking cervix uteri, which method has been used successfully by Dr. John Phillips and others for the similarly severe vomiting of pregnancy.—*British Medical Journal*, April 14, 1888.—*Medical News*.

Moral Insanity.

By JOSEPH WIGLESWORTH, M. D., London.

Lancashire County Asylum, Rainhill.

The proposition was enunciated that morality is a function of the brain which has been gradually developed during long periods of time; and the importance of the study of mental phenomena from a developmental standpoint was insisted on. The origin of the faculty might possibly be found in the social instincts displayed by numerous classes of animals, pleasure in, and profit from, one another's society being the germ of the altruistic feelings. Savages, generally speaking, exhibited a remarkably low development of the moral sense, although sig-

nificant exceptions were met with. Militant activities were essentially egoistic in their nature, and it was only in a developed industrial society that any high development of the altruistic faculties was to be looked for. There was no absolute standard of morality, but actions were to be looked upon as moral or immoral, according to the development which the moral faculty had attained to in any community. The distinction which was made between idiots and imbeciles and ordinary insanity, held in the domain of feeling; so that those who exhibited abnormalities of the moral sense might be divided into those who were congenitally deficient in this faculty, or who from disease, had lost it early in life—the so-called moral idiots and imbeciles; and those who, having once had their full share of moral feelings, had lost them in adult life as the result of disease—forming the class of morally insane persons proper. Moral idiots or imbeciles were children who, with little or no impairment of intellect, showed great deficiency or almost total absence of the moral faculties; and what was of great importance, they were *incapable of acquiring them*. The ordinary discipline of life produced but little effect on them. Such children usually came of an insane stock. On the developmental theory we might find an explanation of such cases. The defect of cerebral organization existing in moral idiots might be considered to be on a level with the normal organization of certain low races of savages; and hence a moral idiot might be considered to be a reversion to a lower type of animal structure—to a lower level of evolution. Morally insane persons proper exhibited a change in their affective nature, their altruistic feelings becoming greatly impaired or altogether lost. Moral insanity might exist by itself, but it was more usually a stage in the development of intellectual insanity. Thus at the commencement of an attack of mania, moral change might show itself for some time before intellectual change became apparent, and it might remain after the disorder of intellect had passed away. Similarly at the onset of general paralysis of the insane, moral depravity might occur some time before any mental derangement showed itself. So also with senile dementia. Epileptics also at the times when their fits were troubling them often showed great change in their moral nature, which might be quite temporary.

Again, as the result of a blow upon the head, a total change might be produced in the affective side of a man's nature. Such

cases left no room for doubt that morality was a function of organization. These abnormalities all found their explanation in the developmental hypothesis. The very delicate adjustments of the human organism to its social environment, which make up what is called the moral sense of the individual, were of apparently recent acquirement; and this being so they were peculiarly obnoxious to disease or decay, being affected before the older and more firmly organized faculties. Hence the moral faculties were often the first to be affected when the cerebrum was the subject of slowly progressing disease.—*Medical Press.*

Therapeutics Afar Off.

The alleged wonderful effects obtained by M. Luys, at Paris, on hypnotised persons by means of tubes of drugs not brought into actual contact with the subject under experiment, were recently investigated by a Commission appointed by the Academy of Medicine. The tubes containing the drugs were prepared by a disinterested chemist, every precaution being taken to conceal the identity of each tube. As an additional *controle* an empty tube was placed among the others. M. Luys was then invited to reproduce the phenomena which he had succeeded in provoking with tubes of his own. These phenomena consisted in manifestations of the physiological action of drugs, even when the latter were merely placed in the vicinity of the special organs of sense. The Commissioners were struck first of all by the great similarity of the symptoms elicited and their limited range, no matter what drug was employed. There was flushing, local congestion, nausea, vomiting, spasms, convulsions, etc. In fact, in not one instance were they enabled to guess to what drug the particular symptoms were to be attributed, and when they did hazard a guess it proved to be wrong on breaking the tube. On applying this test to one tube which had given rise to symptoms of unusual severity, it was found to be the empty one. After that the Commissioners very wisely came to the conclusion that their mandate was fulfilled, and they reported to the Academy that, though interesting, "the phenomena did not possess any medico-legal or therapeutic interest." The idea after all is not as novel as it at first sight appears. Who has not seen or heard of a prospective dose of castor oil giving rise to nausea or vomiting. Every mother of a family has witnessed spasmoidic contraction of the respiratory

muscles and the muscles of locomotion in children at the sole mention of a grey powder. Still further, merely knocking at a dentist's door is notoriously effective in allaying the toothache, and the sight of a stick will stimulate the lachrymal apparatus of recalcitrant youngsters to a condition of hyper-activity. It would be easy to multiply indefinitely such instances of the effects of drugs at a distance quite apart from the induction of the hypnotic condition, which would therefore appear to be superfluous. The druggists will doubtless hear of the failure with satisfaction, for had it been otherwise, drug bills would have become a thing of the past, and a few tubes of tablets would have lasted indefinitely, like the quassia cup and antimony pill of our ancestors. The report of the Commissioners, however, places its usefulness among the "exploded idees," where we will leave it for the present.—*Medical Press.*

Cannabis Indica in Anorexia, Diarrhoea, and as a Hypnotic.

J. F. P. McCONNELL, M. D.

The writer, after mentioning the necessity of using a fresh preparation of the drug, says, (*Practitioner*, Feb.): "One condition is *anorexia* consequent upon exhausting diseases, such as prolonged fevers, diarrhoea, dysentery, phthisis, etc. The stomach suffers from the same debility as the other organs, and there is a repugnance to and intolerance of food in almost every form, which does not always yield to acids, bitters and *nux vomica* as usually prescribed. In such cases cannabis indica in small doses (*m. v.—x.* of the *tincture*, or gr. $\frac{1}{4}$ — $\frac{1}{2}$ of the *extract*) have been found very useful. The former preparation may be ordered in mixture (*emulsion*), with a small quantity of mucilage and simple syrup, and flavored with rosewater; the latter as a lozenge or *bonbon*. Such a mixture or lozenge given three times a day, half an hour before meals, will frequently, in two or three days, bring back appetite for food and promote its digestion. This property of increasing appetite is one of the most remarkable possessed by cannabis indica, and was duly noted by Sir William O'Shaughnessy, fifty years ago. Moreover, it is well known that *ganjah-smokers* and *shidee-drinkers* in India, have, as a rule, voracious appetites.

Another condition is *dyspeptic diarrhoea*, and the diarrhoea

with defective action of the liver and deficient secretion of bile, and which constitutes the earliest and most prominent symptom of that obstinate and specific disease, the *diarrhoea alba* of the tropics (*hill or tropical diarrhoea*). Speaking more particularly of the latter affection, a characteristic feature is the tendency to action of the bowels soon after meals, and the consequent hurrying of the imperfectly digested food through the intestines, accompanied by remarkable and active vermicular movements of the latter, with much flatulence, borborygmi, etc. In the earlier stages of this disease cannabis often proves of great service in controlling the diarrhoea. But even in more advanced cases of tropical diarrhoea cannabis will sometimes prove very useful. All observation and experience in India have led me to believe that this disease is primarily and essentially one of the liver, and that unless means are taken to influence the functional disorder all attempts to control the diarrhoea will prove unsuccessful. And of all such remedies none is so reliable as *mercury*—either in the form of blue pill or grey powder. But while such direct medication is attempted, as for example by the exhibition of a mercurial pill every night, or every other night, at bedtime, the cannabis may be employed during the day. For this purpose I have most usually prescribed in the form of mixture, beginning with $m\ x$ of the *tincture* and gradually increasing the dose to $m\ xv$, xx or even xxx three times a day or oftener. A suitable combination is the following: R *Tincturæ cannabis indicæ mx—xx*; *bismuthi subnitratis grs x*; *mucilaginis acaciæ 3 ss*; *spiritus chloroformi co. mxx*; *aq. cinnamomi vel aq. menth. pip. 3 j.* Misce. This may be given before or after food, preferably the latter, and more particularly when the dose of the tincture is increased. By exhibition soon after food the liability to unpleasant symptoms (headache, giddiness, hallucinations, etc.) is greatly reduced, even in persons who are very susceptible to these effects of the drug.

In both true *tropical diarrhoea* and the more simple *dyspeptic diarrhoea* cannabis has this distinct advantage—that it in no way interferes with the bile-forming function of the liver, as opium undoubtedly does; and yet the latter drug, though so valuable in other forms of looseness of the bowels, is apt to be incautiously used, and to my knowledge has been thus used with disastrous results, the proper nature of the above affections and their primary dependence upon altered hepatic function not

being rightly comprehended. I would not employ cannabis indica in the far advanced stages of *tropical diarrhoea*. It is in the comparatively recent condition, where the diarrhoea has been in existence for three or four, or even six months, that I advocate its use, hand-in-hand with mercurials, and, of course, suitable dietary. There comes a time, however (for the disease may exist for two or three years or more), when the mere functional disorder of the liver is succeeded by organic changes, allied, I believe, to cirrhosis, and in this stage cannabis is useless—but so probably is every other drug. I may note also that the *constipating effect* of cannabis upon *habitués* of the drug is well known in India, and is emphasized by O'Shaughnessy, in the published results of his experiments.

The third and last condition in which Indian hemp has been found useful by me is in cases of chronic cardiac disease and in chronic Bright's disease as a *hypnotic*. In cases where there is distressful sleeplessness, and general inquietude, rendering the sufferer's condition most miserable, where the heart is enfeebled as well as overtaxed, and chloral seems inadmissible, or on account of the engorged state of the lungs or the defective action of the kidneys, opium must be avoided—in such cases, the administration at bedtime of mxv—xx of the *tincture* of can. ind., combined with a small dose of chloral (gr. x), and 3 ss of brom. pot. will often act magically in giving not only sound and refreshing sleep for several hours, but also in greatly alleviating the general disquietude and distress of the patient; and that this effect is to be attributed to the cannabis indica and not to the combination of chloral and potassium bromide (as might by some be supposed), I have assured myself of by check experiments both on the same and on different patients, on many occasions.—*N. Y. Medical Abstract.*

Cough Mixtures.

R. Antimonii et potass. tart., gr. i.; pulv. Doveri, grs. xx.
M.—Sig. Add to 10 tablespoonfuls of water and take teaspoonful every hour.

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ANTIPYRINE.

By BENJAMIN MARSHALL, M. D., San Francisco.

Occasionally there is made known to the medical world the discovery of some new medicine or new power in an old one, which is so startlingly promising for good in a new direction, as to enlist universal interest and investigation. The medical and laity journals teem with its wonderful properties from numberless observers. The warnings of wiseacres come in and then the sum total of its power is approximated, and the remedy drops into its proper niche in all the text-books. Such has been the history of late years with, for instance, chloroform, cocaine, and later antipyrine.

This substance had been in common use as an antipyretic for several years, but about one year since Germain Sée published his experience in its use, announcing a new property which was so promising for good, as to challenge criticism from the least skeptical. Subsequent experience has not only fulfilled that promise, but shown that the half had not been told. This drug has now about run the usual course. Six months ago no medical journal was without from one to many notices of its uses, whereas, now, it is seldom mentioned, and already is it rele-

gated to its presumably proper place as an antipyretic and analgesic.

One object of this paper is to protest against a too summary verdict upon this medicine. For although the literature on the subject has been very profuse, too much so against it perhaps, it is by no means certain that it is exhausted in the other direction, for continued experimentation is rapidly broadening its field for usefulness and in directions which must make us search for other modes of action than those already accorded to it. We call chloroform an anesthetic and apply it in the ranges covered by that effect. We call cocaine a local anesthetic and nerve stimulant, and it takes its place as such; but antipyrine, what shall we call it? Antipyretic? Yes. Analgesic? Yes. But what else? This part of the field though partially is not yet fully explored and the question, how else may it act? is still an unknown quantity to the thinking mind which recognizes its broadening effects. I say then, let us not through fear of seeming to deal in a subject which is trite, or through prejudice against a remedy which is proprietary and used to a large degree empirically, relegate it to the text-books on its present reputation, but keep the matter in discussion until its full power for good is known.

It is not within the scope of this present paper to elaborate this portion of my subject, but rather to epitomize my own experience and that of others, as to its dangers, uses, and possibilities.

I have said that too much has been written against it. I say this conscientiously, for I cannot help but feel convinced that all or nearly all the direful consequences laid against its use are easily explained away. By coincidence, as, for instance, when a patient suffering with peritonitis dies in collapse, after taking an insignificant dose of the medicine. The most noticeable case on record being of that character, the editor very justly interpolating an interrogation mark (though in the wrong place). Or again, when the medicine has been improperly administered. As in combination with spirits nitre in which a deadly compound results, the aniline being set free. Of course, I do not forget that many persons have idiosyncrasies, which render them obnoxious to its use in the way of urticarial eruptions and other discomforts, all of which is true of many other very simple things,—shell-fish, strawberries, etc., merely the reflex expression of some local irritation, and easily avoided with

antipyrine by giving it in plenty of water. For this reason it should not be given by the mouth without adding at least ʒii. of water to every ten grains. I have never known of any inconvenience when given in this way. The greatest danger yet to come probably will be when it is thrown upon the market by irresponsible manufacturers. This danger is greater from the delicacy of its composition and the absence so far of any true test of its purity. I have known twenty grains to be taken inadvertently for eight consecutive hours without any bad effect, and although it might not be advisable with our present knowledge to give it in large doses in advanced heart disease, yet I could not say why, since the records do not show that it has any effect on the normal temperature, or that in fever it lowers it more than one or two degrees below that mark, proving it to be as harmless as veratrum viride, against which the first fatal collapse, even in advanced heart disease, remains to be recorded.

What the effect of antipyrine might be when continued for a long time, is as yet conjectural, but probably not more serious than that of the continued suffering which would make such a use of it desirable.

It has been a question of much anxiety to learn what effect we might expect upon the kidneys. That it diminishes the quantity of urine is observed by all. In diabetes insipidus it acts sometimes marvelously well, but in glycosuria, although the amount of urine is greatly diminished, and in some cases the sugar also, the rapidly increased elimination of albumen has given halt to its continued use. Upon the normal kidney it has but little effect, except in most instances lessening the secretion slightly. The induced presence of albumen has not been noticed even after continued use. Upon all the other secretions its influence is apparently nil.

I would therefore claim that in antipyrine we have: First, an anti-pyretic which is effectual and safe, differing from most other anti-pyretics in being more or less curative; as such it is most useful in traumatic and rheumatic fevers, and in the first stages of all fevers or acute diseases not of septic origin, its usefulness for permanent relief being in proportion to the stage of the disease. For instance in acute rheumatism, I believe it to be curative; in sub acute, less so, and in chronic palliative as a rule only. I do not believe that its usefulness ends at the absence of positive indications for its employment, as an anti-

pyretic but that it may be valuable long after that or throughout the course of a disease to palliate the discomforts attending the febrile condition. It has been found especially serviceable in the acute diseases of children, who tolerate the medicine well, requiring larger proportional doses to obtain the same effect.

Second. As an analgesic it stands pre-eminently above all others. Free from the accompanying or after effects of opiates, anesthetics and other like remedies, and more rapidly effectual. Whether given by the mouth, the rectum or hyperdermically, it subtly removes pain of the most agonizing nature. Not stimulating or exhilarating to the nervous system, there seems to be no danger of forming habits uncontrollable, as evidenced by the fact that although in common use for so long that contingency is not even considered. One hundred grains in twenty-four hours in divided doses, may be given by the mouth, seven to ten grains, at intervals of thirty minutes, six or seven times hyperdermically, and per rectum it is said that equal or smaller doses than given by the mouth produce the same effect. A sitting posture is preferable if the pain is in the upper extremity, and a recumbent one if in the lower, as well as a darkened room, avoidance of conversation or other mental occupation.

There remains something else to be said in this direction, and that as to its external uses. Little has been recorded as yet, but that there are possibilities for good is beyond question. It has been used much in the same way as Hamamelis and apparently with about the same effect, notably in hemorrhoids and as a local haemostatic.

Third. What else is it? I have already claimed that together with its anti-pyretic effect it has a curative power. I will say more. I claim that it will prove to be a specific for some diseases hitherto considered troublesome if not intractable—migraine for instance. And I have in mind several cases of gout, all typical, when the explosion was sudden and excruciatingly painful and when I remember that in twenty or thirty minutes the pain was rendered bearable—if not entirely relieved—and that these attacks under a proper continuance of the medicine were cured more certainly and more permanently than with colchicum, without the disagreeable consequences so frequently attending the use of that medicine, and also that the

diathesis seemed to be so modified as to render the attacks less severe and less often, I cannot help hoping for a bright future for this remedy in this direction, if the future experience of others and myself should verify these experiments. In which event, if, as it is claimed, uric acid is not eliminated under its use, the etiology of gout is still a mystery. What this power is I do not pretend to say. I leave this part of my subject for future discussion, but the varied and contradictory uses to which this medicine has been applied is bewildering to those who are accustomed to look for a reason for everything. Sthenic, asthenic diseases, epilepsy, labor pains, hysteria, carbuncles, all yield more or less to its potent influence, while the field is still widening; and yet there is an acknowledgment to be made, which is, that occasionally a most simple and obvious indication for its application arises, in which we are disappointed and must resort to something else. But these exceptions are rare and not of sufficiently frequent occurrence to affect the general rule. In closing this article let me again earnestly urge the continued reporting of new successes or unique results in the use of this medicine, and also to pay my tribute to the genius of the man who first made known the value of this remedy. Numberless people now thank the one who has brought relief to their sufferings, and in future time the name of Germain Séé will stand with that of the discoverer of the anesthetic power of chloroform.

The following cases taken from my notes will give some idea of the varied conditions in which this medicine has proved useful in my hands, and is mostly in accordance with the experience of others as reported in the Medical Journals.

1st—Gout. Mr. E. M., aet. 55, has been subject to attacks of gout for years, which were gradually becoming more frequent, and of late at intervals of four or five weeks; was depending upon a patent remedy composed, evidently, largely of colchicum, and from which he did not usually receive any relief under twenty-four hours. I was called at the beginning of one of his attacks and requested to give him an hypodermic injection of morphine to ease his suffering until his usual remedy should take effect. His right wrist and elbow were swollen and excruciatingly painful. Disregarding his request, I ordered antipyrine; gave him twenty-five grains; turned down the light; told him to keep quiet; have no one in the room to talk to; and

left myself. In thirty minutes I returned and awakened him from a sleep; the pain was immensely relieved. I then ordered ten grains to be given every two hours, and left him for twelve hours. Upon my next visit he was around the house. Feeling delighted at being so quickly relieved, for the pain was quite all gone, I then put him on ten grains every four hours for six days—pain or no pain. At the end of that time the pain and swelling had entirely disappeared. When I was first called he was about to make his usual yearly visit to Carlsbad and now started East for that purpose. He was detained in New York longer than expected, when he felt so much better that he postponed the continuance of his trip and returned to California. He has now for over three months had no attack, and thinks that he is not only free from their frequency, but hopes that he has become altogether cured.

2d—Gout. Mrs. E. H., aet. 50, was subject to occasional attacks of gout affecting the first joints of both hands, at which times the joints would be swollen, hot and painful, and of late deflected more or less after each explosion. I was called at the beginning of one of her acute attacks. I gave her antipyrine x grains every two hours until the pain was relieved; taking fifty grains. I then gave her ten grains four times a day for ten days. She continued to improve, and at the end of that time all pain and most of the swelling was gone. I then ordered ten grains once a day for one month, and since then the same quantity twice a week. It is now six months since I saw her. She has had no more attacks; the swelling which had become chronic, is removed, and her fingers though not all quite straight, are wonderfully improved. It looks as though she had escaped a disease which was progressive and becoming markedly chronic.

3d—Carbuncle. Mrs. T. P., aet. 53, suffering with glycosuria, has had carbuncles before; consulted me about one week after the beginning of a recent attack. I found a well defined carbuncle on the left side of the back, just above the crest of the ilium; the mat portion was three inches long and two and a half broad, the center was already assuming a dusky hue with several little points, showing beginning of the honeycombing process, the edges red and an areolar ring an inch or more wide over the surrounding tissue, and the whole thing exceedingly painful. I did not use the knife as her experience with that line of treatment in previous attacks had not been satisfac-

tory, but used poultices. The next day it was worse; I continued the treatment. On the third day she was still worse, theemat evidently growing larger, and I began to fear for the ultimate recovery of my patient. As the pain was very severe (although apparently contraindicated), I concluded to give her antipyrine. As an analgesic, simply, it acted promptly. She took ten grains every hour until she had taken forty grains. The next day in addition to the relief of pain, I found to my surprise, that the congested areolar had almost disappeared. The edges were not as marked, and there was a perceptible shrinking of the whole abscess. Taking the limit, I gave her five grains every three hours, for several days. She continued to improve, the carbuncle grew smaller, the center suppurated and healed rapidly by granulation. The poultices were discontinued, and nothing done but the occasional application of spirits camphor, and keeping it well covered with ungu. amyli, together with nourishing diet and a fair quantity of stimulus.

4th—Cerebro spinal meningitis. I was called in consultation with Dr. C. C. Vanderbeck, to visit a boy of about eleven years, whose symptoms pointed conclusively to an abrupt attack of this disease. Delirium, opisthotonus, etc., were present. It was the second day of the disease, and he was becoming rapidly worse. He had been under the usual course of treatment recommended in such cases. We decided to try antipyrine, and ordered five grains to be given every hour for several hours, and watch the effect. We saw him again the next day, he had taken eight doses before any perceptible effect was manifest, when there was a marked mitigation of the symptoms. The medicine was continued at longer intervals. He continued to improve, quieting down, becoming rational and taking food, and made a rapid recovery.

5th—Dysmenorrhea. Miss A. D., hair dresser, aet. 19, had been for two years or more a great sufferer from this trouble. The pain was present during most of the menstrual period, and was so severe that she was obliged to remain in bed. Her general health began to suffer in consequence, and she was fast becoming a confirmed invalid. Upon consultation, I advised the use of antipyrine, and powders of ten grains each were ordered with directions to take two when the pain began, and one every hour after until six had been taken, if required, and then report. At the next period she took the two and one, one hour

afterwards. She was so much relieved that she did not take any more until reporting. She was then told to take one three times a day for the rest of her time. She had no further trouble, and at each period anticipates the pain at the first warning, and is able to continue her vocation comfortably.

I will close this record with these few cases taken from many, but they are sufficient to show the value of this medicine in diseases not usually or readily amenable to other lines of treatment.

VACCINATION.

By HENRY A. DUBOIS, M. D., San Rafael, Cal.

The prevalence of small-pox in the State renders the means of prevention and cure of especial interest at the present time. Though the disease has to a great extent subsided, still cases are occurring in many portions of the State, and probably no better time could be selected for calling the attention of the profession to this subject than the present. I propose in this article to say something on the subject of prevention. Of the many methods in vogue in times past, one only has successfully resisted the attacks on it. It to-day stands as it did at the beginning of the century—the everlasting monument of a country doctor. When on May 14th, 1796, Edward Jenner inoculated James Phipps, a child of nine years of age, with virus taken from the hands of Sarah Helmes affected with cow-pox, contracted from the cow, and subsequently on July 1st, inoculated him with small-pox, he proved that the child was protected from the latter disease, his discovery was then made. During his lifetime he made numerous researches, and established pretty firmly the laws governing vaccination, and carefully taught the art to the profession. New discoveries have not disproved his theory, nor have they rendered the operation one that can be performed in a satisfactory manner by one unskilled in the vaccine art. This, we think, has been abundantly proved within the last few months in California. Jenner kept repeating during the remainder of his life the caution to the profession, that the first and most important essential for successful vaccination was an operator who had been not only taught the theory, but had practiced the art under a competent master. Had the operation been one of greater difficulty his advice would probably have

been longer remembered, but it appearing so simple, many began to think it so in reality, and the knowledge once acquired of the art in succeeding generations became less. The subject attracted little attention, and was in many of our medical colleges entirely ignored. Now, it would seem as if the opinion was quite general that any one who can scratch the arm with a steel rake or other instrument was fit to act as a public vaccinator. Virus at first taken with so much care from the arms of children by specially trained vaccinators, is now in the form of bovine virus become an article of commerce dealt in by drug-gists and instrument-makers, and by the average physician is ordered without knowing anything of its nature, its age, or purity. Virus is virus, and that with too many of the profession sums up the whole subject. Comparatively few physicians have the knowledge of this subject possessed by our fathers. Very many are utterly unable to recognize a vaccine vesicle when simple, fewer still when compound, and the number steadily diminishes who can distinguish the irregular forms of the pock from the spurious, and can tell with certainty a successful from an unsuccessful result. Even in the operation itself great carelessness or ignorance is but too frequently displayed.

Great carelessness as to the absolute cleanliness of the instrument employed seems to be the rule rather than the exception, so that so far as public vaccinators are concerned, the public have a right to demand that a separate instrument be used in each case, or else that only experts be employed. The virus is frequently not entirely removed from the point to the arm. What would Jenner say of vaccinators of a great city, who in 14,000 vaccinations failed to remove the virus entirely from the points in over 8,000 cases, so that enough was left after a removal of the blood from the used points to vaccinate another person with, and yet this has recently occurred. Notwithstanding all this, a prominent physician in the *Sacramento Medical Times* would do away with bovine virus altogether, and cause these same vaccinators to take virus from the arm of one child and implant it on that of another, under the idea that blood diseases cannot be transmitted by the pure virus.

Admit that syphilis is not transmitted by vaccine virus, it certainly is by the blood. Has this physician ever carefully examined the virus taken from children microscopically. If he has been able to remove virus entirely free from blood globules in

the majority of cases he has been more successful than other experimentors. Pathologists are by no means certain that this class of diseases is only transmitted by the blood. Suppose this practice was generally introduced into our large cities. How much virus, and how much blood? What proportion of the two would be inoculated in 14,000 cases vaccinated by our public vaccinators? *Vaccination is not the simple operation it seems to be, either in man or animals.* Until the law requires our public vaccinators to serve an apprenticeship I can conceive of no greater folly than trusting the collection of virus to them.

Nitroglycerine can be lighted with a match and will burn quickly. It requires a concussion of a peculiar kind to explode it. The laws governing its explosion are not fully formulated, accidents happen with it from time to time even in the hands of those experienced in its use. It has been found necessary to pass laws controlling its storage and transportation, and yet humanized virus is much more dangerous in the hands of the inexperienced. The laws governing its action are not fully understood.

Belgium is requiring the slaughter of all calves from whom virus is taken, and a careful examination of their organs for tubercular disease. Are we unnecessarily to put the health of those vaccinated in the hands of vaccinators who have no special training, any more than we are to scatter nitroglycerine about. In each case all known precaution should be taken by the public authorities of the State, and certainly the use of bovine virus is the greatest precaution against the introduction of blood diseases into the systems of those vaccinated, that has yet been discovered, and the practice is rapidly extending throughout the whole world. The public generally understand this matter in this country, and any attempt to use humanized lymph in any of our cities would now meet with the most determined opposition from all classes of the community. We believe the time is not far distant when our medical colleges will not only give didactic instruction, but will afford the student opportunity for the practice of vaccination under the supervision of a master, so that he will learn to recognize a vaccine vesicle under its many forms, and to distinguish the true result from the false, to tell the irregular from the spurious. The want of knowledge on this subject is not confined to this Coast nor to this country. Loud complaints come from abroad, especially from England and France.

In the former, notwithstanding a compulsory vaccination law, vaccination seems no longer to protect, or only for a few years at most. Undoubtedly much of this is due to humanized virus less active than that in use in the days of our fathers, but a part of it is undoubtedly due to a lack of knowledge and skill in the operators. The much vexed question of the gradual deterioration of humanized virus admits of much being said on both sides of the question. Theoretically if we consider cow-pox an attenuated small-pox,—and no microscopist has yet been able to tell the micrococci of one from that of the other,—the transfer from the system of the calf with a temperature of F. 101°-2° to that of man with a temperature of F. 98°-99° might be considered likely to modify it, and certainly long humanized virus acts very much less typically than virus fresh from the calf or at most a few removes away. Advocates of humanized virus say they do not notice this difference of the action of the viruses, and they are correct in their opinion. The reason is simply because there is now little virus in this country that is many removes from the calf, but it was not always so. A few years ago the late Doctor Martin, of Berlin, challenged any physician to vaccinate one arm of a child with animal virus and the other with humanized, and to compare the resulting vesicles with the descriptions and plates left us by Jenner, and then to deny that humanized virus had been modified and rendered less active by its continued passage through the human system. The cow-pox vesicles he claimed both in its lengthened course, its increased activity, its freedom from true erysipelas, as well as in its typical appearance more closely resembles the description and plates handed down to us by the discoverer of vaccination. Still this long humanized virus seems to develop to greater activity after passing through the system of the cow than before, but admits of being improved by passing through the system of very healthy children, and then propagating only from the finest vesicles. There is much that we do not understand about the operation of cow-pox in the human system. Jenner describes various irregular forms, some protecting and others not, but he is unable to account for their appearance. Foster tells us that of late years in New York all the brands of animal virus have at times taken an irregular action. Again calves with apparently perfect vesicles will from time to time produce virus that is absolutely inert, and again, with the same virus one calf will take well and another will fail to develop

vesicles. The only sure test, therefore, of the activity of animal virus is primary human or animal vaccination. In conclusion, I would say, that one great and all controlling reason why animal virus should be used for all public vaccinations is that the calves can be kept under observation, and the surroundings of the animals regulated, and the virus produced by them can be had at short notice and in large quantities, and the public can have full assurance given them by the profession that such virus is properly propagated and carefully collected, if the farm or station is regularly inspected by a Committee of the State Medical Society appointed for that purpose. If the profession take no interest in the production of animal virus in the State, the propagation of which they can watch and control, but prefer to trust to virus transported several thousand miles, of unknown age, and that has been exposed to all the changes of temperature incident to the journey, and which is put on the market as an ordinary article of merchandize, they will often have to complain on one hand of undue activity, and on the other of inertness. "*Sore arm or no take,*" is the language used in the public prints of late by certain Health Boards, but it was not taken from Jenner's works. His "takes" were unlike many that I have seen of late. There was a quiet steady advance of the disease from the date of inoculation, producing only moderate soreness of the arm, but every day had its own appearance which was typical of that day.

High fever, general eruption and ulceration of the arm, I may add, are not typical of animal virus now, any more than they were ninety years ago of humanized virus, and only indicate that septic matter has been inoculated with the virus. Erysipelas Martin claims is absolutely unknown with pure animal virus. It may, of course, be thus produced, but the blame should attach to the operator and the impure virus used by him, not to pure animal virus. The great objection to the use of bovine lymph is the great difficulty of keeping it in an active condition.

This can only certainly be done by propagating the virus close to the locality where it is to be used, by receiving it directly from the propagator in small quantities and by using it in large quantities, on one or more good sized abrasions.

Thus propagated and used, we shall get a nearly certain protection against small-pox, and will probably bear no more of 80 to 95 per cent of secondary vaccinations taking, but will be content if we can get these results in primary cases, and will consider ourselves fortunate if we get twenty per cent of "takes" in secondary cases.

APPENDICITIS AND PERITONITIS.

By C. E. NELSON, M. D., New York.

The present tendency of medical thought, especially in surgical complications, is strongly towards surgical interference, mapping out the several regions and treating each by specialistic operations, setting aside internal medication, with the exception of dosing with morphia to relieve pain and make the patient comfortable.

Now, it is this administration of morphia which I wish to write upon. If the patient lies quietly in bed, with limbs relaxed, and feels comfortable, there is an idea that inflammation is kept in abeyance, and therefore pus-formation is prevented.

These brilliant operations daily performed in pelvis and abdomen are certainly very tempting, but let us look at the purely medical side of the question.

The accomplished, ready and brilliant laparotomist will continually say operation is too often deferred until too late, therefore, the prime question obviously is, to call in some distinguished diagnostician to determine when is the proper time to operate, not to say *what* it is, because even he may not know, but he will find out.

Undoubtedly many cases might be saved from the extreme and dangerous method of laparotomy if proper medication were early resorted to.

Without wishing in the least to disparage recent brilliant advances in the surgery of cavities, if we put the patients immediately on calomel with opium, great headway would be gained: in this case, the opium is not given to relieve pain, but as an adjuvant to the calomel, in fractional and scientific proportions. Neither is this small amount of opium given to paralyze peristalsis.

As regards pain, if the *inflammation* is checked pain will certainly take care of itself. Treating pain is only treating *one symptom*, and not the *disease*.

As regards the dreaded natural peristalsis, the best thing we can do is to let nature have her own way, and allow the limited amount of bowel movement—limited by the inflammation itself.

In three or four days, when inflammation has been checked, then, instead of enemata, which may not affect the swollen part,

give a good dose of turpentine ($\frac{3}{2}$ ss ad $\frac{3}{2}$ j). This does not have the passive and purely mechanical action of enemata, but physiologically works its way down the entire tract, clearing and cleaning out faeces and gas. The relief to the patient is indescribable, and he is brought from death's door to recovery. In cases that have been given up by medical attendants (before laparotomy came to be practised), I have had the most astonishing success by pursuing this method.

The above treatment presupposes one to have been called in *in the beginning*. But if you are not called until the third or fourth day of peritonitis, localized or general, a great deal of judgment has to be exercised. In this latter case the excessive dosing of morphine might be stopped, as it blocks up everything, and a dose of turpentine even then be given; the turpentine, besides rapidly unloading the bowels of solid fluid and gas then favors mechanically endosmosis of extravasated fluid from peritoneal cavity; gaseous tympanites is also allowed to be reabsorbed. If no accident occurs resolution may be looked for. If perforation occur laparotomy may still be resorted to and the cavity washed out and treated by drainage.

If there is matting of tissues around the appendix, with faecal extravasation, operation is not likely to save the patient.

There are cases of obstruction with no peritonitis, such as bands binding down and flattening the intestine at one or two points; such bands, of course, being the remains of former fibrinous effusions; this condition requires laparotomy.

I think fewer bands would be found if calomel were more freely administered at the time.

Practitioners at present seem afraid of calomel *weakening* the patient; the great point is to weaken the inflammation; we can take care of the patient afterwards.

In regard to haematoceles in the pelvis the operative tendency again shows itself. These effusions often either are absorbed or burst into vagina or rectum.

NEURALGIA.—Equal parts of the tincture of aconite root, colchicum seed, belladonna and actea racemosa. Six drops to be taken every six hours till relief is felt.—*Boston Med. and Surg. Jour.*

Licentiates of the California State Board of Examiners.

SAN FRANCISCO, June 7, 1888.

At the regular meeting of the Board of Examiners, held in this city June 6th, 1888, the following physicians were granted certificates to practice and surgery medicine in this State:

GUSTAV C. W. BARKOW, San Diego; Coll. of Phys. and Surg., Ill., March 11, 1884.

CHARLES GEORGE BULL, San Francisco; Bellevue Hosp. Med. Col., N. Y., March 10, 1881.

ERNEST HENRY COLE, Los Angeles; St. Louis Med. Coll., Mo., March 6, 1885.
ALBERT L. DERBYSHIRE, El Cajon; Med. Coll. of Indiana, Ind., February 25, 1886.

GEORGE S. EVELETH, Pasadena; Bellevue Hosp. Med. Coll., N. Y., March 12, 1888.

CLINTON FISHER, Los Angeles; Med. Dept., State Univ. of Iowa, at Keokuk, Iowa, February 25, 1868.

HARRY NEWBURY HALL, Pasadena; Med. Dept. Univ. of Pennsylvania, Penn., May 1, 1888.

JOSEPH W. HARRIS, Los Angeles; Miami Med. Coll., Ohio, March 2, 1874.
RANDOLPH W. HILL, San Diego; Kentucky School of Med., Ky., March 1, 1876.

JOHN D. HUDSPITH, Rosewitch; Winchester Med. Coll., Va., April 19, 1853.
ENOCH AUSTIN JACKMAN, Roseville; Med. Dept. Univ. of Vermont, Vt., July 19, 1886.

ARTHUR LOUIS KELSEY, Pasadena; Jefferson Med. Coll., Penn., April 4, 1888.

GEORGE M. B. MAUGHS, Santa Barbara; Med. Dept. Univ. of Missouri, St. Louis, Mo., 1848; St. Louis Med. Coll., Mo., March 5, 1884.

HENRIETTA SANDERSON MAXON, Fresno; Med. Dept. Univ. Michigan, Mich., June 3, 1885.

WILLIS H. MAXON, Fresno; Med. Dept. Univ. Michigan, Mich., June 8, 1883.

THOMAS BENTON McWILLIAMS, Pasadena; Coll. of Phys. and Surg., at Keokuk, Ia., February 23, 1871.

JOHN S. MUIR, San Francisco (ieu certificate), Coll. of Phys. and Surgs. at Keokuk, Iowa, February 17, 1876

CHAS PRATT, Los Angeles; Jefferson Med. Coll., Penn., March 12, 1881.

THOMAS HARDY SMITH, Pomona; St. Louis Med. Coll., Mo., March 8, 1882.

JAMES P. SQUIRES, Redlands; Med. Dept. Univ. of Buffalo, N. Y., February 26, 1851.

RICHARD A. URQUHART, Los Gatos; Med. Dept. Univ. of Virginia, Va., July 2, 1874.

HENRY WESTLAKE, Los Angeles; Victoria Univ., Canada, May 11, 1878.

R. H. PLUMMER,
Secretary,

Health Reports.**San Francisco Health Report.****ABSTRACT.**

	1887	Jan	Feb	Mar	Apr	May
Total, 1887.....	5649	522	451	445	450	475
Total, 1888.....		650		488	502	504
Phthisis.....	858	89	78	87	90	75
Pneumonia.....	320	103	56	62	47	39
Bronchitis.....	127	25	31	14	11	19
Heart Disease.....	273	43	27	26	29	22
Aneurism.....	27	0	3	4	2	..
Apoplexy.....	147	11	15	22	8	18
Typhoid.....	121	23	8	6	13	12
Paralysis.....	109	16	8	7	8	9
Cancer.....	174	18	21	17	15	22
Diphtheria.....	222	10	15	7	11	15
Croup.....	92	10	6	4	5	6
Infant Convulsns.....	156	12	13	13	10	18
Meningitis.....	130	18	20	16	21	12
Casualties.....	174	12	15	10	16	22
Suicides.....	84	8	5	9	10	6
Homicides.....	21	2	5	2	2	2
Small Pox.....	24	27	9	4	4	2
Enteritis.....	..	17	..	12	11	19
Measles.....	..	11	5	2	1	1
Alcoholism.....	..	5	3	4	2	
Daily mean tem.....		46.3°	52.8°	52.5°	56.2°	54.4°
Precip. moist're.....		6.81	0.94	3.60	.11	.38

Population according to U. S. census, July 1st, 1880, was 234,520; Caucasian, 212,520; Chinese, 22,000. Estimated population, June 30th, 1887, 300,000.

Report of State Board of Health.

Reports received from ninety cities and towns within the State give an aggregate mortality of ten hundred and thirty-five during the month of May, in an estimated population of seven hundred and twenty-three thousand nine hundred and fifty, which indicates a most favorable condition of the public health, the monthly percentage being only 1.4 per thousand or 16.8 per annum. If we contrast this with the mortality reported in most of the Eastern States the great salubrity of California will be readily acknowledged.

Consumption as usual adds a large percentage to our mortality; one hundred and seventy-four deaths being attributed to it.

Pneumonia exhibits the large death rate of seventy-two, which, while a decrease from last report, is above the general average for the month of May.

Bronchitis was fatal in twenty-five instances, which is also above the average at this season.

Congestion of the lungs caused fourteen deaths, showing an increased mortality.

Whooping-cough was fatal in but two instances.

Diphtheria continues to swell the mortality list, thirty-six deaths being recorded from this disease. Fifteen occurred in San Francisco, four in Sacramento, three in Oakland, three in Alameda, three in Los Angeles, two in Ventura, two in Truckee and one each in Pomona, Sonora, Jackson, and Downey.

Croup is reported as causing twelve deaths, all of which were no doubt diphtheritic.

Scarlet fever caused nine deaths, an increase over previous month.

Measles was fatal in seven instances, which is a reduction of one half from previous report, and indicating a decline of the disease.

Smallpox will, we hope, soon be off the mortality list, only two deaths occurring from it during the month, both in San Francisco.

Typhoid fever caused twenty-eight deaths, which is a slight increase. Of these, twelve occurred in San Francisco, five in San Diego, three in Los Angeles, two in Oakland, and one each in Colton, San Jose, Stockton, Pomona, Placerville and Marysville.

Typho-malarial fever caused one death.

Remittent and intermittent fevers are credited with four deaths. Two in San Francisco, one in Lemoore, and one in Lower Lake.

Cerebro-spinal fever caused fourteen deaths, which continues to indicate an unusual prevalence of the disease.

Alcoholism was fatal in six instances.

Cancer caused thirty deaths.

Heart disease had forty-seven decedents.

Erysipelas was fatal in four instances.

The following towns report *no deaths* during the month: Alturas, Biggs, Bodie, Downieville, Elsinore, Fort Bidwell, For-

est Hill, Gonzales, Igo, Jolon, Knight's Ferry, Lodi, Roseville, Ontario, and San Pedro.

PREVAILING DISEASES.

Reports of sickness received from ninety-six localities in different parts of the State indicate a gratifying absence of epidemic disease. The unusually cool weather during the month of May had the effect of increasing the frequency of acute pulmonary affections, and also developing a tendency to dysentery and catarrhal diarrheas, unusual so early in the season.

Cholera infantum was noted in the reports from Sacramento, Red Bluff, Cottonwood, Lemoore, Jackson, Oroville, Santa Clara and San Francisco.

Diarrhoea and dysentery prevailed generally throughout the State, and is noticed as present in reports from Millville, Red Bluff, Biggs, Gridley, Sissons, Weaverville, Shasta, Truckee, Mariposa, Dixon, Brownsville, Healdsburg, Ukiah, Downey, Fresno, Calico, Hill's Ferry, Anaheim, San Pedro, Lemoore, Bakersfield, Tehachapi, College City, Anderson, Williams, Lakeport and Stockton. The type of these diseases is not severe, and the generality with which they prevailed during the month must be attributed more to meteorological changes than to any specific cause.

Smallpox may be said to have almost disappeared within the State, eight cases only were reported in San Francisco during the month. Eight cases were also reported in Los Angeles, one case in Stockton, which came directly from the latter city, and two cases in the mountains about ten miles from Cloverdale. No cases appeared in Calaveras County during the month, so that county may be considered free from it for the present at least. It is to be hoped that in another week or two the disease will cease to exist within the State. Vaccination and revaccination ought not to be neglected; as smallpox is at present in quite a number of the Eastern States, and a fresh invasion of the disease will not cause surprise at any time, owing to the large immigration which is tending this way. Prevention is much better than cure and prevention is insured by vaccination.

Diphtheria, we regret to say, is still a constant visitor among us, and will remain so until we adhere strictly to the principle that underlies the control of all contagious diseases, and that is the complete separation of the sick from the well. This must not only include the absence from the sick room, but also the

separation from all infective matters that may pass from that presence into operation upon others. The principle of isolation is not carried into effect unless due care be taken to thoroughly disinfect in detail all infective discharges from the sick—all clothing, bedding, towels and like things which may be imbued by such discharges, and finally by the thorough disinfection of the rooms in which such disease is treated. We find cases of diphtheria reported from Sacramento, San Francisco, Oakland, Alameda, Etna Mills, Tehachapi, Pomona, Los Angeles, Downey, Ventura, Sonora, Millville, Red Bluff, Brownsville, Rocklin, Truckee, Livermore, College City and Gridley. It is more fatal than smallpox.

Measles were quite prevalent in many places, and were noted in Forest Hill, Pomona, Red Bluff, Sonora, Weaverville, Sissons, Livermore, Lodi, Castroville, Santa Cruz, Cottonwood, Truckee, Bakersfield, Tehachapi, College City, Gridley, Anderson, Lockeford, Los Gatos, Nevada City, Sierra City, Sacramento and San Francisco. The type is mild and the mortality limited.

Scarlet fever was present during the month in Pomona, Red Bluff, Wheatland, Lincoln, Fresno, Andersonville, College City, Calico, Oakland, Sacramento and San Francisco.

This disease is one which we should wish to prevent; so far as it is un prevented not even the best medical skill can always, or nearly always, cure it. Scarlet fever, is, says Mr. Simon, profusely and uncontrollably contagious. Uncontrollably in so far as science cannot yet offer against it any such personal protection as vaccination confers against smallpox; uncontrollably again, in so far as in order to spread, it does not, like typhoid fever and cholera, depend, or mainly depend upon conditions which moderate sanitary care removes. Uncontrollably further, in so far as its contagion is of a most persistent character and activity, and remains in force for indefinite periods of time in clothing, bed-furniture and other objects that give it a resting place. Thus at present we have not any other known power of dealing preventively with the disease than such as consists in intercepting all contagious communication between the infected and the non-infected portions of the community, and thoroughly isolating and disinfecting all possible carriers of contagion.

Whooping-cough is present in Sierra City, Red Bluff, Marysville, Igo, Downey, Lockeford and Bodie.

Erysipelas. Sporadic cases of this disease were noticed in Forest Hill, Dixon, Brownsville, Downey, Yreka, Truckee, Lower Lake, Lemoore and College City.

Typhoid fever prevailed to some extent in Los Angeles, San Diego, San Francisco, Oakland, San Pedro, Pomona and Hopland.

Typho-malarial fever was noticed in Millville, Lockeford, Cottonwood, Truckee, Tehachapi, Fresno, College City, Gridley, Anderson and Bakersfield.

Pneumonia was quite prevalent in San Francisco, Oakland, San Diego, Los Angeles, Alameda and Grass Valley. It is also noticed in reports from Sierra City, Alturas, Red Bluff, Sissons, Colfax, Yreka, Truckee, Ukiah, Watsonville, Downey, Fresno, Castroville, Jolon, Hopland, Hill's Ferry, Monterey, Anaheim, Sonora, Angel's Camp, Anderson and other places.

Bronchitis likewise was quite frequently noted in the different reports which were received, confirming, in some degree, the conclusions arrived at by Dr. H. B. Baker, "That pneumonia, and indeed bronchitis, are controlled by temperature and humidity of the air. That pneumonia increases when the air is cold and dry, and decreases when the air is warm and moist."

PACIFIC COAST WEATHER FOR MAY.

SIGNAL SERVICE U. S. ARMY, DIVISION OF THE PACIFIC, SAN FRANCISCO, June 1, 1888.—Weather.—No general storm of violence appeared on the Pacific Coast during May, and the rainfall has been below the average in all districts.

Light showers fell in Oregon and Washington Territory on the 1st, 2d, 3d, 9th, 19th, 24th, 25th, 26th, 30th and 31st; in Northern California on the 3d, 4th, 15th, 24th, 25th, 26th, 30th and 31st; and in Southern California on the 3d and 4th.

In California the number of cloudy days has been in excess of the average number for May.

Temperature.—The mean temperature has been above the normal May temperature in Oregon and Washington Territory, and generally below the normal in California, the departure being small, however, at all points.

No damaging frosts occurred during the month.

GERRARD G. TYRRELL, M. D.,

Permanent Secretary California State Board of Health.
Sacramento, June 10, 1888.

PACIFIC MEDICAL AND SURGICAL JOURNAL
AND
WESTERN LANCET.

EDITOR:

WILLIAM S. WHITWELL, A. M., M. D.

The Editor is not responsible for the views of contributors.

All communications relating solely to the editorial management of the JOURNAL, should be sent to No. 438 Bryant St., San Francisco.

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SAN FRANCISCO, JULY, 1888.

Editorial.

NATIONAL HEALTH SERVICE.

In the *Journal of the American Medical Association* for May 19, 1888, is an extract from a report on State Medicine, presented at the recent meeting of the Louisiana State Medical Society by the President, Dr. Joseph Jones, some passages of which are deserving of comment.

"Our defense of the police powers and quarantine laws and system of Louisiana against the persistent and unjust attacks of the National Board of Health has been fully and permanently placed on record in the *Reports of the Board of Health of the State of Louisiana* for 1880, 1881, 1882 and 1883, and we are not disposed to revive old issues." These reports covered the period of Dr. Jones' administration as President of the Louisiana Board, and it is untrue that the National Board of Health was the aggressor in that unfortunate controversy with the State Board of Louisiana. It is an undisputed and well-known fact that the National Board, rather than the Louisiana Board, enjoyed the confidence of sanitarians generally throughout the

Atlantic and Mississippi Valley States during this controversy; and another fact, not so generally known, is that the hostility of Dr. Jones to the National Board dated from his failure to obtain the chief position on the Yellow Fever Commission sent to Cuba in 1879 by the National Board. The reason of this failure is not here relevant. The downfall of the National Board of Health was due to the "persistent and unjust attacks" of the Louisiana Board, seconded by a few individuals who were likewise disappointed aspirants for its patronage. It was a case of sour grapes, and time has not yet dulled the edge of the teeth that were set on edge.

Again: "The imperfections of the Bill (H. B. 1,526), now before Congress, are fully set forth in the letter of the Secretary of the United States Treasury to the Committee on Commerce, bearing date, Washington, D. C., Treasury Department, February 21, 1888." This letter was written by Dr. J. B. Hamilton, Surgeon-General of the United States Marine Hospital Service, and was simply transmitted by the Secretary without comment. The explanation of the letter is, that the Marine Hospital Service has succeeded to most of the functions of the National Board of Health and desires to retain them. It is apparent, therefore, that Dr. Hamilton could not be satisfied with a national health service which would be vested with any of the functions now discharged by that branch over which he presides. Moreover, it is a fact that the great majority of sanitarians in the United States favor the creation of a Bureau of Health, since they find the lower House of Congress determined to deny to the National Board of Health the appropriations necessary for its support.

The bill to create a Bureau of Health was framed expressly to obviate all ground for those complaints and hostilities which led to the ruin of the National Board, and it received the endorsement of the Louisiana Board in 1885. In substance, the functions of the proposed Bureau are as follows: 1. To gather information upon the state of public health and the existence

of contagious disease in foreign countries, through the consulates of the United States government; to digest and communicate the same to all the government posts and health authorities of our country; through medical officers attached to the consulates, when requested by masters of vessels destined for ports of the United States, to inspect the vessels, cargoes, crews and passengers, to use measures for cleansing and disinfection, and to vaccinate those requiring vaccination (all at the expense of the vessel), to furnish bills of health relative to the port of departure and the full dealing with the vessel, or to notify the Bureau by telegraph of neglect or refusal to accept such service.

2. To serve as a medium of intelligence in sanitary matters, including vital statistics, between health authorities throughout the United States by means of a weekly publication, which would contain also foreign intelligence. 3. To inspect the various quarantine stations of the United States from time to time; to investigate outbreaks of pestilential disease in any part of the Union; to report upon such inspections and investigations, and to recommend to local health authorities needed preventive and suppressive measures. 4. To conduct chemical, physiological and pathological investigations in the interest of sanitation. 5. To publish and distribute documents relative to public health.

It was thought advisable that the National Bureau should have no authority in quarantine and sanitation, inasmuch as the exercise of such functions had involved the National Board of Health in trouble with the Louisiana Board, and some unfavorable criticism elsewhere, and the refusal of the Spanish Government to allow inspections in Cuban ports of vessels destined for American ports was a warning to leave marine sanitation at foreign ports optional with masters of vessels, while it might be made clearly to their interest to call for it. The advantages of such a service are undeniable, and they are generally recognized by sanitarians, while it is significant that opposition to the measure is confined to a public officer who apprehends that

the proposed bureau will detract from the importance of his position.

Again: "The police powers of the several States and Territories composing the great American republic should be fully recognized in any system of internal and external sanitation and quarantine.

"The greatest diversity prevails in the sanitary and quarantine laws and regulations of the individual States and Territories. The quarantine systems present different degrees of perfection. In times of pestilence the interstate intercourse and traffic are liable to sudden and arbitrary interruption, and the brutal *shot-gun quarantine* may be substituted for the dictates of humanity and the teachings of sanitary science.

* * * * *

"The sanitary and quarantine laws of the several States should be perfected and unified and the most perfect accord established between the individual States on the one hand and with the general government on the other.

"The most direct method, and the wisest and most liberal, and the one most in accord with the spirit of our national and state institutions, appears to be the appointment on the part of the individual States and of the general government of representatives duly commissioned and empowered to meet in *general assembly* at such places and times as may be deemed best for the thorough discussion of the existing sanitary and quarantine laws, and for the preparation of a national sanitary and quarantine code.

* * * * *

"After the completion of the labors of the Congress, the sanitary and quarantine code should be submitted to the individual States for their ratification, and after adoption by a majority of the States composing the American union, the National Sanitary and Quarantine Code shall become national, and shall receive the support of the general government."

The first paragraph of the above quotation is inconsistent with the succeeding ones, inasmuch as the enforcement of a national sanitary and quarantine code is incompatible with full recognition of the police powers of the several States and Territories. Besides, under the plan proposed, there is nothing to prevent the nullification of the national code in any State where

the local authorities might think their communities unequally subjected to its restrictions, or where they might suppose their commercial or other interests would suffer thereby. The attitude of the Louisiana Board toward the National Board during Dr. Jones' administration of the former ought to have taught him the futility of any such plan, even if others should have failed to note its teaching.

But the importance and advantages of such a national code are not disputed. We hold that maritime quarantine should be a national regulation as well as foreign commerce, and that internal sanitation involving the welfare of more than one State should be a national concern as much as the subject of bankruptcy. It is an open question whether Congress, under the general power to regulate commerce with foreign countries and between the several States, might include interstate quarantine and sanitary regulations extending over State lines. Congress has thus far refrained from meddling in such interstate matters, and it is to be hoped that occasion will not arise for such action. Still, it is conceivable that the invasion of a foreign pestilence might present an emergency, when the organized power of the national government would be vastly superior to any local or State authority. Until some such great and general calamity befalls the country it is not at all likely that there will be an irresistible demand for the proper remedy. This would be an amendment to the Federal Constitution, authorizing Congress to legislate on such matters, and it would be more feasible than the proposed sanitary "General Assembly" of Dr. Jones, besides being thoroughly efficient in action. In our judgment, the time has not come for the adoption of such a measure; and in the meantime the project of Dr. Jones is visionary and totally impracticable.

UNDER the auspices of the Alumni and Faculty of the University of Pennsylvania *The University Medical Magazine* will be issued, the first number appearing on October 1st, 1888. It

will contain original articles and clinical lectures and will represent the teaching and practice of the various hospitals. Reports will also be given of practical work accomplished in the laboratory and in the dental, veterinary and biological departments, and also in the Training School for Nurses.

Notwithstanding the too great number of medical journals published, a journal with such a corps of editors and with such an excellent prospectus can scarcely fail of legitimate success.

DR. J. R. BRIGGS, who was formerly associate editor of the *Texas Courier Record of Medicine*, will this month, as editor, issue the *Texas Health Journal*. Texas is an immense State and no doubt there is room for a medical journal of this sort. At all events we wish Dr. Briggs success in his new undertaking, and shall watch for his first issue.

The Contra-Indications and Dangers of Antipyrine.

Antipyrine should not be administered in anti-hypersyretic doses to patients suffering from renal disease, it having been demonstrated that its effect is to suspend the functional activity of the kidneys. For anodyne purposes, antipyrine should be avoided in cases of real angina, because, although it may allay the pain, it acts injuriously on the muscular structure of the heart. In pseudoangina there is no reason to prefer it to morphine. The danger to anginal patients from the administration of antipyrine consists in that (1) there is a constant risk of acute dilatation of the heart, which may result in depletion of the vessels supplying the nervous system and so cause death from collapse. (2) All anginal patients have more or less diseased arteries, and the kidney function is consequently impaired. Dr. Elvy considers antipyrine a drug which has obtained notoriety by false pretenses. In one case it modifies the temperature without diminishing the fever; in another it alleviates the pain but increases the risk in such wise that "if patients feel better while they live, they nevertheless incur serious risks."—ELVY in *London Medical Review*.—*Medical Age*.

Notices of Books, Pamphlets, etc.

A SYSTEM OF OBSTETRICS. By American authors. Edited by BARTON COOKE HIRST, M. D., Associate Professor of Obstetrics in the University of Pennsylvania, etc. Volume I. Illustrated with a colored plate and one hundred and nine engravings on wood. Philadelphia: Lea Brothers & Co. 1888.

Several "Composite Systems of Medicine" have been written and all have been received with great favor by the profession. The work under consideration is the first upon obstetrics which has been written upon this plan.

The advantages of this composite plan is evident and very satisfactory to the general practitioner. It is also a satisfaction to have the authors of the various subjects all Americans, for in this way we obtain a fair reflection of American practice. For that of other countries the reader can easily look elsewhere. Among the authors of this volume which constitute the first half of the work, we note the well-known names of George J. Engelmann, of St. Louis; Theophilus Parvin, of Philadelphia; Samuel C. Busey, of Washington, and others. Among the subjects of which these authors treat are: the development of the embryo; the foetus, its development; pregnancy; conduct of labor; the mechanism of labor; the use of anæsthetics in labor; anomalies of the forces of labor.

The chapters of this volume which to us are especially interesting are, first, the opening chapter on "The History of Obstetrics," by Dr. Engelmann, and, second, "The Use of Anæsthetics in Labor." Concerning the use of anæsthetics in this branch of practice much division of feeling exists, and we are inclined to believe that attention enough is not given to the subject, and consequently much avoidable suffering occasioned. A pleasant historical account is given and then the advantages and objections to chloroform, ether, bromide of ethyl and cocaine, are all discussed far more fully than in any book we have had the pleasure of examining.

We are sorry that in the description of the pelvis the confusing terms of right and left oblique diameters are retained rather than that of first and second oblique.

It also seems to us that hardly sufficient space is given to the

mechanism of labor, or that sufficient stress is laid upon the action of the pelvic floor in causing anterior rotation of the occiput. Too much stress is laid upon the pelvic planes which are generally believed to play but a subordinate part in the mechanism.

With its few shortcomings we greet the work as a decided addition to American obstetric literature.

MEDICAL PUBLICATIONS. Harvard Medical School, 1887.

This publication represents a portion of the good work performed during the past year by the instructors of the school. The work is all original, and to show its character, we give the following titles of some of the papers: "The Anatomy and Physiology of the Recurrent Laryngeal Nerves." "The Effect of Pure Alcohol on the Reaction Time, with a description of a new Chronoscope." "Notes on Muscular Abnormalities." "The Range of Variation of the Human Shoulder Blade." "The Process of Repair after Resection of the Intestine." "Fracture of Spine; treatment by plaster jacket." "Artificial Feeding of Infants." "An Experimental Research on Rabies."

THE INTUBATION OF THE LARYNX. By T. E. WAXHAM, M. D. Illustrated with forty-five engravings, including plates fully describing the operation. Chas. Truax & Co., Chicago, Ill.

This book is upon a subject which has been attracting considerable attention for some time past. To those who have not followed the literature as it has appeared in the medical journals this book will be of interest, for all the facts relating to the subject are collected together. Full directions for the performance of the operation are given, and illustrations for its elucidation. Price, \$1.25. Send direct to publishers.

DISEASES OF THE HEART AND CIRCULATION IN INFANCY AND ADOLESCENCE.

By JOHN M. KEATING, M. D., and WILLIAM A. EDWARDS, M. D. Illustrated by photographs and wood engravings. Philadelphia: P. Blakiston, Son & Co., 1888. San Francisco: W. S. Duncombe & Co. Price, \$1.50.

A valuable book on an important and interesting subject, by well-known and able authors. The matter of the book has already been published in monthly installments in the "Archives of Pediatrics" during the past year, and the profession is to be congratulated that it has been collected into book form and so become more available.

DISEASES OF THE SKIN. A Manual for Practitioners and Students. By W. ALLAN JAMIESON, M.D., F. R. C. P. Ed.

This book is an excellent one, and well repays the reader. It gives the recent advances in dermatology, especially those made in the therapeutics of skin disease, by Unna, of Hamburg. We would especially draw attention to the treatment of *lupus vulgaris* by the salicylic acid plaster muslins. The colored plates are very fine, especially the one representing *Acne Varioliformis*.

NINETEENTH ANNUAL REPORT OF THE STATE BOARD OF HEALTH OF MASSACHUSETTS.

PROCEEDINGS OF THE STATE SANITARY CONVENTION HELD AT PHILADELPHIA, May, 1886.

TRANSACTIONS OF THE NEW YORK MEDICAL ASSOCIATION FOR THE YEAR 1887. Volume IV. Edited for the Association by A. C. CARROLL, M. D.

PNEUMONIA, ITS MORTALITY AND TREATMENT. A Statistical and Rational Inquiry. By HENRY HARPSHORNE, M. D. Reprint from the Transactions of the College of Physicians of Philadelphia.

THIRTY-SECOND ANNUAL REPORT OF THE WOMAN'S HOSPITAL IN THE STATE OF NEW YORK. 1887.

SECOND AND THIRD ANNUAL REPORT OF THE NEW YORK CANCER HOSPITAL. 1886-1887.

MODERN METHODS OF ANTISEPTIC WOUND TREATMENT. Compiled from notes and suggestions from eminent surgeons. Published by Johnson & Johnson, New York.

A VERY VALUABLE LESSON FOR THOSE WHO USE ANESTHETICS. By JULIAN J. CHISHOLM, M. D.

TENTH ANNUAL REPORT OF THE PRESBYTERIAN EYE, EAR AND THROAT CHARITY HOSPITAL. Baltimore.

ELEVENTH REPORT OF THE STATE BOARD OF HEALTH OF WISCONSIN. 1887.

REPORT OF THE HEALTH OFFICER OF THE DISTRICT OF COLUMBIA. 1887.

THE THREE ETHICAL CODES. Publishers: The Illustrated Medical Journal Co., Detroit, Mich. Price, 50 cents.

ONE HUNDRED AND TEN LAPAROTOMIES FOR THE REMOVAL OF THE UTERINE APPENDAGES. Sixty-one Consecutive Operations Without a Death. By PROF. W. GILL WYLIE, M. D., New York. Reprint from *Annals of Gynecology*.

AN ANALYSIS OF FOUR HUNDRED AND TWENTY-TWO UNSELECTED AMERICAN LAPAROTOMIES. Tables reprinted from first volume *Pittsburgh Medical Review*. 1888.

AN INTERNATIONAL CLASSIFICATION OF MENTAL DISEASES. By WALTER CHANNING, M. D., Brookline, Mass. From the *American Journal of Insanity*, for January, 1888.

INTRA-UTERINE STEM IN THE TREATMENT OF FLEXIONS. By A. REEVES JACKSON, A. M., M. D. Reprint from Vol. III, Gynecological Transactions, 1887.

THE SIGNIFICANCE AND LOCALIZATION OF PAIN IN PELVIC DISEASES. By HENRY C. COE, M. D., New York. Read before the New York Phrenological Society, November 2, 1887.

CONSERVATIVE GYNECOLOGY. Is Division of the Cervix Uteri Correct and Rational in Principal, Justifiable in Application? By GEO. F. HULBERT, M. D. Reprint from *Weekly Medical Review*.

THE USE OF THE CURETTE FOR THE RELIEF OF HEMORRHAGE DUE TO UTERINE FIBROIDS. By HENRY C. COE, M. D.

Treatment of Diphtheria with Perchloride of Iron and Milk.

Dr. Mohammed ben Nekkach (Inkermann) has treated 21 diphtheritic patients with perchloride of iron and milk, and has obtained twenty cures and lost a child of six months. Among the twenty cured are two adults. All these diphtheritic patients have been treated from the beginning of the disease before the period of asphyxia or intoxication. Outside of these twenty-one patients six others have died; two have refused to follow the treatment, one has been treated by another method in a neighboring town, a fourth one did not follow the treatment accurately, and, finally, the last two were cases in which he was called too late by the parents. "To all these patients, most of whom were severely taken," he says, "I gave 25 to 30 gts. of perchloride of iron in a tumbler of water (this solution being renewed every time it was used up); one quart of milk a day was given. A tablespoonful of each of these preparations was administered every five minutes. In addition to this medication I have prescribed emetics and painted the throat three times a day with a strong solution of perchloride of iron, which, while taking away the false membrane, at the same time cauterizes the subjacent surface."

He states that when perchloride is administered from the beginning of the disease the false membrane does not extend, but the disease becomes localized.

Dr. Gilbert (Paris) remains skeptical as regards the local action of perchloride of iron; he uses it as a tonic but employs other agents in addition.—*Med. and Surg. Reporter*.—*Medical Age*.

Translations.

By D. W. MONTGOMERY, M. D.

Treatment of Syphilis with Hypodermic Injections.

Welander, Rosenthal, and Trzoiriski have given their views on the value of subcutaneous injections of calomel, and the yellow oxide of mercury in the treatment of syphilis.

Welander has observed very favorable results from the use of mercury subcutaneously. In using calomel painful indurations were quite common, and sometime abscesses, especially in women. The presence of mercury could be demonstrated in comparatively large quantities in the urine. In using the yellow oxide of mercury instead of calomel no abscesses were caused, and in most cases there was much less pain than with calomel injections; in some cases, however, pain was even greater than with calomel.

Rosenthal uses the following formula for the emulsion which he uses subcutaneously.

R Hydrarg. oxyd. flav.....	0.5
Ol. amygal. s. Ol. oliv.....	15.0

Every eight days one grain of this emulsion is injected, this procedure being repeated from three to five times. The inflammatory reaction with this salt was less than with any of the other insoluble salts of mercury; the therapeutic effect was excellent, these injections being fully as good in this respect as those of calomel, and coming next in order of merit to inunctions.

Trzoiriski finds that injections of the yellow oxide of mercury are equally as good as calomel injections with the differences in its favor that it causes less pain than calomel, and it does not give rise to abscesses. He uses 0.04 grains of the salt at each injection, making in all from four to six injections, with an interval of six days between each injection.—*Centralblatt fur Chirurgie*.

ANTIPYRIN LOCALLY IN GONORRHOEA.—Audhoui prescribes:

Aq. rosæ,	:	:	:	:	:	
Aq. lauro-ceras,	:	:	:	:	:	aa 3 $\frac{1}{2}$
Antipyrin,	:	:	:	:	:	gr. 75.
Zinc. sulphat,	:	:	:	:	:	gr. 7 $\frac{1}{2}$.

For urethral injection.—*Revue de Therapeutique*, May, 1888.
Maryland Medical Journal.

Extracts.

Paralysis of the Ocular Muscles.

By C. W. TANGEMAN, M. D., Assistant to the Chair of Ophthalmology.
A Lecture delivered during the "Spring Course" at the Medical College of Ohio.

In order to consider the subject "*paralysis of the ocular muscles*" understandingly, it becomes necessary to begin with the study of the action of these muscles in health. You are familiar with their origin and insertion and with their nerve supply. It, therefore, remains for us to fix in our minds the separate as well as the associate and accommodative muscle action.

It is a most delicate and intricate arrangement and requires but little to disturb its harmony. The natural tendency of the four recti muscles when at rest is to draw the eye ball directly backward into the orbit, while the two oblique muscles act in a reverse manner. All of the various movements of the eye describe rotations around a fixed point or center and are brought about by the extrinsic ocular muscles. You may compare the movements if you like to the motions that an arthrodial joint is capable of. It is stated by a number of writers that there is one point in the eye ball that always remains stationary. This point is situated in the center of the eye. Each muscle has its associate and antagonist. Theoretically we may say there are three pairs of muscles, but by this division we are led onto debatable ground from a practical standpoint.

The action of these muscles is under the control of the will, and when isolated so they act separately the internal rectus draws the eye inward, the external outward, the superior upward, and the inferior downward. The superior oblique moves the cornea downward and outward and the inferior moves it upward and outward. The direction of action of these muscles is determined by drawing a line through the middle of the point of origin and insertion. This theory does not necessarily elucidate their action or function physiologically. For example, we say when an individual is directed to look toward the right the right cornea moves outward by the action of the external rectus muscle and the vertical meridian remains vertical, but if at this point the direction is given to look up and out, the meridian

would not retain its vertical line and it would require the combined efforts of three muscles to carry out the act.

The point of insertion of the various muscles has been more accurately studied as well as their length, weight, and relative strength, specially on account of the important connection of these points upon their action, considered from an operative point of view. According to the measurements made by Krauss we learn that the internal rectus is the longest and broadest of the straight muscles and is inserted a little nearer the sclero corneal junction than any of the other muscles.

From all of these anatomical facts we can learn that the internal rectus is the strongest of the entire group. This we will verify later experimentally. Yet the strength or power of this whole set of muscles is necessarily a relative one, varying in different individuals and possibly varying in the same individual at different times. The width of the tendon at the point of its insertion is not always the same, occasionally numerous bands of connective tissue are given off from the tendon and are inserted into the sclera in a fan-shaped manner. This peculiarity does not occur with any regularity, but it is well to bear it in mind in case you may want to make a tenotomy of these muscles as for the relief of strabismus. A failure to divide them all thoroughly may prevent good results.

Before we proceed any farther let us briefly consider what is meant by the strength of a muscle, of what importance it is, and how it can be determined. Rays of light in passing through a prism are bent towards its base or thick extremity. If we place a prism before the eye with its base downward the rays of light by the time they reach the retina are displaced to such an extent that they fall upon a different portion of the retina than in the opposite eye, and the result is that the patient sees double, two objects, one above the other. The natural impulse is to avoid this condition, and the superior rectus draws the eye upward in order to overcome the disturbance; or in other words, draws the eye ball into such a position as to permit the rays of light to fall on identical portions of the retina. When the degree prism is found that the muscle fails to overcome and the patient sees double, we have determined the strength of that muscle by reading off the number or degree of the prism. In this same manner we can test all of the muscles if we so choose, always placing the prism with its base exactly opposite the line of ac-

tion of the muscle that we wish to test. Thus to test the internal rectus we place the prism with its base outward, etc., and when double images are produced you will find them in the direction of the base of the prism. In the above test when diplopia occurs we have crossed double images, since the rays of light fall upon the retina to the outer side of the macula lutea and the image, in accordance with the laws of projection, projected inward and crosses that of the other eye, and we have produced crossed double images because the rays of light do not fall upon identical portions of the retina. The internal rectus muscle responding to the impulse to correct the disturbance, throws the cornea inward and thereby rotates the posterior pole of the eye outward to such an extent that the artificially distorted rays of light fall upon the macula. The opposite will occur if we reverse our prism.

Now, let us determine the relative strength of the various muscles. The internal muscles generally overcome a prism of from 12° to 18° , the external from 4° to 8° , the superior from 1° to 2° and the inferior rectus from 2° to 3° . These figures may vary in different persons, but relatively they should correspond. With this information and a brief review of the muscle called into action to produce motions of the eye ball in a given direction, we will be prepared to consider the defects caused by a faulty innervation or a total suspension of the nervous action on the muscles of the eye.

The following table will show the muscles involved to produce certain movements of the eye (Wells'):

Up.—Superior rectus and inf. oblique.

Down.—Inf. rectus and sup. oblique.

In.—Internal rectus.

Out.—External rectus.

Up and In.—Sup. rectus, int. rectus, and inf. oblique.

Up and Out.—Sup. rectus, external rectus, and inf. oblique.

Down and In.—Inf. rectus, int. rectus, and sup. oblique.

Down and Out.—Inf. rectus, external rectus, sup. oblique.

Before we speak of the phenomena and symptomatology of paralysis of the ocular muscles, it may be profitable to spend a few moments in considering the various positions that the vertical meridian of the cornea may occupy during associate muscle action. While the results of various experiments differ, we will accept as serving our purpose the results obtained by Donder.

He finds that the eye ball can move outward about 42° ; inward, about 45° ; downward, about 57° ; and upward, about 34° . You certainly can not have failed to recognize the peculiarity in all of these tests and experiments, that the internal muscle always preponderates in strength and action over the external. How to reconcile the two points that the internal muscle of one eye in extreme adduction causes the eye to move through an arc of 45° while during the same associate movement the external muscle moves the other eye through an arc of but 42° , and still the movements occupy the same length of time and do not disturb the visual angle is difficult to explain at present. (Seely.) The impulse and power bringing about the associate, as well as the accommodative movements, under ordinary circumstances remains the same, even though one eye be excluded from the visual acts for the time being, or permanently by blindness. If the associate and accommodative movements be interfered with we have a disturbance of binocular vision. If we have a suspension of the motor innervation we have paralysis which may be complete or partial when it is termed paresis. Every case of paralysis that may come under our observation presents symptoms peculiar to itself. In the one case the patient describes his defect as a sudden diminution of vision, another has erroneous projection of the visual field or inability of using the eye with comfort but for a few minutes at a time. He may hold his head to one side to avoid indistinctness of vision or he pinches one eye shut to exclude it entirely from the visual act. He may be annoyed constantly by seeing double. Any or all of these symptoms may be present in a case where the disturbance of the visual axis is not sufficiently marked to be noticed as strabismus. If we analyze these symptoms more carefully we will find that in every case they are produced by a disturbance of the binocular accommodative or converging movements. Instead of the visual lines converging (as in health) toward each other to meet in the object fixed upon, there is a disturbance of the one visual line making objects appear indistinct, and the patient complains of confusion and dizziness. If the deviation becomes a little greater, the visual axis is not properly formed, and the result is that the patient sees two objects, separate and distinct. When the paresis is slight the patient may by an effort force single vision, as when placing a weak prism before his eye, but the effort soon fatigues the muscles so that it must be abandoned.

The false image may eventually be ignored or altogether suppressed. One of the characteristics of paralysis of the ocular muscles is a turning of the head to one side in order to avoid confusion or diplopia. The head is always turned toward the side of the paralyzed muscle. For example, if the left external rectus is paralyzed he would complain of diplopia when the object is in the left field, and in order to avoid this he carries his head toward the left side, since by that movement he brings the right half of the field into play.

The symptoms, as we have studied them, thus far are largely general, but you may be called upon to determine the muscle involved, when other observations become necessary. If paralysis is complete, or secondary contraction of the opposing muscle has taken place, the diagnosis is not difficult, since the eyes tested separately or together, are found not to move naturally in all directions—many times cannot be forced farther than the median line. An abnormality in the accommodative muscle movement can best be determined by calling upon the patient to fix upon one object, say a probe or pencil, at a distance of one foot, and alternately cover and uncover first one and then the other eye. During this test pay attention to the direction of the visual line of the eye used for fixation and the one covered by your hand, and you will clearly see that they do not converge in a manner to meet in the object looked at. If paralysis has existed for some little time, secondary contraction of the opposite muscle occurs, due to a loss of antagonism, and permanent deviation or strabismus takes place. If all of the muscles were innervated by a separate nerve, and in each instance the action of the muscle was as simple as that of the external rectus, the recognition of a defect in movement would be very simple.

Paralysis of the ocular muscles, separately and collectively, have been described, and in those cases there is a loss of motion, as given in the table above. The appearance of the patient in paralysis of the third nerve is characteristic, and to impress indelibly upon your mind the picture I take the liberty of presenting this patient to you at this time.

The first symptom that arrests your attention is the complete ptosis or drooping of the upper lid. If you elevate the lid with your finger you will find that the eye deviates outward, which, in this case, indicates a paralysis of the internal rectus. Test-

ing the movements of the eye ball, you will find up as well as down (with the exception of the zig-zag movements made by the sub oblique) motion has been abolished, and the eye has somewhat of a staring or protruding appearance. The pupil is fully dilated and accommodation is paralyzed. If we ask this patient to close her sound eye and walk across the floor she becomes dizzy and confused, since the effort she makes to fix with the deviating eye would cause convergence in the healthy one, and she locates objects according to the effort it requires at fixation. When she reaches quickly for an object near by she strikes wide of it for the same reason, and that is what we mean by a faulty projection. The object is not where it appears to be.

This patient is not troubled with diplopia, since the eyelid so completely covers the pupil, and at the same time external deviation is so extreme that the eye is placed entirely out of the range of perceiving rays of light, except those coming from the extreme left, and then only when the upper eyelid is held out of the way. If you remember the innervation and action of these muscles you can't certainly fail to make a correct diagnosis. You may often be at a loss to determine the cause of the affection.

Speaking of causation, we divide the subject, generally speaking, into central and peripheral. If the affection is of recent date and comes on suddenly, the prognosis is far better than when it comes on gradually, appearing first only at intervals and later becomes permanent. Cold, exposure, rheumatism, effusions of blood into the structure of the brain, are some of the causes bringing on the affection suddenly. Tumors, aneurisms, exudation of lymph at the base of the brain, abscess and exostosis are prominent among the causes that bring about the symptoms slowly, and unless the cause can be removed by medical skill are likely to run a very protracted course and remain permanent.

At the present time you will notice that the classification of all causes inside of the cranium as central or cerebral is not correct, only those being central that are situated in the brain itself, and where, from some cause or other, pressure is brought to bear on the course of the nerves at the base of the brain, it is designated as basilar. In syphilis, the most frequent cause of paralysis, the seat of disturbance may be central, basilar, or peripheral, and if the patient comes under observation early, before press-

ure on the nerve trunks or surrounding tissues has caused destructive changes, the prognosis for a permanent recovery is good. Paralytic affections coming on during convalescence of the acute exanthemata, especially the form following diphtheria, is of short duration, with a prospect of complete ultimate recovery. In rheumatism, malaria, and colds the prognosis is good, since the symptoms disappear almost immediately when the cause is removed.

You very naturally ask, What is the pathological condition causing paralysis? Recall the origin of these nerve trunks, trace them from their nucleus in and near the floor of the fourth ventricle and the aqueduct of sylvius, until they emerge from the brain, and, passing near the clinoid process through the cavernous sinuus, enter the orbit through the sphenoidal fissure, and you will comprehend the danger that this important trio of nerve trunks is exposed to along their entire course to the attacks of disease.

Some writers, when speaking of causation, make three classifications, cerebral, basilar, and peripheral, yet before we will have finished this hour, you will see how difficult it becomes often to differentiate, and in how many instances the seat of the disease may be both central as well as peripheral.

From the following you will learn that the most frequent cause is pressure, either direct or indirect: Clinically, our observations lead us to believe that hyperæmia of the brain is a frequent cause of temporary paralysis, as in alcoholism, compression of the jugular veins, or paralysis of the vaso-motor centers. Anæmia following an embolus, found in endocarditis or in disease of the artery of old people, may cause sudden loss of motion of some of the ocular muscles. Cerebral hemorrhage, when occurring near the origin of these nerves, need not be extensive to act very disastrously. Basilar, acute purulent, as well as pachy meningitis, by the pressure due to the exudation at the base of the brain, is a causative agent. In tabes dorsalis, paralysis of some one of the ocular muscles is almost a constant symptom; in fact, it is often a premonitory symptom of what is to follow, as are also the transient paralyses of the aged. It is a frequent symptom in acute articular rheumatism, caused, possibly, by an inflammation of the nerve-sheath, in which manner pressure is brought to bear on the nerve trunk. It appears suddenly and passes gradually, leaving no traces. A mere mention

of trauma to the head is sufficient in this connection. Syphilis, we might almost say, is the causative factor in more cases of paralysis than all the other causes combined.

To locate the seat of disease exactly is the most difficult matter, since the orbit, its contents and walls, the base of the brain, as well as the cerebral mass, are frequently affected by syphilis, collectively and separately. It may be central, basilar, or peripheral, caused by gummatous neoplasms, localized meningitis, orbital periostitis, exostosis, or circumscribed softening produced by the pressure. If a number of muscles are involved other than the ocular we may pretty safely say the disturbance is situated at the base of the brain, and the paralysis is due to direct compression. Should the symptoms come on suddenly and progress rapidly, the cause is likely of the nature of the hemorrhage, embolism, or an exudation; while, if the progress be very slow, it is likely caused by a tubercular deposit, tumor, exostosis, or an aneurism.

With regard to treatment, nothing but a few general rules need be laid down; anything else would be out of place here. You can certainly draw this conclusion from what has been said: the prognosis varies according to the cause.

The more recent the attack the more favorable the prognosis, generally speaking.

Mercurials and the iodides cure the large majority of cases, unless pressure has already done irreparable damage to the nerve trunk.

When paralysis is traced to rheumatism or malaria the cause must be removed by the appropriate remedies, and the symptoms disappear rapidly.

Paralysis following diphtheria requires no treatment, but when it is dependent on some cerebral lesion our only hope lies in bringing about an absorption of the exudative product or neoplasm as soon as possible, in order to prevent disorganization.

Electricity has undoubtedly been overrated in these affections.

Prismatic glasses are of use in those cases only where the disturbance is but slight, and it requires but little assistance to fuse the annoying double images.

Operative interference, where secondary contraction of the antagonistic muscle has taken place, yields good results in a

very few cases, but in the large majority the deformity is only relieved, but not the action of the muscles restored; consequently, double vision in some part of the field will necessarily occur.

Patients afflicted in this manner are unfortunate, inasmuch as the most of them cannot get rid of their deformity nor the annoying double images.—*The Cincinnati Lancet-Clinic.*

Laparotomy for Inflammation of the Vermiform Appendix with Ulcerative Perforation, Followed by Recovery.

By ARCHIBALD DIXON, M. D., of Henderson, Ky.

On January 23, 1888, P. H. B., a lawyer, æt. 35, consulted me for pain in the lower portion of the abdomen, accentuated over the cæcal region. Palpation revealed a fulness with slight induration over the colon, but no tumor, and as there had been constipation, more or less pronounced, for some time previously, partial impaction was diagnosticated. Hot fomentations, castor oil and large enemata were prescribed, with improvement so marked that, on the 27th the patient was dismissed, with a special injunction to remain quiet until all trace of tenderness in the iliac region had disappeared. On February 1, four days later, I was again called and found the previous symptoms aggravated—patient had been up and walking about—there was tenderness over the cæcum; with induration not specially marked, pain radiating over right side of abdomen. Temperature, 99°. Perityphlitis was undoubtedly present. Hot fomentations were again ordered. Iodine as a counter-irritant, was applied, and as the bowels had been freely moved, morphia, $\frac{1}{2}$ gr., was given hypodermatically and ordered to be continued sufficiently often to control pain and promote quiet. Diet to consist of milk. The succeeding five or six days were marked by no special change in the condition of things, save that the induration had increased to some extent, as had also the tenderness. Temperature, 100°. There was dorsal decubitus with flexion of the right thigh, fluctuation could not be made out, nor did rectal examination reveal any induration on the right side of the floor of the pelvis, although an abnormal tenderness was manifest; bowels had moved once or twice without the aid of enema or cathartic. During my visit on the 7th, the patient complained of being chilly, and stated that he

had had one or two slight rigors the night before. Temperature was still, however, not above 100°, and the pain and tenderness had rather decreased. Quinia, in 5 grain doses, was ordered night and morning.

The morning of the 10th, found my patient nervous: there was increased tenderness in the iliac region, the tenderness, extending over the belly nearly as high as the umbilicus, but confined to the right side. Severe pain extended down the cord into the right testicle. Temperature 102° tongue covered with brownish coat, breath bad and an anxious countenance. Fluctuation could not be made out by palpation; in fact the tenderness was so marked that very little effort could be made in that direction. There was distinct induration in the right floor of the pelvis, as ascertained by rectal examination, but no fluctuation. Vesical irritation was present with slight tenesmus, there being frequent calls to empty the bladder with increased quantity of urine. I explained to the patient that there was, in all probability, an abscess too deep for fluctuation to be made out. The danger of his condition was laid before him, and the importance of surgical interference for his relief dwelt upon. Being a very intelligent man he readily comprehended the situation, and consented that an operation be done. The afternoon of the same day, under the usual antiseptic precautions, abdominal section was made. An abscess extending deep down into the fossa and behind the cæcum was reached. When the abscess wall was incised there was an escape of foul gas followed by about a pint or more of feculent pus with a strong fecal odor. The cavity was irrigated with a 1 in 1000 sublimate solution and sponged out: the appendix was found with an ulcerative perforation about an inch and a half from the colon. Following the plan advised by Greig Smith, *Abdom. Surg.*, p. 443, the appendix was ligated with catgut close to the cæcum, drawn just tight enough for occlusion and the ulcerated portion cut off. The cut end was washed in a sublimate solution, and the serous coat brought over the mucous coat by fine catgut Lembert sutures. Iodoform was dusted over the abscess cavity after again sponging it out. The abdominal wound was then closed around a large drainage tube, the whole being covered by sublimate gauze.

The patient came from under the influence of chloroform with but little evidence of shock: hemorrhage had been slight and

was easily controlled by forcipressure. Half a grain of morphia was given hypodermatically which induced sleep, and six hours later I found my patient, as he expressed it, feeling a hundred per cent better in every way, he had taken a milk toddy and his temperature was 99°. The abscess cavity was irrigated daily with a sublimate solution through the tube, which was removed on the 17th, seven days after the operation. Convalescence was uninterrupted, and the patient discharged on the 23d, abdominal wound almost entirely closed.

The foregoing case certainly was very different in its symptoms, course, etc., from what I had been taught in regard to inflammation, ulceration, and perforation of the appendix vermiciformis, and this has led me to ask: Are not the majority of cases of perityphlitis either due to, or accompanied by, appendicitis either simple, catarrhal, or ulcerative? Previous to this three cases had fallen under my observation, which had been diagnosed as perityphlitis, each accompanied by tumor, pain and tenderness in the iliac region, all terminating fatally, one from septic fever, after operation, the other two from general peritonitis from rupture of abscess sac into the peritoneal cavity. In the first case death took place twenty-one days after operation (before the days of antisepsis); the second case fourteen days from the beginning of the attack, and the third seventeen days after, both having refused operation. In each of these cases autopsy showed that ulceration and perforation had taken place in the appendix. In the case under consideration the diagnosis of faecal impaction was first made, and undoubtedly there was impaction, which was relieved by large enemas and catharsis and, had the patient obeyed orders as to maintaining perfect quiet until all trace of tenderness over the cæcum had subsided, he might perhaps have escaped the trouble which followed.

The symptoms in the case at no time pointed towards perforation of the appendix, unless the sharp pain extending from the abdomen down the cord into the right testicle, which began on the day before the operation, and a frequent desire to urinate may have indicated it. Pain from the first was not severe, there was no nausea or vomiting, no evidence of collapse, and the elevation of temperature at no time exceeded 102°. It is true there was present, at times, extreme tenderness on palpation, dorsal decubitus with the right thigh flexed, constipation

with a feeling of fulness and induration, all of which are present in peri-cæcal cellulitis, and appendicitis was not suspected until the operation revealed it.

I am further supported in this view by Dr. Robert F. Weir, who in a recent letter to the *Medical News*, speaking of the views of Dr. Pepper, as expressed before the Philadelphia County Medical Society, in the discussion on pericæcal inflammation, says: "With such cases Dr. Pepper further remarks considerable impaction of feces exists, and in so far he is in accord with Kraussold, who considers such inflammation rarely, if ever, to progress to suppuration unless a perforation exists. And this is the view that the surgical profession is gradually but strongly leaning to. It is supported in this tendency by ever increasing evidence, showing more and more clearly the rarity of cæcal perforations and the frequency of appendicitis, simple or perforative, as the origin of abscesses occurring in the iliac fossa. Even in the slowly progressing forms of suppuration, such as are described by several of the gentlemen participating in the discussion alluded to above, it can be proved by a glance at the series of 100 cases of perityphlitic abscesses undergoing operation, that were diligently collected by Dr. Noyes in 1882, that a majority of these distinctly gave proof of their cause being a perforated intestine. Out of the total 100 cases, in 40 were recognized faecal concretions or foreign bodies originally lodged in the intestine, and in 14 others gas in marked quantities was observed, while in 45 only pus was seen in various stages of foulness. Matterstock, likewise, in 146 cases of perityphlitic abscesses found faecal concretions 63 times. Dr. Weir further says: "Such testimony is corroborated largely by everyone who has frequently operated for perityphlitic abscesses and individually, I have felt it a strong argument in favor of an early surgical interference in these cases, believing, as I do, that a perforated appendix is generally the starting place of the abscess. The latter may take place outside of the peritoneum by adhesion of the appendix, formed with the parietal peritoneum then, or at a previous slight attack of appendicitis, or it can occur among the adjacent intestines matted together by protective limiting adhesions, thus giving rise to a veritable intra-peritoneal abscess scarcely to be distinguished from the former, or finally, the faecal extravasation may spread widely and beget a fulminating general peritonitis."

The question of treatment in peri-typhlitis, typhlitis and para-typhlitis is one of exceeding interest, and upon it may depend the life or death of the patient. In cases of faecal impaction in the cæcal region—the most favorite seat—there can be no question as to the propriety of using large enemata of warm water, glycerine, castor oil; etc., and the internal administration of cathartics, the best being, perhaps, castor oil. In peri-cæcal cellulitis, notwithstanding the advocacy of salines to prevent (?) peritonitis, nothing has succeeded so well in my hands as perfect rest both of body and mind, which implies an absolute avoidance of cathartics, the hypodermatic use of morphia, counter irritation and the application of heat or cold in the shape of fomentations, etc., and the ice-bag. Under this treatment with an occasional mercurial a number of cases under my care have terminated in resolution and recovery. If resolution does not take place, if the febrile condition remains and the pain and induration extend, operation is imperative. No other course is left open save to take the chances of the abscess becoming encysted, or of its rupturing into some channel other than the peritoneal cavity. The use of the exploring needle for the diagnosis of pus I cannot think good surgery. There are usually symptoms present which point directly to the formation of pus, rigors, increased elevation of temperature, anxious countenance, etc.; and if the aspirating needle fail to find pus, there can be no certainty that it does not exist, either behind the cæcum or deep down in the pelvic cavity. Moreover, it is an unsafe procedure from an antiseptic standpoint, it being an extremely difficult matter to render an exploring needle aseptic. Exploratory incision is to my mind a much better and safer method: it does not prejudice the case, and if pus is not found and still be present, it will almost certainly, following the course of least resistance, make its way to the opening and be discharged externally. In perityphlitis rectal examination is often barren of results, but in typhlitis and para-typhlitis, it is of perhaps more value than any one other diagnostic procedure, for here the induration and tumefaction is deep down, extending into the floor of the pelvis on the right side, where it can usually be made out, and when found, points unerringly to surgical interference. In cases of appendicitis, cæcitis, with perforation followed by a fulminant general peritonitis, operation is demanded at once; there can be no other hope, and slight as

it is, the patient should be given the benefit of it. In regard to the treatment of the perforated appendix after abdominal section, I fully agree with Greig Smith that it is a waste of time to try to close the perforation; the simplest, quickest, and safest plan is, obviously, removal of the useless and dangerous appendix.

I am indebted to Dr. John Young Brown for valuable assistance.—*Annals of Surgery.*

Hypnotism and the Action of Medicinal Substances at a Distance on Hypnotized Subjects.

For a number of years past hypnotism has occupied a prominent position in medical literature especially in France. This subject, which is only a revival on a scientific basis of what in the last century and the beginning of this was generally known as mesmerism, magnetism, or animal magnetism, is being now extensively studied from experimental, therapeutical and medico-legal standpoints. A variety of descriptions of this condition have been given by different writers, but until Charcot and his school undertook to verify these phenomena and place them on scientific grounds, this condition remained wrapped in no small amount of mystery and charlatanry. All authorities now, with the exception of the Nancy school with Prof. Bernheim as a leader, are agreed upon the fact that this condition, as well as that known as suggestion, necessitates for its production the consent of the subject operated on, and also that hypnotism is an attribute belonging to a limited class composed almost exclusively of hysterics and other neurotics, or of people with a well-marked tendency to nervous instability. Charcot, in his clinical lectures, has described as a type of this affection that he calls the greater hypnotism, a peculiar neurotic condition found especially in hysterical patients, and which at all times presents distinctive characteristics and symptoms, which are easily analyzed on account of their regularity. In the lesser hypnotism, which, according to Prof. Bernheim, is met with in five-sixths of subjects taken at hap-hazard, the manifestations are not so distinctive and more difficult of study.

The condition of greater hypnotism is characterized by three stages differing very much from each other, anyone of which in a susceptible subject can be brought on at once, or one stage

may be successively converted into the other by certain manœuvres. These three stages are that of lethargy, that of catalepsy, and that of somnambulism.

The lethargic stage is obtained in different ways, either by means of a bright light or object directed towards the patient's eyes, or by intensely gazing into his eyes, or again by more or less firm pressure over his closed eyeballs. In the first sittings the time necessary to obtain the desired results may be as long as ten or fifteen minutes, but this time, in the great majority of cases, gradually decreases at each successive sitting, and after awhile lethargy is easily brought on. The signs of this lethargy are: The appearance of a deep slumber, flaccidity of the muscular system, complete insensibility of the skin and mucous membranes, total suspension of intellectual life, no answer to suggestion, and sudden development of neuro-muscular hyper-excitability, so much so that contraction can be induced in a muscle by mechanically stimulating the skin over it, either by gentle pressure or friction. This muscular contraction continues after the removal of the stimulus, and easily passes off into a permanent contraction in the muscles of the extremities; the muscles of the face can also be made to contract, but they never become contractured. This neuro-muscular hyper-excitability is a complete refutation of simulation, for single muscles, which normally never contract isolatedly, can be made to contract by gentle stimulation with the blunt end of a pencil.

When a subject is in the state of lethargy, that of catalepsy can easily be brought on by opening the eyelids in a lighted place. The transition is instantaneous and, should one eye only be opened, the corresponding lateral half of the body passes into the cataleptic stage, whilst the other half remains in the lethargic stage with the characteristics just described. The subject in catalepsy has the immobility of a statue; it remains for a long time and with no apparent fatigue in the positions in which it is placed, even when they are the most strained; the neuro-muscular hyper-excitability which is found in the lethargic stage has not only disappeared, but on the contrary repeated stimulations instead of bringing on contractures give rise to paralysis of the limbs. It is in this stage that are evidenced the suggestions through the muscular sense. Thus, the motions given to various parts of the body to bring on different expressive attitudes are almost necessarily followed by spontaneous

secondary motions, destined to complete the expressive pose first begun by the operator. For instance, should the open hand of the subject be brought to its mouth, as if to send a kiss, the face spontaneously assumes a smiling expression; should the hands be folded as in prayer, the face immediately becomes serious and the subject kneels down of itself, etc. Conversely when, with special faradic applications, the muscles of the face are separately electrified, not only does the whole face assume an expression in harmony with the stimulated muscle, but the rest of the body assumes the position which is usually assumed under those circumstances. Besides these attitudinal suggestions, if I am allowed to use the expression, others can be produced in catalepsy; for instance, when a brush, or a broom, or a piece of soap is placed in the subject's hands it immediately and automatically performs the acts of brushing, sweeping and washing, until stopped.

As the cataleptic stage can be induced from the lethargic by opening of the eyes, so can this one be induced from the other by closing of the eyes. Catalepsy can also be brought on spontaneously in proper subjects by the sudden phases of a very bright light or a violent noise.

Somnambulistic Stage.—Somnambulism can be induced in a cataleptic or lethargic patient in a variety of ways; the most usual is by gentle and repeated rubbing on the vertex of the head. The subjects then assume one of two aspects; they are either calm with half-closed eyes, or they are excited and walk and move like a perfectly wide awake person. The neuro-muscular hyper-excitability in this state varies a great deal from that found in the lethargic stage; for whereas in the latter it requires repeated stimulation to produce contractures, in this stage the merest touch of the skin can cause contracture in a whole set of muscles, which alone is evidence enough against simulation. This contracture only gives way to friction and massage of the excited muscles. The skin and mucous membranes are anæsthetic, but the special senses are hyperacutely excitable. This is the period when suggestions are most eminently active. Thus it is extremely easy to convince the subject that it sees, feels, or hears things of different nature and it then acts as if it readily saw, felt, or heard such things. Again, tell it authoritatively that it is paralyzed in such and such a region and in a short while the mentioned region becomes paralyzed;

the paralysis assumes a form analogous to that known as hysterical paralysis with special characteristics and anaesthesia and vaso-motor changes; it is called psychical paralysis and can always be removed by suggestion. As a rule on awakening the memory of the acts performed during this stage is lost. The usual mode of awakening the subject is by blowing in its face over its eyes.

The above, as demonstrated by Charcot, is admitted by all authorities to occur in all suitable subjects, but what is of more importance to us as physicians and thereapeutists is the importance to be attached to the claims of those who pretend that during the hypnotic stage suggestions may be made, which are followed unconsciously for hours, days and weeks after the return to the normal. On this hinge two points, the therapeutical value of hypnotism and the legal responsibility of hypnotics. There are a number of authenticated cases on record where cure has been obtained in hysteric and other neurotic patients by suggestions made during the hypnotic stage, permanent cures of what seemed permanent affections, such as contracture of the limbs, etc. But these may be due to the moral effect exercised by the operator over his patient, and are not more astonishing than cures effected during the waking hours by other means, such as a single application of the faradic battery, etc., under convenient circumstances for the proper exercise of the normal effect. We must consider the medico-legal aspect of the question as yet *sub judice* and avoid extremes for the present, as there seems to be a number of well-observed cases which appear to prove that the question is still doubtful.

With regard to Dr. Luys' claim, set forth in a paper read before the French Academy of Medicine, of being able during the hypnotic stage to induce well-marked therapeutical and dynamic effects by means of certain drugs applied either directly to such subjects or even at a distance, the conclusions of the Commission of the Academy, appointed to investigate this claim, I give below, so that you may see that they totally refute all such claims. The commission composed of such illustrious men as Herard, Bergeron, Brouardel, Gariou and Dujardin-Beaumetz concludes as follows:

The commission appointed to examine the facts advanced by M. Luys with regard to the action of medicinal substances at a distance in hypnotic subjects, whilst recognizing the extreme

good faith of M. Luys', have demonstrated that the effects produced by medicines at a distance on hypnotic subjects seem to depend more on the caprice, fancy and memory of the patients than on the medicines themselves; they are, therefore, of the opinion that nothing proves, from a scientific standpoint, the action of medicines at a distance and that neither in therapeutics nor in legal medicine should account be taken of any such pretended effects.—*New Orleans Medical and Surgical Journal*.

Iodoform and Iodol.

The good effect, which have followed the surgical use of iodoform have led to a series of investigations of its influence upon the lower organisms with results that are apparently at variance with previous surgical teachings. The matter is one of such importance that, although we have noted from time to time these researches in the *Therapeutic Gazette*, it has seemed to us that a leader on the present state of the subject would not be amiss. In November, 1886, Dr. De Ruyter announced at a meeting of the Berlin Surgical Society that the powder of iodoform has little or no effect in preventing the development of bacteria, and that when it is mixed with rapidly-infective bacteria, like those of anthrax and of various forms of animal bacteria previous to inoculation, it does not sensibly influence the development of the disease. This has been confirmed experimentally by Kronacher (*Munchener Med. Wochens.*, volume xxxiv., 1887, p. 546), who employed the bacteria of erysipelas and of anthrax; also by Baumgarten (*Berlin Klin. Wochens.*), who further found that iodoform powder mixed with tubercular bacillus in cultivating apparatus did not prevent its ordinary development, and that the bacillus mixed with iodoform powder, introduced into guinea-pigs and rabbits, produced rapid tuberculosis; also by Dr. Lubbert (*Fortschritte der Med.*, Bd., 5, 343) with *Staphylococcus pyogenes*; also by Drs. Chreyn and Thorkil Drovsing (*Fortschritte der Med.*, Bd. 5 p. 33), who found that the iodoform had no influence upon the development of *Staphylococcus pyogenes*, or upon the coccus of pneumonia, or upon the bacillus *subtilis* and other organisms, and conclude that it is not only worthless as an antiseptic, but may even be the means by which the septic organisms may be carried into the system; also by Dr. Johan-Olsen (*Norsk Magazin Legevi-*

densk., 1886), with various bacterial organisms; also by Konige (*Therap. Monatshefte*, April, 1887). On the other hand, Dr. H. Sattler (*Fortschritte der Med.*, Bd. 5, 362) in his experiments, found that when he impregnated threads with iodoform and micro-organisms, and then placed them in a culture-apparatus, the iodoform had a very distinct effect in checking the development of the bacteria, and DeRuyter states that if, instead of using the iodoform powder, he employed an ethereal solution of iodoform in which decomposition of the iodoform had already commenced, there was a distinct effect upon the organisms. In a further series of experiments De Ruyter showed that iodoform is decomposed by blood, serum and other organic fluids in which micro-organisms are growing, and apparently established that the decomposition is produced by the ptomaines developed by the growing organism.

A curious fact made out by Baumgarten is, that rubbing the bacillus of anthrax with any hard powder, apparently mechanically, kills the organism.

The clinical results achieved by surgeons are concordant and decided as to the practical value of iodoform in the treatment of wounds and ulcers. It is possible that a part of the good influence of the iodoform is due to a specific effect upon the tissues themselves. Further, the powder of iodoform may have a very distinctly protecting power mechanically, and by the dryness of the wound which it causes, the discharges from the wound being the especial soil in which the bacteria develop. In certain cases, especially in tubercular diseases, iodoform appears, however, to exert an influence greater than can be accounted for by an indirect action. Many clinicians bear strong testimony to the effect of iodoform on tubercular ulcers of the larynx and other organs. Professor Bruns (*Therap. Monatshefte*, May, 1887) relates fifty-four cases of cold tubercular abscess treated by evacuation through aspiration and a subsequent injection of a ten per cent mixture of iodoform, glycerine and alcohol, with closure of the orifice, made by the needle, by means of the iodoform collodion. Of fifty-four such cases, forty were healed, many of them as the result of a single injection. For the purposes of study some of the abscesses were opened, and tubercular bacilli were found abundant in their walls. According to Professor Bruns, the first change which results from the iodoform is the disappearance of the tubercular

bacilli and the appearance of normal granular tissues. In De Ruyter's experiments, already quoted, the products of the decomposition of iodoform distinctly checked the growth of organisms, and it is at present most probable that some of the goodly results achieved by iodoform as a topical application are the result of the long-continued antiseptic influence of the iodine compounds liberated by its decomposition.

A great objection to iodoform, especially in private practice, is the odor, for the prevention of which a number of suggestions have been made; none of them, however, of any real value. The use of iodoform in venereal diseases has become so common that the public now associate it with this class of diseases almost as closely as they do oil of copaiba and mercurials, and patients sometimes refuse to have iodoform about their persons for fear of creating suspicion as to the nature of their complaint. Further, the number of cases of poisoning by the absorption of iodoform from surgical dressings is really quite large, so that a substitute is a great desideratum. It at present looks as though such a substance may be found in iadol, although at present its cost greatly restricts its use. It is free from odor, has similar physiological properties to iodoform, and yields by its slow decomposition the same products as does iodoform. It has been asserted to be entirely free from toxic influences. If this were true it would not fully represent iodoform, but the experiments made by Marcus and by Pahl (*Inaug. Diss., Berlin, 1886*) show that when given in sufficient doses to animals it causes emaciation, albuminous urine, fall of temperature, general loss of muscular power, and, finally, death from fatty degeneration of the liver, kidney and other tissues. Moreover, in a case which has been published in the *Gazette* (see vol. xi, p. 768), iadol caused, when used as a surgical dressing, symptoms of severe poisoning. The symptoms and post-mortem results which it produces are precisely those produced by iadol. As long ago as 1886 Pick asserted that it is absorbed much less freely than is iodoform, and this has been confirmed by the experiments of Seifert, who found that when he took seven and one-half grains of iadol, iodine did not appear in the urine until after twelve hours, and did not reach its maximum elimination for eighteen hours. It would seem, therefore, that iadol is less poisonous than iodoform simply because it is much less freely absorbed. It contains nearly as much iodine as does iodoform, one hundred

parts of it containing eighty-eight and nine-tenths parts of the haloid, and one hundred parts iodoform ninety-six and seven-tenths parts; its local effect is as active as that of iodoform, and it has been employed for all the purposes for which iodoform has been used, and found especially efficient in the treatment of tubercular laryngitis. Thus, Lublinski (*Deutsch. Med. Woch.*, 51, 1886) had a number of cases of tubercular laryngitis in which throwing pure iodol into the larynx either daily or weekly produced the most favorable results, without causing irritation. He also used it in ozæna with similar good results. Dr. Otto Seifert (*Munchner Med. Woch.*, 1887, p. 53) states that he had many times seen symptoms of marked constitutional disturbance follow the local use of iodoform in tuberculosis of the larynx, but has never yet seen any local or constitutional trouble with iodol, and in one case, in which he was able to make a prolonged treatment, he obtained first a definite cure of a tubercular ulceration on the right vocal cord through the employment of creosote-glycerin and iodoform and boracic acid, and then a complete healing of the left vocal cord by iodol blown into the larynx. In cases of rhinitis atrophicans patients were improved, but not cured. The absence of odor and the non-irritating property of iodol fit it especially for use in these cases. The action of iodol in tubercular laryngitis has also received the very strongest commendation from Dr. R. Norris Wolfenden, who prepares a pastille from one grain of iodol, one minim of glycerin and eighteen grains of glyco-gelatin. Mazzoni, who first proposed the use of iodol in practical medicine, employed a solution composed of iodol, one part; alcohol, sixteen parts; and glycerin, thirty-four parts. One drachm of iodol forms with one ounce of ether a clear brown solution, which may be applied by the spray or brush to nasal or other mucous membranes or to the surfaces of ulcers, and soon evaporates, leaving behind a coating of the iodol. Iodol has also been used in internal medicine. Its effects in tertiary syphilis have been stated by Assaky to be most extraordinary. The dose usually employed has been two or three grains a day, but both Pick and Assaky have given as high as thirty grains a day without injury.—*Therapeutic Gazette.—North Carolina Medical Journal.*

**Impregnation After Operation for Vesico-Vaginal Fistula in which
The Cervix was Turned into the Bladder.**

By THOS. J. ALLEN, Shreveport, La.

About two years ago I was consulted by Mrs F. E., aged about 43 years; weight about 175 pounds; general health good and the mother of thirteen children. She informed me she had easy and natural labors with all her children, except the last one some two months previously; in this confinement she was in labor for three days, had to be delivered by a physician and the child was dead. After this labor she informed me she had been unable to contain her urine and that it dribbled from her constantly.

Upon examination I found an extensive vesico-vaginal fistula; it was over two and a half inches in length by one and a half in width; of irregular shape, but with the length running antero-posterior to the axis of the vagina; the opening extended well up to the posterior uteri-vaginal attachment and the small remnant of the *cervix uteri* pointed well into the bladder; nor did it seem practical to pull it down, so firmly was it tied down by adhesive inflammation. After thorough examination and consultation with Dr. T. G. Ford and my son, Dr. J. W. Allen, we concluded in consideration of the age, the number of children she had borne, the probable near approach to the menopause, the seeming impracticability of drawing down the womb from a position nature seemed to take to help repair the injury, to perform the operation by turning the womb in the bladder. On the 20th of May, 1886, aided by the above named physicians, I pared the edges of the fistula and after more than ordinary difficulty, owing to inflammatory adhesions, shortening of the broad ligaments or both, I performed the usual operation, using the wire suture and carrying out the technique as laid down by Gaillard Thomas.

The first operation was followed by union of perhaps eight-tenths of the fistula, but there remained about one and a half inches from the meatus urinarius a minute fistula too small to admit the smallest size probe, and another that would perhaps admit the index finger at the upper or distal extremity, where the tissue to close the fistula was somewhat cicatricial. Upon these two fistulas I operated three or four times during the summer and fall of 1886 without perfect success, yet the patient informed me she went as long as three weeks at a time without

any dribbling of urine, and when they were last examined the smaller one could not be traced to any communication either with urethra or bladder; the other could, by the introduction of a flexible bougie through the urethra and bladder, be made to emerge into the vaginal attachment.

In this condition, one of comparative comfort, she continued in good health and menstruated regularly (through the bladder, of course,) until the latter part of July, 1887, the date of her last visit and examination; the only treatment given these fistulas at this time was the introduction of a red hot wire.

I heard nothing of my patient until about the 1st of February last, when I was informed by her husband that she had seen no appearance of her menses since the latter part of July, that her abdomen was enlarged and that she feared she was *enceinte*. As I considered such a result next to impossible, I merely advised him as soon as convenient, to bring the patient up to see me. She lived about twenty miles distant. March 7th she came to my infirmary; imagine my surprise on examination to find her in her ninth month of *utero-gestation*.

On the following day I invited several medical men to see the case and advise with me as to the best course to pursue; among those who came and examined her were Drs. Clay, Egan, Gray, Hilliard, Ford, Dickson and Coty.

It was decided to operate at once in the median line of the operation previously performed and to endeavor to keep the incision open if possible until the approaching labor, which they thought might be expected in two or three weeks.

The operation.—It was decided not to use ether or chloroform, but to freely apply cocaine to the vagina for half an hour before operating. When this had been done the patient was put upon the table and in the knee elbow position. A large Sims speculum was introduced into the vagina. A Gouley's dilating urethrotome was passed into the urethra, the bladder, and up along the fistulous track out into the vagina, then, with a long-handle scalpel, an incision was made from the fistula to the basal fund of the bladder; there was but little pain evinced and not much hemorrhage. After the operation, three fingers could be introduced into the opening and the child's head was plainly felt. The abnormal condition of the os uteri called forth the remark from one of the physicians examining that it reminded him of a jug with the neck broken off—the injury sustained by the womb

during the labor that produced the fistula. The patient was put to bed and kept in my infirmary for several days; the wound showed great disposition to close and it was necessary to break up daily adhesions thrown out. She continued to do well and on the 5th day left the infirmary for the place secured for her confinement. I visited her occasionally to see that the incision did not unite. On March 29th I was called at 3 o'clock A. M. to see her; the message brought was that she thought she was in labor. Not knowing but that I might require some assistance, I was kindly accompanied by my friends, Drs. Ford and Hilliard; upon examination we found the membranes had already ruptured and the head fairly entered the incision. The labor progressed slowly in consequence of the abnormal state of the parts, but it was not thought expedient to interfere. The labor lasted about six hours and she was safely delivered of a healthy child weighing about eight pounds.

On the 21st inst., I called to see her and made an examination by the touch. I found the fistula or opening had contracted to less than one inch in diameter. She was doing well and thought of returning home in a few days. Whether she will consent to undergo another operation before her menopause I know not. Certainly this case will lead us to conclude that pregnancy may occur wherever there is a fistulous opening communicating with the vagina and womb, even though that be ever so small and tortuous, and pass through the bladder in its course. The writer feels no little relief at the result thus far obtained in this case and hopes the Society will be interested in the report of it. I do not feel like closing without mentioning the kindness of Dr. W. Gill Wylie, of New York. When I found myself in the dilemma of having placed a patient where it seemed impossible for her to extricate herself without operative interference, I wrote to him the facts in the case and asked his advice. He very kindly and promptly answered me, but before his letter reached me I had operated.—*New Orleans Med. and Surg. Journal.*

Boxall (Robert) on the Chemical Incompatibility of Antiseptic Agents.

I have selected five of the more important antiseptic agents in general use, and, for reference as to the incompatibilities of each, the results of experiments are presented, showing the action not only of these agents on one another, but also of cer-

tain lubricants with which they are frequently combined and brought into contact, and of soap with which they are apt to be contaminated in the process of washing and disinfecting the hands and instruments.

In view of the practical utility of these observations, the experiments were made, not with concentrated materials, but with solutions of the strengths usually employed in practice, and were carried out at temperatures not exceeding that of the body.

The solutions were:

1. Corrosive sublimate solution (perchloride of mercury).
2. Carbolic solution (phenol).
3. Iodine solution (iodine and iodide of potassium).
4. Salicylic solution (salicylic acid).
5. Condy's fluid (permanganate of potassium).

The following incompatibilities were observed:

1. *Corrosive Sublimate and Iodine*.—No precipitate of mercuric iodide is at any stage of the admixture formed. A small addition of sublimate solution fixes the free iodine, as may be seen by the immediate bleaching of the iodine solution, and confirmed by the subsequent addition of starch paste, which produces no blue coloration. One part by volume of sublimate solution (1 in 1,000) is just sufficient to fix the whole of the free iodine in 4 parts by volume of iodine solution.

2. *Corrosive Sublimate and Soap*.—An insoluble soap is produced even when a neutral soap solution is used. This is of special importance in consideration of the small admixture of soap which is required to throw down the whole of the mercury from solutions of the strength usually employed.

3. *Carbolic and Iodine*.—An exceedingly small admixture with phenol is sufficient to fix the whole of the free iodine as in (1). One part by volume of carbolic solution (1 in 20) removes the whole of the free iodine from 2,000 parts by volume of iodine solution of the strength indicated above.

4. *Carbolic and Condy*.—This is perhaps the most generally recognized of these incompatibles. Admixture with phenol immediately turns permanganate brown.

5. *Carbolic and Olive Oil*.—This is of importance and special interest when taken in conjunction with the researches of Koch, of Berlin, who has shown that bacillus spores are capable of living and developing after having been immersed in carbolized oil (1 in 20) for 4 months. The oil appears to enter into some

combination with and to fix the phenol. If a drop of tr. ferri perchlor. be shaken up in a test tube with carbolized oil (1 in 20) no change is found to be produced in the iron as it gravitates to the bottom. Moreover, if carbolized oil be shaken up with a few drops of water, the water allowed to separate out at the bottom of the tube, and a drop of iron solution conveyed into it, the characteristic purple coloration with phenol is not produced unless the shaking has been very prolonged and energetic, and then only to a slight degree. By strongly heating the carbolized oil, phenol is again set free, and the above reaction can then be obtained.

6. *Iodine and Soap*.—No action is produced by a neutral soap solution, but ordinary soap, which contains an excess of alkali, at once removes the free iodine.

7. *Salicylic Acid and Condy*.—A very dilute salicylic acid solution (1 in 800) slowly removes the color from permanganate.

8. *Salicylic Acid and Soap*.—A drop of dilute salicylic acid solution gives a white precipitate even when a neutral soap solution is employed.

9. *Condy and Olive Oil*.—When permanganate solution is shaken up with olive oil its violet color is changed to brown.

10. *Condy and Glycerine*.—When permanganate solution is added to glycerine its color slowly changes.

11. *Condy and Soap*.—This incompatibility is also generally recognized. Soap, even when a neutral solution is employed, readily turns permanganate brown.

I do not pretend to any precise knowledge of the bodies produced, some of which may, for all I know, possess powerful antiseptic qualities. But until this point is settled by direct observation, when chemical incompatibility exists, the antiseptic properties of the original solution must be regarded as weakened, if not wholly destroyed.

The moral conveyed by the above experiments is obvious; avoid as far as possible the admixture of antiseptic agents, and their contamination with lubricants and with soap when incompatibility exists. For instance, in employing corrosive sublimate, it is advisable to use the same solution for disinfecting the hands (carefully avoiding contamination with soap, and for cleansing instruments * as for irrigating the parts, to employ a

* Here, again, a caution is requisite, for copper and steel, unless nickel-plated, are apt to decompose the solution and to cause precipitation of the mercury in a free state.

mercurialized lubricant, and to use alembroth dressings. If for any reason it becomes requisite to substitute one antiseptic agent for another, a second should be chosen which is not incompatible with the first, and the same precautions should be observed throughout the series.—*British Medical Journal*, April 28, 1888.—*Medical Analectic*.

Ext. Viburni Prunifolii in Arresting Abortion.

Dr. C. H. Roberts writes to the *British Medical Journal* that perhaps the following concise statement of facts relating to the successful use of the above drug may be of interest:

A. L., medium size, very fair, and extremely good-looking young country lady of a healthy physique, who has always enjoyed very good health, "never having had a day's illness in her life" (the above applies equally to her husband), was married at the age of twenty-five, on the 7th of October, 1882, miscarried on January 6th, 1883, and removed to London shortly afterwards, when she came under my care, and has been so ever since. She aborted at seven months, on October 9, 1883; again at seven months, on October 19, 1884, and again on August 19, 1885, this time at five months, and of twins, the children in each case being born alive, but surviving their birth only a few hours. She was, after this last abortion, persuaded to submit to an examination with the speculum, which neither on that or three subsequent occasions, revealed anything, the uterus being quite normal, and the os perfectly free from ulceration. The urine had been repeatedly examined for albumen, but not a trace was ever discovered, and microscopical examinations revealed nothing. She then went into the country alone for several weeks, and on her return almost immediately became *enciente*; as had been before arranged, she communicated the fact to me, and early in February, 1886, commenced taking the extract in the form of a four-grain pill three times a day. This she continued regularly (she says she never missed a dose, and I quite believe her) until September 2, 1886, when she was again prematurely confined at seven months of a living male child, which she was unable to nurse, not having the slightest show of milk. After all her previous essays she had a good supply; indeed, after the twins it was rather troublesome to get rid of. She, as before, made a good recovery, and the child lived until it was four months

old, when it succumbed to an attack of acute bronchitis. In January, 1887, she found she was once more *enciente*, and at once again commenced taking the same dose three times a day, and she continued doing so until October 22d, when she was confined of a full-grown, healthy female child, which she is now nursing, having a remarkably good supply of milk, and at the time of writing (November 15th) both mother and child are doing remarkably well. I have omitted saying that from the age of fourteen the monthly periods were always remarkably regular, lasted three or four days, and were free from pain. I can offer no remarks on the *modus operandi* of the extract, I only know my patient has unbounded confidence in "those pills," and I shall have equal confidence in trying the extract in any similar case.—*Peoria Medical Monthly.*

"Hayab," A New and More Powerful Local Anesthetic than Cocaine.

Lewin (*Allg. Mediz. Centr. Itg.*, No. 3, 1888) says that hayab is a red moss, well known on the coast of Africa, and mentioned by Livingston as causing loss of sensibility to and rigidity of the tongue when taken into the mouth. Lewin first took a small quantity in solution, and on instilling it into the eyes of a cat, produced such a strong and complete anesthesia, that, after fifteen or twenty minutes, no reaction to the strongest irritation could be obtained, and this condition lasted from ten to twenty-four hours. In frogs and other animals, in whom the solution was injected, a quick diminution of the heart beat was noted, then paralysis of the heart, while convulsive waves swept over the animal, which, beginning with the eyes, continued over the body to the very end of the tail. Those animals capable of the act, vomited immediately after the injection. Lewin suspected and finally proved the identity of this drug with that derived from the erythrophleum judiciale, a poisonous African plant, and obtained from it the active principle, the alkaloid erythrophlein, which is identical with hayab.

A solution of one-fifth per cent (1-500) instilled into a cat's eye produced an anesthetic effect more complete and long continued than Lewin could have believed possible. Even smaller doses had the same effect, which lasted one, two to two and a half days. With this concentration the cornea remains clear, but if a two-per-cent solution is used a powerful irritation and

cloudiness of the cornea results, which disappears, however, spontaneously after a few days. If erythroplein be injected into the leg of an animal in whom the strongest tetanus has been produced by strychnia, the convulsion does not relax in that extremity. Fifteen minutes after an injection into Guinea pigs the part is so completely anesthetized that it can be cut through without a movement from the animal experimented upon. The muscles, too, are rendered anesthetic. When large doses are given the animals die of convulsions. If one begins with very small doses one can easily obtain the successive stages already described.—*American Practitioner and News.*

The American Association of Obstetricians and Gynecologists.

The next annual meeting of this Society will be held in Washington, D. C., September 18th, 19th and 20th, 1888.

The following is the preliminary announcement of the subjects:

“The President’s Annual Address,” William H. Taylor, Cincinnati.

“Discussion on Extrauterine Pregnancy,” 1. Pathology. 2. Diagnosis. 3. Treatment. *a.* Medical. *b.* Electrolytic. *c.* Surgical.

Mr. Lawson Tait, Dr. Franklin Townsend, Dr. E. E. Montgomery, Dr. Charles A. L. Reed, Dr. A. Vander Veer, and others will participate in the discussion on Extrauterine Pregnancy. The full announcement of the topics that each referee will speak to, will be made in the final programme to be issued in August.

“The Relations of the Abdominal Surgeon to the Obstetrician and Gynecologist,” Albert Vander Veer, Albany.

“Operation for an Unusual Case of Subserous Uterine Fibroid,” Hampton Eugene Hill, Saco, Me.

“Drainage in Abdominal and Pelvic Surgery,” Joseph Price, Philadelphia.

“The Indications for Artificial Aid in Labor,” Thomas Opie, Baltimore.

“Double Ovariotomy during Pregnancy; a Successful Case going on to Full Term,” William Warren Potter, Buffalo.

“The Technique of Vaginal Hysterectomy,” James H. Ethridge, Chicago.

"The Surgical Treatment of the Perineum," William H. Walther, Louisville.

"Laparotomy in Peritonitis," E. E. Montgomery, Philadelphia.

"Tumors of the Abdominal Wall," Charles A. L. Reed, Cincinnati.

"Uterine Fibroids; their Diagnosis and Treatment," Thomas J. Maxwell, Keokuk.

"Desmoid (Fibroid) Tumors of the Abdominal Walls," Edward J. Ill, Newark.

"Ruptured Perineum," J. Henry Carstens, Detroit.

"A Contribution to the Study of Pelvic Abscess," Clinton Cushing, San Francisco.

"The Female Perineum; its Anatomy, Physiological Function, and Methods of Restoration after Injury," Henry O. Marcy, Boston. This paper will be illustrated with lime light and screen.

"Heart Failure in the Puerperium," Thomas Lothrop, Buffalo.

"Treatment of Suppurative Peritonitis," William H. Myers, Fort Wayne.

"Operative Treatment in Uterine Carcinoma," George R. Shepard, Hartford.

"The Reflexes Reflected; or Some Things that Retard Progress in Gynecic Surgery," Joseph Eastman, Indianapolis.

"Some Points in Relation to the Diagnosis of Pregnancy in the Early Months," James P. Boyd, Albany.

"Vaginal Tamponnement in the Treatment of Prolapsed Ovaries," W. P. Manton, Detroit.

Mr. Lawson Tait, F.R.C.S.E., Birmingham, England, will also present a paper on "The Methods of Success in Abdominal Surgery."

WILLIAM H. TAYLOR, M.D.,

President.

WILLIAM W. POTTER, M.D., Secretary.

Antipyrine in Polyuria and Diabetes.

In the Society de Therapeutique, Paris, M. Huchard recently reported some rather remarkable results from the use of antipyrine in the above afflictions. When consulted by the first case, the patient was passing 28 liters of urine in 24 hours; at the time of the report, after the course of antipyrine, the daily

amount had been reduced to three liters (50 ounces). To test the real influence of the antipyrine, it was replaced at one time, by ergot of rye. Immediately the amount of urine jumped up to eleven liters for the following 24 hours, sixteen for the next, and eighteen for the next. Directly upon substituting the ergot by antipyrine, the quantity fell to nine liters, then successively eight, seven, again three liters. At the time of reporting the drug had been discontinued for four or five days, without recurrence of the polyuria. An oppressive attack of dyspnea, which lasted for two days before he saw the case, was also cut short, and did not return. The explanation of the medicine as given by Dr. Huchard was that it acted as a sedative to the bulbo-medullary excitability.

In a second case in which the quantity of urine was reduced from six to three liters in five days, acetanilide was substituted once, with the result of increasing the flow. A return to antipyrine reduced it to four liters.

The third case was a diabetic who passed the enormous quantity of eight hundred grammes of sugar per day. On the 17 of March, he passed nearly eleven liters of urine—non-albuminous. On March 21, after the administration of six grammes of antipyrine, he passed nine liters, and on the following day, three liters and ninety grammes. On March 25, an analysis gave 63.66 gm. of glucose per liter, or 271 gm., in the 24 hours. No special regime had been carried out.

M. Dujardin-Beaumetz said that with two grammes of antipyrine, he had obtained a reduction in glycosuria more remarkable than in the cases related by Dr. Huchard.

And Dr. Albert Robin had told him of having observed, after a dose of four grammes, the total disappearance of diabetes, without special regime, in the space of from five days to three weeks, in the patients that he had treated. But at a certain time in each, he had noticed the appearance of albumen, which constituted a grave symptom, he thought.—*Weekly Medical Review.*

“Morning Sickness” in the Husband.

It is well known that cases occur in which the husband is subject to “morning sickness” when the wife becomes pregnant. Dr. Hamill reported a case to the Philadelphia Obstetrical Society, in which the husband was attacked two weeks after the

last appearance of the menstrual flow in the wife, and not until the following menstrual period did the wife have any other evidence that conception had taken place. The husband continued to have the attacks for two months. During previous pregnancies the husband had suffered from the same attacks; but not till both husband and wife were cognizant that conception had taken place.

It would be interesting in such a case to know what effect sending the husband from home would have upon his sickness. It would be necessary to withhold from him the object of his separation from his wife, and his mind should be diverted from all thought of her.

A sufficient number of these cases have been met with to prove that the pregnancy in the woman is in some way the cause of the "morning sickness" in the man. It is easy to understand how emesis or even nausea in one may excite a similar feeling in another, but such cases as the one reported by Dr. Hamill remain a mystery as to how the cause produces the effect.

Nerve force can in some instances be transmitted from one to another. Simply by the exertion of will power some men can control the action of others.

The fact that married couples who have enjoyed a long and happy life together, not only are alike in disposition and manner, but even in personal appearance, is probably due to the sympathy existing between them.—*Medical Review, Editorial.*

CONIUM.—In the Practitioner, Whitla calls attention to the treatment of rectal pain by conium. He directs two ounces of succus conii to be evaporated down to one-tenth its bulk, at a heat below 150° F.; to this is added enough lanolin to make one ounce of a smooth ointment.

This he recommends for local use in rectal cases characterized by pain and pruritis, such as fissures, fistulas, villous growths, ulcers and, and hemorrhoids. These were markedly and quickly relieved by conium after nearly every other known remedy had failed.

The ointment should be freely applied inside the sphincter ani. He attributes the good effects to paralysis of the terminal filaments of the motor nerves distributed to the muscular coat of the bowel. Sensory paralysis is caused at the same time.

In vaginismus, and also in some painful conditions of the male urethra, relief is obtained from the use of the same ointment; which is also a good lubricant for sounds and catheters.

In fissure Mr. Cripps recommends the addition to the above formula of ten or twelve grains of the persulphate of iron.—*Philadelphia Medical Times.—The American Practitioner and News.*

NARROW ESCAPE OF A PHYSICIAN FROM POISONING BY A COBRA.—Dr. Vincent Richards, of Calcutta, an enthusiastic investigator in many different lines of medical research, had a narrow escape recently from poisoning by a cobra bite. He was holding a vigorous cobra in his right hand for the purpose of obtaining its venom. In pointing with his left fore finger to where some watches-glasses lay, he brought the part close to the animal's head. The snake made a sudden dart and fastened its fangs just below the second joint. Retaining his presence of mind, Dr. Richards tore the reptile away and killed it. A tight ligature was at once placed on the proximal aspect of the wounds, which were sucked, enlarged by knife, allowed to bleed freely, and thoroughly mopped with a five per cent solution of permanganate of potash; an india-rubber cord was bound around the wrist. A medical friend subsequently further enlarged the wounds, and applied strong nitric acid to them. The ligatures were cautiously removed after a time. No symptom of poisoning resulted except a slight tightness of breathing.—*Medical Record.*

I notice in the columns of the medical journal published at Los Angeles, Cal., the announcement of marriage of two sisters, Drs. Rose and Lula Talbott to a pair of male M. D.'s by name H. Bert Allis and F. D. Bullord. The journal makes the point that this is the first time on record where four doctors became two.

These young men have acted wisely in thus "pooling their issues" with medically educated partners for life. How pleasant upon a dark rainy and howling night when called out by the belated case of "Sunday dinner colic" will it be for the member of the firm whose garments are bifurcated to roll over the far side of the couch sleepily and say partner Rose or Lula dear, as the case may be, I think you had better see that case.

In the plan above outlined, may we not find a solution of the problem regarding the co-education of the sexes in medical matters.—*Weekly Medical Review.*

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Original Articles.

TWO FATAL CASES OF HEMORRHAGE INTO OVARIAN CYSTS.

By JEROME A. ANDERSON, M. D.

Hemorrhage into the ordinary ovarian cyst seems to be very rare. In looking over the detailed histories of several hundreds of ovariotomies I failed to find it mentioned. Most modern authors make no reference to it. Schroder alone, of those I have consulted, describes it, but seems to base his description upon one case, reported by Dr. Parry in the *American Journal of Obstetrics*, vol. iv, page 454. I have been unable to obtain access to this volume. Schroder seems to confuse it with the ordinary hemorrhage of the inward-growing papillary cystomata, which growths may even rupture the cyst walls with little or no loss of blood. The form to which I refer, basing my conclusions upon my two carefully observed cases, is quite different in etiology and clinical history. I report them because in neither case was the diagnosis properly made out, owing partly at least to a lack of recorded clinical experience.

Mrs. W., aet. 24, recently married. Suffering from acute pain of a paroxysmal colicky nature in the right inguinal region. Examination revealed a small tumor, lying to the right of the uterus, and rising just above the pelvic brim, of about the size

of a large Sicily orange (3 inches in diameter). There was no shock or fever. I thought the trouble a local peritonitis due to the tumor and ordered opium and rest. This was at 9 A. M. At 2 P. M., to my consternation, the tumor had enlarged to the level of the umbilicus, and was evidently more than double its size at my morning examination. There was now marked shock. The pain had been very little modified by the opium. I recognized the presence of some form of internal hemorrhage, applied ice, and had Dr. Burgess called in consultation. We were unable to positively determine the nature of the bleeding. There was no blood in Douglass' *cul-de-sac*, and above it was limited to a definite, rounded outline. The possibility of hemorrhage into an ovarian sac was discussed, but excluded, from the apparent impossibility of a sac stretching to the extent that this one visibly had. Rupture of an extra-uterine fœtation accounted for all the symptoms except the immense and regular enlargement. Yet I believed the case to be of this nature. Dr. Burgess thought it an hematocele which had stripped off and pushed the peritoneum before it — thus accounting for its rounded limit and over-filling of Douglass' pouch. In view of its doubtful nature we continued the ice, enjoined strict quiet and waited. The pain ceased, the patient rallied and did so well that we confidently expected a reabsorption of the effused blood. Occasional colicky pains disquieted her, but there was no apparent further loss of blood. The tumor seemed to decrease somewhat in size, and all went well for ten days, when a sharp attack of peritonitis supervened. Assisted by Drs. Burgess, Maas, Bell, and others, I at once opened the abdomen and removed an unruptured unilocular ovarian cyst, enormously distended with blood. The pedicle had a half twist. There was commencing gangrene at the point of the twist.

The patient rallied well from the operation, but her peritonitis persisted despite all our efforts, and she succumbed to this cause on the fourth day following the operation. There was no drainage used, as there were few adhesions, and a clean toilet of the abdomen, with no oozing.

The second case was Mrs. A., aet. 40. The husband consulted me about a supposed pregnancy previous to the date of this history. As she utterly refused to submit to even an external examination, was evidently symmetrically enlarged to about the sixth month, and declared that she felt life plainly

and undoubtedly, I gave the opinion that pregnancy existed, although warning the husband of the possibility of a tumor being the cause of the enlargement. I inserted this latter saving clause because she had married late in life and had never given birth to a child. She asserted that she had miscarried several times, however. There was a progressive enlargement and constant "motion," according to statement of both husband and wife, from the date of this opinion until I was summoned to her bedside two months later.

I now found her suffering from a severe, general peritonitis. The abdomen was so distended and sensitive that an accurate examination was almost impossible. I made out, however, an ovoid tumor of the exact size, shape, and position of the pregnant uterus during the ninth month. *Per vaginam*, I found the pelvis occupied with a tense, slightly elastic tumor which was continuous with that above. The uterine neck, high up and so patulous that I could easily introduce my finger to the second joint, was continuous with a smaller harder, ovoid tumor, just above the pelvic brim. This latter I thought a fibroid, and the former the pregnant uterus. This opinion was concurred in by an experienced consultant, except that he thought the tumor had fluid contents, and advised its puncture with a trocar so as to permit an induced labor to empty the uterus.

The woman was suffering from such profound shock that I suspected concealed uterine hemorrhage, and concluded that boldly opening the abdominal cavity and dealing with its contents as might be then indicated, offered her the best chance of surviving. I expected to extract a dead child and remove the uterus and tumor by a Porro's operation, modified to suit existing conditions.

Three days went by before her condition justified any operative interference. At the end of this time, rather than have the humiliation of a patient perishing with as I supposed a child undelivered, I undertook the operation. Dr. Maas administered ether carefully and skillfully, as she was nearly pulseless to the elbows. Dr. Von Hoffman rendered me invaluable assistance throughout the operation. Dr. Bell, as on many former occasions, materially aided me.

Upon opening the abdomen a dark, fleshy-looking tumor presented, having the appearance of the gravid uterus at term. A moment's examination showed that it was not the uterus, as

that organ was found, over the tumor, somewhat enlarged and lifted out of the pelvis, but otherwise normal. On attempting to pass a hand around the large mass its walls broke down, and the abdominal cavity was at once filled with grumous looking blood. I was quite alarmed until I recognized my former acquaintance. It was another case of hemorrhage into an ovarian tumor. So great had been the blood pressure that the entire cyst wall was gangrenous and would not bear its own weight without tearing. I removed the coagulated blood and rotten tumor walls by using my two hands like a scoop. The base of the tumor was firmer, and I secured and tied a good pedicle. A few fresh clots were found in the pelvis which were the result of a later bleeding, and which had escaped through a rent in the gangrenous walls. During the entire operation, which lasted just 58 minutes, I am sure the patient did not lose as much as one ounce of blood.

The toilet of the peritoneum was made with great care. Large quantities of boiled hot water were syringed into the cavity, and all debris hunted for and removed. Fragments of the gangrenous walls were found adhering to the intestines and omentum, but the adhesions were recent and easily peeled off. The incision was closed over an absolutely clean and bloodless peritoneal cavity. There were everywhere, however, evidences of an existing acute general peritonitis, no doubt due to infection from the gangrenous cyst walls. It was hoped that this would now subside, especially as the patient, owing to the hot water, went off the table in much better condition than she went on.

This hope proved fallacious. The peritonitis continued its steady march. I removed sufficient stitches and inserted a drainage tube as soon as I became convinced that this was the case, and again washed out, or attempted to wash out the abdominal cavity. I say attempted, because in little more than eighteen hours the intestines had become so agglutinated by adhesive inflammation that it was difficult to feel them apart so as to introduce the tube. Consequently but small amounts of water would enter the cavity at a time. All came away clear, and the serum which collected in the tube, and which I aspirated every three hours, remained clear until within a few hours of the end, when it became slightly turbid. Strange to say, the woman was pregnant, after all, and a faint attempt was made

to extrude the fetus of about $2\frac{1}{2}$ months, but death intervened. This occurred just seventy-two hours from the termination of the operation, apparently from exhaustion.

These two tumors were simple, unilocular cysts. Had either been operated upon previous to the hemorrhage within it or, perhaps, immediately after, recovery would have been morally certain. Both had shock markedly; both had the same sudden enlargement of the tumor. That this was not recognized in the second tumor is due to the fact that it was not seen until after the hemorrhage had taken place. The amount of blood within it, and its walls gangrenous from distension proves that it must have enlarged suddenly and greatly. Both died of septic peritonitis. In the latter case this was of that intense grade which we sometimes see following upon great losses of blood, as in the meningitis after the colliquative discharges of cholera infantum, or the peritonitis following an excessive loss of blood during a miscarriage. In these instances, the inflammation is made more intense I think by the exceeding dryness of the tissues from bloodlessness. In both the true condition was not even suspected until after the abdomen was opened.

The differential diagnosis must be between a rupture of an extra-uterine fetal sac and an hematocele. If the clinical features presented by these two cases prove of any service in enabling future operators to recognize this accident, this paper will have amply subserved its purpose. That in my limited experience in laparatomies I have twice encountered it, points to the fact, I think, that it may be a more extensive factor in death from non-operated ovarian disease than is recognized at present by the profession.

**CASES OF INJURY TO THE EYE.—ADVISABILITY OF
ENUCLEATION.**

By GEORGE C. PARDEE, Ph. B., A. M., M. D.

"Although I hold it better to be overcautious in this matter, the removal of an eye, especially in young persons, is a sacrifice so serious that it must not be asked for without very urgent cause. To consider every eye which has lost the power of vision as a fitting object for enucleation, and especially for microscopical examination, is not to be careful of a patient's interest. As a general rule, enucleation should be decided on immedi-

ately any of the prodromata of irritation are seen, such as fatigue, reduction in the accommodation, etc."—De Wecker "Ocular Therapeutics," page 190, Forbes' Translation.

"Many eyes have probably been enucleated which might have been allowed to remain untouched without danger to their possessors. It is certain that the operation has been unnecessarily done in many cases."—Prof. Arlt., Graefe and Saemisch., "Handbuch der gesammten Augenheilkunde," Dritter Band, Seite 419.

"We may thus sum up our therapeutical resources in cases of injuries of the eye which may subsequently lead to sympathetic inflammation. If an eye is badly injured, a large portion of its contents evacuated, vision totally lost, and a foreign body undoubtedly present in its interior, it is best to enucleate at once, before the impending panophthalmitis makes its appearance. If the wound embraces a large extent of the eye, and we are sure that no foreign body remains behind (or, if the shape of the eye as well as a partial amount of vision has been preserved, even if it be probable that a foreign body is still lodged within the eye), we are not to be in too great haste to enucleate. If several weeks have passed since the injury, we must examine the eye thoroughly to see whether it is now perfectly quiescent or not. If it should be quiescent, the patient may have our consent to resume his usual occupation, but should be warned most earnestly to take notice of the least return of pain in the injured eye, and to report for advice without a moment's loss of time."—Prof. Manthner: "The Sympathetic Diseases of the Eye," Webster and Spaulding's Translation, pages 202 *et seq.*

With these extracts as a text, allow me to present the record of 24 cases in my practice during the past three years of serious injury to the eye. Only those cases are here given in which the consideration of the expediency of enucleation was at all necessary by myself or was so considered by others. Those cases marked with a star are cases in which enucleation was proposed by other oculists. In all those cases seen first by me the injury was serious enough to call for an immediate enucleation, had the accepted rules been strictly followed. I have never yet had a case of sympathetic inflammation in my own practice, though sympathetic irritation has several times shown itself. Out of 24 cases of most serious injury I have been compelled to enucleate but five eyes; while, if the accepted rules and the

advice of others had been followed, all of the 24 eyes would certainly have been sacrificed. Of the 19 cases saved, 11 have sight in the injured eye varying in quantity from the power to grope about, to nearly perfect vision. Of the 24 cases, 12 were advised by other oculists to submit to an enucleation. Of these 12 cases, I was compelled to enucleate but 2 eyes. Ten cases which were advised enucleation by other oculists have been saved. Of these ten cases, 5 have vision varying in quantity from the power to grope about, to nearly perfect vision. The remaining five have in the majority of cases, preserved the eyeball in good size, shape and appearance, but 3 cases being even moderately disfigured.

I.* W. D., aged 10, while looking down the muzzle of a bowgun, received the blunt pointed arrow full in the open eye. The cornea was lacerated and bruised almost in its entirety; the capsule of the lens torn, and the iris cut and torn. On account of the youth of the patient it was decided to endeavor to save the eye. Three years after the injury the eye is perfect in shape and size; there is comparatively little discoloration of the cornea, and the deformity is very slight, vision is reduced to the perception of light. Had this eye been enucleated, the orbit, in all probability, would have been retarded in its growth, and when the patient had reached his full growth the difference between the sizes of the two orbits would have been very noticeable. If the patient, on arriving at the age of discretion, should desire to have the disfigured eye removed he can do so, and substitute therefor an artificial eye as large as the sound eye—which he could not have done had the eye been removed at the time of the injury. The eye has never troubled him.

II. J. v. A., aged 55, was struck in the eye by a piece of flying steel, cutting cornea, *corpus ciliare*, iris and lens. Eighteen months after the injury the condition was as follows: Eye normal in size and shape; tension greatly reduced; lens cataractous; vision, zero. At no time has the injured eye given its possessor the least trouble.

III. P. L., aged 30, was struck in the eye by a manzanita twig, piercing cornea, iris and lens. Two years after the accident the condition was as follows: Lens absorbed, eye perfect in shape, size and appearance. Vision about $\frac{3}{4}$; sees to read moderately well. At no time has the eye given him the least trouble.

*Enucleation advised by other oculists.

IV.* W. S., aged 12, was struck in the eye by a piece of glass thrown by a companion, cutting cornea, iris and *corpus ciliare*. A year afterward condition as follows: anterior synechia; pupil obstructed by mass of lymph on surface of lens.

On expanding the pupil the boy can see well enough to go about with the well eye bandaged. The remarks under case I. apply equally well here, with this addition: should an accident happen to the well eye—a very possible contingency—he has an eye to fall back upon which will be very serviceable.

V.* A. L., aged 25, suffered a penetrating wound of the cornea some time previously to coming to me, leaving an almost entirely excluded pupil. Eight months afterwards the eye was and had been perfectly quiet and had given him no trouble. Sight was reduced to perception of light.

VI. W. R., aged 22, was struck in the eye by a piece of steel, cutting cornea and *corpus ciliare*. Six months afterwards the eye was perfect in shape and size, and has given him absolutely no trouble. Vision over $\frac{3}{4}$ normal.

VII.* S. H. B., aged 26, was suffering from an almost total corneal staphyloma, the result of a blow received sometime previously from a flying piece of rock. After two months treatment the staphyloma had disappeared, the eye was perfectly quiet, and the patient was discharged. Vision was reduced to perception of light; and the eye was but very little disfigured, shape and size being almost perfect.

VIII.* I. C., aged 22, was struck in the eye by a piece of steel, cutting cornea, lens, iris and *corpus ciliare*. One year afterwards condition as follows: Pupil displaced by posterior synechia; shape and size of eye perfect; lens absorbed. Can see enough to pick his way about a crowded room, using only the injured eye. The eye gave him absolutely no trouble.

IX. W. B., aged 24, was struck in the eye by a piece of steel, cutting cornea, lens and iris. A year afterwards the condition of the eye is as follows: Lens absorbed; anterior synechia; eye perfect in size and shape. Vision about $\frac{1}{2}$; can see to read moderately coarse print. Eye has given him absolutely no trouble.

X.* J. D., aged 28, was struck in the eye by a piece of steel, cutting cornea, iris and *corpus ciliare*. A year afterwards the condition of the eye is as follows: Eye softer than normal;

*Enucleation advised by other oculists.

slightly reduced in size; cataractous. Eye has given him no trouble.

XI.* J. G., aged 27, struck in the eye by a piece of steel, cutting cornea and *corpus ciliare*. The eye recovered nicely from the injury. But a few weeks afterwards sympathetic irritation appeared in the fellow eye and compelled the enucleation of the injured eye. A search of the enucleated eye for a foreign body resulted negatively.

XII. G. B., aged 34, was struck in the eye by a piece of steel, cutting cornea, lens, iris and *corpus ciliare*. The wound healed nicely; but sympathetic irritation appeared, and the eye was enucleated. A search revealed a jagged scale of steel embedded in the *corpus ciliare* at some distance from the point of entrance.

XIII. G. W. B., aged 25, was struck in the eye by a piece of steel, cutting cornea, iris and *corpus ciliare*. Four months after the injury the condition is as follows: Eye perfect in shape and size. Pupil distorted by a posterior synechia. Can see to read ordinary print. Eye has given him absolutely no trouble.

XIV.* D. K., aged 37, was struck in the eye by a piece of steel, cutting cornea, iris, lens and *corpus ciliare*. Globe atrophied. Patient refused enucleation. One year after the injury the shrunken globe had given him absolutely no trouble.

XV. L. B., aged 6, was struck in the eye by a piece of steel, cutting cornea, iris and lens. Two months treatment left the eye in the following condition: Ball perfect in shape and size; lens rapidly absorbing; posterior synechia. The chances for good vision in this case are very good.

XVI.* M. M., aged 45, was struck in the eye by a flying nail, cutting cornea and *corpus ciliare*. Iris glued to lens; eye inflamed, sore to touch and spontaneously painful. Eye healed kindly and readily. An iridectomy gives him considerable useful vision in the injured eye.

XVII. W. B., aged 10, was struck in the eye by a jagged broken bottle thrown by a companion, cutting cornea, iris and lens. A year and a half afterwards the condition was as follows: Eye perfect in shape and size; anterior synechia; lens absorbed; can see to read moderately coarse print. The remarks under cases I. and II. apply here.

XVIII.* A. M. D., aged 10, had a "sore eye." Following the advice of a friend, he poured some "Wizard Oil" into his

*Enucleation advised by other oculists.

eye. The result was a beautiful keratitis. When I first saw him the entire cornea was opaque and the seat of two superficial ulcers, and the eye red and inflamed. After two months treatment the eye is in the following condition: The cornea has become almost normally transparent at the borders, while in the center the pupil, evidently uneven from posterior synechiæ, can be dimly seen. The chances for good vision in this case are evidently good.

XIX. J. L., age 20, was struck in the eye some months ago by a piece of an exploding gun cap. When I saw him a few weeks ago, the injured eye was greatly shrunken and the seat of pain on pressure and spontaneously, and the fellow eye was sympathetically irritated. On searching the enucleated eye a corroded shred of a gun cap was found embedded in the choroid just behind the *ora serrata*.

XX.* J. S., aged 50, was afflicted with trachoma, and one cornea was the seat of considerable pannus and a rather large ulcer. After several weeks treatment he now sees nearly perfectly with the eye.

XXI.* J. B., aged 21, received an injury to the eye from a piece of steel sometime before coming to me. The injury caused an iritis and a total exclusion of the pupil. The eye was very much irritated and inflamed. Soon afterwards sympathetic irritation developed in the other eye. On searching the enucleated eye a small piece of iron was found deeply embedded in the *corpus ciliare*.

XXII. F. C., aged 30, received a stab in the eye from the blade of a penknife, cutting cornea, iris, lens and *corpus ciliare*. The wound healed kindly; the lens absorbed; the eye became slightly atrophic, slightly soft, but very little disfigured; vision reduced to power to count fingers at 18 inches.

XXIII. J. P. F., aged 33, was injured by the accidental explosion of a number of giant powder caps. The accident happened in Mexico, where, on account of other injuries, he was compelled to remain two months before coming to me. I found a cicatrix extending half way into the cornea and a considerable distance beyond the ciliary body into the sclera. The iris was badly mangled and the lens cataractous. The eye was but little irritated and showed but few signs of past severe inflammation. Some weeks after he came to me, sympathetic irritation developed in the sound eye. On searching the enucle-

*Enucleation advised by other oculists.

ated injured eye I found a ragged, curled-up piece of copper embedded in the ciliary body.

XXIV. A. W. H., aged 55, was struck in the eye by a flying piece of stone on the last day of last year. He came to me a week afterward, when the following condition was observed: A gaping wound reached from the outer third of the cornea through the ciliary body and a sixteenth of an inch into the sclera. From this wound hung a long streamer of vitreous humor. The iris was glued down to the lens and the pupil had been pulled over to and merged into the cut in the ciliary body. The wound healed readily and kindly. The patient took it upon himself to go to work against my protests. In two weeks he was back again with a very florid inflammation of the injured eye, which was quite tender to pressure. Although the sound eye became quite irritated, the patient refused to have the injured eye enucleated. Since then the sound eye has gradually lost its irritation. It is now normal in feeling and function. The injured eye has improved a great deal in appearance, has lost its soreness and is comparatively little disfigured, while in size and shape it is nearly perfect. This case is still under observation, though I am somewhat dubious as to the final outcome of it.

With this experience before me, I cannot help believing that enucleation is practiced by far too often, by those who practice the rule of immediate, prophylactic enucleation.

THE CLIMATOThERAPY OF THE MOJAVE DESERT FOR WOUNDS.

By JAMES P. BOOTH, Surgeon S. F. R. E. A. Hospital,
Needles, Cal.

August 25th, 1887, JOHN W., machinist, aet. 32, American, single, while engaged in repairing a locomotive, being in a cooped up stooping position underneath the engine, was struck on the right shoulder blade by a falling "apron." The wound inflicted was a laceration in the right sub-scapular region, beginning about one inch from the glenoid cavity, and running obliquely downward toward the spine, a distance of about five inches, making an ugly gaping wound of an inch to an inch and a half in depth. The hemorrhage was soon checked by the application of cold water, and after coaptating the edges of the

wound, which were held in position by four interrupted silk sutures, strips of plain rubber plaster were applied. There was no attempt toward antisepsis more than simple cleanliness. The man being anæmic and apparently run down, was reported as unfit for duty for probably ten days. Aug. 29th, patient reported to have wound dressed and stitches removed. Upon removing the dressings the wound was found nicely healed, with just a drop or two of pus at the points of entrance and exit of each suture. These were removed, and on Aug. 30th patient returned to duty.

Sept. 1st, "WHITE BOY," a Mojave Indian about 24 or 25 years of age, while at work as a section hand, had a steel rail fall upon the toes of his left foot, bruising or lacerating them all more or less, but so badly crushing the great toe as to necessitate amputation. As he was accompanied by his chief who opposed amputation, the operation was done as a compromise at the metatarso-phalangeal articulation, instead of through the continuity of the metatarsal bone. The patient was anesthetized with chloroform, and because of the nature of the injury, a flap was made of the under and uninjured portion of the toe. Two silk sutures were sufficient to hold the parts in apposition, which with rubber plaster completed the dressing. Sept. 4th, patient was seen at his camp—a simple brush arbor under which he lay in the sand—when the dressings and stitches were removed, and a weak solution of carbolic acid left with which the stump was bathed three times a day. Sept. 10th patient came up to headquarters wearing his shoes—was discharged and returned to duty.

J. B. K ——, brakeman, æt. 32, lost index finger of right hand, which was crushed while coupling cars Sept. 15th, leaving about half of the first phalanx intact. The stump healed nicely, but for lack of sufficient integument to protect the end of the bone, it remained tender and caused so much trouble, that the patient entered the hospital to have it removed at the meta-carpo-phalangeal joint. March 23rd, 1888, patient was etherized, and the stump removed as desired. The dressings used were those contained in a package of "Esmarch's First Help For Wounds." April 1st, the dressings were removed, when union was found to be perfect, and after allowing patient a week's rest that his hand might "harden up" he was discharged and returned to duty.

May 25th, C. C. ——, a discharged soldier, æt. 25, native of Ireland, was set upon by roughs and tramps about 12 o'clock in the night, and received incised wounds of the neck, ear and scalp. No surgical aid being at hand, he was taken into a neighboring saloon where he lay upon a table almost exhausted from loss of blood. He was seen at 8 o'clock in the morning, about eight hours after the occurrence. The wound of the neck was frightful looking. A razor was the weapon used, and the incision began on the right side of the nape of the neck near the mastoid process, and was carried obliquely downward, and then forward and downward, to the *pomum adami* in front. The sterno-cleido-mastoid muscle was almost severed in twain; and how the jugular veins and carotid arteries escaped injury was wonderful. The slightest movement of the head caused the wound to gape, exhibiting an ugly opening eleven inches in length into which the three fingers could be easily lain. The lobe of the left ear hung by a small strip, having been almost removed by an incision. Above the left ear on the head at the temporo-parietal articulation were two incisions, each two and a half inches long, one running horizontally, the other perpendicularly on the side of the head. By the latter the posterior temporal artery had been wounded and the alarming hemorrhage had been checked by a sponge which was bound on the wound by a bystander. These wounds were all carefully sponged off with cold water, the edges approximated and held in position by silk sutures and strips of rubber and isinglass plaster. No untoward symptoms arising, the dressings were allowed to remain until May 30th, when they were removed. Union had taken place in all the wound except in about one inch and a half of that over the severed sterno-cleido-mastoid muscle. The stitches were removed, and a loose dressing of hydro-naphthol applied. In three days after the patient left to attend court at San Bernardino.

REMARKS.—Professor Dujardin Beaumetz says: "Man attached "to the soil, lives at the bottom of an aerial ocean which has "its currents, its storms, its flux and reflux, and this vast ocean "is the atmosphere. The physician may utilize this atmosphere "in the treatment of diseases, and this he effects principally under "two particular forms—either in employing air rarefied or com—"pressed artificially (this is aerotherapy properly so called) or "in that sum of meteorological elements which constitutes cli-

"mate (climatotherapy)." And why not the surgeon too? To relieve, possibly to cure the unfortunate sufferer with phthisis, different localities are recommended and sought after. Indeed it seems the only means of cure now valued by the profession, is a locality offering the proper altitude and degree of moisture to suit the stage of the lung trouble. Prominent among these localities is Southern California, which on account of its "varying elevations and moisture to suit individual symptoms," is spoken of by a writer on the subject as pre-eminently suited to cases of phthisis. And why is this the case? Is it because of a curative action exerted in itself by the atmosphere, or is it because this atmosphere is so pure that the bacilli of tubercle cannot exist therein? The latter is more probable. Hence it is that wounds which in other localities would require the strictest rules of antisepsis, heal in an incredibly short time. Those conditions which are maintained by antiseptic dressings, obtain naturally here. In this pure clear atmosphere, the bacterium, or microbe, does not, cannot exist, or if it do exist, the conditions necessary for its wholesale propagation or general well-being, are wanting. The cases reported above are not out of the line of every day occurrences in ordinary surgical practice, nor can the speedy cures be attributed to extraordinary skill or remarkable care, for in but one case were antiseptic dressings used, and yet they all healed rapidly and kindly. Besides these cases, more than two dozen others of a minor character evinced the same tendency to speedy healing under ordinary circumstances, and while no capital operations are cited, Dr. Livingstone, Association Surgeon at Kingman, who did several amputations here, is convinced of the antiseptic or curative properties of this climate. It is commonly believed that weather so warm as that prevalent in this locality is detrimental to wounds, but this does not seem to be the case here, for while the thermometer ranged from 100° to 114° and even as high as 118° in the shade, these speedy cures were taking place. A lay journal speaking recently of the Mojave Desert, as a health resort for consumptives expressed the opinion that in a few years its fame would spread abroad, and crowds would flock thereto, necessitating the establishment of large hotels and hospitals for the accommodation of invalids and their friends and attendants. Should this ever occur, it will then be seen and recognized that for wounds and injuries too, the climate of Mojave Desert can work wonders.

SYPHILITIC ULCER OF ANUS.

By MARK F. PATTEN, M. D., San Buenaventura, Cal.

A young man, aet. 17, consulted me on Feb. 9th, 1888, with the following history: Five weeks previous, while in Los Angeles, he was obliged, on account of the scarcity of lodgings, to occupy a bed with a man who was a stranger to him. In the middle of the night he was awakened by his bed-fellow, who was in the act of committing an assault upon him. On his resisting and making an outcry, the man choked him, relieved him of his watch and money, and then decamped. Three weeks after this a sore appeared on his anus, which became exceedingly painful, and it was for this that he consulted me.

On examination, I found a large ulcer involving one half the circumference of the anus, with edges well defined and somewhat indurated. It was very sensitive to touch, and defecation caused great pain. There was also slight enlargement of one of the inguinal glands.

It was a question whether this was a case of syphilis, or not, and were it not for the rapid growth of the anal ulcer, and the increasing painfulness of defecation, I should, as is usually my practice, have waited for secondary symptoms to become manifest, before resorting to specific treatment. In this case, however, I thought best to place him on a mercurial (bichloride) course at once. In one week the anal ulcer was entirely healed. The mercurial, however, did not retard or prevent the development of secondary symptoms, as on the forty-seventh day after the inception of poison, his body became covered with a typical syphilitic resola.

HYPODERMIC or other syringes, when clogged so that a fine wire cannot be forced through them, may be cleaned by holding over a spirit flame for a moment, and the foreign matter will be quickly expelled or destroyed, so that liquids may be used immediately. When a wire has rusted in a needle, dip the point into oil, then hold it over a flame and it can be removed. It is well to draw oil through the point, then heat it, and rust will be removed from the interior; afterwards wash with alcohol and it is ready for use.—*Dental Review*.—*Peoria Medical Journal*.

California State Board of Examiners.

SAN FRANCISCO, July 3, 1888.

At the regular meeting of the Board of Examiners, held in this city July 2nd, 1888, the following physicians were granted certificates to practice medicine and surgery in this State:

TANDY ALLEN, Healdsburg ; Bellevue Hosp. Med. Coll., N.Y., March 13, 1888.

ALEXANDER H. BAILEY, Santa Cruz ; Hosp. Coll. of Med. at Louisville, Ky., Feb. 14, 1883.

GODFREY BEAUMONT, San Diego ; Med. Dept. Univ. of Louisville, Ky., Mar. 2, 1869.

JASON N. CONLEY, San Jacinto ; Rush Med. Coll., Ill., Feb. 21, 1855.

THOMAS FLINT, San Juan ; Jefferson Med. Coll., Penn., March 28, 1849.

HIRAM L. LEWIS, San Diego ; Washington Univ. School of Med., Md., Feb. 21, 1871.

DANIEL A. MASON, East Oakland ; Med. Dept. Univ. City of New York, N.Y., Feb. 18, 1879.

HENRY C. MURPHY, Gonzales ; Jefferson Med. Coll., Penn., Apr. 2, 1886.

TALLEYRAND D. MYERS, Pasadena ; Jefferson Med. Coll., Penn., March 28, 1868.

JAMES W. THAYER, Gilroy ; Coll. of Phys. and Surg. at Keokuk, Ia., Feb. 25, 1879.

SAMPSON TRASK, San Francisco ; St. Louis Med. Coll., Mo., March 7, 1879.

The following persons were refused certificates on the ground of insufficient credentials : Samuel Gunn, Pasadena ; H. C. Donaldson, Pasadena ; Federico Berann, Berkeley ; Adam Frank, address unknown ; David Schwartz, Los Angeles ; A. B. Cobb, Oakdale ; Auguste Emilie Junker, San Diego.

The paper presented by Mrs. Junker is a certificate of a second class midwife, and prohibited her from practising medicine in her own country.

Those presented by David Schwartz are only questionable certificates of a second class nurse, and prohibited the holder from practising medicine in the country where they were issued. One of said certificates shows evidences of erasure where his name is written ; but his application was accompanied by the usual affidavit found in Sec. 3 of the medical law of 1878.

Several incompletely completed applications were laid over with the expectation that they will be perfected immediately, as the Board does not intend to carry them indefinitely. Prompt action in complying with the law is required.

The Board has determined to publish the 4th edition of the Medical Register of California, which will be issued in Decem-

ber. It will, as heretofore, contain the names of all persons engaged in the practice of medicine in this State, properly classified ; and all who have no license will be placed in the list of "Illegal Practitioners." Those who are entitled to certificates should procure them without delay, and spare themselves that mortification. Circular letters will be sent to every post office in the State ; and it is hoped that every physician will feel interest enough in this work to promptly report his own name and address to this office, if he cannot report that of his neighbor. The Board cannot do effective work without the support and co-operation of the profession.

Blanks were sent out last year by the former Secretary and a few answers returned ; but it has been so long since, that, considering the constant acquisitions to our ranks and the migratory element in our profession, such information is not now deemed reliable. A complimentary copy of the book will be mailed to every licentiate of this Board in good standing in this State.

When the Register of 1885 was issued there were 485 persons who had no license reported practising medicine. Immediately thereafter an organized system of prosecutions was inaugurated, and when the Register of 1887 was issued there were only 164 reported.

In 1885 the City of San Jose had twenty-one of these leeches, and when four of them had been convicted the town was freed of their presence, the register of 1887 showing not a single one in the place, and only one in the county. What San Jose has done other towns may do by the same unity of action. The better class of the laity recognize that they are not qualified to judge of the competency of medical practitioners, and look to the profession to lead in the matter of enforcing the law. We owe it to the public, to the profession, and to ourselves.

An organized system of prosecutions should again be inaugurated throughout the State, in which it is hoped all will engage with spirit. The occasion is propitious and the work is needed. It is unjust to require the better class of the profession to conform to the law and the Code, while the vicious and ignorant are exempt for the want of prosecution. In 1887 Arthur O'Leary was convicted in Yolo County and fined \$500. The case was appealed to the Supreme Court which recently sustained the de-

cision of the lower court, and the "doctor" has returned to his eastern home.

P Roscoe McNulty who received a license from the Homeopathic Board of Examiners on a diploma from a homeopathic school in Philadelphia in 1884, but which was revoked because of unprofessional conduct, has recently been tried three times in the Police Court for practising without a license. In the first trial the jury failed to agree; in the second the case was dismissed by order of the court, and in the third he was convicted. He appealed to the Superior Court which granted a new trial because of error in the ruling of the lower court in not permitting the prosecution to show that the license had been properly revoked.

The new trial was held before the same Superior Court, Sullivan, Judge, and resulted in another conviction. The case has been appealed to the Supreme Court where it has been argued and submitted, and the court has ninety days in which to decide it.

R. H. PLUMMER,
Secretary.

ANTIPYRIN IN OPHTHALMIC PRACTICE.—Antipyrin has very largely come into use during the past few months, and in the form of injections into the temple has been employed in the therapeutic treatment of diseases of the eye. Grandolement, of Lyons, has in this manner used the drug for three months, to the extent of three hundred injections, in doses of twenty-five centigrammes of antipyrin to six drops of distilled water, with a demi-centigramme of chlorhydrate of cocaine. No abscess has ever formed at the seat of injection, but there is always produced some slight swelling of the part, which is tender to the touch, and lasts from six to eight days. The drug acts more rapidly and surely when injected than when given internally, and in cases in which its use is indicated, the amelioration in the symptoms quickly supervenes; as a rule, four to five injections is the maximum limit for each case. According to the author the drug is useful in the relief of ocular, and especially periorbital pain, and in subduing inflammatory conditions of the globe in which ciliary pain forms a prominent feature.—*Med. Press and Circular.*—*The Cincinnati Lancet-Clinic.*

Health Reports.

San Francisco Health Report.

ABSTRACT.

	1887	Jan	Feb	Mar	Apr	May	June
Total, 1887.....	5649	522	451	445	450	475	409
Total, 1888.....		650		488	502	504	479
Phthisis.....	858	89	78	87	90	75	74
Pneumonia.....	320	103	56	62	47	39	41
Bronchitis.....	127	25	31	14	11	19	9
Heart Disease.....	273	43	27	26	29	22	34
Aneurism.....	27	0	3	4	2	0	0
Apoplexy.....	147	11	15	22	8	18	13
Typhoid.....	121	23	8	6	13	12	16
Paralysis.....	109	16	8	7	8	9	3
Cancer.....	174	18	21	17	15	22	8
Diphtheria.....	222	10	15	7	11	15	5
Croup.....	92	10	6	4	5	6	3
Infant Convulsns.....	156	12	13	13	10	18	14
Meningitis.....	130	18	20	16	21	12	21
Casualties.....	174	12	15	10	16	22	19
Suicides.....	84	8	5	9	10	6	4
Homicides.....	21	2	5	2	2	2	1
Small Pox.....	24	27	9	4	4	2	0
Enteritis.....	..	17	..	12	11	19	21
Measles.....	..	11	5	2	1	1	0
Alcoholism.....	..	..	5	3	4	2	6
Daily mean tem.....		46.3°	52.8°	52.5°	56.2°	54.4°	61.°
Precip. moist're.....		6.81	0.94	3.60	.11	.38	.27

Population according to U. S. census, July 1st, 1880, was 234,520; Caucasian, 212,520; Chinese, 22,000. Estimated population, June 30th, 1887, 300,000.

Report of State Board of Health.

Reports received from eighty-seven cities and towns within the State return a death rate of nine hundred and sixty-four in an estimated population of seven hundred and two thousand and fifty, being a percentage of 1.3 per thousand per month, or an annual death rate of 16.3, which declares an exceedingly satisfactory condition of the public health, and the lowest death rate we have had this year.

Consumption, the disease which generally increases our mortality list, records only one hundred and fifty-six deaths during the month of June, which is the smallest number recorded within six months.

Pneumonia caused sixty-six deaths, which is also a decrease from last reports, the majority occurring in San Francisco, Oakland, San Diego, and other cities on the coast.

Bronchitis was fatal in sixteen instances, which is likewise a lessened fatality.

Congestion of the lungs caused ten deaths, principally among infants and children.

Whooping-cough was fatal in five instances.

Diphtheria is happily lessening its mortality, there being but twenty deaths reported from it during the month; of these five occurred in San Francisco, five in Oakland, two in Los Angeles, two in Sacramento, two in Sissons, two in Stockton, one in Watsonville, and one in San Jose.

Croup is reported as causing eight deaths—three in San Francisco, one in San Diego, one in Oroville, one in Los Angeles, and two in Santa Barbara.

Scarlet fever caused nine deaths, which is the same death rate as the previous month.

Measles had the small mortality of two, which is strong evidence of decline in the extension of the disease.

Smallpox, for the first time in ten months, caused no deaths within the State, as far as known to this Board.

Typhoid fever was fatal in thirty-five instances, which is an increase over last report. As the dry season continues we may expect an increased mortality through the extension of the disease within the State.

Remittent fever was fatal in seven instances, which is also an increase in the mortality from this disorder.

Cerebro-spinal fever caused a mortality of six, which shows a much diminished prevalence of the disease.

Cancer is credited with twelve deaths only, which is an unusually small mortality from this cause.

Heart disease produced sixty-seven deaths.

Erysipelas was fatal in one instance.

Alcoholism had nine decedents.

The following towns report *no deaths* during the month: Bodie, College City, Cottonwood, Calico, Hanford, Hopland, Igo, Jolon, Lower Lake, Merced, North Bloomfield, Roseville, Redwood City, Sierra City, Tulare City, Williams, Yreka, and Galt.

PREVAILING DISEASES.

From a hundred reports received during the month of June, and embracing a large portion of the State, we learn that sickness is everywhere extremely limited, and that no serious epidemic prevails.

The warm days experienced during the month, and the general abundance of the fruit crop, has decidedly increased the frequency of cholera infantum, sporadic diarrhoea and dysentery, together with choleraic attacks from unripe or decayed fruit and vegetables, which, in many localities, were quite noticeable by their frequency.

As these are all, more or less, preventable diseases, induced by errors in diet, or bad hygienic surroundings, which are made more manifest by the increased temperature, we may expect continued reports of bowel disorders until the warm season is over, or the knowledge of hygiene becomes as much a matter of necessary education as the art of reading or writing. When this time comes—which it will some day—we may indulge the hope that the application of this knowledge will so control the habits and the habitations of our people as to reduce preventable disease to a minimum.

Cholera infantum has been observed with frequency in Sacramento, Salinas, Davis, Downey, Dixon, Williams, Mariposa, Shasta, Gridley, Lemoore, Lakeport, Cottonwood, Santa Clara, Bakersfield, Tulare, and Red Bluff.

Diarrhoea and dysentery were present in Yreka, Colfax, Weaverville, Shasta, Etna Mills, Igo, Millville, Sissons, Williams, Sonora, Downey, Lower Lake, Cedarville, Lemoore, Browns Valley, Livermore, College City, Auburn, Tehachapi, Tulare, Bakersfield, and Red Bluff.

Cholera morbus is mentioned in reports from Williams, Sonora, Anderson, Dixon, Sacramento, Knights Ferry, Hopland, Lemoore, College City, Cloverdale, Tehachapi, and Tulare. The disease is sporadic and has depended altogether on local causes.

Smallpox, although not altogether absent from the State, is confined to San Francisco, where eleven cases were reported during the month. These were nearly all imported from abroad, an event for which the authorities were prepared, the disease prevailing in so many of the Eastern States and our emigration therefrom being so large, that for some time to come we canno

hope for immunity from the disease in small numbers. In Los Angeles there were only a few cases during the month of June, and it is believed that no new cases have been developed for some two weeks past. No cases have been reported in any other part of the State during the month.

Measles were reported in Forest Hill, Pomona, Salinas, Sonora, Anderson, Jolon, Truckee, Lakeport, Millville, Santa Clara, Bakersfield, Tulare, Sissons, and Red Bluff.

Scarlet fever was present during the month in Yreka, Salinas, Hills Ferry, Hopland, Angels Camp, Tulare, San Francisco, Oakland, Sacramento, and Red Bluff. The type, as a general rule, has been very mild, so much so that many of the children have not been restrained from mingling with their playmates, and even have been sent to school with the rash upon them, a common error being prevalent, that *scarlet rash* and *scarlet fever* are two different diseases, the former being quite innocent, requiring no care, and the latter the communicable disease. Through this mistaken notion, scarlet fever is rapidly spreading, and in Sacramento is almost epidemic. Unfortunately the mildness of one case is no guarantee that in the next attacked it will pursue the same course, or that the very mildest case may not produce such an impairment of the constitution as to injure permanently some organ essential to perfect health. Local Boards of Health should use due diligence in obtaining notification of the presence of this disease, as all sanitary administration has its hopes of success in preventing more than arresting epidemics, and if warnings are not taken from the smaller excesses of disease, *catastrophies*, not warnings, may be the next to come.

Diphtheria is less frequently noticed in our reports of the month than usual. It was present in a limited number of instances in Truckee, Sonora, Brownsville, Merced, Sissons, Yreka, Sacramento, Oakland, San Francisco, Tulare, Pomona, and Hills Ferry.

Whooping-cough prevails in St. Helena, Sonora, Pomona, Bodie, Lemoore, College City, Bakersfield, Calico, Sacramento, and Red Bluff.

Erysipelas is noticed at present in Sacramento, Sonora, Dixon, Igo, Gridley, Truckee, Brownsville, Tehachapi, Tulare, and College City.

Typhoid fever and typho-malarial fever, which may be con-

sidered practically the same, were noticed in sporadic form in Pomona, Los Angeles, San Diego, San Francisco, Davis, Shasta, Anderson, Etna Mills, Igo, Hopland, Cottonwood, Merced, College City, Bakersfield, Cloverdale, Tulare, Oakland, Red Bluff, and Elk Grove. In no locality is the disease very prevalent, and the general type of the affection is characterized by its mildness and the absence of any tendency to epidemicity.

Remittent and intermittent fevers are reported prevalent in Yreka, Downey, Williams, Hills Ferry, Anderson, Knights Ferry, Lemoore, Cottonwood, Browns Valley, Truckee, Dixon, Weaverville, Bakersfield, Tulare, Sacramento, and generally along the lowlands and river bottoms.

Pneumonia is not prevalent except on the coast. Sporadic cases were noticed in Colfax, Downey, Etna Mills, Truckee, Millville, Merced, and other towns.

Bronchitis is likewise abating; a few cases were present in Downey, Cedarville, Alturas, Bodie, Browns Valley, Sierra City, and some towns upon the coast. The type is mild, and the mortality quite limited.

The weather during the month was quite favorable to those suffering from acute pulmonary diseases, especially in the interior of the State.

GERRARD G. TYRELL, M. D.,

Permanent Secretary California State Board of Health.

Sacramento, June 10, 1888.

As Sponges are important articles in surgery, they should be clean and white. A pound of small sponges can be purchased for a small sum and will go a good way in private practice. The following is a convenient and short way to bleach them: First beat the sponges upon a flat surface to break up any large pieces of calcium deposit, then place them in dilute hydrochloric acid (1-10) for a few hours, and shortly the lime disappears and they are ready to be thrown into a solution of permanganate of potassium ($\frac{3}{j}$ to Oiv of water). Stir well for five minutes and change to a solution of oxalic acid ($\frac{3}{j}$ to Oiv); wring out and repeat in the solution of the same strength with the addition of hydrochloric acid $\frac{3}{ss}$; by this time the sponges are generally very clean and white, and but little damaged. The oxalic acid can be washed out by passing the sponges through water several times, and they are ready for the antiseptic solution.—*Col. and Clin. Record.*—*Columbus Medical Journal.*

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AND

WESTERN LANCET.

EDITOR:

WILLIAM S. WHITWELL, A. M., M. D.

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SAN FRANCISCO, AUGUST, 1888.

Editorial.**THE CONTROL OF LEPROSY.**

The recently published report of the President of the Board of Health of the Hawaiian Islands to the legislature of the kingdom is largely taken up with the subject of leprosy, which has there become an absorbing sanitary problem. The history of leprosy in those islands affords a serious admonition to the authorities of this State and city, for the disease first manifested itself there less than fifty years ago, and its subjects at the present time number about 1,500. In 1863 about fifty cases were enumerated by Rev. D. D. Baldwin, a missionary and physician at Lahania. In 1868 Dr. F. W. Hutchinson, President of the Board of Health, reported 274 lepers on the different islands. At the end of March, 1888, the number segregated from the population at large at the leper settlement of Molokai was 749 (495 males and 254 females), besides about 650 estimated to be at large. This statement illustrates the very imperfect execution of the law of segregation of lepers, and the rapid spread of the disease within the last twenty years.

When we take into account the almost unanimous opinion of those best qualified to form one upon the contagiousness of lep-

rosy, as well as its hereditary transmission, together with the fact that lepers are at large in this community, it must be admitted that we have here just ground for grave apprehension. The law is sufficiently clear and vigorous respecting the importation of lepers, as well as their concealment or harboring by other persons in our midst; and there is good reason to believe that none escape the vigilance of the quarantine physician. But the law makes it no one's business to apprehend lepers, and the present writer's attention was called to one (a Chinaman) on the street in the Chinese quarter, a few months ago, by a medical *confrere*. It is not probable that he was a solitary example, nor that the Chinese will regard the law prohibiting shelter and entertainment of such persons. Indeed, there is no reason to suppose that they would avoid intercourse with a leper, and the crowded condition of their lodgings magnifies the danger of contagion.

The remedy for this danger is sufficiently simple and efficient: that is to say, a constant and strict sanitary supervision of Chinatown by persons qualified to recognize lepers on sight and legally authorized to apprehend them on the spot. How long will the remedy remain a desideratum?

THE NEW CHOLERA ALARM.

On July 18th a press dispatch reached this city that cholera was epidemic at Hong Kong. There was earlier intelligence of the prevalence at that port of a mild choleraic disease, which was declared not to be true Indian cholera. The Health Department of this city telegraphed to Hong Kong for more precise information, and on the 23d got a reply that cholera had ceased to be epidemic there July 9th. So far we are ignorant of the date of its appearance and how long it was considered epidemic.

Our Board of Health has taken prompt and decisive action in detaining all vessels from Hong Kong at least three days, for disinfection of the personal effects of all passengers and crews and also the mail bags. Vessels known to bring the disease

will be detained at the pleasure of the Board for more rigorous treatment.

It is a great satisfaction to know that a bill appropriating \$502,500 for the establishment of several quarantine stations finally passed Congress July 24, the rules having been suspended by unanimous consent to take it up out of its order. By this act San Francisco secures \$103,000 for its share, which will give us what either the State or the City might have provided years ago, and for neglect of which both ought to be ashamed. Of course this national bounty does not come in time to avert the present danger, but it is to be hoped that, within a year, our city may have a quarantine establishment equipped according to the advanced state of sanitary science, in which detention of the vessel and its contents will count as the least important factor.

Congress has indeed done better than we even dared to hope in this case, and too much praise cannot be bestowed on our Senator Stanford, Chairman of the Committee on Epidemic Diseases, for his agency in this result. One other duty remains to give completeness to our National Sanitary Service: this is the passage of the bill to establish a Bureau of Health. The existence of such a bureau at the present time would have given timely warning of cholera at Hong Kong, and would have secured at that port such sanitary measures with all vessels departing for this country as to preclude mainly the danger of their becoming carriers of contagion. No quarantine officer of any acquaintance with his business has the slightest respect for consular bills of health. Inasmuch as a clean bill of health declares the port to be free of all contagious diseases, it is apparent that the conditions are always unattainable at any port of consequence, for measles, whooping-cough and venereal diseases would strictly be included. Therefore, the consul exercises his discretion from a commercial standpoint, and shuts his eyes to danger until it becomes so notorious that concealment is quite out of question. One of the first and most important duties of the Bureau of Health, when established, will be the settlement

of suitable medical officers of health at all important foreign ports, attached to the consulates, and this measure may be relied on as a potent auxiliary to maritime quarantine. "To be forewarned is to be forearmed;" but the foreign sanitary service will add to the duty of furnishing trustworthy intelligence the more valuable function of supervising the shipment of goods and passengers at infected ports, and thus forestalling the danger of conveying contagious disease.

THE Southern Surgical and Gynecological Association will meet in session at Birmingham, Alabama, on the days of the 11th, 12th and 13th of September. As a large number of papers have been promised by leading surgeons and gynecologists, the meeting will probably be a most profitable one. Dr. W. D. Haggard, of Nashville, Tennessee, is President, and Dr. W. E. B. Davis, of Birmingham, Secretary.

We have also received the preliminary announcement of the American Association of Obstetricians and Gynecologists which is to be held in Washington, on the days of September 18th, 19th and 20th.

The discussion will be upon Extrauterine Pregnancy, and this will be participated in by Mr. Lawson Tait, Dr. E. L. Montgomery, Dr. Charles A. L. Reid and others.

Dr. Clinton Cushing will present a paper entitled "A Contribution to the Study of Pelvic Abscess."

PAINLESS DESTRUCTION OF NÆVI.—A. B., aged two, suffering from nævus the size of a shilling, behind the right ear, was on May 13th, 1887, treated in the following manner for its removal. Having first painted the healthy skin around the circumference of the nævus, for about half an inch, with a coating of collodion flexible, a thick layer of a four per cent solution of corrosive sublimate was applied on collodion over the nævus. On the twenty-fifth, when the collodion was removed the nævus had entirely disappeared, and nothing remained but a small scab. Dr. Boing was the first to suggest this method of treatment, and my object in publishing this case is to draw attention to so simple, satisfactory, and painless a method of treatment.—*British Medical Journal*.—*The New York Medical Times*.

Correspondence.

Letter from Dr. R. H. Blaikie of Edinburgh.

EDINBURGH, July 1, 1888.

DEAR DOCTOR:—I think the most important event that has happened here since I wrote to you last is the removal to London of—I think I may say—our most celebrated surgeon, Dr. Thomas Keith. His departure came upon us all with startling unexpectedness, although it had often been rumored that he meditated the change. A few weeks before he left it was announced that a house had been bought and presented to Dr. Keith, in order that he might institute an Edinburgh hospital for women, to be practically under his own management, but now, of course, this project is abandoned. By his departure, the staff of the Royal Infirmary loses one of its most distinguished members, and the profession here one of its most outstanding figures. Dr. Keith's position in Edinburgh was quite unique, in the mind both of the public and of the profession, and the niche that he has vacated will be a difficult one to fill. Those who knew him well respected and revered him greatly; many of his patients almost worshipped him, and many are the groans that have been uttered and the tears that have been shed amongst them since he left the city. Before he left he had for more than a year been practising Apostoli's electrical method of treating fibroid tumors and other diseases of the uterus, and with the best results. He says, "this treatment for uterine tumors must take precedence of all others, its success is a great fact, and in saying so, I do not speak without some experience." Speaking of several cases that had come for operation he says: "they have all gone home without operation, with menstruation almost normal, and improving after their return, with the tumors in every case reduced in size, with pain gone, and with a freedom to walk about and enjoy life such as they were long strangers to. In only one case has there been a return of hemorrhage."

A few weeks before the Keiths left Edinburgh I went down to see Mr. Skene Keith's "Woman's Dispensary" in St. Vincent Street. The place was a very unpretending one—had been a photographer's studio—but inside it was very nicely gotten up. A comfortable waiting room, a large operating room divided by a curtain, and another small room containing the cells of the battery. The apparatus consisted of thirty-six largest ordinary

Leclanch's cells, a water rheostat and a Gaiffe's galvanometer. I asked him what plan he followed in the various complaints he treated, and he said simply, "I stick to Apostoli. I use the negative pole in the uterus for hemorrhage and pain, the positive in the uterus to destroy and diminish the fibroid mass. Dosage varies from 50 to 350 (the maximum) milliamperes, the average being 175-200. Average time of application five minutes." I asked several of the twenty to twenty-five women who were waiting for treatment how they liked it. One said, "I am a new woman since I began to come here." Another said she was better after five or six applications than she had been for years. They were all enthusiastic over the treatment and loudly lamented Mr. Skene Keith's meditated departure. "What has become of the tumors, or how they have disappeared," said Mr. Keith, "I do not know." He finds that the hard ones are most easily reduced in bulk and that the result is obtained "without much risk, without much pain, and without confining any one of the patients to bed or even to the house."

R. H. BLAIE, M. D.

GLYCERIN SUPPOSITORIES FOR HABITUAL CONSTIPATION.—Boas, in the *Deutsche medizin. Wochenschr.* of June 7, 1888, states that in a large number of cases he has had good results from the use of glycerin enemata as a purgative; but in some cases particularly those with hemorrhoids, or in individuals with an irritable rectal mucous membrane, which readily bleeds, the use of the syringe is no slight objection, so that the injections must be intermittent or entirely refrained from. The use of the syringe is also inconvenient. For these reasons he has had prepared suppositories consisting of capsules containing 16 minims of pure glycerin, which he has used in twenty cases, with the best results. The suppositories have been found to retain their form and efficacy for many weeks. Fifteen to twenty minutes after using one there is a desire to go to stool, but without tenesmus or other discomfort; soon followed, as a rule, by a copious evacuation. The employment of glycerin per rectum seems specially indicated when, with the constipation, there exists gastric disorder.—*Medical News*.

Notices of Books, Pamphlets, etc.

A CLINICAL ATLAS OF VENEREAL AND SKIN DISEASES. By ROBT. W. TAYLOR, A. M., M. D. Philadelphia : Lea Brothers & Co.

It has been objected to plates and pictorial representations of diseases of the skin that they only represent one phase of the disease, and that in order to give a student a correct idea of skin diseases by means of plates one would need to be furnished with an innumerable number. This is only partially true, for the same thing could be objected to clinical teaching where the student sees the patient only once, and also to post-mortem examinations, the patient dying at a more or less advanced stage of disease. The fact is that our knowledge of disease is acquired in this way, i. e., in seeing this patient in this stage, and that patient with that complication, and such plates as these before us are eminently useful not alone in keeping our eye in practice, but also in giving us life-like representations of cases with which to lighten the labor of reading. These plates cover a very large field as may be seen by glancing at the headings of the different parts. Part I, Venereal Diseases ; parts II and III, Syphilis ; part IV, Diseases of the Skin ; parts V, VI, VII and VIII, Pediculosis, Urticaria, Scabies, and Lichen Planus respectively.

ATLAS OF VENEREAL AND SKIN DISEASES. Comprising original contributions and selections from the works of Kaposi, Hutchinson, Neumann, Fourrier, Hardy, Ricord, Cullerier, Besnier, Vidal, Morrow, Keyes, Otis, Hyde, and Piffard. Edited by Prince A. Morrow, A. M., M. D. New York : William Wood & Company.

The excellence of this atlas can only be appreciated in seeing it. The editor has evidently gone on the principle that it does not pay to be niggardly in regard to size. The print is large and clear, enabling a person to read it rapidly, and the plates are on a correspondingly liberal scale. One great advantage of such plates is that they can be demonstrated to a large class, many pupils being able to see and appreciate them at a distance.

DISEASES OF THE SKIN. A Manual for Practitioners and Students. By W. ALLAN JAMIESON, M. D., F. R. C. P. Ed. With woodcuts and eight colored illustrations. Edinburgh : Young J. Pentland. Philadelphia : J. B. Lippincott Company.

This book is excellent, and well repays the reader. It gives the recent advances in dermatology, especially those made in

the therapy of skin disease by Unna, of Hamburg. We would especially draw attention to the treatment of lupus vulgaris by the salicylic acid plaster muslins. The colored plates are very fine, especially the one representing acne varioliformis.

PTOMAINES AND LEUCOMAINES OR THE PUTREFACTIVE AND PHYSIOLOGICAL ALKALOIDS. By VICTOR C. VAUGHAN, Ph. D., M. D., and FREDERIC G. NOVY, M. S. Philadelphia: Lea Brothers, 1888. San Francisco : W. S. Duncombe & Co.

This volume is the first attempt, as far as we know, to collect the literature upon this subject, and we believe that it will prove of interest to many of the profession. The book opens with a definition and historical sketch of ptomaines. An account is then given of the different foods such as the mussel, ham, canned meats, milk, cheese, ice-cream and bread which contain the poisonous ptomaines. In the case of the mussel it has been discovered that it becomes poisonous in consequence of the disease induced by residence in filthy water. Examples are given and cases cited of germs causing the different diseases: anthrax, cholera, tetanus, typhoid fever and cholera infantum. Since the treatment of disease depends so greatly upon the proper understanding of the causes producing it, the importance of such a work as this to the scientific physician is clearly perceptible.

The chapters on the methods of extracting the substances and of their chemistry are of less practical importance but are nevertheless of interest.

The object of the work is to render the profession more familiar with the poisons which may be introduced from without and those which are generated within the body of man.

PAMPHLETS RECEIVED.

REPORT FOR THE YEAR 1887-8, PRESENTED BY THE BOARD OF MANAGERS OF THE OBSERVATORY OF THE YALE UNIVERSITY TO THE PRESIDENT AND FELLOWS.

THE ANNUAL REPORT OF THE DEPARTMENT FOR THE INSANE OF THE PENNSYLVANIA HOSPITAL. For the year ending fourth month 21st, 1888.

PROF. WAUGH says that, since he has learned the value of jaborandi in erysipelas, the disease has ceased to give him any anxiety. He gives the fluid extract in twenty-drop doses until it produces diaphoresis.—*The Medical Register.*

Translations.

By D. W. MONTGOMERY, M. D.

Prognosis in Amputation of the Thigh.

By VERNEUIL.

I wish to draw your attention to the great change for the better in the death rate of this class of operations. The death rate used to be as high as seventy-five or eighty per cent, but now the prognosis in this respect is very favorable. But nevertheless there are certain elements in the prognosis which are very worthy of our closest attention. Subjects which possibly did not occupy the attention of surgeons to any great extent formerly, because death took off their patients before the lesions to be discussed had time to develop. And then again the patient's life was so ardently wished for, and so difficult of attainment that what were considered matters of minor importance did not receive the attention worthy of them.

A painful stump may be merely a traumatic neuralgia which develops early and may be cured by a dose of quinine, or it may be a pseudo-neuralgia owing to a periostitis, osteitis, or medullitis of the amputated bone. These last are what might be called painful stumps and not neuralgias, stumps which are painful on pressure because of the thickening of the bone and periostium, also sometimes from the development of hyperostoses. Sometimes also a piece of the end of the femur may necrose, necessitating a greater or less time for the expulsion of the necrosed bone.

But the painful stump may be owing to the formation of terminal neuromas following section of the nerves. In some patients these neuromas are indolent, and do not give any trouble whatever; whereas in others they are extremely tender, the slightest touch sometimes giving rise to very acute pain. It was with the view of obviating this difficulty that as early as 1852 I advocated pulling down the nerves and cutting them off as high up as possible after the limb was amputated, and before applying the first dressing.

As instances of nerves causing trouble in stumps I cite the following:

I have dissected a stump after a partial amputation of the foot, amputated by a detestable procedure. The internal lat-

eral flap was taken to cover the stump, and in this flap was left the posterior tibial nerve, which became all the more irritated because the patient at every step pressed on it.

A young soldier was holding his rifle by the barrel in such a way that the weapon being accidentally discharged it tore away the upper part of his right arm necessitating amputation at the shoulder. Every time on dressing the wound if I touch the lower part of it I excited a lively pain, even in touching it ever so lightly. The reason of this was that the nerves do not retract like the vessels, and when I dressed the wound I touched the cut ends of some of the stumps of the brachial plexus. This is the reason why I have long since adopted the practice of drawing down the nerves, and cutting them off as high up as possible immediately after amputating, and before the patient has come out from under the influence of the anaesthetic.

Neuromas following amputation are very slow in forming, they, at least, require several months for their development.

But the neuralgia of the patient before you is not a neuralgia owing to traumatic neuromata, for the operation is too recent for that. It is not owing to ostitis, nor osteo-myelitis, nor to periostitis, and there is no trace of osteophytes, and there is no terminal necrosis of the femur. But the patient is a poor miserable fellow with tuberculosis of the lungs, and the operation was performed for a tuberculosis osteo-arthritis of the knee, complicated by pains running up along the line of the sciatic nerve. The amputation, which was done under antisepsis, was not followed by any inflammation, and healed without the slightest accident. We are, therefore, forced to the conclusion that the neuralgia is owing to a neuritis of the sciatic nerve, which commenced before the operation was performed. The treatment we shall adopt in this case will be absolute rest, and the administration of restorative medicine.—*Gazette des Hôpitaux.*

The syrup of the iodide of iron is well tolerated by the youngest infants; as many drops as the baby has months may be given three times a day up to eight or ten drops a dose. It is well tolerated by the stomach, in which the iodine is freed from the iron and acts as an antifermentative. Besides, experience appears to confirm the theoretical inference that it proves its power as an absorbent in cases of anæmia complicated with glandular enlargements.—Jacobi in *Archives of Pediatrics*.

Extracts.

Leprosy.

By W. H. PARK, M. D.

The first thing to be settled is, what disease is meant by the term "Leprosy."

Nothing can be more confusing than to consult the various dictionaries, cyclopædias and medical books, under the heading "Leprosy." One would think that almost every strange disease of the skin that ever was seen had been at one time or another designated "Leprosy:—" Vitelligo, Elephantiasis or Barbadoes Leg, Ichthyosis, Morphaea Alba, Morphaea Nigra, Lipidosis Lepriasis Vulgaris or Psoriasis, etc., etc.

The different names for true Leprosy are also not a few,—Elephantiasis Græcorum, Lepra Arabum, Leontiasis, Satyriasis, Lepra Veræ, etc., etc. WILLAN, an authority some years ago, claimed that the term "Leprosy" should be restricted to the disease called Psoriasis,—that true Leprosy was Psoriasis and Psoriasis was true Leprosy. This is the definition followed by KITTO, MCCLINTOCK and STRONG, WEBSTER and some others, but the best authorities of the present day do not agree to it for a moment. True Leprosy is the disease called Elephantiasis by the Greeks, Lepra by the Arabians, Der Aussatz by the Germans, La Lepre by the French, Spedalskhed by the Norwegians, and Da Mo Foong by the Chinese. It may be defined as "a chronic constitutional disease, characterized by structural changes in the skin, mucous membranes and nerves, and producing great disfigurement of the features and deformity of the extremities." "It causes, or predisposes to various affections of the internal organs, and eventually occasions death, either by these affections or by the specific marasmus of the disease." It possesses a history more hoary than that of any disease with which we are acquainted. It has existed from pre-historic ages. "The Hebrews were sorely afflicted with it before leaving Egypt." Indeed, "according to the historian MANETHO, the Egyptians drove the Hebrews out on account of this plague of Leprosy." We all know how often it is spoken of in the Bible. However, Leprosy in the Bible does not always mean Elephantiasis Græcorum, the disease that is now called true Leprosy.

It sometimes undoubtedly meant Psoriasis, the Leprosy of WIL-LAN. Naaman the Syrian probably had Psoriasis, for we read that he was a mighty man of valor,—and Psoriasis does not, as a rule, prevent a person from following his ordinary avocation; his Leprosy was to cling to Gehazi and his seed forever, and Psoriasis is hereditary. Only a few days ago I saw a man with the disease, who said that his only son was also afflicted with it. Gehazi went out from the presence of the prophet a leper white as snow, and Psoriasis has white mother-of pearl scales. In the chapters xiii and xiv of *Leviticus*, we probably have “not a description of any one disease but an enumeration of certain symptoms which, on account of their frightful character and tendency to spread, would render the individual an object of aversion and demand his separation.” “Leprosy in garment and house was probably some species of mildew, or else the spots indicated some fungus which by contact would generate disease in human beings.”

“From Egypt and Palestine Leprosy spread to Greece and Italy and other countries in the Mediterranean Sea. It was probably brought to Central and Western Europe by the returning Crusaders, between the 12th and 13th centuries, and spread with alarming rapidity. It disappeared from these sections of Europe towards the end of the 15th century.” After this disappearance the disease was gradually lost sight of in civilized countries, until its very existence seemed almost mythical. It is only within late years that the writings of the Norwegian physicians, and of European physicians residing in Eastern countries, have called the attention of the civilized world once more to the disease. Last year it attracted more attention than ever. The Norwegian Government sent DR. HANSEN to the United States to enquire into the heredity of the disease among the Scandinavian settlers of the North-west. DR. BESMER read an exhaustive paper before the Paris Academy of Medicine, on the contagiousness of the disease, and urged the importance of early segregation in every case. The Royal College of Physicians of England appointed a committee to enquire into the question of the contagiousness of the disease. In our own country it is attracting more and more attention each year. That it existed among the Chinese in California, and the Scandinavian settlers in some of the North-western states, has been known for some time, but of late several cases have been re-

ported from Georgia and South Carolina, "notably no less than 13 cases (white and black) from Charlston, S. C." In one of my latest medical journals I see a new case, reported from Savannah, Ga. A mail or two ago the papers brought an account of the excitement caused, in Philadelphia, by the discovery that a doctor in that city had under his care two cases of Leprosy from South America.

Present Geographical Distribution.

While isolated cases of the disease are to be found in every country under the sun, it is principally found on the coasts and islands of the Mediteranean, Black and Caspian Seas, in Norway, Asia Minor, Syria, Palestine, India, China and the countries south of China, Japan, South Africa and the adjacent islands, in the Sandwich Islands, in the islands of the Australian Archipelago, in South and Central America and in Iceland. There is a leper colony at Tracadie in New Brunswick. In the United States there are at least 100 cases, and, as I have already intimated, it seems to be on the increase there. The disease is known all over China, but prevails more extensively in the Southern provinces. Adding up all the cases reported in all the Reports of Mission Hospitals at my command, for 1886, I find 416; 270 of these were from Swatow and 96 from Foochow. This by no means represents the whole number seen, for several of the reports contained no classification of the diseases of dispensary patients. Since opening the Soochow Hospital we have reported 181 cases. Taking these 181 cases as a basis, I calculate that there are probably *one hundred and fifty thousand* lepers in China. In India there are said to be 135,000.

Symptoms. *

The disease, as a rule, begins in the face. The skin gradually becomes of a dusky, red color and soon begins to thicken. The eye-lashes and eye-brows all fall out, and the beard, if there is any, becomes thin. The skin gradually thickens until it may be thrown into folds on the forehead, constituting the peculiar appearance that has given the name Leontiasis (like a lion) to the disease. The thickening of the skin also makes the face appear broader, and causes it to become almost as expressionless as though the person wore a mask. The physiognomy is so completely changed that a person would hardly be recognized

by his nearest friends. I have seen a boy of 18 who, so far as his face was concerned, looked as though he might be at least 60. The alæ of the nose enlarge and hang down, and the ears sometimes get to be tremendous. About the time the face is affected, or may be later, the hands, one or both, and the whole hand, or may be only certain parts, become anæsthetic. With the numbness certain muscles atrophy, especially the muscles of the ball of the thumb, so that instead of an eminence there, we see a depression. Next, unhealthy, sluggish ulcers may appear on the finger-joints and slowly eat their way, without causing any pain, until the fingers drop off. After a finger drops off the stump heals and becomes smooth and firm. Next, the septum of the nose, and the soft palate, may be eaten away. Now, this is as far as I have ever seen the disease go. That it does develop worse features, in this part of China, I have no doubt, but the worst cases have never as yet presented themselves at the hospital. I give a further picture of the disease by copying the description, given in the *Medical Record*, of a case found in the Lazaretto at Tracadie, in New Brunswick:—

" PETER N—, aged 32. Mother alive and well, aged 52; father died when 72 years of age. Has two sisters and five brothers, the youngest being five and the oldest 25. No other trace of the disease in the family, except grandparent on the mother's side died of it. He suffered the usual indefinite premonitory symptoms, and was admitted into the Lazaretto 12 years ago. For a number of years he enjoyed good health, and added much to the social enjoyment of the institution, in that he is an intelligent and sociable fellow. But during the past years he has failed very much, and now, to say the least, is a most pitiable object. The skin of the body is of a bright, shiny, bronze color, and here and there are seen irregularly-shaped, yellowish, pigmented spots, while the palm of the hands is rough and scaly, and of a glistening color. The skin over the forehead is thrown into a number of distinct folds. The eye-lashes have fallen off, the eye-lids thickened and everted, and the beard, which was once full, thick, and heavy, is very sparse and thin. The nose is large, broad and flat, and numerous little blood-vessels, varicose and dilated, are seen over its surface. The septum nasi is absent, and the alæ nasi are thickened and pedunculated, and the anterior nares partially closed, from hardened secretions. The mouth is much distorted, the lips are thick and protruding,

and the mucous membranes of the cheeks are covered with a grayish ulceration. The tongue is not enlarged, and on it are seen numerous little gray ulcers. The soft palate and pillars of the fauces are partially destroyed, and perforations are seen at its juncture with the hard palate, so that communications exist between the nose and mouth. The breathing is stridulous and the voice husky and dysphonic, and deglution difficult and painful, showing that the deeper laryngeal structures are also involved. The ears are enlarged, and the lobules hang down like two pendent masses. The hands are much distorted, the fingers stiff and crooked, with the phalanges flexed upon the palm, nails absent, and a thin, serous discharge exudes from the matrix. Glands of the neck swollen and freely discharging a thin, stinking, irritating matter. Large ulcers are seen upon the skin, and the tibia itself is painful and tender to the touch, from subacute periostitis. The toes are swollen, and superficial ulcers are seen between them, and over the phalangeal joints the disintegrating, dismembering process has begun."

Two forms of the disease are recognized; where thickening predominates it is called *Tubercular*, where the numbness predominates it is called *Anæsthetic*. It is not easy to make the distinction, for in most cases the two are combined. The case, the description of which I have just given, was one of *Tubercular Leprosy*. I now copy the description of a case of *Anæsthetic Leprosy*, found in the same institution. "We find him a handsome young man, with dark hair and full beard, heavy eyebrows, and long eye-lashes; pale skin, high cheek-bones, rather long nose, broad and high forehead, in fact, quite an intellectual face. There are a few papules on the hands and chest, and a few scattered, discolored spots on the body. The hands are much emaciated, long and thin; the interossei muscles very small and atrophied, so that the metacarpal bones stand out in bold relief. The joints are beginning to undergo disintegration. The fingers are bent and distorted towards the palm, and are always partially flexed, and extreme extension is impossible. There is little or no feeling in the parts, in fact a pin can be thrust deeply into the tissues and no pain is experienced. The young man's spirits are good; has good appetite and excellent digestion."

As this disease is largely distributed over the world, in cold as well as hot countries, the question may arise as to whether it

shows different symptoms in different countries, or whether it is everywhere the same. This question is answered by Dr. LIVEING, of London, one of the foremost dermatologists of the day. He says:—"I have had under my care cases of Leprosy from many different parts of the world, including India, Burmah, Mauritius, Africa, West Indies, Brazil, North America and Europe, but in all these cases the disease has presented exactly the same characteristic features."

Causes.

The etiology of Leprosy has long been the subject of dispute, and it is only lately that doctors have come to anything like a clear understanding of the subject, and even now it is far enough from being *very* clear. It is probably due to the introduction into the system, and multiplication there, of a specific micro-organism or bacillus called the bacillus *leprae*. Taking the world over there are more cases of Leprosy in hot than in cold countries, yet it "occurs in the most various races, in different climates, and under the most divergent habits of life. It prevails in the tropics of America, as in Northern Iceland; among Africans, as among the Chinese; in the lowest classes of Madeira, as in the highest of Rio Janeiro. It is improbable that it can be due to any of the various climatic agencies to which its onset has been ascribed. Thus it has been claimed to be due to atmospheric, to telluric influences, to malarial agencies, etc., etc. But it exists in inland as well as littoral districts, in mountainous as well as in flat and sandy regions, in moist as well as in dry climates; it is at home among the mountains of Norway, in the swamps of the Crimea, and on the fertile plains of India."

"Improper diet has next been invoked as a cause, especially the consumption of salted or stale fish, and of fish-oils. This is the reason assigned by the natives of Norway and Iceland for the prevalence of the disease among them. But the Egyptians, the Mexicans, the Hawaiians, do not live upon such food, and amongst all these the disease is endemic and finds to-day its most chosen seats."

"Bad hygienic surroundings, foul air, filthy dwellings, improper personal habits, are supposed by some to be influential in causing Leprosy. But these conditions prevail more or less everywhere, and Leprosy does not; they are most strikingly exemplified in the large European cities, where Leprosy is virtually unknown. On the other hand, in some parts of the world,

as in Brazil, the richest and best-cared-for classes furnish a proportionately large number of cases."

" That the disease is hereditary is generally believed, but the same peculiarities and freaks of heredity that are seen in other constitutional blood-diseases are noticeable in Leprosy, in that it often skips one generation to appear in another, or shows its potentiality in certain members of a family and not in others."

" It is mostly seen after puberty, in adolescence and middle life, yet no age is exempt from it; the young child as well as the septuagenarian is occasionally attacked by it. The youngest case ever admitted into the New Brunswick Lazaretto was a boy aged eight years."

Dr. McGOWAN reports having seen, in a leper village near Hanoi, a child four years old, all of whose fingers had crumbled away except the forefingers of one hand.

" Leprosy is more common in males than in females, and there seems to be a greater resisting-power in women, for in them the advance of the disease is much slower."

A good many doctors are of the opinion that the disease may arise spontaneously. The recent cases reported from Georgia and South Carolina would seem to favor that view.

" Almost all peoples have regarded Leprosy as a visitation of God, on account of some sin." On the other hand, in some parts of Europe, during the Middle Ages, " it was regarded as a sign of divine preference, as in a woman to preserve her chastity. They were regarded as saints, and rendered much honor and alms." We come now to an important question in the etiology of the disease, and one that concerns us especially, as we live in a country where the disease prevails: *Is it contagious?*

This question can be answered " Yes," and it can be answered " No."

" Yes,"--for in New Brunswick the disease was not known prior to 1819. It was then introduced by a woman named UR-SALE LANDRY, and from this one person it spread with alarming rapidity, and would, perhaps, have soon extended over the whole country, just as it has over the Sandwich Islands, had not the Government interfered by segregating those attacked.

" Forty years ago," says Dr. SHOEMAKER, of Philadelphia " Leprosy was introduced into the Sandwich Islands by two Chinese

coolies; now over forty five hundred persons, or one-tenth of the total population, are victims of the disease. In 1805, there were three lepers on the island of Trinidad, in 1878 there were very near eight hundred and sixty. In Norway, on the other hand, where a rigid system of isolation is enforced, the numbers of lepers has decreased fifty per cent within the past twenty years."

"No,"—for children of leprous mothers have been born in lazarettoes and grown up without contracting the disease. A case is reported from New Brunswick of a healthy husband who buried three leprous wives in succession and still remained strong and well. Here in China I find no evidence of contagion, and I have lately made it a point to enquire about the family of every case that comes to the hospital. In some rare instances a patient will say that his father or grandfather, or may be an uncle or an aunt, had the disease before him, but I have never yet found more than one leper in a family at the same time, be that family ever so large. The day I wrote this, a leprous woman came to the hospital, bringing her child with the whooping-cough. The child showed no signs of Leprosy, and the woman affirmed, in answer to my repeated question, that she herself was the only member of her family who had the disease. A well-to-do merchant who has Leprosy, has been coming to our first-class department for treatment, and he says he has a wife and several children all free from the disease. The lepers in this part of China live in their own homes and come and go and mingle with other people at pleasure, and no one seems to notice them any more than if they had *lan kiah* (ulcer of the leg), or *lan-liden* (favus of the head), and yet with all these opportunities for contagion, less than one in two thousand of the sick are afflicted with the disease.

So that we can prove that Leprosy is contagious and we can prove that it is *not* contagious. This is quite in accord with the opinion of doctors on the subject. "The Royal College of Physicians requested an expression of opinion from many physicians, familiar with the disease, in all parts of the word, and received a large number of replies. Of these authorities, thirteen asserted positively that the affection was contagious, while thirty-four maintained with almost equal positiveness that Leprosy was not transmissible by contagion. In several cases affirmative and negative opinions were given by different physicians

residing in the same locality." How can these differences be reconciled? I think I can give a possible explanation. Leprosy is contagious, but only so by inoculation. For a person to contract Leprosy he must have an open sore or an abrasion of the skin, and through this some of the bacilli from a leprous person must enter the system. It is highly probable that a great many persons are not susceptible to the poison even when introduced in this way, just as some persons are not susceptible to the virus of vaccination. That the disease is contagious in the ordinary sense of that term, so that it can be communicated from one person to another, as scarlet-fever or measles, without contact, I do not at all believe.

We, living here in China, where Leprosy abounds, are in no danger whatever of contracting the disease so long as we do not come in actual contact with it, and even then we run no risk so long as our skins are whole. Doctors in charge of lazarettoes, and nurses constantly with the inmates attending to their wants and dressing their sores, never contract disease.

Duration.

The duration of the tubercular form of Leprosy is said to be about 12 years. The anaesthetic form lasts much longer. The disease lasts longer in women than in men. While in New York, I heard a doctor from the West Indies say he knew of a woman who had the disease and had been in exactly the same condition for forty years.

Treatment.

For this disease, prevention is not only better than cure but it is the *only* cure, although the disease is sometimes arrested by change of climate. Since the disease can be communicated by inoculation, every case of Leprosy should be isolated at once. In Japan, as soon as a man develops Leprosy he is sent away from his family and must continue to travel, the hope being that change of place and climate may arrest his disease; if not, he must settle in some village with other lepers. In China, at least in this part of the country, nothing of the kind is attempted. I gather from Dr. McGowan's article in the *North-China Daily News*, that there are leper villages in the South of China, but I doubt if the Government has anything to do with establishing them.

In Norway and New Brunswick segregation is fairly success-

ful and the disease is gradually dying out. We all know how strict the Mosaic law was on this point; the least appearance of any disease of the skin was enough to place the person under surveillance, if it did not banish him altogether. In Europe, during the Middle Ages, lepers had to live apart in houses called Lazar-houses, which were generally built near some stream of water. "The inmates had to be silent and attend morning prayer and mass. In some houses they had to say so many prayers they had no time for anything else. No woman except the washerwoman was allowed to come near."

Causes of Death.

Since Leprosy cannot be cured it is well to inquire into the ultimate cause of death. Great number of lepers die from Bright's disease, lung diseases, diarrhoea, anaemia, and remittent fever. Only 38 per cent die from the direct consequences of Leprosy, which are exhaustion from leprous ulcerations, leprous stenosis of the larynx, leprosy of the internal organs, marasmus and atrophies of various kinds.—*China Med. Missionary Journal.*

The Surgical Treatment of Acute Intestinal Obstruction.

An interesting discussion upon acute intestinal obstruction, with especial reference to its surgical treatment, took place at the annual meeting of the New York State Medical Society, held at Albany, on February 8, and it will not be unprofitable to review some of the opinions expressed.

The causes and symptoms of all the various forms were very carefully enumerated by Dr. Lewis A. Stimson, but the only diagnostic signs which could be pointed out were the history of previous peritonitis in obstruction by bands and adhesions; the history of previous attacks of biliary colic in obstruction by gall-stones; the slow development of stricture and neoplasms of the bowel and the occasional presence of a tumor in the abdomen in the latter cases; and the subacute course, the passage of blood and mucus from the anus, with tenesmus, and the tumor to be felt in the abdomen and rectum in cases of intussusception. To these diagnostic signs must be added the observation of Dr. A. Jacobi, that in fecal impaction the thermometer, placed in the rectum, would indicate a slight elevation of temperature, due to colitis, local peritonitis, and septic absorption—

an elevation which was absent during the first two or three days of obstruction from other causes.

Dr. Stimson emphasized the fact that these distinctive symptoms were frequently absent, and that even when present they were not altogether reliable. For instance, acute obstruction is quite often the first marked sign of cancer or stricture, as was shown in one of his cases, in which there had been no symptoms from a very tight stricture of the transverse colon, until it was blocked by an apple-seed.

Spontaneous recovery was possible only in intussusception, a stricture blocked by some foreign body, and perhaps in cases of impacted gall stone. Even in these cases spontaneous recovery was so rare that if the surgeon could exclude paralysis of the intestine and impacted feces as the cause of the obstruction in any case, it was clearly his duty to attempt to relieve the patient by operative measures. But the difficulty lay precisely at this point, to exclude paralysis and impacted feces at the sufficiently early period in the case. This sentiment was echoed by all the speakers. And a very practical statement of the dilemma was made by a gentleman who styled himself a country doctor, who was anxious to learn how to *know* when the cause of obstruction was such as to require operation, for the doctor in the country might have to call a surgeon twenty or even one hundred miles to see the patient, and could not rest satisfied with mere guessing.

Dr. Arpad G. Gerster thought that the failure to make an early diagnosis was often due to the fact that it was too much the habit of the physician to consider these cases when first seen as examples of ordinary colic, and to omit a thorough physical examination of the abdomen at that time, thus losing the favorable moment before tympanites rendered such an examination impossible.

It must be confessed, however, that none of those who took part in the discussion added to our powers of diagnosis. In fact, if anything marked the numerous cases related by Dr. William C. Wey, Dr. Simmons, and others, to prove that apparently desperate cases, suffering from symptoms of collapse and fecal vomiting, may recover, it was the close resemblance between them and the fatal cases of intestinal obstruction. But the statement of Dr. Robert F. Weir is worthy of note. That valuable time was often lost in attempting to determine the

exact cause and site of the obstruction, and that the point to be decided in these cases was not where and what the obstruction was, but whether there really was an acute obstruction of such a nature as to require relief by operation.

In regard to the recovery of desperate cases without operation, the same speaker made the pertinent remark that while such cases were known to all, what he desired to learn was the relative proportion which they bore to the desperate cases which terminated fatally, for in these same desperate cases the surgeon could probably save nearly thirty per cent, and it was important to discover what proportion could recover without his assistance, in order to decide upon the relative worth of medical and surgical treatment. If the number of cases treated by early operation were increased, the percentage of mortality would be very much reduced. Therefore, even if some cases which might have recovered spontaneously were submitted to operation, probably a larger proportion of all the cases of intestinal obstruction would be saved than with the present custom of delaying operation until there is no hope of spontaneous recovery.

Dr. Weir also remarked that with every case in which the surgeon performed laparotomy, and found a volvulus, a band, or some other cause of obstruction which could not be relieved in any other way, he felt encouraged to operate upon his next case without waiting until the symptoms were so marked and the patient in such a miserable condition as to place the diagnosis beyond all shadow of doubt. He knew of no case in which laparotomy had been performed, and fecal impaction found as the sole cause of obstruction, and thought such an error unlikely to occur, in spite of the occasional cases in which laparotomy has been performed and no obstruction found. These two facts certainly warrant Dr. Weir feeling that it was time for the physician to know of the growing confidence of the surgeon in the necessity for operative treatment in these cases, and to be led by the influence of that faith to bring the cases to the surgeon before every chance of success had been squandered by delay.

As Dr. A. Vander Veer remarked, the need of the hour is a series of cases of successful, early operations, in order that the physician may be encouraged to refer their cases of acute intestinal obstruction to the surgeon before it is too late.

The statement made by Dr. Weir, that if severe pain, vomiting, and constipation had lasted for forty-eight hours, it is nec-

essary to operate at once, was so qualified that it could not be taken literally, but was evidently intended to stimulate the discussion, and to urge the necessity for a very early operation. A similar statement was made with a like purpose in view by Dr. William T. Bull, in reporting some cases of laparotomy at the February meeting of the Practitioners' Society of New York. It must also be remembered that Treves has already advised operation, in cases of intussusception, in the first forty eight, or if possible in the first twenty-four hours after the development of marked symptoms. The statistics presented in this discussion by the writers show the necessity for an early operation, but after the first three days, for which the mortality was respectively sixty-two per cent, seventy per cent, and seventy-three per cent, there is no regular variation exhibited by the death-rate, probably because the symptoms in the cases which were postponed for a long time were not so severe as in the cases which were operated upon during the first two or three days. It is evidently impossible to place any exact time limit before which the operation must be performed in order to secure success, for the severity of the symptoms and the necessity for haste vary so much in different cases.

The indications laid down by Dr. Roswell Park as guides in the choice between laparotomy and enterostomy are not entirely free from objections, as was probably felt by Dr. Park himself, for he expressly stated that he thought the question was not yet ripe for decision. He favored laparotomy when the diagnosis of a cause which could be removed was certain, and when suppurative peritonitis was present, for the peritonitis could best be treated by laparotomy. But if the cause of obstruction was a malignant tumor of the intestine, if the tympanites was extreme, and if the cause of obstruction could not be determined, enterostomy was to be preferred. These are very nearly the rules propounded by Verneuil in the discussion upon intestinal obstruction in the Societe de Chirurgie of Paris last Spring. Now, it is unanimously agreed that, with the exception, of intussusception stricture, and neoplasm of the intestine, the diagnosis of the cause of obstruction is impossible, consequently the adoption of such rules as those just quoted means a restriction of laparotomy to the exceptional cases.

These rules also leave out of consideration the chief factor to be regarded in making our decision—the condition of the pa-

tient at the time. In the introduction to his paper upon the technique of laparotomy for intestinal obstruction, Dr. Weir appears to me to have indicated the correct answer to this question. He says that, although laparotomy be scientifically the only proper method of treatment for acute intestinal obstruction, it often promptly terminates the life of the patient, because of the profound shock which accompanies this condition; but that enterostomy, although in itself only palliative, sometimes yields brilliant results, and at least does not add to the shock which is already present.

It is the belief of the writer that when the patients are in the state of exhaustion in which most of them now are when placed in the hands of the surgeon, enterostomy, which may even be performed without a general anaesthetic, is the only justifiable operation. I am confident, also, that we have no idea at present as to what the recent results of enterostomy for acute intestinal obstruction really are, for the statistics of Treves probably do not fairly present them. In the future these cases will be brought to the surgeon at an earlier period, and the better condition of the patient will justify the performance of laparotomy as frequently then as now, while the results obtained will be far better than at present, although it is not probable that the sanguine views of Greig Smith will be realized with a reduction of the mortality to "about fifteen per cent."

In the opinion of Dr. Weir, a very long incision should be made in performing laparotomy for intestinal obstruction. Although he would not consider it wise to blindly follow in every case the proposal of Kummel, to make an incision from the ensiform cartilage to the pubes, he looked upon it as a distinct advance, because it recognized the necessity for making the operation as brief as possible, while the large incision did not materially increase the dangers of the operation, and even facilitated the reduction of the distended intestine after the obstruction had been found and relieved. The reality of this gain of time is shown by Kummell's statement that he had performed the operation in twenty minutes, whereas every one knows that these operations generally require an hour, and not infrequently twice that time. The necessity for a short operation is well shown by the cases collected by the writer, which give a mortality of 55.7 per cent in 190 cases in which the operative interference was limited to relieving the obstruction, without wound-

ing the bowel; while it rose to 73.3 per cent, in 15 cases in which it was necessary to establish an artificial anus after the obstruction had been removed; and to 83.3 per cent, in 48 cases in which the gut had to be sutured. In all these cases the true danger lay in the length of the operation, not in the yielding of the sutures, for death was caused by sepsis in only 10 per cent of the fatal cases.

Chloroform was strongly recommended by Dr. Weir as the anaesthetic most suitable for these cases—a recommendation all the more valuable, as it came from one who employs ether for all his general surgical work. Ether seemed to him to cause more shock than chloroform, and the subsequent bronchial irritation was very injurious. Dr. Gerster and others agreed in this opinion.

As to other methods of treatment, all united in condemning puncture of the gut, because there was great danger that the openings would fail to close, owing to the paralyzed state of the wall of the bowel. Dr. Francis Bacon, of New Haven, related two cases of intussusception treated lately by him with success by inflation; but here again Dr. Park stated that in one case in which he had performed laparotomy he had found that previous attempts at reduction by inflation had caused a perforation of the gut, and this complication had resulted in the death of the patient.

Finally, the results of operative treatment were considered by the writer, who found a mortality of 68.4 per cent, in a collection of 339 cases. In the 232 fatal cases, the cause of death was the poor condition of the patient in 103 cases, complications in 41, and failure to find or to relieve the obstruction in 30. The reports were incomplete in 13 cases. Of the remaining 45 cases, 13 died of shock, 3 from an unusually prolonged operation, 17 of sepsis which was probably due to the operation, and in 12 cases the cause of death could not be definitely ascertained. For further details the reader is referred to the paper itself, published in this number of the *Annals of Surgery*.

The opinion of Dr. Jacobi, that laparotomy for intestinal obstruction should be classified with tracheotomy and herniotomy, and looked upon as one of the operations which every practitioner should be prepared to perform upon an emergency, when the assistance of an expert could not be procured, is certainly not to be accepted without important reservations. As Dr. Ba-

con remarked, the elaborate technique described by Dr. Weir gave the uninitiated some idea of the great difficulties to be overcome in these operations, and the complicated manœuvres which must frequently be resorted to. This alone should serve as a warning to those without experience in abdominal surgery, and certainly to those without any surgical training, not to undertake these very difficult operations rashly. While it is true that not a few of the successful operations have been performed by country physicians, with insufficient help, scanty towels, doubtful water, and the most unpromising surroundings, no physician should neglect any precaution which tended to improve the chances of the patient, and he should at least allow him the advantage of the most skilful surgeon available. At the same time we may agree with Dr. Jacobi in so far that no physician should allow a patient to die, merely because he is lacking in courage to undertake an operation which he is really competent to perform.

As a substitute for the proposal so often made, that all cases threatened with acute intestinal obstruction should be handed over to the surgeon forthwith, a proposal which is probably too chimerical ever to be adopted, Dr. Weir made the very practical suggestion that in such cases a surgeon should be associated with the physician, a suggestion which deserves very serious consideration, for there is no malady where the double counsel is so necessary as in this perplexing and desperate condition.

On the whole, the discussion was very encouraging—not that it added much that was new to our store of facts, but because it showed the great interest felt in the subject, and with such eager observers some increase of knowledge may surely be expected before long. Certainly, the errors due to negligence and hesitation, altogether too frequent hitherto, even in cases in which there was no excuse for hesitation, will not occur in the future—at least in the State of New York.—*Ed., Annals of Surgery.*

ARTIFICIAL REPRESSION OF THE MENSES IN CHLOROSIS.—Loewenthal, of Lausanne, records twenty-three cases in which the artificial repression of the menses has been very advantageous in this disease. The method employed consisted in injections of warm water of about 49° with absolute rest in bed. In some cases iced water was employed in preference to warm. Eighteen cases were chlorotic, and *all* were cured rapidly without

other treatment than from three to five menstrual suppressions. Five were grave cases of hysteria, one of whom showed marked improvement, while three other cases were convalescent from exhausting illness, and in them the convalescence was much shortened. No bad effects were noticed.—*Revue de Therapeutique*.—*Philadelphia Medical Times*.

Notes on Antipyretics.

By EDWARD R. SQUIBB, M. D.

The word "antipyretic," although not new, has but recently come into common use as a substitute for the word "febrifuge." The words are synonymous and of the same ultimate derivation. Antipyretic is what is opposed to fire, and fever comes from fire. Febrifuge is what causes fever to fly, or to be fugitive. Hence the significance of both words is to oppose, counteract or dispel fever. The choice between the words seems to be a matter of taste or fashion, and febrifuge seems to be going out of use.

The oldest and best febrifuge is quinine, and this still stands at the head of the class of newer antipyretics. The origin and application of quinine are too well known to require notice here, and its value is too well established to be in much danger from the more modern agents. Until quite recently the great drawback to the use of quinine was its high cost, and almost all the recent antipyretics were discovered through the efforts of chemists either to make quinine artificially or to make substitutes for it. The making of quinine synthetically or artificially, although several times announced, has not yet been accomplished; and its great abundance and low cost for the present, and probably also for the future, have taken away the incentive to make it synthetically, because if so made it could not be so very much cheaper than from natural sources; and therefore it does not offer the inducement of the very large profits offered when the natural product was so costly. But the modern research in this direction has yielded very interesting and important results, in addition to the still increasing list of substitutes or antipyretics.

A brief notice of only the more prominent substances of this list is all that can be undertaken here, and all the material for this is compiled from a few of the numerous authorities on the subject. Nothing original is offered, and nothing as being very accurate, because every article of the list is put forth with the

conflicting statements so apt to result from the combined influences of pecuniary interests, enthusiasm, and limited observation stimulated by the universal appetite for novelties.

CHINOLINE.

In 1842 Gerhardt, by distilling quinine with caustic potassa and water, discovered a base which he called quinoline, but the dearness of quinine forbade attempts to utilize the base from that source. By treating cinchonine in the same way he obtained another base which he named chinoline, and the comparative cheapness of cinchonine encouraged the investigation of chinoline and its salts. These were found to be active antipyretics, and the base was used through many years as a nucleus from which various chemical substances were built up of varying character and power as antipyretics or quinine substitutes.

In 1880 Dr. W. Konigs, of Munich, gave a new impetus to the researches based upon chinoline, by making this in quantity synthetically or artificially from aniline. He was soon joined by Baeyer, Skraup and others in a new order of investigations, which have been very fruitful, and are still in active progress.

The tartrate of chinoline was one of the earliest antipyretics, and was largely used. It is still in the markets, and still occasionally used, but has given place to more recent agents.

RESOIN OR RESORCIN.

About 1862 Hlasiwetz and Barth, following up Gerhardt's idea of 1842, distilled certain resins with alkalies and water, and obtained a substance which they called resorcin, because it was obtained from resin and was similar to orcin from archil or orchil. Subsequently Korner prepared resorcin synthetically by building it up from a benzol nucleus, and from its constitution it is meta dihydroxylbenzol and belongs to the phenols.

Like salicylic acid it was first used and extolled as an antiseptic, and it was brought into prominence chiefly by Dr. Justus Andeer, of Wurzburg. Later, in 1880, Dr. Lichtheim, of Berne, showed that it was also an active antipyretic, with many effects analogous to salicylic acid, and for some time it was used quite largely.

SALICYLIC ACID.

Salicylic acid had been long known and many of its characteristics well studied, when in 1874 investigation into its therapeutic effects and use gradually led up to its antipyretic action

now so well known, but with insufficient investigation it has had to give way to agents with newer claims.

KAIRIN, OR KAIRINE, AND KAIROLINE.

In 1882 the investigations of Drs. O. Fischer and W. Konigs, of Munich, on the alkaloids, assumed that the characteristic properties of quinine were not based upon the chinoline nucleus, but by the introduction into this nucleus of an oxygen bearing or a hydrogen bearing element. A number of substances were prepared in following up this new departure, and these were submitted for physiological investigation by Dr. W. Filehne, of Erlangen. The net result of these joint labors was the production by Dr. Fischer of oxychinolinmethylhydride which was called kairine, and by Dr. Konigs, of chinolinmethylhydride, which was named kairoline. The first of these soon after became the kairin of commerce, and having been patented, was extolled and advertised into a large usage. This seems to have been the first of the antipyretics that was started as such, and it was more largely used for a time than any of its predecessors; and it did more to introduce the fashion upon which its successors were to be still more largely used. It was the first one to be stimulated by the mercantile influence of a patent, and the patentees took good care that all that could be said in its favor should be widely advertised. Therefore it was very largely sold and used, and laid a good foundation for its successors, as its disadvantages were slowly recognized. The patentees are also the patentees of its immediate successor, antipyrin, and they are the well known enterprising color makers, Meister, Lucius and Bruning, of Hoechst, Germany. Each package of kairin is labeled as being protected by letters patent in Germany and the United States, and importation into France prohibited.

ANTIPYRIN.

In the early part of 1884, Dr. L. Knorr, of Erlangen, synthetically prepared an oxygenated alkaloid which he called antipyrin. This was investigated therapeutically by Prof. Filehne, who reported that it was an active antipyretic. For some months nothing was published in regard to the character or composition of this substance, but when it had been patented and introduced into commerce by the color makers above mentioned, Dr. Knorr published a paper stating that antipyrin was a derivative of an

hypothetical base which he called chinizin, the systematic name being dimethyloxochinizin. Its antipyretic action was soon reported upon very favorably by many German observers of note, and it was made on a large scale and well advertised at a high price, but not so high as kairin. As it came into use the makers sought to patent it in other countries, and found no difficulty in extending the German patent to the United States. But in France there was difficulty. In the political economy of France, and to the great honor of the nation, it has long been held that the interests of suffering humanity are superior to the interests of inventors, and, therefore, as a sanitary measure, patents upon medicines are not granted, and patented medicines from all sources are prohibited. The German patentees were part owners in a color-making company in France, and, through this connection obtained a patent on the process for manufacturing dimethyloxochinizin as an aniline product. But as it was not used for any industrial purposes, and could not be sold as a patent medicine, the French patent could not be used; and as processes and articles patented in France but made elsewhere are absolutely prohibited, France seemed to be excluded from the use of antipyrin as well as kairin, unless it be admitted that any chemical manufacturer or pharmacist in France has the legal right to make and sell such articles when used only as medicines, without regard to the patent rights of other nations. This point is understood to be still unsettled, and every parcel of kairin and antipyrin bears on the label, "Importation into France prohibited on account of French Patent Laws."

THALIN.

During 1884 a chinoline derivative was made by Dr. Skraup in this same search after quinine substitutes,—which from yielding a very green color on reacting with ferric chloride and oxidizing agents was called thallin. The systematic chemical name of this base is tetrahydroparachinanisol, and the sulphate of this base is the salt commonly used as an antipyretic. Several of the salts of the base were investigated at the clinic of Prof. Nothnagel, and it is said to be very active in comparatively small doses. It is patented, and largely advertised, but in competition with other agents which have had these advantages, it has not come very largely into use. It appears to be a very active agent for reducing abnormal temperatures.

ANTIFEBRIN.

In 1853 Gerhardt discovered by 'a reaction between aniline and acetic acid a neutral body which was found to be phenylacetamide, or acetanilide. This substance was recently found to be an active antipyretic, and under the name antifebrin was, in 1886, very favorably reported by Prof. Kussmaul of Strassburg, as yielding very satisfactory results in comparison with antipyrin, whilst the cost is very much less, and the effective dose very much smaller. It is not patented, although the name, and perhaps a special quality under the name, is claimed as being proprietary. But it is also commonly sold now as acetanilide, of quite as good quality, and for but little over one-half the price it brings as antifebrin. That is, the two are identical except in price, and both are cheap.

SALOL.

This combination of about 60 p. c. of salicylic acid and 40 p. c. of phenol or carbolic acid, was first produced by Prof. von Nencki, of Berne, and investigated by Dr. Sahli, also of Berne,—the report of the latter upon the compound having been made in April, 1886. It was soon patented in Germany and the United States, and is now controlled by these patents. It is said to combine the properties and effects of its two constituents, and if so it is difficult to see why they should not be extemporaneously prescribed with the advantage of varying the proportions of the elements to meet the special requirements of varying cases.

ANTITHERMIN.

This is one of the two most recent additions to the long list of antipyretics. The systematic name given for it is phenylhydrazinlevulinic acid, and with such a constitution it is evidently nearly related to antipyrin.

Acetyl-amidophenol is the other of the two very recent antipyretics, and as yet this one does not appear to have received a common short name; and up to this time little appears to have been said in regard to these new agents.

No notice of prominent antipyretics should omit the mention of two of the oldest and best, although these may now be temporarily put aside for newer claimants to professional popularity. These two are veratrum viride and aconite.

In conclusion, it may be of interest to add a list of the prices at which these newer antipyretics are now sold by the wholesale druggists and to present specimens of each of them for inspection.

Sulphate of Quinine of the best makers

at about	40c per ounce.		
Tartrate of Chinoline	70c	"	"
Resocerin	30c	"	"
Salicylic acid, patented	20c	"	"
Kairin, patented	\$2.00	"	"
Antipyrin, patented	1.25	"	"
Sulphate of Thallin, patented . . .	1.75	"	"
Antifebrin, 30c per ounce, or as Ace-			
tanilide	15c	"	"
Salol, patented	40c	"	"

Treatment of Post Partum Hemorrhage at the Philadelphia Lying-in Charity.

By CHARLES P. NOBLE, M. D.

Hemorrhage, post partum, comes either from the vessels of the relaxed uterine body or from lacerations of the genital canal. The term post partum hemorrhage is usually employed to indicate hemorrhage from inertia uteri after delivery. Indeed, the influence of lacerations is often overlooked.

The indications in hemorrhage from laceration, post partum, are plain, even if their fulfillment is not always easy—bleeding should be arrested by suturing the tear. The laceration may be of the vestibule, vulva, perineum, vagina, or cervix. Rupture of the body of the uterus presents so many serious complications that the resulting hemorrhage is often relatively a trifling matter. This accident has not occurred among the cases in the Charity during my connection with the institution. Lacerations involving the bulb of the vestibule are very troublesome, but fortunately are very rare. The venous oozing is often obstinate and controlled only by the insertion of numerous deep interrupted sutures, or the use of the continuous suture. The continuous gut suture finds one of its most useful applications in the immediate repair of tears in the genital canal, especially when hemorrhage is the chief indication for closure. By its use the operation of suturing is quickly performed. All lacerations of the perineum, excepting very superficial ones, are immedi-

ately closed. Silver wire requires less subsequent attention than other suture material, but silk is often used with equally good results. If sepsis occurs, infection along the silk stitches is apt to cause pain and require their removal. For this reason I prefer silver wire or silk-worm gut. Profuse hemorrhage has occurred in a number of cases from tears in the pelvic floor. A few arteries have required torsion before placing the sutures. Lacerations along the anterior and lateral walls of the vagina are more common than is supposed. They are not found because they are not looked for. In only one case have sutures been employed. This was in a primipara, whose labor was completed before the arrival of the medical attendant. There was a bilateral laceration of the cervix, which extended, on the left side, the whole length of the vagina and involved the perineum. Dr. Wilson sutured the entire laceration with silver wire. This is also the only case in which immediate trachelorrhaphy has been done. The patient recovered, but suffered from sepsis during the puerperium. In the cases at the Charity, lacerations have by no means been limited to instrumental cases. Immediate trachelorrhaphy is not indicated except for the arrest of hemorrhage. Experience here and elsewhere has proved that cervical rents heal kindly if the puerperium is normal.

Post partum hemorrhage proper is due to inertia of the uterus. It has occurred after long, tedious labors, in which frequently the forceps were necessary to complete the delivery. In ordinary cases, delivery of the placenta by the Crede method, which is followed more or less strictly by the various members of the staff, together with the subsequent administration of ergot, has been sufficient to insure permanent contraction and retraction of the uterus. The binder is always used, but solely with the view of promoting the comfort of the patient. Its influence in causing or keeping up uterine contraction must be slight. It has seemed to me that etherization favors hemorrhage, since it has been necessary to push it to the surgical degree, on account of the struggles of the patient under partial anaesthesia. In this respect it differs from chloroform; for with chloroform, often the patient need not be made unconscious, or only at the height of the pains, and thus systemic relaxation is not induced. The fall of the pulse to or below the normal, and the continuance of contraction of the uterus for half an hour or longer, are considered reliable indications that danger is over.

The practice of keeping the hand on the hypogastrium for half an hour after delivery, so that the condition of the uterus may be constantly known, is unquestionably of the greatest value in forestalling relaxation of the uterus. The fact that no case of terrific post-partum hemorrhage—so graphically described by writers, in which in a moment the bed and floor are deluged with a stream of blood, and in which the patient is suddenly brought to the brink of the grave—has occurred, I attribute to the method of conducting the delivery of the placenta, and the careful watching of the state of the uterus for some time afterward. While I would by no means question the occasional occurrence of these unfortunate cases when every prophylactic measure has been employed, because such have been reported by accurate observers, yet it must usually be due to a contraction suddenly emptying a large amount of blood, which has been slowly accumulating in a flaccid uterus. Kneading the uterus through the abdominal wall is the most generally applicable method of securing uterine contraction, and it has often succeeded in arresting moderate hemorrhage.

The hot water, intra-uterine douche (110° – 115° F.), after kneading of the uterus has failed to secure contraction, has been most often employed, with the invariable result of arresting the hemorrhage. Indeed, for post partum hemorrhage, as ordinarily encountered, this is the best remedy. Not only does the hot water stimulate the uterus to contract, but it acts as a general stimulant as well. The water should be as hot as can be borne by the patient, and should be disinfected by sublimate. The only objection to the method is that it requires some minutes to get the apparatus ready. In ordinary cases this does not signify, as the flow can be arrested or temporarily diminished by kneading the uterus. The chief advantages of the method are the certainty with which it arrests the bleeding, and the fact that it leaves the utero-vaginal canal free from clots and in an aseptic condition.*

The introduction of ice within the vagina or uterus has not been much employed. This method has the advantage of being immediately applicable; but, on the other hand, it has serious disadvantages. The cold from the ice acts as a systemic

*The late Dr. A. H. Smith, for many years connected with this institution, was an ardent advocate of the use of hot water intra-uterine injections for the arrest of post partum hemorrhage.

depressant, and is disagreeable to the patient. The operator in the hurry is apt to neglect to disinfect his hand. And the ice itself may prove a source of infection, as Prudden has shown that ice is full of bacteria. It would seem that this measure of treatment should be held in reserve to be used only after the failure of other methods, or in cases where nothing else is at hand.

The hand has been introduced within the uterus in a few cases. In these the hemorrhage usually came on before the expulsion of the placenta. After separating and removing the placenta and clots, the uterus was gently irritated by the hand, assisted by friction through the hypogastrium, until contraction occurred, when the hand was slowly withdrawn.

Vinegar has not been used. I should think the best way to use vinegar would be to add it to the hot water and inject it within the uterus.

No case has called for styptics, nor would their employment be considered justifiable at the Charity until all other measures had failed. I should decidedly prefer Churchill's compound tincture of iodine to a solution of iron.

Faradism, although a promising agent, has not been employed. It has the advantage of entailing no dangers on the patient, and will unquestionably be tried.

Spraying the bared abdomen with ether is highly recommended. It has none of the disadvantages of dashing cold water on the patient, and should certainly be used to the exclusion of that procedure.

Much may be done in the general management of these cases. In hospital with trained assistants the physician is not apt to lose his head, as when alone or surrounded by a frightened family. A confident and reassuring manner goes far to bring order out of confusion. When syncope threatens the patient's head is lowered and brandy, whiskey, or ether administered hypodermically. Ergot is always apt to excite nausea, and especially so when given after profuse hemorrhage. Systemic depression induced by vomiting would tend to increase the inertia of the uterus. Hence ergotin or the fluid extract of ergot is administered hypodermically. Ergot is most useful in keeping up contraction and retraction of the uterus which has been already brought about by kneading or the use of the hot water douche. No death from hemorrhage has occurred in the practice of the Charity.—*Med. and Surg. Reporter.*

Extract from Letter from Berlin.

Dr. Leopold Casper, one of our cleverest doctors for the surgical diseases of the urinary organs, has communicated to the Medical Society of Berlin a new treatment for hypertrophy of the prostate. After having given a short historical sketch of the different treatments of this disease, and having called attention especially to the method of Dr. Newman, of New York, Dr. Casper described his own new method of treating the same. It consists in the application of electrolysis. The first trials were made upon animals, in order to prove clearly whether this method was dangerous, or not. After having seen that it was not dangerous, Dr. Casper began to try the treatment upon men, in the following manner: The patient is turned over on the side, the rectum is filled with three fluid ounces of a solution of a mercuric chloride (1-1000). The indifferent pole is the positive, a large plate of 400 grm. It is applied to the abdomen. The electrolysis-needle must be pricked into the prostate from the rectum, and that part of the needle which remains beyond the anus must be fixed on to the negative pole of a galvanic battery. By degrees twelve cells are added, and the current has to be closed five minutes. After this time the needle must be slightly withdrawn, to enable one to turn it in the same hole, but placing the end of the needle in another direction. This is to be repeated for the third time, and each time the current has to be closed for five minutes. The strength of the current is from 10 to 25 milliamperes. These sittings are to be made, according to the state of the individual, up to as many as twenty times. Dr. Leopold Casper has treated four patients in this manner. Three times it has proved successful. Of these three cases two have been greatly benefited. At all events Dr. Casper has shown that the operation, carefully executed, is perfectly harmless. In the discussion a recognition was given to the praiseworthy idea of Dr. Casper for this new treatment of the hypertrophy of the prostate.

Induced through the favorable reports of American medical men, Dr. J. Rosenberg has, in a case of a very severe attack of biliary colic, used olive oil in large doses with success. The case in which this oil was employed was that of a woman who had been suffering from this disease for the last five years, and who until now has been treated in different ways, but without any success. The pain had become, during the last year, almost unbearable ; she had such great difficulty of digestion, that the

whole constitution became extremely weakened. Through the administration of twenty-six fluid ounces of the oil of olives, in five doses, 629 gall-stones passed per anum, the largest of which was one inch in length and $\frac{3}{4}$ inch in width. Her sufferings have become considerably lessened, and an almost perfect recovery has been the result of this treatment.

Berlin, May 25, 1888.

ALBERT MOLL, M. D.

—*Med. and Surg. Reporter.*

Crede's Method of Placental Expression.

Although Mr. Dease, of Dublin, wrote, as early as 1783, "Should the detachment of the placenta not be effected in the usual time, it will be much facilitated by the operator judiciously applying his hand to the region of the uterus, which he may excite to the necessary contraction by gentle friction ;" and although Ramsbotham, in 1839, in his text-book, condemned pulling and jerking at the cord, and advised instead gentle pressure over the uterus, it was not until 1860 that external expression of the placenta was placed on a scientific basis, chiefly by the labors of Crede, of Leipsic. Shortly after Crede's publication, the method came to be known by his name, and it has been recommended in the obstetrical books of all languages, with the notable exception of Charpentier's classical work, in which a warm protest is entered against it. Notwithstanding the general acceptance of the method, there have not been wanting those who, from time to time, have dissented from it. Whenever the criticism has seemed to call for it, Crede has defended his method manfully. His latest defence is directed against an attack that was made at the last meeting of German naturalists and physicians, at Wiesbaden, and is published in a recent number of the *Archiv fur Gynäcologie*.

He discusses the objections *seriatim*. In answer to the accusation that he was guided by the watch in his procedure, he refers to his different writings, in which it is distinctly stated that the time for expressing the placenta should depend upon the circumstances of the case, and should have three different objects in view: (1) the removal of existing dangers, (2) the avoidance of threatened dangers, and (3) the saving of time. The first object calls for immediate action, as everybody agrees. To accomplish the second, an effort of placental expression should be made with the second, third, or fourth pain, but the

placenta may not be expelled until the tenth pain. Usually from fifteen to thirty minutes are consumed in the process. No sane man would object to recourse to some procedure to accomplish the third object provided the woman's safety was not endangered thereby. To the charge that the method is attended with increased loss of blood, he replies that accurate weighings of the blood lost—as accurate as they could have been—by different observers have not sustained the statement.

One of the most serious objections raised was that the method favored the retention of portions of the membranes in the uterus, and thus heightened the danger of septic infection. Crede denies the premise; furthermore, granting it to be true, he contests the legitimacy of the deduction with the following facts: From January 1, 1883, to March 31, 1887, 4,969 women were delivered in the Leipsic clinic and Poliklinik, without any attention being paid to retained portions of the membranes, and in not a single case did death or even severe illness ensue from such inattention. That the method requires some skill Crede does not deny; some skill is demanded in any procedure belonging to the art of medicine. The beginner must know how, and with very little practice he will acquire the necessary skill. Reliance on the action of the abdominal muscles has been recommended to supersede pressure over the uterus; but after delivery, especially in a multipara, the abdominal muscles are flaccid and incapable of powerful contraction. Stimulation of the lower part of the uterus also has been advised, but by Crede's method the whole uterus is stimulated to contraction, more especially the fundus, where the thickest muscular layers are situated. It was suggested at Wiesbaden that the body of the uterus should be drawn up over the placenta. Not only would this be contrary to nature's process, but it would involve considerable danger, inasmuch as the lower segment of the uterus is thin and easily torn. The theory that the separation of the secundines requires the accumulation of a certain amount of blood between them and the uterine wall, has but few adherents, and does not appear to be well founded. Crede favors the old view that the separation is brought about by the uterine contractions. In conclusion, he sums up as follows: His method of dealing with the placenta is in accordance with the natural process; it has been tested by experience; the objections raised against it at various times have been either unfounded or di-

rected against phantoms ; of the many recent proposed modifications of the method, some are not new, and those that are new are worthless ; in short, the method stands unassailed.—*N. Y. Med. Jour.*—*The Canada Medical Record.*

The Use of Antipyrine During Labor.

By EGBERT H. GRANDIN, M. D.

Although it is written, "In sorrow thou shalt bring forth children," it is the laudable aim of the obstetrician of to-day to mitigate, in so far as he is able, the pangs of childbirth. The means to this end to which he may resort without damage to either the mother or the child are few in number, and the most valuable of all justly finds its chief rank after the completion of the first stage of labor. During this stage the accoucheur is in a position to do but little toward relieving the maternal suffering, and this little consists in the administration of opium or of chloral. The former drug I have always been loath to administer to the parturient, for the reason that if pushed it may retard the labor, and further because it is of the highest importance to the puerpera that the intestines should functionate normally in order that this main emunctory should not become locked, and poisoning from faecal accumulation ensue. In chloral we possess a most valuable means of "taking the edge off the pains" and of regulating their rhythm, but the woman's suffering during the acme of the pains is still intense, and we often wish we had an adjuvant to the chloral which, whilst nullifying none of its effects, would render the contractions practically painless. In the hands of certain observers, electricity—the faradaic form chiefly—has rendered service in this direction, but, valuable as this agent has proved in my hands as an oxytocic, it has never appeared to me to possess any anaesthetic effect on the uterus. When cocaine was discovered, before long it was heralded as of value as a local anaesthetic during childbirth. In my hands, however (and other observers are in accord with me), it has proved of no value whatsoever during the first stage of labor, and questionably if at all during the second stage. The excellent results yielded me by antipyrine in dysmenorrhœa and other affections where it is a question of nerve pain have led me during the past year to test it during the first stage of labor, and my results have been sufficiently gratifying to justify

me in asking other obstetricians to try the drug. Possibly it has been similarly used by others, but if such be the case I have seen no record of their experience. My habit in regard to the administration of the drug is to give fifteen grains well diluted, and preferably with some stimulant, such as the aromatic spirits of ammonia, and to repeat the dose in one hour thereafter. In two hours after the second dose the patient receives ten grains, and so on every two hours if needed. The chloral mixture I administer, as has always been my custom, in fifteen-grain doses every three-quarters of an hour till three to four doses have been received. The result of this combination has been to nullify the pains so much as to be in two instances scarcely perceptible, and in others simply uncomfortable. The progress of labor has not been at all interfered with, and neither the mother nor the child have presented evidence of injury from the administration of the antipyrine.

I report this experience thus briefly in order that other observers may test the validity of my results. Should there be concurrence of opinion, the first stage of labor will be rendered practically painless by antipyrine, even as the second and the third may at any time be made through resort to chloroform.—*New York Medical Journal.*

THE USE OF ANTIFEBRIN.—Destree and Slosse have used doses of 0 gr. 25 centigr., repeated as many as four times, at one hour's interval. Generally, a single dose of from 20 to 25 centigrammes gives only a small result, and to obtain a marked fall in temperature, it is best to follow up the first dose by at least one more of the same strength.

In febrile pulmonary tuberculosis, the treatment has given good results in eight cases—a fall in temperature from 1° to 3° and calmer sleep. There were never any digestive complications. The only real inconvenience is the appearance of abundant perspiration during defervescence. This may be combated with advantage by friction and the use of alcohol.

In the case of pneumonia, a rapid defervescence was established on the fourth, fifth, and sixth day of the malady. The effect appears only two hours after the administration of the first dose. Good effects are reported in typhoid fever.

In articular rheumatism, the authors have shown that there is in all cases a real diminution of all the symptoms.

The antithermic action is very satisfactory. According to Evan, this action is due in the majority of cases to an increased loss of caloric, and, in certain cases only, a diminution in its production. Henocque supposes, also, that there is a diminution in the process of oxidation, and Hare reaches the same conclusions.

The rapid amelioration of pain in articular rheumatism—acute or subacute—proves the action to be analgesic; finally, it is still vaso-constrictor and lowers arterial pressure. In this fact lies a contraindication for its use.—*L'Union Medicale*.—*The Medical Register*.

Formula for Paraldehyde.

EDITOR MED. AND SURG. REPORTER:

Sir:—I have occasionally desired a hypnotic for cases in which it was not advisable to administer any preparations of opium nor chloral hydrate. Paraldehyde appeared to act favorably in nervous irritability, or even cerebral exhaustion, as well as hyperæmia and insomnia, especially the latter; but it is a substance quite unpleasant to swallow. As the result of several experiments, I offer the following as forming a clear solution, which can be administered alone or mixed with water, without change:

R	Paraldehyde.....	2 fl. drachms
	Glycerine.....	4 fl. drachms
	Simple syrup.....	8 fl. drachms
	Sweet spirits of nitre.....	10 fl. drachms

Oil of sweet orange (or oil of anise) twenty drops to flavor. Mix and unite by agitation. Dose.—One to four fluid drachms every hour, or two to four hours.

After standing a short time it loses some opacity and becomes clear. A few drops of tincture of cochineal is advisable to color. Alcohol may be substituted for the spirits of nitre, but, in cases requiring a rather large dose, might not be advisable. If any one can furnish a formula superior to the foregoing it would be a favor to do so.

ALLEN A. RAWSON, M. D.

Corning, Iowa, May 10, 1888.

—*The Medical and Surgical Reporter*.

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Original Articles.

LAPAROTOMY.

By DR. CHARLES VON HOFFMANN.

Among the cases of laparotomy I have performed in the last six months, there were four which may be of more than ordinary interest. The first case was one of nephrotomy.

Miss L. sent for me December 5, 1887. I found her in bed, unable to get up on account of severe pains in the right hypochondriac region. She believed she had taken cold two weeks before I saw her. That night she had a chill. Previous to this illness she had always been well, suffering only occasionally from sick headaches. The patient was about forty-five years old and had passed the menopause. She was always thin. About four inches to the right from the umbilicus I found a swelling, very painful to the touch. The urine was clear. I ordered oil of ricini and morphine, providing pain should be severe. On the 7th the bowels were empty, yet the swelling seemed larger. On this day the urine contained pus, almost half its quantity. The patient had vomited after the morphine. Hot flax seed poultices and fluid extract buchu were ordered. Next day pains were more intense; the patient could not move at all and had completely lost her appetite. Elixir McMunn was given, flax seed poultices continued. On the 10th the urine was perfectly

clear, but the swelling was larger, extending very nearly to the umbilicus and could be traced backwards to the region of the kidney. Percussion gave a partly dull and partly tympanitic sound, showing that part of the intestines were lying in front of the tumor. On the 12th the urine again contained a great deal of pus. The case continued thus, the patient getting weaker and the swelling increasing in size. On the 19th it reached above the umbilicus to the left side. Fever had existed all the time, but no chills had occurred. On the 20th December I examined the patient in company with Dr. Morse. We administered ether and we felt a fluctuating tumor starting from the region of the right kidney extending to the left side of the umbilicus. The patient consented to the proposed operation. After the necessary preparations I operated on the 24th December in the house of the patient with the kind assistance of Dr. Morse, and Dr. Hoffmann took charge of the instruments and Dr. Renebome administered the anaesthetic.

I made the incision over the tumor to the right of the linea alba. The ascending colon was adherent to the abdominal wall as far down as the processus vermicularis which was visible in the wound. As Dr. Renebome reported the pulse very weak, beating at the rate of 140 per minute, and as he deemed it necessary to make injections of brandy and ether I concluded not to remove the whole tumor, as the operation might hazard the patient's life, but to sew the sack to the abdominal walls and to establish free drainage. Through the punctures made by the needle a quantity of bad smelling pus appeared, I therefore made a free opening into the sac, and by turning the patient on her side it soon emptied itself. Great care was taken that no pus entered the abdominal cavity. I then stitched the walls of the sac to the abdominal wound, cleaned the cavity with carbolic acid solutions and made an exploration for a stone, but was unable to detect the presence of one. Drainage tube was inserted and dressing applied.

The patient was very weak after the operation, but did not vomit, she had no fever in the evening and did not suffer any more pain.

The next morning, the urine which passed the bladder was clear. The dressing had to be changed twice a day. The patient remained without fever and her appetite returned four days after the operation. Seven days after the operation the

secretion had lessened, so that the dressing was changed only once a day. On the ninth and tenth day the stitches were removed. The secretion from the tube became clearer and soon gave the distinct odor of urine. On February 2nd I removed the drainage tube, a fistula remaining. The patient had gained very much and looked better. She got up and was able to walk around. The fistula discharged as a rule clear urine, rarely a little pus. In the last week of April the patient left the city for the country, feeling very well, the small fistula still remaining.

The second case was an operation upon an hæmatoma. Mrs. C. was admitted to the German Hospital, the 29th February. Ten months before she had given birth to her second child. Confinement was natural and easy. Two weeks later she lifted a bucket of water from a well. After this she suffered pain in the lower part of her abdomen, so that she was compelled to stay in bed for a few days. From that time on she did not feel well, always complaining about pain, and soon noticed a tumor in the left inguinal region. Her menstruation had not reappeared. I found an irregular tumor in the lower part of the abdomen, the largest part of which could be felt in the left inguinal region, its shape was round. From this mass a band extended over to the right side immediately above the symphysis. The cervix could be felt in the right side of the pelvis, the left side was filled by the lower part of the tumor. The uterus was situated in the right side, tilted somewhat backwards. By the examination per vaginam the band described above could be felt extending in front of the uterus. Both tumor and uterus were so intimately connected, that I had to use the sound, in order to define the position of the latter. Between the uterus and the rectum no tumor could be felt. The diagnosis was made of hæmatoma of the left ligament. Van de Warker describes hæmatoma as "an effusion of blood between the folds of the broad ligaments or in the connective tissue surrounding the uterus and vagina, which is now clearly recognized and differentiated from hæmatocoele. Hæmatoma is without the peritoneum, hæmatocoele within the peritoneum." The diagnosis was confirmed by Dr. Ellinwood, who kindly sent the patient to the hospital.

During the following days menstruation appeared accompanied by very little pain. As the patient was very anxious to get well as quickly as possible I proposed to open the abdomen and

to clean out the blood. The operation was done March 19th, with the assistance of Dr. Ellinwood. On opening the abdomen we found the omentum adherent to the symphysis and bladder, and after having gained free access to the tumor, it could be distinctly seen that it was situated without the peritoneum. To establish a drainage through the vagina I pushed a trocar from below entirely through the mass till it appeared above. As soon as the trocar had entered the tumor blood began to flow freely through both openings in the vagina and above. Through the canal I introduced a thick silk thread for the purpose of establishing drainage, and withdrew the canula. To prevent too great a flow of blood into the abdominal cavity I closed the opening above with two stitches. In the mean time the blood had escaped per vaginam and the tumor collapsed. The long threads remaining from the stitches and the silk thread, which was passed through the sac, I left hanging from the abdominal incision and closed the wound, applied the dressing and filled the vagina with iodoform gauze. The patient made a good recovery, and as there was no discharge I soon removed the drainage. The threads of the stitches remained for about two months, when they came away. About four weeks after the operation the patient complained about pain in the right regio hypochondriaca and the lumbalis, and the urine contained pus. After buchu had been tried without any success Dr. Ellinwood suggested fluid extract ergot, and the urine soon became clear, the pain disappearing at the same time. On the 9th of May the patient left the hospital. Examined her June 3d again. The uterus was in the normal position and movable. On the left side a small hard mass could be felt, the residue of the haemato-ma. The patient felt well and had no more pain. Menstruation had not yet taken place.

The third case was one of myoma uteri. Miss O'B. was sent to me by Dr. Emerson. The patient, thirty years old, had felt a tumor in the abdomen for about two years. The summer before her menstruation became very copious and she noticed a general weakening of the whole system. Before this she had been thrown from her horse and supposed that to be the cause of the tumor. I saw her for the first time on March 15th and found a hard tumor filling the lower abdomen and reaching a little above the umbilicus. Per vaginam the finger impinged upon a hard mass, which pushed down the posterior wall of the vagina.

The os uteri could be felt drawn up above the symphysis. The anterior lip was normal, the posterior lip was continuous with the tumor. The diagnosis was myoma uteri growing from and involving the posterior wall of the uterus. I advised an operation. The patient was admitted to the German Hospital March 29th. Myomotomy was performed April 5th. After the peritoneum was opened the tumor presented itself, and as there was no pedicle and it was impossible to form one I opened the capsule and endeavored to enucleate the tumor from its bed, and with the assistance of Dr. Morse succeeded. The hemorrhage though great was not alarming. At the deepest point of the sac I made an opening into the vagina and inserted a drainage tube. The wound in the capsule was closed with silk sutures, so that no communication existed between the abdominal cavity and the remaining sac. The uterus itself was thus left intact, and as a preventive against the formation of any new myoma I removed both ovaries. The external wound was closed and dressing applied. The drainage tube in the vagina was wrapped up in iodoform gauze. The patient was very weak after the operation, but did not show any rise in temperature. In ten days the stitches were removed and the wound was healed. A sero-sanguinolent discharge flowed through the drainage tube, which lasted only a few days, when the tube was removed. The patient gradually gained strength and left the hospital May 16th. June 7th I examined the patient again. Uterus is now in normal position, posterior wall thickened, patient feels well.

The last case was as follows:

Mrs. H., forty-four years old, had been complaining of nervousness, dyspepsia and pain in the back. She was treated for two years by different physicians, who could not give her any relief. The menstruation was regular, but was accompanied each month with great suffering, so that she became a confirmed invalid. Examination showed the uterus retroverted and adherent to the rectum. Both ovaries were fixed by adhesions and were very painful to the touch. I advised her to have her ovaries removed, and at the same time I desired to loosen the uterus from the rectum and fix it to the anterior wall of the abdomen by a few stitches.

April 15th laparotomy was performed. I found uterus and ovaries imbedded in a mass of adhesions, and as the whole

posterior surface of the uterus was adherent to the rectum, it was a very tedious labor to loosen the uterus so that it could be brought into the normal position. Both ovaries had to be dug out of a mass of tissue. With three stitches I fixed the uterus to the abdominal wall after the method of Leopold.

The patient, who had lost very little blood, was very weak after the operation, the pulse was always high, ranging up to 140, and very feeble. The temperature was normal. Dr. Kirchhoffer used every method to stimulate the heart. The patient complained only of weakness and died the 18th of an hypostatic pneumonia. There were no unfavorable abdominal symptoms.

This case was very instructive, for every one, who saw those adhesions, could never have thought of giving any relief to the patient by any other method of treatment. It would have been utterly impossible to bring and keep the womb in a normal position, and equally impossible to break them down by Shultz's method. At the same time a glance showed the dangers, which would have been encountered by using any uterine retractor or elevator. Although this case ended fatally, I cannot say that the operation was the cause of death. The danger came from the heart. This weakness of the heart had existed for some time previous, as the words of Dr. Morse show: "She almost died when I gave her ether to operate for caries of the jaw." This happened about a year before, and when she spoke to Dr. Morse at that time about her uterine trouble, he recommended her to come to me.

EXTRACTION OF SWALLOWED FISH BONE.

By W. P. AGNEW, M. D., Oakland.

About the middle of June I was called to see a Mrs. O'Keefe who was six months pregnant and had been suffering for over two weeks from the formation and effects of a tumor located in the umbilical region of the abdominal walls, nearly seven inches in diameter, circumscribed and moveable.

There being no history by which the real cause of this formation could be ascertained, the physician in attendance had diagnosed and treated it as an umbilical hernia.

On examination found no hernia present, neither a deep-seated nor a superficial pus cavity, but simply an indurated mass, with a slight abrasion and inflammatory action at the apex, discharg-

ing on pressure a few drops of laudable pus, which I thought might have been produced by hot poultices that had been applied.

The pain radiating from the tumor localized principally in the uterus, exciting false labor pains of an incessant and annoying character, and unyielding to anodyne treatment. After twenty-four hours experience I found myself unable to give a satisfactory explanation or prognosis of the case and asked for counsel; whereupon several physicians who examined the enlargement pronounced it variously, cystic, malignant, semi-malignant, etc. Dr. E. H. Woolsey assisted by Dr. Crowley and myself layed the mass open in different directions and found to our surprise and astonishment a fish-bone of about the size of a rye straw, one and one-fourth inches long, deeply embedded in the tissue. The wound was antiseptically dressed every day and healed by granulation. The false labor pains kept up for three weeks after the operation and at times threatened to exhaust the patient, rest being obtained only by half grain doses of morphia administered hypodermically.

This case was made obscure from the fact that no foreign body was suspected and no external injury received. The family had no recollection of the lady's swallowing a fish-bone until after it had been found, when they recalled the circumstance that ten months previously she was eating fish when a bone lodged in the throat which was with difficulty swallowed by eating a piece of cracker.

How did this bone penetrate the coats of the stomach without causing distress, and why should it cause a commotion so late in its transit and thereby set at naught the diagnosis of so many well meaning and learned doctors?

VAGINAL TOTAL EXTRIPATION OF THE UTERUS FOR CANCER.

By E. S. MCKEE, M. D., Cincinnati.

Vaginal total extirpation of the uterus for cancer is a subject which has received much merited attention of late at the hands of the Germans. Sufficient material has been collected during the past ten years to decide whether this is an operation which is practicable or not and whether it gives permanent and favorable results which lead us to consider it superior to any other treatment of the cancerous uterus up to the present time. Vag-

inal extirpation has obtained decided recognition in Germany, and the purely vaginal operation of Czerny, Billroth and Schröder has succeeded the procedure of Freund which was a combination of the vaginal and abdominal methods. In 1881 Olshausen collected 41 cases with 29 per cent mortality. In 1883, Sanger, 133 cases with 28 per cent mortality. In 1884, Engstrom, 157 cases with 29 per cent mortality. A. Martin, up to the close of the year 1886, had collected 311 cases with 47 deaths, or 15.1 per cent. Thus we see that with increased experience the mortality is gradually decreasing, and it is to be expected that it will continue to decrease. The operation as to immediate mortality shows better results now than the removal of the breast for cancer.

The process followed by Dr. Martin in operating may be described as follows : The bowels are thoroughly emptied, the vagina thoroughly disinfected by an antiseptic irrigation, the patient placed in position on her back and hips and put under chloroform. The vault of the vagina is exposed by means of a speculum and side pieces ; the cervix is seized by bullet forceps on its posterior border and drawn forward as far as possible towards the symphysis pubis. This stretches the posterior arch of the vagina and the insertion of the vagina can be very nicely determined. He then makes an incision along the whole length of this insertion so as to get into Douglas' cul-de-sac as quickly as possible. This is frequently attained with the first cut. This accomplished, he enlarges the cut so that the forefinger of the left hand can enter, and then with a small needle very much curved he sews around the entire border of the cut in the vagina. He generally uses four or five of these sutures which unite the peritoneum of Douglas' cul-de-sac to the vaginal wall, and all hemorrhage at this point is stopped. He next sews up the stump of the broad ligament, using large needles with double threads. These threads must also unite the peritoneum and vaginal wall. Generally he uses three of these on each side, by means of which he firmly unites the floor of the pelvis and the vagina as far as the anterior border of the cervix, thus more securely controlling the vessels which pass through before they are cut. To separate the floor of the pelvis as far as its interior border from the cervix the knife is thrust directly forward along the cervix uteri, on both sides this lies entirely free, that is as high as the fundus. After all hemorrhage has been stopped he

cuts around the anterior periphery, at the same time drawing the uterus forcibly backward and putting the anterior vaginal wall on the stretch. Having cut through the vaginal wall he separates the bladder with his finger nails so far as he can discover any attachment. This is found to vary from one to five centimeters in thickness or even more, and it is sometimes necessary to use the knife in order to separate the firmest bands of union. The suture of the surface which has been separated to the vaginal wall must be made here as exactly as possible. Here four sutures are generally sufficient to stop the hemorrhage and to restore the continuity of the vaginal wall. When the hemorrhage has entirely ceased he grasps once more the posterior portion of the uterus which has been separated, and having determined the size and the mobility of the uterus seizes the posterior lip with a Muzeaux' forceps in order to draw it forcibly forward. A Sims' speculum or a side holder placed in Douglas' cul-de-sac protects the fundus as it is drawn down from catching on the posterior border of the wound. By making successively fresh grasps with the Muzeaux' forceps the posterior wall of the cervix and the fundus are guided into the opening. If the uterus is freely movable and not too large this procedure is simple; otherwise it is sometimes quite tedious. In some instances an advantage is gained by pushing the uterine cervix up behind the pubis. In other cases a blunt sound run up into the uterine cavity is quite an assistance. A disadvantage in using this instrument is that the posterior border of uterus is often bored through by this instrument and the contents of the uterus escape over the surfaces of the wound. As soon as the fundus of the uterus presents itself it follows easily through the opening if the attachments have been well separated. In some cases the use of the knife is here necessary. Excessive hemorrhage often accompanies the further detachment of the uterus, while in this inverted condition, and renders it very difficult. He isolates the insertion of the broad ligaments to the organ, displays the tubes and that portion of the broad ligament lying near them in order that he may tie it in one, or two, or three segments, which he accomplishes on both sides before he cuts away the uterus itself. There still remains to be separated a thick mass of tissue as the sides of the lower segment of the fundus. The separation of the uterus from the bladder is always easily accomplished if one always works close to the

uterus. Martin prefers to sew together the peritoneum and the vagina before completing the separation, thereby not allowing the peritoneum to slip beyond control. After completing the left side the separation of the broad ligament stump is attained. Here also the control of the hemorrhage and the fixation of the stump is secured by the sutures before the uterus is completely freed. The loops of intestine seldom come down to the seat of the intestine or in sight. If they do come in the way lay a sponge on them and protect them. The ovaries and tubes often come down into the wound, especially when they are much enlarged. In such cases they can be ligated and cut away without much difficulty. Thus far a continuous stream of a weak solution of carbolic acid suffices to keep the wound cleansed. Recently it is his practice to use two or three small sponges, to cleanse Douglas cul-de-sac. These are secured by long bullet forceps and are drawn over the edges of the wound, as to make them more safe. He has not experienced excessive hemorrhage following extirpation of the uterus. He inserts into Douglas' cul-de-sac a thick drainage tube which is held in place by a cross piece. After ascertaining the condition of the bladder the operation is concluded.

The duration of the operation varies from twenty minutes to two hours, according to the difficulties which are met with. Sometimes the hemorrhage is exceedingly small, not exceeding fifteen grammes. The hemorrhage is especially great if the neighboring tissues are diseased, whether they are old cicatrices from a former inflammation or a commencing inflammation. For the prompt control of this hemorrhage a considerable experience in the use of the needle is necessary. If easily done he recommends the removal of the ovaries and tubes. It is not the custom in Germany as in France and to some extent in England to use the clamping forceps to restrain the hemorrhage from the ligamenta lata. Martin says that you can tell that the cancer is limited to an organ by its having a layer of entirely healthy tissue about it. Leopold thinks it is now always possible to tell whether the disease is limited to the organ or not. The prognosis in the total extirpation of the uterus is now quite as good as the supra-vaginal operation and is rapidly supplanting it in Germany and also in other countries.

INTERESTING AND ANOMALOUS FEATURES IN A CASE OF HERNIOTOMY.

By Dr. T. V. GOODSPEED, Seattle, W. T.

January 27th, 1888, was called to see J. J. F., occupation dairyman, æt. 40. Patient had for years an old, reducible, oblique inguinal hernia, and had been wearing an ill fitting home-made truss. That morning had been handling calves, and after considerable severe exertion had been taken with intense pain in the lower part of the abdomen and had retired to the house and to bed where I found him rolling and tossing in great pain. He had been vomiting constantly great quantity of bile. Face was pale and anxious and abdomen much distended, tender to pressure and tympanitic, with all the signs of ileus and, probably, some peritonitis. Found inguinal hernia on right side, hard, swollen and tense, and impossible to reduce. Gave morphia and atropia hypodermically and applied hot fomentations, and after several hours, tried reduction again, but without success. Saw the case the next morning in consultation with Dr. Thomas Phillips, of Stockton, and Dr. Obed Harvey, of Galt. With patient under anaesthetic all the usual means of reduction failed, and the usual operation was decided on. The sac was found adherent to the canal, and when opened, found to contain bowel and omentum, with the omentum adherent to the sac. After dividing the ring and dissecting loose the omentum, as the bowel and omentum appeared healthy, they were returned to the abdominal cavity. A finger passed through the internal ring and swept around the circumference of the opening, showed that neither bowel nor omentum were adherent there. The internal ring was closed with a deep stitch through the pillars of the ring, and the wound closed and dressed in the usual way, and the patient put to bed.

Thus far the case presented no novel features, but when after two or three hours the signs of obstruction did cease, a copious enema was given with no other effect than to bring away several masses of scybala. The vomiting continued and had become stercoaceous. As there had been considerable gurgling and twisting about the distended intestines, I suspected a vulvulus of some part of the intestinal tract, but as that portion which was returned seemed to be free and returned with a loud gurgle, did not suspect the obstruction there. It was determined to wait until the next morning, and if not by that time relieved, to

open the abdominal cavity and search for and relieve the trouble if possible.

Accordingly, the next morning, assisted by Dr. Asa Clark, of Stockton, and Dr. Harvey, with proper antiseptic precautions, laparotomy was performed, and as the much distended bowels protruded into the wound, a hypodermic needle was passed into them and a considerable portion of the gas allowed to escape. The peritoneum and bowels were deeply congested, showing an intense inflammation. A small nuckle of bowel involving about two-thirds the lumen of a portion of the jejunum was found protruding into the femoral ring, on the same side as the hernia reduced, and tightly constricted. The ring was divided from the inside and the constriction relieved. The portion constricted was found gangrenous and a portion of the gut was resected. A portion of the bowel had been bent around Poupart's ligament and epigastric vessels. A loop passing down the inguinal canal and becoming constricted and a small portion had become constricted in the femoral ring. The two points of constriction were not more than two inches apart. After the proper toilet, the patient was put to bed, but died from peritonitis in about six hours.

This has appeared to me such an unusual case, presenting such novel features, that, never having seen nor read of a similar one, I have felt induced to report it. No suspicion of a femoral constriction occurred to any of us at the time of making the first operation, and even if suspected, I can not see how it would be possible to determine it without performing laparotomy, as only a small portion of the gut was constricted, and not enough being protruded through the femoral canal to make a tumor which could be detected by an external examination, even if not overshadowed by an inguinal hernia on the same side.

SOME OBSERVATIONS ON THE LESIONS CAUSED BY THE LEBEL RIFLE.

By D. W. MONTGOMERY, M. D.

The lesions caused by the small bullet of the new French rifle have been subjected to direct experiment by shooting at cadavers at distances varying from 200 to 2,000 meters. The diameter of the bullet of the Gras rifle is eleven millimeters, whereas the diameter of the bullet of the new weapon is eight millimeters.

Some observers in speaking of the balls of small caliber have asserted that the wounds produced are not nearly so extensive, as those caused by bullets of larger caliber, and they have named the smaller bullets "humanitarian bullets," while, on the contrary, others have said that the small bullets cause frightful wounds. The experiments have shown that with equal distances and velocities the lesions caused by the two kinds of bullets do not vary very much. The orifices of entrance and exit of the new bullets are however smaller, and therefore the wounds are more difficult to treat.

We have gathered some more exact information from an article by M. Delorme on the experiments performed at Val-de Grace.

Cadavers were set up first at ordinary distances for firing, i. e., at 600, 400 and 200 meters, and then at exceptional distances as at 1,000, 1,400, 1,600 and 2,000 meters. These experiments showed that with the exception of some minimal differences of secondary importance the wounds produced by the small caliber projectile were the same as those of the large caliber bullet of the Gras rifle.

The orifice of entrance clean cut, circular and usually from four to six millimeters in diameter, that is to say of a less diameter than the bullet. The orifice diminished with the velocity till at 1,600 meters it had only the diameter of the flattened end of the projectile. As the shooting distance was diminished and, as a consequence, the velocity of the projectile increased the orifice of entrance increased in diameter. The orifice of exit was a little larger than that of entrance, and was either round, star, T or L shaped according to the region traversed. Perforations of the aponeuroses were found variable as to form and extent according to the kind of aponeurosis traversed, and the velocity of the projectile, just as they are with the ball of the Gras rifle.

The muscular perforations are of somewhat greater diameter than of the skin as with old bullet. At distances below 300 meters so-called explosive effects were produced—sometimes the muscular perforations were enormous whether the bones were broken or not.

With the old gun transverse and oblique fractures without splintering could be caused by the ball striking the bone directly on the center, this cannot happen with the new gun,

and such fractures can only be caused by the new gun if the bullet strikes the bone at a tangent, and furthermore as the new bullet is not deformed by striking a bone the orifice of exit is not altered in such a way as to serve as a diagnostic guide for such fracture.

It has been advanced by some that the small caliber balls made of hard lead with a metallic covering do not break on coming in contact with the bones like the cylindro-conical balls of soft lead. The small balls with a metallic covering, it is true, may traverse a diaphysis without undergoing much change of form, but if they once begin to fissure they quickly go to pieces, and these pieces are extremely hard to find even on opening up the seat of fracture by free incision.

It is interesting to note that the shooting with the new rifle is almost noiseless, and accompanied by no smoke.

The Treatment of Typhoid Fever by Carbolic Acid.

Dr. Gramshaw recently published the results obtained by him in the course of seven years, in 116 cases of typhoid fever treated by him with the following formula: Carbolic acid 12 minims, tincture of iodine 16 minims, syrup of orange peel and water to eight ounces. Of this mixture he gave an ounce every four hours. The good effect is manifested almost immediately, in a fall of the temperature, a lowered pulse-rate, and a cessation of the diarrhoea. The treatment is evidently based on germicidal theories, though the strength mentioned, when mixed with the gastric and intestinal secretions, would not be such as to interfere with the comfort of these stalwart microbes—if microbes there be. Turning, however, to these results—for the proof of the pudding is in the eating—out of the total number of 116 patients, 17 were children, 10 adolescents, and the remainder adults of both sexes. Of all this number, only one proved fatal, and even in this instance the death was due to something else, a stomach-ache, perhaps. With such figures to work from there ought to be a rush on the part of practitioners to give their patients the benefit of Dr. Gramshaw's discovery. A mortality of less than one per cent is extraordinary, if with the mildest forms of the disease. There is plenty of scope for inventive geniuses in the matter of medicinal treatment for typhoid fever, for at present it may safely be said to be purely expectant.—*Medical Press.*

Health Reports.

San Francisco Health Report.

ABSTRACT.

	1887	Jan	Feb	Mar	Apr	May	June	July
Total, 1887.....	5649	522	451	445	450	475	409	459
Total, 1888.....		650		488	502	504	479	519
Phthisis.....	858	89	78	87	90	75	74	72
Pneumonia.....	320	103	56	62	47	39	41	39
Bronchitis.....	127	25	31	14	11	19	9	12
Heart Disease.....	273	43	27	26	29	22	34	35
Aneurism.....	27	0	3	4	2	0	0	4
Apoplexy.....	147	11	15	22	8	18	13	14
Typhoid.....	121	23	8	6	13	12	16	12
Paralysis.....	109	16	8	7	8	9	3	9
Cancer.....	174	18	21	17	15	22	8	24
Diphtheria.....	222	10	15	7	11	15	5	7
Croup.....	92	10	6	4	5	6	3	4
Infant Convulsns.....	156	12	13	13	10	18	14	16
Meningitis.....	130	18	20	16	21	12	21	10
Casualties.....	174	12	15	10	16	22	19	18
Suicides.....	84	8	5	9	10	6	4	5
Homicides.....	21	2	5	2	2	2	1	1
Small Pox.....	24	27	9	4	4	2	0	2
Enteritis.....	..	17	..	12	11	19	21	9
Measles.....	..	11	5	2	1	1	0	0
Alcoholism.....	..	5	3	4	2	6	3	
Daily mean tem.....		46.3°	52.8°	52.5°	56.2°	54.4°	61.°	59.1°
Precip. moist're.....		6.81	0.94	3.60	.11	.38	.27	.01

Population according to U. S. census, July 1st, 1880, was 234,520; Caucasian, 212,520; Chinese, 22,000. Estimated population, June 30th, 1887, 300,000.

Report of State Board of Health.

Mortality reports received from eighty-five cities and towns within the State return the number of deaths as nine hundred and fifty-eight in an estimated population of seven hundred and fifty, a monthly percentage of 1.34 per thousand, or an annual death rate of 16.08, which indicates that the low mortality noticed in last report still continues.

Consumption, which, as before remarked, adds largely to our mortality, gives the remarkably small number of one hundred and thirty-seven deaths in July, a decrease of nineteen from last report, which was then the smallest recorded in several months.

Pneumonia caused forty-six deaths, thirty-nine occurring in San Francisco, the remaining seven being distributed throughout the State, which is a great decrease in the mortality from this disease, and indicates a general absence of acute pulmonary diseases.

Bronchitis caused but sixteen deaths throughout the State, San Francisco, Oakland, and Los Angeles contributing them all.

Congestion of the lungs was fatal in seven instances among children.

Whooping-cough is credited with thirteen deaths, eleven of which occurred in San Francisco and two inland.

Diphtheria continues to add to our mortality, twenty-eight deaths being attributed to it and nine to croup, which makes a record of thirty-seven deaths from these twin diseases. San Francisco reported eleven, Oakland eleven, San Bernardino three, Sonora two; College City, Etna Mills, Truckee, Vallejo, Napa, Los Angeles, Mono, Watsonville, San José, and Stockton one each.

Scarlet fever caused seven deaths, one in Sacramento, one in Elk Grove, one in Grass Valley, one in Wheatland, and three in San Francisco.

Measles had the small mortality of two.

Smallpox caused two deaths, both in San Francisco; recent arrivals there.

Typhoid fever is credited with thirty-five deaths; same mortality as occurred in June.

Remittent fever was fatal in ten instances.

Cerebro-spinal fever caused twelve deaths, which is double the number recorded in June.

Cancer was fatal to forty-three decedents, which is a large increase for the month.

Heart disease also carried off the large number of seventy-two.

Erysipelas was fatal in two instances.

Alcoholism caused six deaths.

The following towns report *no deaths* during the month of July: Biggs, Bodie, Castroville, Cedarville, Dixon, Downieville, Downey, Fort Bidwell, Gonzales, Igo, Knight's Ferry, Lincoln, Livermore, Merced, and Roseville.

PREVAILING DISEASES.

Reports received from eighty-five localities indicate a limited amount of sickness throughout the State, the most prevalent

being disorders of alimentary canal and paludal fevers. There seems to be an increasing prevalence of typhoid fever, which can in almost every instance be traced to impurity in the water consumed. This may be expected until the rainy season sets in, when the ground water will rise and correct the impurities which probably exist in all shallow wells that receive the surface drainage.

Cholera infantum prevails quite generally, and is noticed in reports from Santa Ana, Lodi, Healdsburg, Dixon, College City, Fort Bidwell, Lakeport, Shasta, Williams, Sissons, Lemoore, Cottonwood, San Francisco, Oakland, Healdsburg, Truckee, and Stockton. If it is true, as recorded by Hayem, that cholera infantum depends upon the development of a microbe in the bowels, mothers cannot be too careful in seeing that the milk fed to babies during the summer months is first boiled, and never given when *sour or musty*, but freshly prepared for each meal. Hundreds of lives are sacrificed yearly by neglect of this precaution. The boiling of the milk from cows fed upon alfalfa is particularly requisite, as this kind of feeding seems to give an irritating quality to the milk, which in most babies induces a very violent diarrhoea and disturbance of the stomach.

Diarrhoea is mentioned as prevailing to a noticeable degree in Mariposa, Sierra City, Dixon, College City, Cedarville, Alturas, Fort Bidwell, Colton, Lakeport, Bakersfield, Shasta, Sissons, Downey, Santa Clara, Tulare, Livermore, Calico, Benicia, Gridley, Sacramento, and Salinas.

Dysentery is reported in Jolon, Tulare, Igo, Mariposa, Colton, Sissons, Santa Cruz, Truckee, Salinas, and Millville.

Cholera morbus was also noticed in College City, Lemoore, Bakersfield, Williams, Truckee, and Redwood City.

All of these diseases are more or less influenced by meteorological conditions, extreme heat being a prominent factor when associated with insanitary conditions, decomposing material, or unsuitable food.

Smallpox. There was but one case of smallpox reported in July, and that came by train from Bethany, near Stockton, to San Francisco. No other cases seem to have arisen from it. Two cases of smallpox were imported from China on the second of August, and were at once provided for by the City Board of Health of San Francisco. We may therefore practically claim California to be free from the disease.

Measles, in a mild form, was present during the month in Sonora, Sissons, Jolon, Millville, Santa Clara, Redwood City, Lodi, Biggs, Castroville, and Oakland.

Scarlet fever was observed in Lemoore, Biggs, St. Helena, Wheatland, Elk Grove, Sacramento, Grass Valley, and San Francisco.

Diphtheria was quite prevalent in Oakland during the month, and is mentioned in reports from San Francisco, Sonora, Tulare, Truckee, Etna Mills, Riverside, College City, San Bernardino, Napa, Pomona, Stockton and Vallejo. The contagious nature of the disease ought to insure prompt disinfection of every article used by the sick, and strict isolation should be enforced in every case. There is no doubt that diphtheria is frequently propagated by permitting mild cases of the disease to mingle with the public, it not being generally known that from the mildest attack the most virulent can be and often is developed.

Whooping-cough was present in Gridley, Bakersfield, Biggs, Tulare, Lockeford, Calico, Bodie, and San Francisco.

Erysipelas. Sporadic cases of this disease were reported in Sacramento, Downey, Igo, Truckee, Merced, Tulare, Gridley, Sonora, Mariposa, Sierra, Fort Bidwell, Millville, Bakersfield, Williams, and St. Helena. The type was mild and not attended by any serious mortality.

Typhoid fever was noted in Colton, Cloverdale, Chico, Davis, Jackson, Los Angeles, Oakland, Pasadena, Redwood, Sacramento, San Francisco, San José, San Diego, Fort Bidwell, Lakeport, Shasta, Igo, Healdsburg, Hills Ferry, Santa Clara, Merced, Etna Mills, and Salinas.

Typho-malarial fever was present in Davis, College City, Elk Grove, Pomona, Millville, Truckee, Igo, Lemoore, Tulare, and Cloverdale.

Remittent fever is noticed in Dixon, College City, Sierra, Knight's Ferry, Williams, Bakersfield, Downey, Ontario, Lemoore, Tulare, Bodie, Cloverdale, Cottonwood, and Wheatland.

Pneumonia. Some cases of this disease were noticed during the month in Santa Clara, Downey, Brownsville, Gonzales, Lockeford, Tulare, Etna Mills, Castroville, San Diego, Salinas, San Jose, Marysville, Colfax and San Francisco.

Cholera is prevalent in Hongkong, and has made its appearance again in Japan. The proximity of cholera through the

constant commercial intercourse between these countries and our own renders us peculiarly exposed to an invasion of the disease, recollecting the persistence with which cholera germs maintain their existence under the most adverse circumstances. With bowel disorders so prevalent as they are now, the human system is in a condition of receptivity that would readily become infected and develop the disease in its most fatal form. Sir Joseph Fayer, from his great experience in India, maintains that under certain circumstances cholera morbus, or summer cholera, may become epidemic, and is undistinguishable from Asiatic cholera, variation being in severity and not in kind. It is therefore prudent to avoid all known causes of bowel disorders, especially overripe or decayed fruit, and all noxious emanations from any source. The strictest hygienic measures should be enforced within our cities, our dwellings, and surroundings. All garbage and decaying organic matter should be burnt or deeply buried; outhouses cleaned and whitewashed, as cholera, if once it invades our State, will spare none but those who have made themselves secure by sanitary forethought and precaution.

PACIFIC COAST WEATHER IN JULY, 1888.

Weather.—Rain fell in Washington Territory on the 1st, 2d, 3d, 11th, 12th, 13th, 14th, 25th, 26th, 27th, and 28th; in Oregon on the 1st, 2d, 3d, 12th, and 13th; and local showers in California on the 11th, 12th, 17th, 18th, 19th, and 20th.

Thunder storms occurred along the California coast, north of San Francisco, on the 11th, and in the mountain districts of eastern California on the 17th, 18th, 19th, and 20th, those on the three latter days being unusually severe.

Two storms were traced during the month, passing from the coast to the east over Washington Territory and Oregon, on the 2d and 11th.

Rainfall.—The precipitation has been about normal throughout California; elsewhere it has been about half an inch above. The heaviest rainfall, reported for stations in California, was 3.51 inches at Summit.

Temperature.—The mean temperature has been about normal over the entire coast. An unusually warm wave extended along the coast of California on the 15th; the maximum thermometer on that date at San Francisco reading 93.4° being the highest temperature recorded at that point since 1849. The warm wave

spread over the interior valleys the following day, and extended to Oregon and Washington Territory on the 17th ; but continuing over the interior of California until the 24th, when it moderated somewhat. The highest temperature reported from stations in California was 117°, at Mammoth Tank, on the 22d; the average of the observations taken daily at 2 p. m. at that station being 110.2°, and the monthly mean temperature of 97.20°. Maximum temperatures of 100° or over were reported from all stations in California, other than those located on the immediate coast or in the mountain districts.

GERRARD G. TYRRELL, M. D.,

Permanent Secretary California State Board of Health.

Sacramento, August 10, 1888.

Contribution to the Study of *Hydrastis Canadensis*.

Givopiszew, of St. Petersburg, has recently made an elaborate study of this old American remedy, with the following results:

1. Aqueous extracts of hydrastis, even in large doses, are not poisonous to warm-blooded animals.
2. Hydrastis always produces cardiac depression and consequent reduction of arterial tension.
3. It always produces uterine contractions. The aqueous extract is to be preferred for this purpose. The contractions of the pregnant uterus near term are most powerful, those of the virgin uterus weakest.
4. Large doses of hydrastis may induce premature labor after the fourth month.

The author sums up the clinical uses of hydrastis as follows:

1. Hydrastis is an excellent remedy for uterine hemorrhages due to inflammations or misplacements of this organ ; also for profuse hemorrhages occurring about the menopause.
2. The uterine contractions produced by hydrastis are weaker than those produced by ergot.
3. The use of this drug is followed by no untoward symptoms. It produces no gastro-intestinal disturbance, but, on the contrary, will frequently relieve dyspepsia.—*Bulletin Gen. de Therapeutique*.—*Buffalo Med. and Surg. Journal*.

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SAN FRANCISCO, SEPTEMBER, 1888.

Editorial.

THE CHINATOWN ULCER.

One of the most common, most serious and best grounded complaints against the Chinese population of this city is their adherence to certain habits of life, which have characterized their people at home for untold centuries; that is to say, excessive crowding and general disregard of other rules of hygiene. This propensity ought not to occasion surprise nor provoke special blame, for habits of many generations are never abruptly abandoned. The same overcrowding, with deprivation of sunshine and fresh air and accumulation of various kinds of refuse, redolent of putrefactive gases and stenches, is generally accompanied with prevalence of the filth diseases among white people, while in reality typhoid fever and diphtheria are almost unknown among the Chinese residence. It is probable that the ravages of pulmonary consumption among them are largely due to the bad air and dampness inseparable from unventilated apartments under ground, but it is evident that the race has become somewhat tolerant of the unsanitary conditions of over-crowding, as the natives of the African coast have become inured to malaria.

With this admission, it is still desirable that they should conform to the sanitary regulations observed by our people, both for their own welfare and to remove the influence of a bad example, which is sure to debase those in their immediate vicinity. Hitherto the efforts of the sanitary and police authorities seem to have been spasmodic and limited to fumigation with partial cleaning up, followed by long periods of total inaction. The general public have indulged in general denunciation of the whole race, without any definite plan for amendment.

In our judgment it is a problem of sanitation, quite capable of solution. Of course, it is the work of a competent sanitarian, and steady perseverance in a settled plan for a prolonged period is indispensable for success, together with a liberal support by the authorities and the encouragement of the public through the usual channels of expression. The movement in a proper direction is not to be effected by raids, however vigorous, but by a pressure of moderate force at first, never relaxing and gradually increasing in weight; to be applied at selected points until satisfactory results ensue, and then shifted to others contiguous or near, until the whole ground shall be covered. In this way suitable cubic air-space, light and ventilation can be secured, and at the same time subterranean lodging rooms be abolished. The necessary legislation must be applied by the city authorities, and owners of property be held to strict responsibility for supplying light and ventilation, while lessees must be made responsible for overcrowding.

It must not be expected that any sanitary system can be contrived to run automatically, like a machine. Unremitting supervision by an expert is indispensable, and he must be supplied with inspectors for making frequent domiciliary visits, day and night. The Chinese are already accustomed to these visits, and do not resent them like white people.

Another great advantage from such *surveillance* would be the discovery of smallpox and leprosy, which these people now so successfully conceal; and still another would be opportunities

for the repression of gambling and opium-smoking. The last vice is practiced by the Chinese wholly without restraint, and the former by all who care to visit well-known resorts. The Health Inspectors should be commissioned as policemen and instructed to make arrests in Chinatown and elsewhere for these offences, as well as for violation of sanitary ordinances; or they might be accompanied by policemen in their visits.

It is a great mistake to suppose that the disgrace for the unsanitary condition of Chinatown properly attaches to the Chinese population. They knew no better in their own country and see no advantage in our improved habits. The authorities have the whole matter in their own hands, and only need to use the necessary means. It is simply a question of money, of that knowledge which money can command, and of a disposition to do something. So far, there has been abundance of vituperation of the weaker class by the stronger, and next to nothing has been done. The Chinese are an unsavory element of population, but they are not to be reformed by denunciation. The crying need is work, not words.

SMALLPOX IN SAN FRANCISCO.

From July 1 to August 22, no case of this disease came to light, and there seemed to be a fair prospect of continued exemption. On this last date the master of the schooner "America," presented himself for inspection at the Health Office, with a well-marked varioloid eruption. His vessel had plied between Bolin Island, in the San Joaquin river, and the city. He furnished no information upon the source of the infection, whether in the country or the city.

On August 26th, the case of a young man residing on Washington street, between Powell and Stockton, was reported by his physician. This subject had been a guide to Chinatown, and probably contracted the disease from a case which has been concealed there and had infected some apartment visited by the guide.

On the 27th a man came to the Health Office, who had been lodging at the corner of Kearny and Jackson streets, in Chinatown, and the same day two other men were reported sick, one at least of whom had visited Chinatown within two weeks.

On the 28th three cases were reported; on the 29th and 30th one case each day; and on the 31st, four more cases.

September 1st six cases turned up, and at the present writing (September 10th,) there are to be added six more since the 1st September, making twenty-six cases of the current series, two of which have terminated fatally.

Now, small-pox is a preventable disease, and its prevalence in any community means faulty sanitation. In San Francisco the blame does not properly attach to the Health Department, whose organization dates back about twenty years when the city's population was scarcely one-third of its present number. On the supposition that its powers and equipment were at first equal to the needs of the population, it is evident that it has been distanced almost out of sight by the growth of the city, and that it is a physical impossibility for the present appropriation and force at the command of this department either to prevent or control such a visitant as small-pox, which is always liable to intrude. We have not space here nor time at present to dwell on this subject.

The remedy can be supplied by appropriate legislation, and when the suitable time arrives, we purpose to say somewhat more.

Tannin in Tuberculosis.

At the recent Congress of Italian surgeons, held in Naples, Professor Ceccherelli (Parma) brought forward tannin as an important drug in the treatment of tubercular diseases. This drug was recently introduced to the profession in this connection by Reynaud and Arthaud, who spoke favorably of its anti-fermentative character. Ceccherelli has been carefully examining the operations of the drug on several cases of tubercular lesions in his klinik, and now comes to the conclusion that tannin is both *anti-fermentative* and *anti-tuberculeuse*. Its anti-tubercular property is not only limited to the suspension of the tubercular development, but it also destroys the tubercular centers that are present. Tannin in this respect is far before iodoform.—*Medical Press.*

Extracts.

Progress in the Treatment and Care of the Insane: Hospitals Rather Than Asylums.

By D. H. MOUNT, A. M., M. D., Bay Head, N. J.

In these days of the telegraph, the telephone, the type-writer, and other instruments which we call the improvements of the nineteenth century, but which undoubtedly make us live all the faster and serve to tax the brain, it seems meet that attention and careful study should be given in proportion to the wrecks of humanity which all these economizers of time help to cause.

The statistics of the Life Insurance Company of the New York Produce Exchange are of interest in connection with this statement, for, as this is one of the oldest mercantile bodies in the country, and as it is in such places that steam, electricity, and all other devices which now enable a man to do the work in as many minutes as formerly it took so many days to accomplish are most appreciated, it probably furnishes as good an index for the purpose as can be found.

Nature seems always to provide a remedy, crude to be sure, when any injury occurs to the human mechanism; with man it remains to develop and carry out the hints so furnished.

To this are we indebted for the improvements in the treatment and care of those who have been rendered *hors de combat* by the strain produced from the methods of the current century.

Those people who deplore the passing away of the old stage-coach days, the slow post, and who think that the days of our grandfathers were more comfortable to live in than the present, are certainly right, if it cannot be shown that, as the evil has progressed, the remedy has kept pace with it. If insanity has increased, and it can be shown that the new cases received each year are out of proportion to the growth of the population, and that the recoveries are fewer, then these wishers after the "good old times" are correct.

Statistics in regard to the number and condition of the insane will be of interest to those desiring this information.

These will show at a first glance that insanity has increased out of proportion to the increase of the population, notably in New York; but several important points must be borne in mind whilst considering them. First, the different view with which

almost all people now look on the disease called insanity. Formerly it was considered a disgrace for one of a family to be known as being insane ; hence such cases were kept secluded as much as possible. Instances are numerous in which families, even in very ordinary circumstances, have had small brick or stone houses built to confine an insane relative in, rather than have it noised about the county of which they were residents that they had a relative who was crazy and in the lunatic asylum. All of these cases were, of course, lost to statistics, whilst now it is a comparatively rare thing to find a concealed case, and everything gets into the enumeration. Again, from better care and improved methods of treating them, the chronic insane live longer than formerly, thus increasing the grand total each year.

Of the foreign population increasing our rate, much has been written and spoken of. That these people do increase the rate seems to be an established fact, nor can it be wondered at when it is looked into closely. Here are a number of people who have been living quietly at home with probably no ambition for the future beyond the condition of life which their fathers enjoyed. (I speak more particularly of the German rustic, for he it is who predominates among our foreign insane.) One of these hears wonderful stories about the New World ; he sees a former resident of his village return for a visit who left there for America but a short time before, poor, but who now has plenty of money ; he determines to emigrate ; he takes the savings of his lifetime, makes the voyage, and arrives here ; but what a disappointment often awaits him.

He finds, instead of the quiet village people he left at home, a multitude of people, all striving to their utmost for the almighty dollar ; work he finds hard to get ; his money all gone, no friends to encourage him, what wonder, then, that despair, suicide, or insanity follows ? Thus, whilst had he remained at home he would most probably have enjoyed good mental health, here from worry and disappointment he becomes insane.

Much has been done in this country by alienists such as Mills, Seguin, Spitzka, Hughes, and others, so that in looking carefully over the field it will be found that, as a new phase of the disease presents itself, skill in treating it has been developed.

This is more particularly true of acute cases and of those cases which formerly were not recognized as pertaining to insanity, but which are now known as such, and by treatment a threatened attack of the disease prevented.

Blandford, in a recent address, made use of the following expressions in regard to the treatment of the insomnia in acute mania:

"When I began to practice, there was nothing but opium and its compounds ; but to give opium or morphine to a patient in this stage would certainly have the effect of not producing but of preventing sleep ; now there are the bromides, urethan, and numerous other hypnotics."

What Blandford calls the moral treatment has also been put in practice most successfully. Patients are now more carefully classified, and an attempt is made, with good results, to awaken a dormant sense by throwing them in contact with rational people, the Belgian plan of placing patients in the families of farmers being particularly successful.

The old custom of putting every obstreperous patient under restraint by means of apparatus has been done away with, I may say, in all the private asylums, and, where the patient's friends are able to pay for the extra attention involved, in most of the large institutions also ; some of the more advanced ones maintain that they have no restraining apparatus about the place.

Whilst the writer was junior interne in a large New York hospital, there were numerous surgical dressings to do, and he found that in order to get through the work between 9 a. m. and 1 p. m., his time must be economized. Soon it was seen that, among the more painful dressings, time could be gained by carefully observing the patient. It was found that when the patient expressed his feelings by making great outcries whilst the dressing was being done, that on the completion of the dressing he was in good condition ; per contra, it was found that those patients who said not a word, but who bore pain with firm-set jaws and white contracted lips, needed more attention afterward and really suffered more and were worse off than those who had made so much noise. It was felt that it was with the one who was making a noise as if the surplus steam was going off through a safety-valve ; while with the other, as if the safety-valve had been tied down, and an explosion imminent at any moment. With the insane who are being restrained the same thing is undoubtedly true ; their sufferings from their delusions causing them quite as much pain as if everything were true which they imagine.

A patient in my care, whose father is the owner of a palatial residence just outside of New York, one night went to her window and declared she saw her father's house burning. She described the different phases of the fire, and called on imaginary people present to save her father and mother from the flames.

Of course, soothing measures could avail nothing in such a case as this, but grs. Ix of sodium brom. were given by force, after which the patient was allowed to move about the room as before. In an hour an additional 60 grs. were given in the same manner, which was followed soon after by a complete quiet, and finally sleep. Formerly, in a case like this, the straight-jacket would have been used; but would not such treatment have put the patient in the same position as the one with the firm-set jaws mentioned above—or, in other words, would not the safety-valve have been tied down? On another occasion, when this same patient was in a "walking mood," and when it seemed proper to take some active measures to get her in a recumbent position because of the swelling of the feet and legs, and when she was observed leaning against the wall asleep, it seemed an opportune moment quietly to move her to her bed, and, by using mild force, get her to remain there. This was accordingly done, but with the opposite effect from that desired, for almost at once she became aroused, and, the longer she was held, the more violent she became, until it was seen that no good could be accomplished. Here, again, the bromide of sodium was given in large doses and with the same good effect as before.

In the old days, when, as Blandford says, they had nothing but opium and its compounds, and when a patient was in such a condition, restraining apparatus would surely have been used because there would have been nothing else to have resorted to—would not she, almost to a certainty, have had an attack of acute mania? As it was, the bromide put her in a profound sleep, which lasted for some hours, on waking from which she ate the food which had been placed at her bedside, and then again went to sleep to awake at intervals and take her food as before.

In such cases, the disposition among the more advanced teachers is to give the patient the greatest amount of freedom consistent with safety

In quite similar cases apparently, but where the patient's brain was anaemic, the writer has produced quite as good an effect from the administration of small doses of either alcohol or opium. When the ophthalmoscope can be used, the differential diagnosis between congestion and anaemia is, of course, easy ; but where the patient persists in keeping her eyes closed, or will not keep quiet, this means of deciding is out of the question, and the other physical signs must be the guide. These, however, cannot always be relied on to a certainty, for the anaemic patient will often have a fair pulse, and, more often than not, a flushed face. This treatment of congestion and anaemia is well illustrated in the headache of the sane. Their anaemic headache is cured by ammonia, a good dinner, or some other kind of stimulant, whilst the bromides take care of the congestive form. As progress has abolished for the most part some kinds of restraining apparatus, it has also brought other kinds into use. One in particular, which prevents the habit of self-abuse in the female, is worthy of mention.

None but those who have had such patients under their care, and who have tried hard to have them stop their habit, can have any idea what a relief an apparatus of this kind is, for, however much the patient may wish to prevent it, she oftentimes yields to temptation if left alone at night, and in a short time may undo the good results obtained after weeks of care. The apparatus is not a disagreeable one, and is worn readily at night by those particularly who are afflicted with sub-acute melancholia and who wish honestly to break themselves of the habit. This is a great advance, because to remove, or in a measure control, masturbation in the female is to remove a potent cause for insanity.

The giving of food forcibly to those who, with suicidal intent, refuse nourishment has been done away with by many, it having been found by close observers that if food is kept constantly before this class of patients, and if it is replaced by fresh food at regular intervals, whether the first has been touched by the patient or not, they will, if not too closely watched, steal a small quantity of it and eat it ; then, if no notice is taken of it, in a few hours they will take more, until finally they will in a short time be found eating their full ration. What Blandford calls "judicious neglect" is, I think, very applicable in such cases. I quote a typical case from my history-book :

Monday, August 20.—Patient took breakfast as usual this morning, but at dinner refuses everything and declares that “her insides are all gone” and that she could not take anything even “if she *dared* to.”

Tuesday, 21.—Absolutely refuses to dress herself or be dressed ; pulls clothing off as fast as put on ; breakfast with cup of milk left in room. 1 p. m.—Has taken no food ; breakfast removed, and dinner with fresh cup of milk put in its place. 4 p. m.—Whilst unnoticed has drank cup of milk, which was replaced at once by more. 6 p. m.—Dinner removed and replaced by supper.

Wednesday, 22, 6 a. m.—Milk has disappeared ; more milk placed in same manner, which also disappeared as soon as patient could take it without being observed, which was in a few minutes ; more milk supplied and breakfast taken in room at regular time, the supper of previous night being then removed. 9 a. m.—During the rest of the day, the same process was gone through with as before, the patient taking three cups of milk when unobserved, but leaving the other food untouched.

Thursday, 9.30 a. m.—Whilst thinking herself unobserved, patient has eaten everything which was taken in for breakfast, not leaving a scrap of anything. Dinner was eaten in the same way, and long before supper-time she asked how soon it would be ready.

In pursuing this plan, great care is taken to have the food changed at the proper intervals, and that it should be made as tempting as possible, not only to the sight, but also to the sense of smell. I have heard patients say, when a savory dish was being carried in by an attendant: “It smells good, but I must not eat it.”

Former habits and tastes bear looking into, in this respect. I have had a patient who took nothing but ice-cream for several days. It was supplied to her, all she would take, and it was good, too, according to her estimate for its taste ; but the doctor watched it, because it contained albumen, starch, sugar, etc., and he was well satisfied. Of the different medicines used, hyoscyamus and its alkaloids stand in the front rank, whilst others are being constantly tried and put among the feasible remedies. One thing seems worthy of note, and that is that heroic doses, given at long intervals in the disturbed cases, are of more avail than small doses given frequently. Hypo-

dermic medication may be made useful in the future, and cranial surgery is pushing to the front and received with great favor. Whatever progress has been made in the treatment and care of the insane in the public lunatic asylums is, I firmly believe, comparatively little compared with what will be done in the near future, if all signs are true.

Dr. Hughes, of St. Louis, in a short but able article in the *Alienist and Neurologist*, January, 1888, calls for the separation of all political influence from the State lunatic institutions, and gives the best of reasons therefor.

Suppose we go still further and ask for lunatic hospitals conducted on the same plan as any other hospital, where a regular house staff could be admitted by competitive examination, and the hospitals located near enough to the cities so that specialists could be of the visiting staff and constitute the examining board. This would do away with political influence for the most part. Take, for instance, Bellevue Hospital, New York, for if there is any place in the world where political influence reigns supreme it is in the City of New York; yet be it said to the credit of the hospital that the man who comes up for examination, among the large number who usually come before the examining board for the few positions, knows that his knowledge of medicine will get him the coveted position, not his fine appearance, his money, or political influence. Could every city or town in each State which is large enough to have a hospital have a department for the insane attached to it, where the conditions as regards the visiting and house staff could be as before mentioned, I believe that much progress could be made, because the hospitals would be smaller than the asylums; the patients would therefore be more directly under the care of the house staff, for there would be fewer to look after, and much that is now left to the observation of attendants for information could be obtained by the house staff itself. The specialist would be benefited, because he would have opportunities of observing patients during the whole course of their illness, many of whom are now as a closed book to him, once he has sent them to an asylum, and for the same reason the patient would be benefited, because the specialist would have a wider field of observation.

In following out this plan, the asylums could be used as hospitals for the incurables. In general surgery and medicine, we have our hospitals for incurables, and why not have the same

for the insane? As it is now, the acute cases of insanity and the incurables are all sent to the same institution. What would be thought of the medical man to-day who would send a case of pneumonia to the home of consumptives, or a fracture to the hospital for incurables? And yet is not that what we are all doing with our acute insane in this the nineteenth century?

That the asylums are overcrowded, and more work is given the medical men to do than they can observe closely, instance the experience of the New York *World* reporter who stayed a number of days in an asylum and wrote a lengthy article thereon, which brought unfavorable comment on the management of the institution from the public. Could such a thing have happened, had the conditions been such as have been suggested? Could this reporter have accomplished the feat so easily, had there been three medical men looking after, say, one hundred patients in their division, and a "visiting" staff going the rounds once a day? Of the practices of hospital beats, every "hospital man" is familiar; and whilst I have seen them admitted to the wards either through hasty judgment or curiosity to see "how they did it," my experience is that, however well simulated their trouble—and it is often as well put on as the reporter's—they seldom remain longer than one day. During my service, a patient was brought to the hospital by an agent of one of the merchant princes of New York, who, through a salaried man doing nothing other than looking after the sick poor, took this means of distributing his charity in an unostentatious manner.

The patient was supposed to be suffering from hemiplegia, and all the signs pointed to that as a correct diagnosis; but something about the appearance of the patient led to a thorough test being made; something led to the belief that she was a sham.

Etherization was accordingly ordered, as the most sure means of making the diagnosis. The patient, on hearing this, protested most vehemently, and, as her protests were not listened to, had the agent take her from the hospital. The agent, an old man, in a few weeks returned and apologized for the trouble he had made (for he was most emphatic at the time in his recommendation of the patient—"she was his old Sunday-school scholar," etc.), and said he had been completely deceived, for, on calling to see her a few nights before, he had found her drunk, and that for some fancied slight she had caught hold of him and

forcibly ejected him from the house. All "hospital men" will recall instances of similar kinds. Of the asylum men, their opportunities of observation must necessarily be not so great, because two medical men looking after, oftentimes, from 700 to 800 patients (for the superintendent can in such a large institution have little or no time for medical work) must find it impossible to make the finer distinctions ; and, as before mentioned, the attendants must be relied on chiefly for information. The writer is aware that there are at least three institutions in the country conducted somewhat on the plan suggested. That is to say, they are branches of general hospitals ; but, unfortunately, the customs of a hospital, in regard to the visiting staff and the house staff, are not carried out.

Space forbids here any full discussion of such a fruitful subject ; but it is hoped by the writer that the hint furnished may lead to some good, and that if his suggestion of small hospitals for the insane, instead of large asylums, should meet with the approval of others, the proposition may be put in practice and brought to success.—*The Medical and Surgical Reporter.*

Inebriety.*

By T. D. CROTHERS, M. D., Hartford, Conn.
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From a study and comparison of the histories of many inebrates, inebriety would appear to be only one of a family group of diseases. The other members of this family are found to be various forms of insanity, epilepsy, idiocy, hysteria, consumption, and other brain and nerve affections. These allied diseases often precede inebriety or follow after, and are always associated with a great variety of degenerations.

The magnitude of inebriety exceeds all estimates, and in all probability is about one to every one hundred and fifty persons. The mortality is estimated at ninety per cent. The increased consumption and production of spirits in this country, beyond the increase of population, and the steady increase of persons arrested for intoxication, are very significant hints of the growth of inebriety.

It is evident that a disorder so wide-spread must have an equally wide range of causes. It is also apparent that a knowl-

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edge of these causes must come from a study of the history of a large number of cases. Such a study must record all the facts of heredity, of the early surroundings, training, growth, accidents, diseases, strains, drains, shocks, losses, climate, food, social and physical environment, and all the various influences which have entered into life. From a large number of such histories many of the principal causes will appear. Thus, from the records of one hundred inebriates, representing all classes, sixty will be found with a defective brain and nerve organization from inheritance. Thirty or more of this number will have moderate or excessive drinking parents or grandparents. Twenty will have insane, epileptic, criminal, pauper, idiotic or eccentric ancestry. Ten will have consumptive, rheumatic and diseased parents. Of forty who have no prominent history of heredity, twenty-five will begin after attacks of severe disease or physical shock or injury, mental shocks or great brain perturbations, and other similar causes. In ten cases the inebriety can be traced to climatic states, to foods and occupation. In five cases no special causes can be determined ; this is obviously the fault of the observer, which a better knowledge will remedy. In all these cases there is often a blending and union of causes ; thus, head injury and diseases with heredity are united. In another case, conditions of climate, food and occupation are prominent. Nutrient disorders, overwork and exhaustion, or mental strain and heredity, may all be found associated, and all active in the causation.

A close examination will show how exact these causes are, and the laws which govern them. Thus, in direct heredity, moderate, excessive or periodic drinking parents are always followed by inebriate children, either in the first or second generation. The first generation will be either inebriates or rigid abstainers, and always have marks of defect of some kind. The second generation will develop inebriety from the slightest exposure. Unless the stream of heredity is neutralized by a current of great vigor, this generation will be found along the border line of insanity, manifesting many complex symptoms of mental defect.

In these cases some specific degeneration of the brain centers has been transmitted, with special tendency to use alcohols for relief, and low-resisting power to all temptations of this kind. Many of these cases escape, and never use alcohol, but they have marked defects of body and mind.

Many inebriates are found to have defective parentage, representing all degrees of insanity, eccentricity and mental oddities, or criminals and paupers, with low intelligence and defective characters, hysterical, ungovernable passions, and unbalanced organizations. Inebriety in the children of such characters is only another phase of degeneration. Here the drink-impulse springs up almost spontaneously from slightest cause—a physician's prescription, the excitement of contagion, etc.

Where the parents are consumptive, rheumatic, or have some serious constitutional disorder, inebriety frequently appears in the children from most insignificant causes. In these cases a defective brain and nerve vigor exists, which seeks relief from any source at all hazards.

Another class of inebriates will develop the drink impulse after a head injury—where they are made unconscious by a blow or a sunstroke; or where they have suffered from severe and protracted sickness, or sustained some profound shock, either mental or physical. Fright, fear, joy, sorrow, falls of all kinds which produce sudden impressions on the organism, seem to lower the vigor and call for relief from alcohol or opium. Some change has taken place in the brain centers, and while alcohol and opium bring temporary relief, they hasten and increase the form of degeneration.

In these cases the drink impulse may be pronounced from the first use of spirits, or it may grow up more or less rapidly and unconsciously to the victim. Of course, not all who are subjected to such injuries become inebriates. Many recover without any entailment; others develop insanity, epilepsy and various degrees of degeneration.

Inebriety is a cerebro-physical disease, whose pathology is very obscure.

Whatever tends to innutrition aims directly at that strength and balance of the forces of the brain, that co-ordination, so to speak, between its peripheral and central portions, that is needful for the equable discharge of its multitudinous functions. Innutrition, by lowering the vitality of the brain-cells, diminishes the store of power held by the central ganglia from steady and well-timed responses to all demands upon them, into spasmodic, irregular and insufficient supplies of the force which it is their province to furnish. But alcohol especially promotes innutrition; and the very stimulation which it produces is the surest

evidence of its drain upon those reserve forces, that exuberance of the central nervous fund, that wealth of power, which are indispensable to the maintenance of the full vigor of the constitution during those brief and rare occasions when unforeseen circumstances shall make unusual demands upon them.

Nor is this exhaustion and innutrition all the evil which alcohol works in the constitution. The blood and secretions are vitiated and loaded with material foreign to their normal constitution, and there is a universal departure from that almost infinite delicacy of balance, resiliency of organization, which characterizes the natural healthy state, to say nothing of that depravation of the higher spiritual nature which is the inevitable concomitant of the habitual deviation from natural methods which is forced upon the brain. Nor is this all of the evil. How unreasonable it is to suppose that children begotten of a parent during such exhaustion of the ganglionic force—during such prolonged vitiation of the blood and secretions and the perversion of the intellectual and moral forces—should not carry in their physical and spiritual natures evidence of the outrage done to natural laws.

As to treatment, inebriety can only be effectually checked in special work-house hospitals where the inebriate can be treated and restrained. Such places should be located remote from cities. They must have the best appliances and remedial means to build up and restore their inmates. They should be conducted on a military basis, and all surroundings should be under the exact care of the physician, and every condition of life regulated with steady uniformity. There should also be industrial asylums where each one could be employed both in body and mind every day. Each case should be an object of study to ascertain the real state and the means to strengthen and improve it. These hospitals should be built from the license fund or the taxes on the sale of spirits. They should, in a large measure, be self-supporting from the labor of the inmates, and independent of the tax-payers. These places would most naturally divide into three distinct grades. The first class of hospitals should be for recent cases, where the inmates can be committed by the courts, or voluntarily commit themselves for one or two years. The second class should receive chronic cases for longer terms of treatment—from one to three years. The third class should be for the incurables, or those who give

no reasonable promise of restoration. The time should be from five to ten years and life.

The latter class should be thoroughly organized into military habits of life and work, and kept in the best conditions of forced healthy living. Employment and mental occupation should be carried out literally as a stimulus to strengthen the body and mind. Where it is possible the rewards of his labor, beyond a sum to pay for care, should be turned over to the patient's family and friends, or held in trust for him. He should be encouraged to healthy work and healthy living by all possible means and surroundings.

The semi-chronic cases should be treated substantially the same way, only occupation and training of the mind and body should be more suited to the wants of each case. The amusements should also be of a sanitary character.

The recent cases should have the same exact discipline, filling the mind with new duties and new thoughts, and suited to build up the exhausted, overworked man, as well as the gormand and underworked idler. All persons should pay for their care, if possible, and be required to render some service, which would be credited on their bills. These hospitals should be literally quarantine stations, where the inebriate can be housed and protected and society saved from the losses following his career.

In conclusion: All accurate study of the inebriate indicates a distinct range of causes, both physiological and psychological, from which inebriety springs.

When the histories of inebriates are compared, they are found to follow a regular line of progress, obeying a certain order of events, from the beginning, development, progress, decline, on to extinction.

This march is governed by conditions and forces of which we have only a faint conception. Heredity, disease, injury, starvation, neglect, are only the general names for some of these forces.

In the cure of inebriety, all study of cases points to a physical causation to be removed by physical means.

Work-house hospitals as quarantine stations, where every condition of disease can be treated, give the greatest promise of relief. Here the victim is removed from all exciting causes, and protected from himself and others; and here we can understand some of the causes beyond the saloon, and so-called free will, and deceitful heart.—*Albany Medical Annals.*

Treatment of the Pressure Paralyses of Pott's Disease by the Plaster-of-Paris Jacket.

By HENRY HUN, M. D., Albany, N. Y.

Fixation and extension of the vertebral column by means of either plaster-of-Paris jackets or iron braces is, in this country at least, the almost universal treatment of Pott's disease. The same treatment is also the most efficacious that we possess for the compression paralyses due to Pott's disease, and it seems strange that Strumpell, in his excellent "Text-Book of Medicine," American edition, p. 581, should speak in such doubtful terms of the value of this form of treatment in such cases. The following cases show the value of the application of these jackets in such cases.

Case I.—H. G., æt. 8½. Entered Child's Hospital March 20, 1884. During the past three years there has been an angular curvature in the upper dorsal region of the spine. During much of the time the boy has been running about and playing, but frequently he had such severe pain in his back that he was obliged, on account of it, to lie in bed for a few days or weeks at a time. In February, 1884, he commenced to lose power in his legs, and at the end of a week he was unable to walk at all. On entrance into the hospital the patient could neither walk nor stand, but he was able to move his legs feebly. The cutaneous and tendon reflexes were exaggerated. There was no disturbance in defecation or micturition. There was an angular curvature in the spine extending from the first to the sixth dorsal vertebra, with a corresponding bend in the sternum.

The patient was kept in bed, and the galvanic current was applied to the spine and legs daily for a couple of months, during which time there was no improvement. In June a plaster-of-Paris jacket was applied. Soon afterwards his legs began to grow stronger, and in August he began to walk. In October both the sensibility and the motion of his legs were perfect, but both the superficial and the deep reflexes continued exaggerated. He can walk and run either with or without his plaster-of-Paris jacket, although this is still applied. In March, 1885, not only was the motion of his legs perfect, but the reflexes had returned to their normal condition, and were no longer exaggerated. Towards the end of March the boy left the hospital, but I have heard of him frequently since. He continues well, and earns his living by selling newspapers.

Case II.—E. M., æt. 27. A moulder. Entered St. Peter's Hospital, May 20, 1884. Family and personal history good. The only possible cause that he can assign for his sickness is that he sometimes used to expose himself to the cold in wet clothes. About two years ago he began to notice a soreness in the middle dorsal region of his back and a feeling as of an iron band about his chest on a level with his nipples. Whenever he coughed or sneezed this band was very painful. In February, 1884, he commenced to feel a numbness in his feet, and this numbness gradually extended over the entire lower portion of the body up to the band about his chest, and at the same time his legs became weak. In May the patient could walk only with great difficulty with two canes, and when so walking his whole body trembled violently. He could not stand on either leg alone, and could scarcely stand on both feet. Slight anaesthesia to tactile sensation below the band about chest, and some loss of the muscular sensibility in the legs. Sensibility unimpaired for painful and thermic impressions. Exaggerated knee-jerk and ankle-clonus in both legs. The plantar and cremasteric reflexes were also increased. No disturbance of motion or sensation in any part of the body above the band about the chest. There is a slight angular curvature of the spine, with projection backwards of the spinous process of the sixth dorsal vertebra. On May 24th a plaster-of-Paris jacket was put on, and the galvanic current was applied to the spine during a couple of weeks, one sponge being applied above, the other below, the jacket.

After the application of the jacket the patient steadily improved, and in November, 1884, he could walk perfectly well without a cane, and thought that he could walk two or three miles without difficulty, and said that his legs felt nearly as strong as ever. Sensibility of all kinds and the cutaneous reflexes were normal. Exaggerated knee-jerk and ankle-clonus were still present in both legs. In January, 1885, the knee-jerk was normal, and there was no ankle-clonus. In March, 1885, he ceased wearing jackets, and during the years 1885 and 1886 he felt perfectly well and did light work. In the fall of 1887 he developed pulmonary tuberculosis, which steadily progressed and caused his death, without any return of the paralysis, in March, 1888.

Case III.—C. W., æt. 9. Entered the Child's Hospital June

19, 1883, with the history that her back had been diseased for two years, and that her legs had been paralyzed for the same length of time. She presented an extreme degree of angular curvature of the spine, extending from the third to the ninth dorsal vertebra, the spinous process of the sixth being the most prominent. There was a sharp bend in the lower part of the sternum corresponding to the spinal curvature. Below the first lumbar nerve there was complete motor paralysis and anaesthesia and almost complete analgesia. Plantar reflex was increased. There was greatly exaggerated knee-jerk and ankle-clonus in both legs. Legs were blue and cold, and there was slight oedema of feet. There was no disturbance in the acts of micturition or defecation. There was no disturbance of motion or sensation in head, arms or thorax.

The galvanic current was applied daily to the spine for many months without causing any improvement. In the summer of 1884 the application of plaster-of-Paris jackets was commenced. In the fall the patient was able to move her legs slightly. Her legs were rubbed and moved passively, and she was urged to move them. She slowly but steadily improved, and in February, 1885, she was able to stand alone, and could walk by resting her hands on a chair. She showed a strong tendency to walk on her toes, and her legs vibrated, but she was able to bring her heels down to the ground and to walk on the soles of her feet. Sensibility to tactile, painful and thermic impressions was normal. Knee-jerk and ankle-clonus continued to be exaggerated. About the first of April she was attacked by pneumonia, and died on April 8, 1885.

At the autopsy there were found a recent general adhesive pleurisy on both sides, a general oedema of both lungs, and a pneumonia of the lower lobe of the right lung. The upper dorsal vertebræ were carious and so destroyed that the finger could easily be thrust through them from the spinal canal into the pleural cavity. In the spinal canal in the upper dorsal region was a large quantity of cheesy matter in which the anterior half of the spinal cord was imbedded. The cord at this point was slightly softened, and above and below this point the cord presented the macroscopic appearance of an ascending and a descending degeneration respectively.

In each of these cases the improvement must be ascribed to the plaster-of-Paris jacket. There was no medicine given, and

the galvanic current was used for too short a time in the second case to have been of any benefit, while in the first and third cases when used alone for a long time it produced no good effect. In the first two cases, in which the paralysis was never complete, the patients recovered perfectly their lost power of motion and sensation ; and in the third case, in which the paralysis of motion and sensation was complete, the patient was apparently going on to a perfect recovery when an attack of pneumonia caused her death. The fact that in the second case tuberculosis developed in the lungs and caused the death of the patient does not invalidate the claim of the case to be considered one in which the compression paralysis was cured by the repeated application of plaster-of-Paris jackets. In each of the cases the exaggerated tendon reflexes were the last symptom to disappear.

Quite a number of observers, in this country especially, have reported cases similar to the above to show the value of extension and fixation of the spine in the compression paralyses of Pott's disease ; and although some advise that, in addition to the jacket, iodide of potassium should be administered in large doses, yet these three cases, in which no iodide of potassium was given, show that the jacket is the more essential factor of the two in producing cure.

We have, then, in the plaster-of-Paris jacket an agent of the greatest value in the treatment not only of Pott's disease, but also of the paralysis which this disease sometimes causes.—*Albany Medical Annals.*

Leprosy.

In a graduation thesis by Masanao Goto, in the *Sei-I-Kwai Medical Journal* for May, points of interest are brought into notice in connection with leprosy which are worthy of reproduction. Climate, the author holds, has very little influence upon the disease, but, impure air, high and low temperature, excessively dry or moist atmosphere, have great influence upon and aggravate the disease when it already exists. Food, as is well known, has been held to be in some way responsible for the causation of leprosy, and attention is drawn to the inferior quality of food which is used in leprous districts. Hawaiian people, for example, are fond of raw and dried fish, and sea-weeds, and amongst them it is said that leprosy increases more

rapidly after a season of abundant fishing than when fish is scarce. The Hawaiian people also take a curious intoxicating drink which is prepared from the root of the awa tree. The abuse or excessive use of this liquor produces marked intoxication, and an erythematous condition of the skin follows in a few days, which subsequently assumes a squamous form. The appearance presented is said to resemble leprosy so much that it is often mistaken for the disease. Sometimes even the symptoms continue and anaesthesia of the skin supervenes, then the case actually become one of leprosy. The author avers that sometimes leprosy seems to spring suddenly from excessive drunkenness, and the consumption of such articles as snakes, vipers, unknown fish, fungi, and putrid meats. Although he believes that leprosy is contagious he has not been able to prove this by any inoculations which he has undertaken. He has inoculated cats, dogs, rabbits, and hares by different methods with the leprous bacilli, but in all cases without result. Two years ago also the Government of Honolulu permitted an experimental inoculation of the same kind to be performed upon a convict, but the latter still continues unaffected. Unless the theory of contagion be accepted, how can the spread of the disease be otherwise accounted for in the Sandwich Islands. Reference is then made to the fact that in congenital leprosy the symptoms, as a rule, are not observed until puberty. In India it is popularly believed that the disease can be contracted from vaccination when done from arm to arm, if the child giving the lymph belongs to a leprous family. The author has made great efforts to obtain correct data in regard to the heredity of leprosy, but many difficulties opposed his inquiries. From, however, the statistics he was able to gather, he shows that the disease occurs from hereditary transmission in about 50 per cent of all cases. Civilization has a great deterrent influence upon leprosy, for while the disease used formerly to prevail throughout Europe, it is only in the present day found in certain corners of this continent, as for example, Iceland, Norway, the northern provinces of Russia, and the borders of the Caspian and Mediterranean. It is not found in the most civilized countries. The author then describes fully the symptoms, course, and development of the disease, and in regard to the diagnosis mentions that a constant symptom to be found even in the early stages of leprosy is the tense, thickened, cord-like condition

of the ulnar, auricularis, magnus, and posterior tibial nerves. The various forms of treatment are next discussed. Isolation is the first thing to be insisted on. The author concludes by describing a form of treatment which is usually adopted by himself, and which has yielded encouraging results. In ten cases three were cured, four were so much relieved as to be practically cured, and three were more or less improved.—*Medical Press.*

The Method of Disinfection Practiced at the Quarantine Station below New Orleans.

No scientific report published by the government this year has been more important than that just made by Dr. J. J. Kinyown, assistant surgeon in the Marine Hospital Service (*Weekly Abstract*, June 29), upon the germicidal powers of the different methods of disinfection practiced under the direction of the Louisiana Board of Health at the quarantine station below New Orleans. The report is important, not only because it shows the degree of protection against the importation of infectious diseases through the important port of New Orleans, but also, since the methods of disinfection practiced at other quarantine stations are similar to those in use there, the experiments show approximately the efficacy of each mode of disinfection, and suggest changes that should be made in their use.

The three methods of disinfection tested were : the use of bichloride of mercury solution, the application of dry and moist heat and fumigation with sulphur dioxide.

Dr. Kinyown finds the first of these methods defective, because of the difficulty of getting the disinfecting agent into cracks and corners, rubber goods, the under sides of decks, and into lockers, etc. He discovered in all these localities and articles that the micro-organisms existing before the disinfection had not been destroyed, and he found them as plentiful on the floor of the forecastle of one ship, that was exceptionally filthy, after it had been drenched with bichloride of mercury for an hour, as before. Dr. Kinyown recommends that, in order to make this mode of disinfection more effectual, the bichloride of mercury be applied with a spray produced by connection with a steam-boiler, and that it be applied after fumigation by sulphur.

The results from the application of dry and moist heat were

the most satisfactory of all. Cultivations of various disease-germs exposed to a dry heat of 176° F., and afterward to steam at a temperature of 212°, were, with few exceptions, destroyed. Dr. Kinyown thinks that, in order to secure absolute protection, the heat should be made greater and the time of exposure increased.

In eleven experiments seventy-four disease-germs were placed in vessels among articles to be disinfected by the use of sulphur dioxide, but only sixteen of the whole were destroyed, or less than twenty-two per cent. Dr. Kinyown has very little to say about this method of alleged disinfection, except to recommend that the sulphurous fumes be applied in large quantities, and be confined in the compartments to be disinfected a longer time. But he reports his experiments in full, and lets them speak for themselves.

The net result of these tests is to show that some disease-germs escape even when the most effectual modes of disinfection practised at quarantine below New Orleans are resorted to, and that less than one-fourth of them are killed when the least effective method is used. We assume that the quarantine and city health officers everywhere will profit by the suggestions of this report, and that the public will be better protected in the future than in the past.—*Science*, July 13, 1888.—*Medical News*.

Vaccination in China.

The epidemic of smallpox in Hongkong has naturally directed attention to the subject of vaccination. The first opinion published and generally accepted was that the Chinese will not endure vaccination, and that any attempt to enforce it by law would have the effect of depopulating the colony. The *Hongkong Daily Press* traverses this theory. It bases its arguments on the evidence of a pamphlet by a certain Dr. Chang, which is now being circulated gratuitously by the guilds at Chaochow. The pamphlet first became public property in 1875, but existed in MS. as far back as 1866. The author has practised vaccination for twenty years, and his avowed object in writing is to expose quacks whose proceedings tend to bring the science into ill repute. His theory of vaccination is radically different from that of Western experts. He does not regard it as a method of inuring the system against a dangerous disease by subjecting it to a mild form of the same malady. On the contrary, the notion

is that every child comes into the world infected with a varying amount of foetal virus, generated by the passions that gave him birth, which virus induces susceptibility to the attack of small-pox, and that the object of inoculation is to kill or eradicate the virus. The virus congregates about the "Gate of Life" and the "Three Passages." These occult regions of the body have never been accurately located, but the former is happily accessible by two veins which debouche at depressions between the shoulder and the elbow, and are called "the eddy of purity and cold" and "the lesser estuary." The vaccine matter, introduced by these veins, sweeps out the "Gate of Life," without which cleansing the smallpox would come and destroy the "Five Viscera." One smiles at these fanciful epithets, but they appear to be used with a shrewd purpose. For the anti-vaccinators deny that the few and paltry pustules produced by vaccination can suffice to exhaust the foetal virus, and the only way to combat the effect of this argument on vulgar minds is to talk in large, imposing terms. At all events Dr. Chang has so far succeeded in popularizing his theory that in the more civilized parts of Eastern Kwantung people who have not been themselves vaccinated, or who do not have their children vaccinated, are said to be rare. Evidently, however, the theory does not lend itself to re-vaccination. No second cleansing of the "Gate of Life" can be necessary. As for the vaccine lymph employed by the Chinese practitioner, it is invariably obtained from a scab. The original derivation of lymph from cow-pox appears to be quite unknown. What an immense contrast China presents to Japan in this matter! Here vaccination is virtually universal. It is practised on the most scientific principles and with the greatest dexterity. No Japanese mother is happy until she has had her child vaccinated.—*Japan Mail.*—*The Sei-I-Kwai Medical Journal.*

The Mechanical Treatment of Erysipelas.

Instigated by the results which Barwell, Freer and Otto obtained by painting with white lead the skin at the borders of erysipelatous inflammations, Wolfler (*Mitt. d. Ver. d. Aerzte Steiermarks*) undertook some experiments with the mechanical treatment of erysipelas. Concluding that merely painting the skin with varnish—to prevent the admission of air necessary to the life of the coccus of erysipelas—did not suffice to limit the

extension of the inflammation, he attempted the simultaneous application of a compressing band, by means of water-tight material and a bandage, and by means of gutta-percha paper prepared with chloroform (traumaticin), but with varying results. Guided by the idea that the application of the bandages was operative less by exclusion of air than by mere mechanical compression, he concluded to replace the bandages and strips of traumaticin by simple strips of adhesive plaster about an inch wide. In four cases thus treated, the author obtained good results ; in no case did the inflammation extend beyond the strips of plaster ; while in twenty-four cases treated with traumaticin, extension took place in five. The strips must be applied to the healthy skin at the borders of the inflamed area. In severe cases of erysipelas of the head, the hair must be removed ; in advanced facial erysipelas, the strips should be applied about the neck. The author ascribes the results of the method, which commends itself for its simplicity and convenience, to the compression, which interposes a greater obstacle to the spread and development of the coccus of erysipelas than the ordinary anti-septic or antacid methods hitherto in vogue.—*Wiener medizin. Pr.*, July 1, 1888.—*Medical News.*

A British Opinion of Trained Nurses.

When trained nursing became a recognized calling it was ushered in with the happiest omens, and perhaps a little too much flourishing of trumpets. Miss Florence Nightingale had endeared herself to all civilized people by her self-sacrificing heroism, and her example attracted many who were quite willing to accept the deserved eulogies bestowed on the pioneers of the calling, who, be it remembered, worked most unostentatiously. To-day everything is changed, nursing becomes a "profession," and nursing institutions seek a royal character ; lady nurses write queries to medical journals, and express doubts as to the proper treatment of cases. From being the biddable, cheerful worker the modern nurse has become aggressive and captious. We have known a lady nurse to waken, by shaking, a patient from a profound sleep, where sleep was essential for recovery, because she did not approve of the dose of the hypnotic given. The time has come to speak plainly, and the profession should recognize the truth that there is an unwise silence as well as an unwise speech. Trained nurses know

just enough to make them dangerous when they attempt to practise in our absence, and this modicum of knowledge is quite sufficient to render them talkative, self-assertive, insubordinate.—*Medical Press*, Feb. 29, 1888.—*The Medical Analectic*.

Sulphonal: a New Hypnotic.

This substance is "diethylsulphondimethylmethan," an oxidation product of the union of ethylmercaptan with acetone, and has, therefore, the composition represented by the formula $(CH_3)_2=C=(C_2H_5SO_2)_2$. We owe its discovery to E. Baumann, of Frieburg, and its therapeutical application, or, rather, some knowledge of its remarkable physiological properties to A. Kast, who has a long article on the subject in the *Berl. Klin. Woch.*, April 16, 1888, in which he has nothing but praise for this new addition to the *materia medica*. The term "sulphonal" is due to Herren Fr. Bayer and Co., who supply it. This substance crystallizes in large colorless tables, and is perfectly devoid of taste and smell. It dissolves in 15 or 20 parts of boiling water, in 100 parts of water at the ordinary temperature, and is easily soluble in alcohol or alcoholic ether. It is not affected by acids or alkalies, or by oxydizing agents either in the cold or warm. Thus, concentrated sulphuric acid with heat scarcely affects it, and it resists fuming nitric acid, and even chlorine and bromine; it is, therefore, a very stable body. Twenty experiments with sulphonal on healthy men showed that doses of three or four grammes were borne by adults without the least discomfort or disagreeable after-effect. Thus, a medical man, aged 28, took 3 grammes (46 grains) at 4 p. m., and at 5.15 p. m. began to feel sleepy, with a feeling of heaviness in the head. At 6.15 these feelings lessened but at 8.15 they increased somewhat. At 9.15 the subject of experiment went out for the evening, having resisted the inclination to sleep. He passed a tranquil night afterwards, and felt no after-effects of any kind. Another medical colleague sank into a sound sleep two hours after the same dose, the sleep lasting several hours. The time of day and the meals were found to influence the action of sulphonal very much. Employed medically the drug has been given to 60 patients, and 300 observations of its effects were made (Prof. Cramer gave it 200 times in the Marburg Lunatic Asylum). The results, almost without exception, were that the patients sank within from half an hour to two hours into a

tranquil and sound sleep, lasting from five to eight hours, and awoke feeling perfectly comfortable. A few felt tired and sleepy next day. The digestion, pulse and temperature were unaffected, and it is curious that no ataxy of any degree or kind was present, whereas this was the most prominent symptom in dogs after large doses. The ordinary dose for man is two grammes (half a drachm). Prof. Kries has examined the effect of sulphonal on the blood-pressure, and has established the fact that in dogs, even after very large doses, the blood-pressure is not lowered. Poisonous doses in dogs, to determine the mode of death, caused severe convulsions, then, after a few hours, a heavy sleep, deepening to coma and ending in death in about ten hours. Spectroscopic and microscopic examination of the blood revealed no alteration of its elements. Sulphonal appeared most efficacious in cases of sleeplessness in nervous subjects, but was given with benefit in all kinds of cases, including even cardiac valvular disease.—*Brit. M. Jour.*, March 31.—*New York Med. Abstract.*

The Ethics of Opium Habitues.

Dr. J. B. Mattison, of Brooklyn, read the first paper at the Stated Meeting, June 15, 1888, of the New York Society of Medical Jurisprudence and State Medicine. It was a common opinion, he said, that all opium habitues were liars. He had long held that this view was a mistaken one. In the ranks of these unfortunates, there were some who scorned deceit. His answer to the question Why do men take opium? was that which had been given by an eminent physician many years ago: They took it for a physical necessity. His remarks applied, he said, only to the better class of opium habitues, who, in nearly all instances, had commenced the habit because of a painful disorder of the body or mind. The drug was very commonly first prescribed by a physician who failed too often to place sufficient safeguards around its use, and to warn the patient against its dangers. Granting a painful physical necessity, and the daily or semi-daily use of the drug for weeks or months, and there were very few who could withstand its power. He had seen a man who had faced the cold and hardships of an Arctic expedition, succumb to the influence of opium in four weeks. It was a very common belief that the opium habit was due generally to a vicious tendency, and the subjects of it were ostracized

from good society. Thus, when they lied regarding their habit, it was due to the principle of self-protection. But, notwithstanding the disgrace which they would rest under should their habit become known, there were many who refused to take refuge behind the subterfuge of a lie justified through self-protection. He had often found opium habitues who were strict followers of the truth. The commonly accepted view that these people were victims to their own wrong-doing prevented the adoption of correct treatment and led the patients themselves to regard their condition as hopeless. He read part of a letter from a woman who had been cured of the habit, telling of the great difficulty she had experienced in convincing her old neighbors that she had ceased the use of the drug.

Dr. McLaury's experience had been that the use of opium had a decided tendency to lower the moral tone and also the judgment of its victims. He thought the drug had a worse effect in that respect than in any other.

Dr. E. C. Spitzka said it was the first time in his experience that, in discussion of a medical topic, a better and a proper class of patients had been spoken of. He did not think it was the experience of any present that the "better class," whether so distinguished because of education, wealth, or social recognition, were less given to animal indulgence than the poorer class. The paper further suffered in that the author had failed to define the meaning of "better class." He had stated that these people lied for self-protection; but, to carry such an argument to its legitimate conclusion, theft, gambling, and almost any crime could be excused on the same ground.

It was true that physicians of experience had very generally called attention to the fact that the opium habitue was a liar; but the reason for his being so was not that he was an opium habitue, but because his *morale* suffered under the influence of the drug, as it did under the influence of chloral, hashish, etc. Dr. Spitzka said that in the great majority of cases the opium habit was contracted through a selfish purpose or vicious tendency, and long after medical indications for its use had ceased to operate. Nine out of ten persons who applied for admission to homes for opium habitues were those who had become acquainted with the drug as doctors, nurses, or attendants in hospitals, not through taking it for long suffering. But the claim had not been made by any scientific authority that the

opium habitue was always an habitual liar. Regarding another point touched upon, he might say that in his opinion not more than five out of a thousand persons who had habitually used opium for more than six months could ever free themselves from the trammels of the drug. It was certainly the most fascinating narcotic which had ever been presented to the human species. One of its principal dangers was that the system could become adapted to it. The drug was capable of influencing the descendants of its habitues to an almost incredible degree. Children born of mothers who used morphine became affected soon after birth with delirium and symptoms manifested by those deprived of their accustomed large quantity of alcoholic spirits, and, unless they received morphine, they would die. He thought the paper would have rendered a far better service had it directed attention to the disgusting and demoralizing aspect of the question, instead of placating the vice.

Dr. Wood said that according to his observation persons who were opium habitues were liars with regard to their habit as long as they continued it, but when they entered an institution for treatment, or had become cured, they became as truthful as other people. He thought the habit was not increasing in this country in proportion to the increase of population.

Dr. Nathan Brill endorsed what Dr. Spitzka had said, and added that opium habitues first lied about their habit, and, as their friends tried to reform them, they soon began to look upon them as enemies, and lied about other things. No other drug had as great an influence on the moral sense, and this influence he believed was transmitted from generation to generation.—*Med. and Surg. Reporter.*

The Mental Condition Caused by Alcohol.

By PHILIP S. ROY, M. D., one of the City Ward Physicians, etc., Washington, D. C.

I do not intend to give the literature on the subject named in the title given to this article, but only to give the directions which may have to be studied in order to arrive at correct conclusions in any medico-legal case.

A medical man may be called upon at any time to testify in some criminal case growing out of alcoholic excesses. Law has become modified (by the Judges of the law who have sought

after truth) to such an extent that no longer is the statement made without qualifications, "Drunkenness is no excuse for crime." In fact, most medical books now describe a special form of insanity which they call "alcoholic dementia," and with its description they give separate enumerations of symptoms to indicate the mental unsoundness due to alcohol. I cannot see any reason for this, for I do not believe it possible to determine, from the symptoms, in any given number of cases of insanity, those due entirely to alcohol.

We know alcohol disturbs the action of the cerebrum, both directly and by reflex action. It is one of the most powerful and common causes of mental and physical unsoundness. The brain from alcoholic abuse, may become the seat of extensive pathological lesions to account for the mental condition, or all of the bodily functions may become so diseased as to entirely deprive the person of healthy thought.

As to the question of mental responsibility of one under the influence of an alcohol, we must carefully deal with each case as it arises, to make certain that it is not one in which the individual has used alcohol to madden and deaden feeling in order to commit crime.

In dealing with the subject, I will first state that the desire for alcohol as a drink may be inherited, just as consumption and epilepsy can be. We know that in nearly all inherited diseases the person *inherits the tendency* to the disease rather than the disease. Children are not generally born with consumption or epilepsy, but with the proper tissues for their development.

With this view, which is no doubt true, it cannot always be said that alcoholic intemperance is a volitional sin. The idea that it is always volitional is false, and without foundation. We know all our defects are the results of sin, but we know many are without cure in this world, or even control. The Christian life, as beautiful as it is, cannot remove all the inherited tendencies from the third and fourth generations; the Christian has to live with the surroundings of sin and its defects stamped upon his mind and body, and one of the most terrible is the inherited or acquired and uncontrollable impulse to drink.

The question that comes up for the lawyer and physician to determine is how to tell when men are not responsible for their acts while drunk, when the state of drunkenness has carried the

individuals beyond their control—from whatever cause it may have been produced. Alcohol can only be viewed as a drug which plays its part in *Materia Medica*, having its own physiological action, which, in many cases, is modified by the individual differences of people. Any good work on *Materia Medica* will give the physiological effects of this drug, but I must say none of the books are very practical in their teachings on this subject. I believe, however, almost any observer will acknowledge that most men when drunk know right from wrong—for it is one thing to intelligently reason out why he should not commit murder, or a crime of any kind; and another, and much easier mental operation, to know that it can be punished by law. The drunkard who cannot remember the law must have drunk to complete physical helplessness; consequently it would be a physical impossibility for him to commit any crime.

Alcoholic intoxication, in order to be an excuse for crime, must in some way make the mind either permanently or temporarily insane. The insane can never be punished. As a distinguished Judge of South Carolina has said: “Insanity makes the person irresponsible—be that mental unsoundness due to the finger of God upon the brain, or the direct result of some wrong act of the individual.”

The direction, I think, that will have to be taken to find the proper solution of the individual responsibility as to uncontrollable acts while drunk, is in the realm of the impulses. For, as Judge Edmond (in an article by Dr. Mann, as quoted by the *Journal of Inebriety*, in July, 1884) says, “The man, to be a criminal, must have not only memory and intelligence to know that the acts committed were wrong, but also reason and will to control his acts.”

This legal view places us upon delicate and difficult ground, but it enables us to view the subject from the right standpoint—that is, from the standpoint of the physiological action of alcohol.

Alcohol usually renders the person less capable of resisting impulses to crime. He possesses less *will power* and less *reasoning power*. This would certainly render the criminal less responsible for his acts, when it had been committed by one who had *irresistible impulses to drink*.

The next important result of alcohol is to make the victim more indifferent as to the results of his action, both from a so-

cial and legal standpoint. This is a form of cerebral anæsthesia. The most powerful impulse to do right in this world, other than religious, is the one that comes from a desire not to offend society. The love of the good opinion of man saves many from wrong-doing. Alcohol, in a great measure, destroys or deadens this feeling, and with the loss of this desire for the good opinion of the world, comes also great indifference to the punishment connected with wrong acts.

Another result of the constant use of alcoholics is one not in favor of the criminal, for it somewhat weakens the first statement in his favor. It is this: that we well know that we can get accustomed, in a great measure, to the action of almost any drug, to the extent that we can almost, by will power, make ourselves act naturally when at first any one would have noticed unnatural actions. Those who have often used alcohol can, in time, become so accustomed to it that they act naturally, and have nearly all their mental powers.

What is true of this drug is true of all impressions that can alter mental action. It is this that accustoms the individual to become used to severe pain, which at first rendered him almost irresponsible. The mind can be rendered less capable of control by other impressions than drugs. Dyspepsia will often change the whole nature of a man.

I believe the mind can be much disturbed in its action without its losing its control, or being unable to tell right from wrong; but often when this power is lost, the impulses cannot be controlled.

I think the only just way of dealing with this special plea for defense by an alcoholic habitué, in case of crime, is to have a jury of medical men who have given special attention to mental troubles. They would pay no attention to such instructions as were given by a Judge who is cited in the *Medical Record* of February, 1884. The Judge says, without qualifications: "Intemperance is voluntary, and always entered upon with more or less consciousness of the danger and possibility of wrong-doing; hence could be no excuse for crime."

Alcohol also renders the system less capable of ridding itself of urea and carbonic acid, thus causing secondary poisoning of the man. The power of taking up oxygen is also lessened.

These are the questions that would come up in a case of one under the influence of alcohol until mind and body become a

complete wreck, when all could see that no longer could the individual be dealt with as a sane being. It is not the well-defined case that causes trouble; it is the uncertain ones.

I cannot close this article without giving the views of Judge Cothram, of South Carolina, where a special plea of insanity had been made in a criminal case. I think he has given the law so clearly that nothing more can be added. He said:

1. Where insanity is interposed by defendant, as a defense under a plea of not guilty in a criminal prosecution, the defense must be proved by a preponderance of evidence.

2. The mere interposition of such a defense without evidence to support it does not require the State to prove its non-existence beyond all reasonable doubt.

3. When the criminal act was the immediate result of voluntary intoxication and committed while it lasted, the intoxication furnished no excuse as defense.

4. When the State fully proves a *prima facie* case, and a special defense such as insanity, etc., is interposed, it must be established only by such preponderance of evidence as to satisfy the jury; the charge is not sustained beyond all reasonable doubt. If not so established, the defendant should be convicted.

A similar opinion has been given by Judge Coolie.

Of course I have not attempted in this article to give the tissue changes due to alcohol. They are chiefly the increase of connective tissue. Any good work on pathology is far more complete than any one article could be. Nor do I question that in some cases this drug completely dethrones the will and all the powers of the mind, but these idiosyncrasies to the actions of the drug are the exceptions rather than the rule.—*Virginia Medical Monthly.*

Battey vs. Tait.

The Section on Obstetrics and Gynecology, at the recent American Medical Association meeting, was noted for quiet, straightforward work. There was nothing startling or very new developed till late in the session of the last day, when several were startled, especially a young disciple of Tait. He had just read a paper in which Tait was lauded and "Tait's operation given great praise. In the discussion which followed, Dr. Battey, of Rome, Ga., who was present, took the floor and vented his righteous indignation. He said: The youthful mem-

ber of the profession who had just read, and who has recently entered the profession, seems to know nothing about American work in his use of the term "Tait's operation." Tait operates for pain, for disease. The gentleman argues the change of life very strongly. Tait cares nothing for the change of life. There was an humble American surgeon who, away back in 1872, before the time of essayist, suggested and described this operation. This was years before Mr. Tait was heard to speak of the operation. The Doctor talks of Tait's struggles in introducing it. The older members of the assembly will remember the struggles of this operation in the Georgia State Medical Society, the American Medical Association, and the American Gynecological Society. This was going on for years, and Tait sat and said nothing until May 18, 1879. Are we apt to accept the simple say-so of Mr. Tait that he thought of this operation in April, 1872, and said so to Dr. Chadwick, of Boston? Dr. Chadwick does not remember it; he says it might have been said, but he can not recall it. Why should Mr. Tait come in at the end of the fox chase and claim the tail of the fox? I have sat too modestly in my chair and allowed Mr. Tait to talk of "his operation." I despise this little quibbling fighting; but when a nursling of my own profession, in my own national assembly, talks so much about "Tait's operation," it is too much. Mr. Tait has recently shown so much modesty in saying that possibly this was thought of before him, that you would not recognize that it was Mr. Tait. (Applause.) I forbear to reveal the secrets of Mr. Lawson Tait's hospitality to me in 1881, but he may provoke me to do so. (Hear, hear.) A little later, while enjoying the hospitality of Dr. Matthews Duncan, that straightforward specimen of a Scotchman, like our American Indian, so straight, said to me that he had hoped not to be called upon to invoke the aid of this operation, but he had. What Dr. Duncan said of Mr. Lawson Tait, the deponent saith not. (Applause.) Mr. Tait found it necessary to resurrect a patient at the Congress of 1881, who in his own handwriting was recorded as dead years before. When asked, "How about this?" he answered, "Only a little clerical error." May God forgive Mr. Lawson Tait, and prevent me from falling into his ways. I had to go over and pitch the battle in the British Medical Association, right under the nose of Mr. Tait. He referred to Mr. Tait's paper, "Normal Ovariotomy," in the *British Medical Journal*,

May 18, 1879. The essence of my operation is the change of life ; Mr. Tait does not operate for this, and here is the dividing line. Hegar's operation is the Battey operation ; he claims nothing else ; it is his friends who call it the Hegar operation.

The speech of Dr. Battey was delivered in a manner which defies description, and was received with round after round of applause.—*Nashville Journal of Medicine and Surgery.—The American Practitioner and News.*

Antipyrine Laudamus !

The laudation of antipyrine in the literature of Medicine has gone far beyond its merits, and we must remind the over zealous and unrestrainedly enthusiastic Dujardin Beaumetz that he has gone a little too far with his praises of the drug for the welfare of our patients or the truth of therapeutics. Antipyrine is neither the always indicated antifebrile, anti-pain or acute convulsive remedy it is claimed by its zealous votaries to be and the *Alienist* must sound the same note of warning to such therapeutists in neurology as may have a little faith in its sayings, as it sounded some time back in regard to the much and over-lauded cocaine.

Antipyrine will not relieve the pains of locomotor ataxia. Antipyrine will not materially modify epilepsy or other convulsive disease for any considerable length of time. Antipyrine will not cure persistent cephalalgia, though it will sometimes, but by far not in the majority of cases, relieve migraine.

But it will arrest renal secretion, and its danger in fevers is thereby to be considered.

It is a good remedy in carefully selected forms of insomnia, but it will promptly kill in insomnia associated with double pneumonia, and it is alike dangerous in insomnia associated with renal failure.

It is a good remedy in polyuria if our sole aim is to stop the action of the kidneys. It ought not to be given in cardiac angina with organic disease, in pulmonary or renal congestion.

It ought not to be given often to the same patient during the same day. Our conviction, from careful observation of its unsatisfactory sequences, both where convalescence has resulted and where death has ensued after its use, is against its often employment where organic embarrassment of either heart, lungs

or kidneys complicate the symptoms calling for its anodyne or antipyretic powers.

It is a remedy for exceptional rather than general use, Mons. Dujardin Beaumetz to the contrary notwithstanding. The following is in brief the record of its untoward effects in the last two cases in which we employed this drug.

A. E. M. was a young and temperate book-keeper, who after being stricken with pneumonia became insane. His physician, who was a homeopath, regarded him as convalescent, but we found on auscultation, unresolved hepatization of the left lung and fresh crepitus and bronchial rales throughout the right lung. The heart's movements were also embarrassed from endocardial and pericardial inflammatory changes in sac and valves. The patient had in his delirium during the day before got out of bed, gone down stairs on a damp cold day in his night clothes and caught fresh cold. He had been for several days and nights sleepless and suffering pain, and antipyrine was decided upon to fill the double indication. Two fifteen-grain doses secured sleep during the entire night, but the next day the patient's face was livid and breathing markedly embarrassed. He died the day after.

Another patient of thirty-eight years, a married lady of gouty, rheumatic diathesis and a history of many attacks of rheumatism and neuralgia and neuritis, the original attack beginning in the great toe, suffering from intercostal neuritis and insomnia, was given fifteen-grain doses twice during the day and once at night. Under these the heart's beat became intermittent, fell to below forty in a minute and required ammoniacal stimulants, digitalis and Mariani wine and thirty-six hours in the recumbent position, with strong beef-tea and digested nutrients, before the heart regained its regular rhythm.

We might write a book on antipyrine, and its conclusions from our clinical experience would be, employ with caution and not often. Repeated doses in embarrassed states of lung, heart or kidneys are hazardous.—*The Alienist and Neurologist. (Editorial.)*

A PLAN TO OBTAIN VACCINE LYMPH WITHOUT RUPTURING THE PUSTULES.—Dr. Grigg, of Queen Charlotte's Lying-in Hospital, suggests a method of obtaining vaccine lymph without rupturing the vesicles, which must commend itself to the practitioner.

The method has the further advantage of increasing the supply obtainable. He allows a drop of pure glycerine to fall upon the ripe vesicle, and this has the effect of withdrawing the lymph from the interior without any solution of continuity of the investing membrane. Judging from the results obtained by Dr. Grigg, in nearly three thousand cases, in only one of which did he fail to secure satisfactory effect, the lymph thus obtained is fully as active as ordinary lymph. Dr. Grigg remarks incidentally that lymph obtained from infants less than fifteen days of age is always scanty in amount and unreliable. He also records the fact that in cases where only one of the punctures proves successful in the first instance, a more satisfactory result may be obtained by revaccination from the solitary vesicle, which remains stationary until the second crop attains the period of maturity, and then the whole number go through the retrograde changes together.—*Medical Press, April 18, 1888.*—*Medical News.*

On the Pathology and Treatment of Pernicious Anæmia.

Dr. Paul Sandos reports the case of a female patient, aged 31, which presented all the typical symptoms of pernicious anæmia, great pallor, extreme weakness, irregular fever, retinal apoplexy, and disturbances and irregularities of the organs of circulation and digestion.

Blaud's steel pills and pepsine with hydrochloric acid had no effect, and the condition of the patient grew worse. Appetite entirely failed, and the debility became excessive; she was no longer able to sit up in the bed, was listless and apathetic, ceased to reply, and refused any kind of nourishment. The breath was most offensive, the oedema about the ankles had increased, and the pulse rose to 120. A speedily fatal termination was apprehended. Under these circumstances Dr. Sandos resorted to washing out the stomach. Only a small quantity of curdled milk was evacuated, and the washing out was continued until the water passed off perfectly clear.

The patient immediately felt greatly relieved, and was enabled to drink small quantities of milk and beef-tea during the same day. The fever completely ceased after the first washing out the stomach, and never returned. Further washing out improved the general condition of the patient, who left the hos-

pital perfectly well. Dr. Sandos draws from this case the following conclusions:

1. The disturbances of the digestive organs, which occur during the course of pernicious anaemia, and which hitherto were considered as merely symptoms, seem, at least in certain cases, to be rather the cause itself of the disease.

2. These digestive disturbances very likely set up decomposition and fermentation in the stomach and intestinal canal, the resorption of products of which is able to call forth the symptoms of pernicious anaemia.

3. Washing out the stomach, combined with enteroclysis, seems to be the most adequate treatment of cases originating from this cause.

4. In cases of this kind the designation of the complaint "pernicious anaemia," might be changed into the appropriate term "dyspeptic anaemia.—*London Medical Record.—The Canadian Practitioner.*

Death from Ether in Hamburg.

Dr. A. C. Bernays, in a letter from Hamburg to the *St. Louis Med. and Surg. Journal*, June, 1888, says: "Kummel is not the great surgeon here, but, with all that, he is a man of considerable and deserved reputation. The greatest man here is Schede, and I have spent most of my time in his hospital. Dr. Sands, of New York, spent a month with Schede, and, being a partisan of ether as against chloroform, he undertook to convert Schede by showing him how to use the former anæsthetic. The case was that of a woman of about thirty-eight, afflicted with uterine cancer. Sands, who as you know is recognized as one of our best American surgeons, sent to London and got an ether-bag and the apparatus necessary for the administration of the anæsthetic, and also secured an article of the very purest and best in the way of ether. He and his son, Dr. Sands, Jr., began the administration in the presence of Schede and eight other prominent surgeons. In less than four minutes, the patient was dead—so very dead that all means at revivification—artificial respiration, even tracheotomy and forced air, were of no avail. The post-mortem showed normal heart, lungs, and brain—in short, nothing abnormal or pathological but the cancer of the uterus.

"The French and Germans, as you know, have never taken

kindly to ether, using it but very little, and, if this incident will keep them from using it at all in the future, they are to be congratulated. I cannot, myself, understand how anybody who has ever used chloroform can become a convert to ether. It takes a good deal of prejudice even to make those who have been its advocates stick to it, and I am glad to say that all of my observations and experiences of this trip tend to show that it is gradually going out of use abroad. Take the world over, and chloroform is now administered five times where ether is resorted to once. There have consequently been a few more deaths, in the gross, accredited to chloroform within the past year, over those attributable to ether ; but, when the number of times each was used is taken into consideration, ether has been far the more fatal. I think chloroform is dangerous only when there is grave organic disease of the heart, or in persons addicted to whiskey."—*Med. and Surg. Reporter.*

Society Practice in New Orleans.

The *New Orleans Med. and Surg. Journal*, June, 1888, says in an editorial: "The custom followed by so many physicians in this city, of taking 'society practice,' has grown to such an extent as to threaten destruction to all legitimate work by those few who value the dignity or well-being of the profession. Four-fifths of the people of this city are banded together into so-called 'Benevolent Associations,' whose objects are weekly indemnity while sick, free medical services, including drugs, and free burial in case of death. Every one of these societies annually chooses a physician, a druggist, and an undertaker, and always after fierce competition. Just before the annual election a committee goes around to some fifteen or twenty physicians and the same number of druggists and undertakers, and requests each of these functionaries to put in a bid. Then begins the scramble. One physician will offer 'to do the work,' which includes attention to the families of the members, for four dollars per member per annum ; another will bid three, another two, and so on until, as actually happened a few weeks ago, the final and successful bidder sees a profit and honor in the job at 'forty cents (40 c.) per member per annum, payable quarterly.' "—*Med. and Surg. Reporter.*

The Treatment of Round Shoulders.

Dr. Stillman in *Archives of Pediatrics*: "Physical treatment involves the employment of such exercises and movements as will conduce to the proper strengthening of the deficient muscles, and also tend to diminish the deformity itself. The first exercise to which your attention is called necessitates the use of a table. For this purpose employ either a table, or lounge, or couch, the surface of which is padded or covered so as to be comfortable to the patient, and it should be low so as to divest the patient of all fear of falling while undergoing the exercise. The patient should place himself or herself in the extension position—*i. e.*, the edge of the table should come to the central dorsal region, the patient lying upon his back, and the head and upper extremities should hang over into space. When this position is assumed, it will be seen that the chest has a tendency to resume its normal shape, that it loses its contracted appearance and that the shoulder-blades tend to approach each other. To approximate the shoulder-blades still further the patient may clasp the hands together behind the back, and while undergoing this process it will appear that the skin and tissues of the anterior portion of the thorax are stretched as much as their structure allows, and that posteriorly, the soft parts become relaxed. Dumb-bells of various sizes are now taken in the hands, and a series of rapid lateral movements practised, which still further expand the chest. There are quite a number of calisthenic exercises which are of advantage if practised in this horizontal backward traction position, but they must be employed with care and moderation, as their expanding effects are so powerfully augmented by gravity that they may strain the tissues painfully and thus delay treatment."—*North-western Lancet*.

ALIMENTARY REGIME FOR GOUTY PATIENTS (Dujardin-Beaumetz). Gouty patients may eat all kinds of meat, especially white meats. Use in moderation, eggs, fish, mollusks, crustaceans and fatty foods. Vegetables should constitute a large part of their diet, excepting gooseberries and spinach, which contain large proportions of oxalic acid. Use with care, nourishing nitrogenous vegetables, such as cabbage and cauliflower; starchy grains, such as peas, beans and lentils. For bread, potatoes

should be substituted. Fruits are all admissible, and raisins may mitigate the conditions of the feet. As a beverage, water, and particularly water which is slightly alkaline, to dilute light Bordeaux wines and slightly alcoholic white wines. No champagne, gaseous water, strong beer, or alcoholic beverages are allowed. Coffee should be drunk very weak. No tea is allowed, as it contains a large proportion of oxalic acid. The bowels should be kept in proper condition by the use of mineral purgatives. The stomach should be emptied every two hours. Lotions of the body, massage and exercise in all forms are advised.—*Medical Register.*

SCIENCE IN COURT.—A German trade journal relates a curious instance in which a legal decision was arrived at by means of a scientific experiment in a court of law. One of the workmen employed by a large firm let his hammer slip from his fingers just as it was descending upon the object on which he was employed. It struck another workman in the region of the left eye, and produced a serious wound. The sufferer was attended by a surgeon, and in a short time after the accident all trace of its results had disappeared. The patient, however, persisted in declaring that he was enduring great pain, and that he had completely lost the sight of his left eye. The head of the firm, who was legally responsible for the consequences of the occurrence, employed several specialists, who met in consultation, and who could discover nothing wrong with the eye. Compensation was, therefore, refused to the man, and the matter was taken into court by him. Here, again, the experts commissioned by the judge to examine the eye unanimously declared that it was perfectly sound and uninjured. The plaintiff persisting that he could see nothing with the left eye, one of the experts had recourse to the following experiment. He took a black board and wrote some words upon it in green ink. Then he desired the plaintiff to put on a pair of spectacles which had been specially prepared for this occasion. The glass for the left eye was plain white; that for the right eye was red. The man having adjusted them, the expert asked him to read what was written on the board, which he did without a moment's hesitation, thereby convicting himself of fraud, for the red glass in the right eye would turn the green ink into black, and render

it quite invisible upon the black board. He had read the writing with his left eye only, the spectacles on that side having an ordinary white glass. The result of the experiment was the nonsuiting of the plaintiff, who was besides condemned to pay the costs of the action. The application of this novel form of science to his case must have been extremely surprising to the workman, who in his ignorance was doubtless firmly convinced that no one in the world could be in a position to contradict his assertion about his own left eye. His position was, to his own thinking, impregnable; and to be found out by a bit of jugglery with a pair of spectacles and a black board must have been all the more exasperating because it was absolutely unexpected.—*The Daily News.*

[Mr. Cross tells me that this well-known test of Snellen's is being frequently applied. The difficulty rests in getting the exact shade of green which will be invisible through a red glass. The case quoted is a good instance of the practical value of the test.]—*Bristol Med. Chir. Jour.*

HOW TO TREAT CRAMPS IN THE LEG.—Many persons of both sexes are greatly troubled with cramps in one or both their legs. It comes on suddenly, and is very severe. Most people jump out of bed (it nearly always comes on either just after going to bed, or while undressing) and ask some one to rub the leg. I have known it to last for hours, until, in despair, they would send for the family physician; and even then it would be hours before the spasms would let up.

There is nothing easier than to make the spasm let go its hold, and it can be accomplished without sending for a doctor, who may be tired and in need of a good night's rest. When I have a patient who is subject to cramp, I always advise him to provide himself with a good strong cord. A long garter will do if nothing else is handy. When the cramp comes on, take the cord, wind it around the leg over the place that is cramped, and take an end in each hand and give it a sharp pull—one that will hurt a little. Instantly the cramp will let up, and the sufferer can go to bed assured that it will not come on again that night. For the permanent cure, give about six or eight cells of galvanic battery, with the negative pole applied over the spot that cramps, and the positive pole over the thigh. Give it for ten minutes, and repeat every week for one month.

I have saved myself many a good night's rest, simply by posting my patients, subject to spasm of the leg, how to use the cord as above. I have never known it to fail, and I have tried it after they had worked half the night, and the patient was in the most intense agony. Even in such cases, at the first jerk of the cord, all pain left.—R. W. ST. CLAIR, M. D., *Medical Age*.—*The Cincinnati Lancet-Clinic.*

MEDICAL APHORISMS.—A correspondent signing himself “Artz,” sends to the *Canada Lancet* the following professional aphorisms of Amédée Latour.

1. Life is short, patients fastidious, and the brethren deceptive. 2. Practice is a field of which tact is the manure. 3. Patients are comparable to flannel—neither can be quitted without danger. 4. The physician who absents himself runs the same risk as the lover who leaves his mistress; he is pretty sure to find himself supplanted. 5. Would you rid yourself of a tiresome patient, present your bill. 6. The patient who pays his attendant is but exacting; he who does not is a despot. 7. The physician who depends on the gratitude of his patient for his fee is like the traveler who waited on the bank of a river until it finished flowing, so that he might cross to the other side. 8. Modesty, simplicity, truthfulness!—cleansing virtues, everywhere but at the bedside; there simplicity is construed as *hesitation*, modesty as *want of confidence*, truth as *impoliteness*. 9. To keep within the limits of a dignified assurance without falling into the ridiculous vauntings of the boaster, constitutes the supreme talent of the physician. 10. Remember always to appear to be doing something—above all, when you are doing nothing. 11. With equal, and even inferior, talent, the cleanly and genteelly-dressed physician has a great advantage over the untidy one.—*Gaillard's Medical Journal*.

NEW ASSISTANT.—“ Beg pardon, sir, but that young lady who just went out asked you for infant's powder.” Old druggist: “ Yes.” “ But you gave her regular face powder.” “ Yes; I always make that mistake. That's how I got up such a big trade. If a woman really wants infant's powder she will insist upon having it.”

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CASES OF ABDOMINAL SURGERY.

By CLINTON CUSHING, M. D., Professor of Gynecology, Cooper Med. College.

(Read before San Francisco County Medical Society, October 9th, 1888.)

PYO-SALPYNX WITH PELVIC ABSCESS.

The following case was referred to me by Dr. Bazet, of the French Hospital:

M. M., aged 26, had a child, when single, five years ago; no abortions. Two days after her confinement she was compelled to get up and to go to work. When menstruation returned it was attended with much pain and profuse hemorrhage. From this time on for nearly five years the pain and hemorrhage at the menstrual periods was so great that she was incapacitated from work for ten or twelve days out of each month. In February last she was married and in two weeks after was suffering from an acute attack of vaginitis, vulvitis and painful urination presumably due to gonorrhea. This was shortly followed by pelvic peritonitis and symptoms of pelvic abscess.

When I saw her in the latter part of April the uterus was fixed by an effusion of lymph; the pelvic tissues were extremely tender to the touch, and the temperature was $103\frac{1}{2}$. The diagnosis was pyo-salpynx with probable pelvic abscess.

I opened the abdomen on April 28th, 1888, and found the pelvic organs adherent from exuded lymph; a small collection of pus in Douglass' pouch, and pus in both Fallopian tubes. I removed both tubes and ovaries as completely as possible, washed out the abdominal cavity with a saturated solution of hydro naphthol in warm water and left *in situ* a glass drainage tube which was allowed to remain for five days. Convalescence was uninterrupted, and patient returned to her work in a laundry in nine weeks with her health fully restored.

In the pus from both tubes and in the secretions from the urethra of the husband was found under the microscope the gonococci of Neisser.

CYST OF BROAD LIGAMENT.

Mrs. Mary W., aged 35, has never been pregnant, and has been married for sixteen years. For five years she has had severe dysmenorrhœa and frequently recurring attacks of pelvic inflammation, confining her to her bed for several weeks at a time. She has never been strong since an attack of typhoid fever when she was 16 years of age. Examination of the heart shows mitral insufficiency and regurgitation. She suffers from constipation, and defecation causes much pain in region of rectum.

In October last she had an attack of persistent vomiting for three weeks, and a similar one in January, both followed by great prostration. She was sent to San Francisco from Sierra County by her physician, Dr. T. J. Tully, and referred to Prof. J. O. Hirschfelder, for the heart lesion, who upon examining her found that she had some form of abdominal growth, and thereupon sent her to me. Menstruation had been absent for several months, the general health was failing, the skin of the face was yellow, with a green tinge, and she had noticed a marked increase in the size of the tumor during the past three weeks.

An examination showed an elastic tumor the size of a child's head in the left ovarian region; it was immovable and firmly adherent to the uterus, this organ being crowded downwards, backwards, and to the right. There was but slight tenderness, and the temperature was normal. The diagnosis lay between a fibro-cyst of the uterus and an intra-ligamentous cystic growth with the possibility of the existence of malignant disease.

In any event, the propriety of abdominal section was undoubted and consequently, on May 7th, the abdomen was

opened in the usual manner. Present: Drs. Hirschfelder, Chismore, Sherman, Montgomery, Bazet and Buckland. Upon introducing the hand it was at once found that we had to deal with an intra-ligamentous cyst which was firmly adherent to the uterus. Upon emptying the cyst with Tait's trocar its contents were found to be like pea-soup mixed with pus. As the cyst was emptied it was drawn up into the abdominal opening, the peritoneal covering was divided with the knife and now with the finger tips the sac was dissected out of its bed. This was done with difficulty, the lower part of the cyst being torn in the enucleation and as a consequence an escape of some of the contents into the abdominal cavity. One ligature was applied to the uterine end of the mass and one to the end next the brim of the pelvis.

Upon removing the tumor and sponging out the blood and clots a most formidable looking opening was left; the psoas and iliacus muscles were partly denuded of their peritoneal covering, and the large arteries of the pelvis could be clearly seen. An additional ligature was applied to a bleeding point at the bottom of the opening and the surface packed with sponges wrung out of hot carbolized water. All bleeding then ceased. The opening made by the removal of the tumor was left without further treatment. The right ovary which was cystic and about the size of an orange was next removed. A glass drainage tube was passed down to the bottom of the excavation. The peritoneum was first united with a catgut running suture, and the skin fascia and muscles united by deep silk sutures. There was but little shock. The vomiting was troublesome for twenty four hours during which the drainage tube was forced out of the abdomen.

At the end of thirty-six hours the temperature was 103°, and the pulse 140 per minute. I now removed the two lower stitches, opened the abdomen and poured in from a pitcher a half gallon of a warm saturated solution of hydro-naphthol in water. The patient was then turned upon her side; the solution pressed out and the abdominal cavity again re-filled and the solution left in. The drainage tube was now securely fastened in place, the stitches re-introduced and the abdominal bandage firmly applied. The temperature came down at once to 100° and convalescence was uninterrupted by any serious drawbacks. She got up on the sofa at the end of three weeks. The appetite

was good and the bowels regular, and there was no pain, except in left leg and hip, this having existed for months before the operation, and was doubtless due to the pressure of the tumor upon the nerves.

I omitted to mention that from the right ovary a papillomatous growth extended backwards into the peritoneal cavity, causing some adhesions to the adjacent structures. The adhesions were friable and easily broken up, and were probably not malignant. There was a moderate amount of pus from the drainage tube which was not removed for two weeks. There now occurred a profuse discharge of thin serum from the abdominal opening, on some days as much as twelve to sixteen ounces; the amount varying greatly on different days.

The patient was out of bed at the end of the third week and returned to her home in the mountains in the sixth week after the operation. A recent letter informs me that there is still some discharge of serum (which is, doubtless, peritoneal fluid) from the small opening in the abdominal wall, but her health is fairly good, when the condition of the heart is considered.

Before her return home I introduced a small rubber drainage tube into the abdominal opening to prevent too early closure. This tube was worn for over a month. Whether the cure will prove a complete one or not remains to be seen. Whether the papilloma will return or not, and whether, if the abdominal wound closes, oscite will occur as a result of the cardiac lesion, are points which only time can disclose.

The case was a difficult one, and the risk of wounding the ureter or the large vessels in the pelvis was great, and I think it can be truly said that such cases should only be undertaken by those who are familiar with abdominal surgery.

SIMPLE OVARIAN CYST.

M. L., æt. 35, unmarried, never been pregnant, menstruation regular, slight pain in left ovarian region. Patient was referred to me by Dr. McLay, of the Mission.

Upon my examination an elastic tumor the size of a child's head was found occupying the lower and left part of the abdominal cavity, and was diagnosed as a simple ovarian cyst. She had noticed the enlargement first about two years before.

On July 26th I removed the cyst through a two inch incision. It proved to be a simple colloid cyst of left ovary. There were

no adhesions or complications. The convalescence was uninterrupted except by small stitch-hole abscess in abdominal wall, and the temperature at no time was over one degree above normal.

TUBERCULAR PERITONITIS, EXPLORATORY INCISION.

M. S., æt. 30, two children, applied to me the last of November, 1887, on account of pain in pelvis accompanied by fever. She consulted me at my house, being able to walk, although walking increased her suffering. Patient had good color, tongue clear, and nutrition apparently good.

An examination showed the uterus moderately fixed and the pelvic tissue tender to the touch. Temperature 101°. At the end of a month with rest in bed and with but little medication the local and constitutional symptoms subsided, and she began to get up every day, whereupon the fever again appeared, and there were vague pains in various parts of abdomen.

In spite of large doses of quinine and antipyrin the fever continued. The abdomen slowly enlarged and patient began to emaciate. The stomach became irritable and the appetite disappeared.

In consultation with Prof. J. O. Hirschfelder and Dr. D. W. Montgomery, it was decided that the case was a chronic peritonitis, probably tubercular, or that a collection of pus existed somewhere in the abdominal cavity. An exploratory incision was, therefore, advised.

On Feb. 16, 1888, assisted by Dr. D. W. Montgomery and Dr. H. M. Sherman, the abdomen was opened, Dr. Hirschfelder and Dr. Bazan being present. Every part of the peritoneal cavity was found to be studded thickly with tubercles, the small intestines were found agglutinated together in masses. The peritoneal cavity contained about two quarts of turbid fluid. The cavity was washed out with a saturated solution of hydro-naphthol, and all the accessible parts were freely dusted over with iodoform. A drainage tube was introduced and the abdomen closed. There was no shock but the vomiting was severe and difficult to control. Large quantities of green and yellow fluid were thrown up. One grain of calomel given every hour until its cathartic action was produced, finally gave relief. The drainage tube was removed at the end of a week, and there now appeared at the opening left by the tube a knuckle of intestine covered by tubercles, which soon became agglutinated against

the abdominal opening and at the end of a month had ulcerated at the site of the larger tubercular masses, and occasionally a small amount of fluid fecal matter would escape upon the face of absorbent cotton placed over the part.

For eighteen days following the operation there seemed to be a complete arrest of the development of tubercle, for the temperature was normal and the abdominal pain was much relieved, but at the end of that time the temperature began to rise, and at the end of another month the lungs became involved. Emaciation became extreme, and death occurred from exhaustion in the latter part of the spring.

The literature of the subject during the past few years record a considerable number of cases of tuberculosis of the peritoneum which have been cured by simply opening the abdomen, and others by dusting the peritoneal cavity thoroughly with iodoform. It would appear from this that the vitality of the tubercle bacillus is not great; and that in some cases the simple exposure of the peritoneal cavity to the atmosphere was sufficient to end their growth. The success that has attended the surgical treatment of tubercular peritonitis warrants us in giving the patient the benefit of the trial if the lungs are not involved and the general health is in fair condition.

HYDRO-SALPYNX.

Mrs. C. D. M., æt. 27, has had two children and two miscarriages. She has been suffering for two years from excessive menstruation which had much reduced her strength; she also has had much pain in left ovarian region and in back between the hips. She complains of inability to stand or walk and has lost much in weight during the past eight months.

An examination disclosed a rather firm elastic mass the size of a hen's egg in Douglass' pouch, firmly adherent to posterior wall of uterus, and very tender to touch. The temperature was normal. The diagnosis was an enlarged and cystic ovary, prolapsed and adherent. Removal recommended.

The operation was performed Sept. 8th, assisted by Dr. Fuller and Miss Cachot. Upon opening the abdomen the mass in Douglass' pouch was found to be the dilated, prolapsed and adherent Fallopian tube instead of the ovary which was quite normal in size and position. Both tube and ovary were removed. Convalescence was rapid and uninterrupted.

It is too soon yet to judge of the benefit to be realized from the operation, but it is believed that it will be marked.

AN OVARIAN CYST SIMULATING A UTERINE FIBRO-CYCT.

Mrs. L. S., at 41, five children, seven miscarriages. She has had some soreness and pain in right ovarian region for three years. About one year ago she first noticed an enlargement of lower part of abdomen. Since which time she had suffered from frequent and painful urination, and occasional attack of nausea and vomiting. The diagnosis was an ovarian cyst and its removal was advised.

On Sept. 11th, assisted by Dr. R. C. Meyers and Dr. G. W. Fuller, the abdomen was opened and a cystic tumor was found attached to the upper and posterior part of uterus by a pedicle a little larger than a man's thumb. It was apparently a fibro-cystic growth of the uterus, but after its removal a further search gave no evidence of an ovary or Fallopian tube on right side. I was, therefore, forced to the conclusion that the ovary had become prolapsed, and adherent to the posterior wall of uterus and that the cyst subsequently became developed. The left ovary had several small cysts projecting from its structure and therefore was also removed. The fluid of the large cyst, which was about the size of the adult head, was in color and consistence about that of pea soup with a greenish yellow cast.

No shock followed the operation, and convalescence was uninterrupted except by a stitch-hole abscess in abdominal wall. Stomach is acting well and the bladder trouble has not returned.

ANTHRAX.

By D. W. MONTGOMERY, M. D.

Among some of the material given me for examination by Mr. Mercer and Dr. Bowhill was the liver of a cow said to have died from anthrax. A hasty examination was first made by scraping off some of the liver tissue, and spreading the scrapings on a microscopic slide, staining with gentian violet solution, and washing off with water. This simple method was amply sufficient to make the diagnosis. The large, long bacillus with its sharply truncated ends, sometimes three or four bacilli in line where they had divided off, were easily made out, and the diagnosis of anthrax or splenic fever was placed beyond cavil. Now it was considered desirable to make sections of the liver, and see the bacilli *in situ*. Thin sections were made with

the microtome, and these sections were placed for some time in a hot solution of fuchsin (Ziehl's solution), afterwards decolorized in absolute alcohol, stained again faintly in gentian violet solution, and put up in Canada balsam. The bacilli were found in vast numbers in the bloodvessels of the liver. Most of the bacilli were found in the intralobular capillaries.

The very word "anthrax" has a malignant appearance when seen in the English Language, although among the Greeks it was the name of a very useful domestic article, viz.: Coal. The French name of the disease "charbon" also means coal, and these two names are evidently given to the disease because of the black color of the tissues of animals afflicted. In Russia it is called the Siberian Plague, and in England, Woolsorter's Disease. In England it is rarely miasmatic, and most of the cases in human beings there, are contracted from handling imported articles (hides, wool, or hair,) as in the epidemic in Bradford, where the woolsorters were infected from foreign wools containing anthrax spores, and hence the name, Woolsorter's Disease. In surgery it has long been recognized and described under the name of malignant pustule. The German name Milzbrand and the English name Splenic Fever refer to the lesion of the spleen, which is found on post mortem examination to be very much enlarged, and deeply congested with very dark blood. Until a very few years ago all these diseases were described separately, causing a corresponding amount of confusion, till the labors of such scientists as Rayer and Davaine, Pollender, Koch, and Pasteur, have joined the scattered links, and have shown us that such various lesions as malignant pustule or carbuncle, and intestinal mycosis are, in reality, different manifestations of one disease caused by the bacillus anthracis, and now known all over the scientific world as anthrax. The absolute diagnosis of the disease rests on the finding of the bacillus, which, on account of its size and susceptibility of being stained, is one of the most easily demonstrable of any of the bacteria. A gentleman of this city finding a case in a remote part of the country dissolved a piece of an aniline pencil in some water, and demonstrated the bacillus very satisfactorily with this rapidly improvised stain.

In man we have, in the first place, two principal forms of the disease, an external form, and an internal form. The external form is the carbuncle or malignant pustule; the internal form

is of three principal varieties, a pharyngeal form, where the pharynx and tonsils and adjacent parts of the neck are first affected; a pulmonary form, where the spores are inhaled into the lungs; and an intestinal form or intestinal mycosis where the virus is introduced into the walls of the intestines. The disease is at first local and may remain localized, the patient after a time recovering, but if the bacilli enters the blood the disease becomes generalized, and invariably kills the patient. Here we have an infective disease, which, like tuberculosis and syphilis, first causes a severe local lesion, afterwards becoming disseminated throughout the entire system.

The different ways the bacilli may be brought to, and gain an entrance into the human body are, of course, almost infinite, and we have only to mention a few instances here. For instance, flies may carry the poison from a dead cow or sheep, and biting the skin of a man so inoculate sufficient of the poison. We have, therefore, many stories as to the stings of insects being sometimes so venomous as to cause death. People handling the diseased cattle, or the wool, hides, hair, or meat, may contract the disease. In Paris the porters employed in carrying meat know the dangers of anthrax so well, that they provide themselves with a leather shield attached to the hat and falling down over the neck and shoulder to protect the tender skin of the neck from contact with diseased meat. It has been urged that people have eaten the meat of cattle suffering from anthrax for years with impunity, and this, undoubtedly, is very true, but nevertheless the danger exists, and a person eating such meat is, no doubt, putting his life and the lives of others at hazard. It has been said that cooking will kill these bacilli—well boiled meat is free from danger, but what about the other ways of preparing meat such as frying, where the centre is scarcely warmed, or how is it with those people who eat meat raw, or but slightly sodden? It is true, that as no spores exist in the meat, the gastric juice is capable of destroying the bacilli, but before entering the stomach the food must traverse the mouth, pharynx, and oesophagus, and the disease may enter at any solution in the continuity of these parts. Indeed, the risks are too great to be taken in a country like California, were meat is both plentiful and good.

In an article by Straus in the *Progres Medicale* is related the way the farmers evade the strict police inspection of Paris. An

animal falling sick, and the disease being recognized by the farm hands by the violence of the symptoms, and by the blood escaping from the nose, mouth and anus, and from the vagina also, a butcher who is in league with them, is sent for, and the animal is killed, and cut up into quarters, and sent to Paris. The butcher easily recognizes the disease by the scanty flow of blood, the injected cellular tissue, the bladder and intestines filled with blood, the spleen swollen, friable and black. He is sent for at night, and does his work in the night, and during the night the meat is taken to the nearest railway station to be shipped to Paris, where it arrives early in the morning, and is sold by the hucksters while most of the people are still sleeping. The whole operation is carried out secretly.

This is the first time we have been brought really face to face with the disease in San Francisco, and the people are hardly yet alive to the danger they run from eating the meat of animals suffering from anthrax, but in Paris they are older, and have learnt their lesson by experience, and, therefore, have a strict inspection. We now have a board of three inspectors, and we hope they may fearlessly discharge their duty of protecting us from this awful disease. They will meet with fierce opposition, because of the cupidity of the men whose interests will be touched, but we hope this may not deter them from performing their work faithfully and well.

CASE OF RETENTION OF URINE.

By W. F. JONES, M. D., San Rafael.

I was interested in reading, in the June number of the *Pacific Med. and Surg. Journal*, an article by Dr. H. A. DuBois (page 327), entitled, "A Somewhat Rare Accident Occurring during Labor."

Not long since, I met with a similar case which may be of interest in connection with the case already referred to. On Aug. 16th I was called a distance of 20 miles to see a woman, age 33 years, who had been nearly two days in labor with her first child. I found the patient a short, thick-set, muscular woman, one accustomed to manual labor. Labor was very tedious, the first stage very prolonged and the strength of the patient nearly exhausted when I reached her.

I was finally compelled to deliver her with forceps, giving her

chloroform. There was slight laceration of the perineum, which could not be prevented, as the parts were very rigid, and the head was large. She was delivered Friday morning at 1 o'clock, and that forenoon I returned home, after giving suitable instructions.

On Saturday, at 2 p. m., I was notified by telephone that she had passed no urine since I left her, and there was no one with her who could use a catheter. I accordingly had to see her again and drew off a large quantity of normal urine.

I left a soft catheter with the attendants, saying that she would probably recover the power over the bladder in a few days. But after using the instrument for a week they again notified me that the trouble still persisted. She felt the desire to urinate, but lacked the power ; but the urine flowed through the catheter with good force, and the walls of the bladder seemed to have fully recovered their tone.

Hot fomentations to the vulva and small doses of fluid extract of ergot were of no avail, so finally, after a week of such trial, and nineteen days after her confinement I again visited the case and followed the same course mentioned in the article of Dr. Du Bois, passing in quickly into the urethra the solid stick of nitrate of silver, first anaesthetizing the mucous membrane of the urethra with cocaine hydrochlorate, 4 per cent.

There was nothing abnormal in the external appearance of the urethra, and a No. 12 bougie (Eng.) passed into the bladder without the slightest difficulty.

Two days afterwards she was able to urinate without the aid of the catheter, and has so continued ever since.

The case may seem very trivial to any one who did not have to take that forty mile ride, but it is certainly worthy of consideration, and I imagine there are a good many unpublished cases of the same sort, which would be of interest to the profession if made known.

Two GIRLS: "Please, Sir, do you keep Excursion Pills?"
Chemist (equal to the occasion) : "Yes, we have some very fast ones!"

"PENN'ORTH of salvation ink." "What is it for?" "Bad eyes." Sulphate of zinc supplied.

It was an American chemist who received an order for "ipe-eac enough to throw up a four-year old girl."

Proceedings of Societies.

Proceedings of the San Francisco County Medical Society.

SAN FRANCISCO, August 13, 1888.

The meeting having been called to order by the President, Dr. J. D. Arnold, the minutes of the former meeting were read and approved.

Dr. Henrietta Brown, Minnesota Hospital College, 1886, was proposed for membership by Dr. H. R. Bell and Dr. A. Abrams, and referred to the Committee on Admissions. The Committee on Admissions reported favorably on the applications of Dr. J. W. Heerdink and Dr. Louis Bazet, who were elected to membership.

The Secretary read the resignations of Dr. G. F. G. Morgan, Dr. F. H. Dennis, Dr. J. C. S. Akerly, J. K. Healy, which were accepted by the Society.

Dr. Albert Abrams read a paper upon "The Pneumatic Cabinet in the Treatment of Pleuritic Adhesions and Incipient Phthisis." After describing the apparatus and showing that the *modus operandi* lay in altering the relations between the extra-thoracic and intra-thoracic pressures, he reported several cases of the above lesions which had been treated by this method with apparent advantage. He also expressed his opinion that the distending force of the atmospheric pressure might be particularly exerted on one part of the lung by encircling all the thorax except the selected part with a rubber bandage. He showed a patient who had been operated upon for empyema, but in whom the wound had not closed and there was still considerable secretion of pus.

Dr. Kenyon said that he had operated upon the patient in question by removing about two and a half inches of two ribs thus permitting the free escape of pus which was being rapidly secreted. He believed the result would have been better had a larger section been made.

Dr. Whittell said that the cabinet seemed to offer many of the advantages associated with a change of altitude. He did not think that by means of the rubber band it was possible to limit the expansion to one or two ribs, as the attachments of these bones and the mechanism by which they were elevated and depressed strongly favored a conjoined action. Such an arrange-

ment as the cabinet would be excellent in overcoming the spasmodic contraction of the smaller bronchi in asthma.

Dr. Sherman doubted the efficacy of using the cabinet in capillary bronchitis since the danger in that disease was the passage of the exudation into the air-cells, and the increased inspiratory pressure would tend to produce this very result. The method could not be compared to change in altitude as in the latter there was not any change in the relation between the internal and external pressure.

Dr. Arnold had obtained his best results in the treatment of acute and chronic bronchitis or incipient phthisis. He believed that making the apices of the lungs take part in respiration was a decided prophylactic against the last mentioned disease. In breaking down pleuritic adhesions it is much more thorough and effective than the gymnastic method.

Dr. Abrams closed the discussion by saying that in the empyema case exhibited we had a pus secreting cavity which had not yielded to treatment; his object, therefore, was to destroy the cavity by inflating the lung. There was no doubt that the intercostal muscles could act by themselves, and, therefore, local expansion was possible although to a limited extent.

There being no further business the Society adjourned.

W.M. WATT KERR,

Recording Secretary.

August 28, 1888.

The meeting having been called to order by the President, Dr. J. D. Arnold, the minutes of the former meeting were read and approved.

Dr. Barkan reported and exhibited several cases of paralysis of the ocular muscles. After dwelling for some time upon the causes and general features of the disease he referred to its significance as a symptom in general diseases, and expressed the opinion that paralysis of the ocular muscles was unsatisfactory as a means of diagnosing the seat and nature of brain lesions, although he admitted that complete ocular paralysis was generally due to injury at the base. It was also a frequent precursor of tubercular meningitis, and under such circumstances was most frequently seen in children. The prognosis is generally more favorable in adults, as in such cases it is frequently due to a specific cause; in other patients, however, it

is associated with tabes dorsalis, disseminated sclerosis and progressive paralysis of the insane.

In answer to a question Dr. Barkan said that he believed the exophthalmus in paralysis to be due to want of tone in the ocular muscles.

Dr. Whittell said that the cases mentioned tended to show the broadness of the field of the specialist and that their treatment must frequently be directed towards the constitution instead of being limited to the eye and its appendages.

The discussion afterwards was chiefly limited to ocular paralysis as a symptom of tertiary syphilis and the most appropriate form of treatment.

Dr. Arnold asked whether Dr. Barkan preferred mercury or iodides in these ocular tertiary symptoms.

Dr. Barkan replied that whenever ocular symptoms appeared after a specific lesion he regarded them as an indication that the appropriate treatment had not been continued for a sufficient length of time. His custom was to order thorough inunction of about one drachm per diem for six weeks, and afterwards to put the patient upon iodides, his reliance, however, being chiefly based upon the mercurials.

Dr. Stallard thought that in syphilis a mild course of mercury should be kept up for at least one year after reception of the initial lesion.

Dr. O'Toole said that the most obstinate cases of ocular trouble attributable to a specific cause had happened in persons addicted to the habitual excessive use of alcohol. He never had seen a specific case of partial degeneration of nerves of the cerebro-spinal center that did not receive benefit from inunction, but it was otherwise with sympathetic system.

Dr. Goodfellow, who had been invited to take part in the discussion, said that when travelling through Mexico he visited several towns in none of which within the memory of man there ever had been a physician. He saw many cases of syphilis and many persons who had suffered from it all doing so well without treatment, that he was led to believe that syphilis is a self-limiting and self-curative disease doing comparatively little damage. In Arizona, on the other hand, he saw many tertiary cases in men who had been partially treated and he thought that the effect of treatment was to make them worse.

Dr. Kane did not like to treat visceral syphilis with mercury; he preferred the iodides, as he agreed with Hutchison that terti-

ary stage is not syphilis, but new formations left by syphilis. The cases in question would come under this head and under such circumstances he had found iodide succeed where mercury failed. He would like to ask Dr. Goodfellow whether the comparative immunity of the Mexicans might not be due to a hereditary protection, just as among the Portuguese the disease ran a milder course from this cause. There was no doubt that syphilis like many other diseases was self-limiting and left no more frequent sequellæ than small-pox, scarlet fever and similar conditions.

There being no further business the Society adjourned.

Wm. WATT KERR,

Recording Secretary.

San Benito Medical Society.**FIRST PRELIMINARY MEETING.**

HOLLISTER, CAL., June 2, 1888.

An organization of the regular physicians of San Benito County being considered necessary and profitable, the following named gentlemen met at above place and date at office of J. H. Tebbetts for the purpose of organizing a County Medical Society. Present: Drs. C. G. Cargill, E. A. Crepin, T. Flint, F. O. Nash and J. H. Tebbetts.

Dr. T. Flint was elected Chairman of the meeting, and Dr. Tebbetts Secretary.

On motion, the Chairman appointed as Committee on Organization Drs. Cargill, Crepin and Nash.

The Secretary was instructed to obtain copies of the Constitution and By-Laws of the San Francisco City and County Medical Society at once for benefit of Committee on Organization.

On motion, the meeting then adjourned to meet at same place Saturday, June 9, at 3 p. m.

J. H. TEBBETTS,
Secretary.

SECOND PRELIMINARY MEETING.

HOLLISTER, CAL., June 9, 1888.

The meeting was called to order by the Chairman, Dr. Flint. The minutes of the preceding meeting were read and approved.

The Committee on Organization were unable to report on account of delay in obtaining copies of Constitution of San

Francisco Medical Society, so, upon motion, the Society as a Committee of the whole drew up and ratified a Constitution and By-Laws. Election of officers being next in order, Dr. Flint, of San Juan, was unanimously elected President, and Dr. J. H. Tebbetts, of Hollister, Secretary.

The President appointed as a Board of Censors for the balance of the year Drs. E. G. Cargill, E. A. Crepin and F. O. Nash.

No further business appearing, the Society adjourned.

J. H. TEBBETTS,
Secretary.

STATED MEETING.

HOLLISTER, CAL., July 11, 1888.

The Society was called to order by Dr. Cargill in the absence of the President Dr. Flint. Members present, Drs. Cargill, Crepin, Nash and Tebbetts.

The minutes were read and approved.

On motion the Board of Censors were instructed to draw up and report a Fee Bill for the Society.

After an informal discussion by the Society on subjects of current interest the meeting was adjourned.

J. H. TEBBETTS,
Secretary.

STATED MEETING.

HOLLISTER, CAL., Sept. 12, 1888.

The Society was called to order by the Secretary in the absence of the President Dr. Flint, and Dr. F. O. Nash was chosen President pro tem.

Members present, Drs. Crepin, Nash, Tebbetts.

The minutes of the last stated meeting held in July last were read and approved.

The Board of Censors, not having completed its report upon the "Fee Bill" of the Society, on motion was granted further time.

An application for membership was then made by Dr. G. F. G. Morgan, of New Idria, endorsed by Drs. Crepin and Tebbetts and was referred to the Board of Censors.

Dr. M. McPherson, of New Idria, was then proposed for membership by Drs. Nash and Tebbetts; referred to the Board of Censors.

Dr. Flint having arrived took the chair, and the Society lis-

tened to the reading of an interesting paper by Dr. E. A. Crepin, of Hollister, entitled "The Relative Condition of the Liver in Phthisis Pulmonalis."

No further business appearing, the Society on motion adjourned.

J. H. TEBBETTS,
Secretary.

USE OF ANTIPYRIN ASSOCIATED WITH QUININE.—If antipyrin be added to the mixture in cases when it is desired to give large doses of quinine (15 grains and upwards), the uncomfortable effects to which the latter often gives rise are avoided. Dr. Derlon gives 3 grains of antipyrin to 5 of quinine. The antipyretic effect of the quinine is increased, and the symptoms of quinism do not occur. Moreover, the combination is better borne by the stomach, and it is believed that "antipyrin modifies the reflex actions starting from the mucous lining of the stomach."—*London Medical Record*.—*The Cincinnati Lancet-Clinic*.

BERDACH ON THE ACTION OF ANTIPYRIN.—The following is a summary of the author's observations, which were made in Professor von Bamberger's clinic: "1. Antipyrin injected subcutaneously takes effect in all painful diseases mostly after a few seconds; its influence lasts at least six hours. 2. The effect depends apparently on local influence of the nerve-endings (analgesic zone, lessened function of the peripheral nerves—See) and on restriction of reflex action. 3. Antipyrin has a cataphoric action which is far below that of cocaine. 4. It does not appear to have any unfavorable influence on the general condition, and is never contra-indicated." Whether antipyrin possesses any specific influence in acute rheumatism, as asserted by Alexander, Demme, Neumann, and A. Fraenkel, the author cannot from his own observations decide, but injections in this disease were always of benefit. Antipyrin used subcutaneously is a remarkable anodyne which does not act upon the system injuriously, and can therefore be freely used, unlike morphia in this respect.—*London Med. Recorder*.—*The Cincinnati Lancet-Clinic*.

State Medical Board of California.

At the regular meeting of the Board of Examiners, held August 1st, 1888, the following physicians were granted certificates to practice medicine and surgery in this State:

- T. ALLEN BARBER, San Diego; Med. Dept., Univ. City of New York, N. Y., March 12, 1854.
- LAFAYETTE BENTLEY, Lugonia; University of Trinity College, Canada, May 11, 1881.
- GEORGE RICHARD BOWLES, Santa Rosa; Med. Dept. St. Louis Univ., Mo., March 3, 1866.
- JAMES PATTON BOYD, Santa Ana; Med. Dept. Univ. City of New York, N. Y., Feb. 18, 1869.
- WILLIAM B. BULLARD, Los Angeles; Med. Dept. Bowdoin Coll., Me., May 25, 1859.
- WILLIAM P. CASH, San Diego; Kentucky School of Med., Ky., June 30, 1887.
- DAVID DUPRESNE, San Diego; Victoria Univ., Montreal, Canada.
- HOLMAN N. FERRIN, Watsonville; Med. Dept. Univ. of Vermont, Vt., June 26, 1882.
- WILLIAM N. FINNEY, San Bernardino; Missouri Med. Coll., Mo., March 5, 1878.
- ADAM FRANKE, Linkville, Or.; Jefferson Med. Coll., Penn., March 9, 1867.
- FORREST B. FREEMAN, Gridley; Med. Dept. Univ. City of New York, N. Y., March 13, 1883.
- JOHN LOCKE HARDEMAN, San Diego; St. Louis Med. Coll., Mo., March 8, 1873.
- ALFRED W.M. HARDING, San Diego; Royal Coll. of Surg., England, July 23, 1870, and B. M. Univ. of London, England, Dec. 13, 1871.
- HENRY M. HEWITT, Whittier; Rush Medical College, Ill., Feb. 26, 1878.
- FREDERICK J. KRUELL, Los Angeles; Rush Medical College, Ill., Feb. 22, 1881.
- JONAH NICHOLS, West Point; Med. Dept. Univ. of Virginia, Va., June 29, 1887.
- J. D. NIETSCKE, Buckeye Valley; Memphis Medical College, Tenn., Feb. 25, 1852.
- ROBERT S. B. O'BRIAN, San Francisco; McGill University, Canada, March 28, 1873.
- EDWIN T. PHILLIPS, Los Angeles; Kansas City Medical College, Mo., March 6, 1883.
- AMOS W. PLUMMER, Los Angeles; Jefferson Medical College, Penn., March 13, 1880.
- JOHN A. RANDOLPH, Willows; Missouri Medical College, Mo., March 4, 1884.
- JAMES P. RICHARDSON, Brentwood; Med. Dept. Columbian Univ., D. C., March 3, 1868.
- JOSEPH W. ROWAN, Murrietta; University of Trinity Coll., Canada, Apr. 3, 1888.
- GEORGE B. ROWELL, San Bernardino; McGill University, Canada, March 29,

1884, and Royal Coll. of Surgeons, England, July 24, 1884, and Coll. of Physicians and Surgeons, Qu -bec, Canada, May 12, 1886.

JAMES C. SHAFTER, San Francisco ; Coll. of Phys. and Surg., New York, Feb. 27, 1873.

K. J. SLAUGHTER, Oakdale ; St. Louis Coll. of Phys. and Surg., Mo., March 4, 1884.

WILBUR GRAY SMITH, San Francis co ; School of Med. of the Univ. of Maryland, Md., March 6, 1880.

FRANCIS W. STEDDOM, Los Angeles ; Miami Medical College, O., March 9, 1887.

WILLIAM S. WALLACE, Santa Rosa ; Jefferson Medical College, Penn., March 12, 1881.

MURREY L. JOHNSON, Oakland ; Cooper Med. Coll., Cal., Nov. 17, 1887.

Murrey L. Johnson, of Oakland, was granted a license by this Board in Dec., 1887, and so recorded in this office; but the certificate having been made out in the name of Henry L. Johnson, it was returned and the record canceled, and another issued as above.

In February last Dr. Adam Franke, then a recent arrival from the East, presented his diploma to the Board on application for a license, and then departed in search of a location. Nothing further having been heard from him, the application was rejected at the July meeting because the necessary affidavit, fee and letter had not been received. Meanwhile Dr. Franke had located at Linkville, Oregon, where much of his practice extends into California. On the 28th of July he communicated with this office explaining and regretting his long non-completed application, asking that the action of the Board be reconsidered. The request was granted, and upon presentation of all required evidence, the license was granted as above.

The application of Edw. H. Griswold, of Los Angeles, was rejected because of insufficient credentials. The applications of J. H. Beauford, of Butte City, and J. E. Davison, of Woodland, being incomplete, were laid over. The application of J. L. Vaughan, of Lodi, on a diploma from the Memphis Institute (eclectic) was withdrawn.

The Secretary reported progress on the 4th edition of the *Medical Register*, having 1,200 letters ready to mail to M. D's & P. M's a-king names and locations of physicians.

We hope the profession throughout the State will aid us in the work by promptly reporting their own names and those of their neighbors. It will be like " bread cast upon the waters."

R. H. PLUMMER,
Secretary.

At the regular meeting of the Board of Examiners held Sept. 5th, 1888, the following physicians were granted certificates to practise medicine and surgery in this State:

- ROBERT THOMAS ALLAN, M. D., San Francisco ; the Univ. of Edinburgh, Scotland, Aug. 1, 1885.
- WM. CORNELIUS BICE, M. D., San Diego ; Med. Dept. Univ. of Louisville, Ky., Feb. 28, 1859.
- WILLIAM BULL, M. D., San Francisco ; Royal Coll. of Surg. of Edinburg Scotland, Jan. 28, 1876.
- JOHN R. COLBURN, M. D., Los Angeles ; St. Louis Med. Coll., Mo., March 8, 1878.
- CHARLES SANFORD DICKSON, M. D., San Diego ; Chicago Med. Coll., Ill., March 20, 1877.
- CHAS. HENRY DOUGLAS, M.D., San Diego ; Bellevue Hosp. Med. Coll., N. Y., March 1, 1876.
- OSCAR D. FITZGERALD, M. D., Los Angeles ; St. Louis Med. Coll., Mo., March 10, 1872.
- HENRY D. GARVIN, M. D., San Diego ; Med. Dept. Univ. of Buffalo, N. Y., Feb., 1847.
- NATHAN HUNT, M. D., San Diego ; Med. Dept. State Univ. of Iowa at Iowa City, Ia., March 6, 1872.
- WALTER PALMER MILLER, M. D., San Francisco ; Med. Dept. Univ. of Vermont, Vt., June 25, 1883.
- BENJ. BAKER NESBIT, M. D., Pomona ; Med. Dept. Univ. of Louisville, Ky., Jan. 31, 1862.
- HENRY HOWARD SHERK, M. D., Pasadena; Jefferson Med. Coll., Penn., Apr. 5, 1887.
- HAMILTON STILLSON, M. D., Red Bluff ; Med. Dept. Univ. of Louisville, Ky., March 1, 1882.
- SAMUEL G. WILSON, M. D., Los Angeles ; Jefferson Med. Coll., Penn., March 12, 1873.
- HENRY BERNHARDT WEIFER, M. D., Anaheim ; Rush Med. Coll., Ill., Feb. 19, 1884.

The application of Edward Davison, of Woodland, filed July 10th, was rejected because of insufficient credentials. It was based upon a license from the Missouri Board of Health which credited him with having received a diploma from the Chicago Medical College, March 4th, 1860 ; but letters from that College say the records do not show that Edward Davison, or J. E. Davison, under which name he says he graduated, ever attended or graduated there.

A report was received from the Secretary of the Homeopathic Board announcing the rejection by that Board, of the application of A. Ballon, of Los Angeles, because of insufficient credentials.

Ten incomplete applications were laid over that they might be completed by the next meeting.

Unprofessional advertisements of Godfrey Beaumont, of San Diego, were received, and the Secretary was instructed to request him to withdraw the same, calling his attention to the requirements of the Law, the Rules of this Board and the decision of the Supreme Court of this city in the case of *Lowry v. The Board of Examiners*.

The Secretary reported that besides the 1,200 letters sent out on the 1st of August, for information to be used in compiling the 4th edition of the Medical Register, 650 additional ones had been sent to tardy correspondents on the 1st of September, to all of which only about 750 answers have been received.

Communications asking for information and blanks for prosecution of illegal practitioners were received from San Diego, Los Angeles, Monterey, Sacramento, Yuba and Inyo Counties. While the law stands upon our statute books it should be enforced. The profession looks to the Board of Examiners, as the central organization, for its enforcement ; but it should be remembered that the legislature made no appropriation to defray expenses of this Board, however incurred, hence effective work can be done only through the earnest co-operation of the medical profession throughout the State, with the assistance of the legal profession. We look especially to those in the latter profession whose oath of office impel them to support the laws of the State.

R. H. PLUMMER,
Secretary.

Milk Jelly.

The *American Druggist* gives the following directions for preparing milk food. As a variation in milk diet, the following is recommended by Professor Liebreich:

Heat one quart of milk with one pound of sugar, and when the sugar is dissolved continue the heat, at a boiling temperature, for about ten minutes. Now cool it well, and then add, slowly stirring, a solution of one ounce of gelatine in a cupful of water. Next add the juice of three or four lemons and three wineglassfuls of wine, brandy, or other liquor. Set the glasses containing the mixture in a cold place, so that the contents may gelatinize. It is necessary to have the milk quite cold before the other ingredients are added, as it would otherwise curdle.

—*Medical Science.*

Health Reports.**San Francisco Health Report.****ABSTRACT.**

	1887	Jan	Feb	Mar	Apr	May	June	July	Aug.
Total, 1887.....	5649	522	451	445	450	475	409	459	409
Total, 1888.....		650		488	502	504	479	519	478
Phthisis.....	858	89	78	87	90	75	74	72	71
Pneumonia.....	320	103	56	62	47	39	41	39	32
Bronchitis.....	127	25	31	14	11	19	9	12	13
Heart Disease.....	273	43	27	26	29	22	34	35	31
Aneurism.....	27	0	3	4	2	0	0	4	2
Apoplexy.....	147	11	15	22	8	18	13	14	11
Typhoid.....	121	23	8	6	13	12	16	12	10
Paralysis.....	109	16	8	7	8	9	3	9	11
Cancer.....	174	18	21	17	15	22	8	24	15
Diphtheria.....	222	10	15	7	11	15	5	7	12
Croup.....	92	10	6	4	5	6	3	4	7
Infant Convulsns.....	156	12	13	13	10	18	14	16	9
Meningitis.....	130	18	20	16	21	12	21	10	14
Casualties.....	174	12	15	10	16	22	19	18	22
Suicides.....	84	8	5	9	10	6	4	5	6
Homicides.....	21	2	5	2	2	2	1	1	0
Small Pox.....	24	27	9	4	4	2	0	2	0
Enteritis.....	..	17	..	12	11	19	21	9	9
Measles.....	..	11	5	2	1	1	0	0	0
Alcoholism.....	..	5	3	4	2	6	3	7	
Daily mean tem		46.3°	52.8°	52.5°	56.2°	54.4°	61.°	59.1°	57.8°
Precip. moist're.....		6.81	0.94	3.60	.11	.38	.27	.01	.01

Population according to U. S. census, July 1st, 1880, was 234,520; Caucasian, 212,520; Chinese, 22,000. Estimated population, June 30th, 1887, 330,000; Caucasian, 300,000; Chinese, 30,000.

Report of State Board of Health.

Mortality reports received from fifty-one cities and towns, with an estimated population of seven hundred and twenty-two thousand six hundred, give the number of deaths as nine hundred and eight, which is a monthly percentage per thousand of 1.25, or an annual death rate of 15 per thousand, which is the lowest percentage we have had during the year, and indicates an absence of any serious epidemic disease during August.

Consumption caused one hundred and thirty-eight deaths, over one sixth of the total mortality.

Pneumonia was fatal in forty-three instances—thirty-two of them in San Francisco, four in Oakland, and one each in Stockton,

Santa Rosa, Santa Clara, San Bernardino, Nevada City, Marysville, and Dixon.

Bronchitis caused fourteen deaths, thirteen of which occurred in San Francisco, and one in Trinity County.

Congestion of the lungs was fatal in nine instances—one in Sacramento, one in San Diego, and seven in San Francisco. From these statistics we infer that outside of San Francisco acute pulmonary disease was almost absent from the State during the month.

Whooping-cough is credited with four deaths, three of which occurred in San Francisco and one in San Bernardino.

Diphtheria still continues a large factor in our mortality list, no less than thirty-one deaths being caused by it during the month. If we add to this ten from croup, we have a mortality of forty-one from these allied diseases. San Francisco reports nineteen, Oakland seven, Los Angeles five, Sisson three, and one each in Watsonville, Stockton, Selma, Santa Cruz, San Jose, San Bernardino, and Cloverdale.

Scarlet fever caused two deaths, one in Sacramento and one in Lemoore.

Measles had no mortality during the month.

Smallpox caused no deaths.

Typhoid fever was fatal in twenty-seven instances, which is a decrease from last report.

Typho-malarial fever was fatal in six instances.

Remittent fever is credited with eighteen deaths, which is an unusual mortality from this disease.

Cerebro-spinal fever caused six deaths.

Cancer was fatal in twenty-four instances, which is a decrease of nearly one half from last report.

Cholera infantum was the cause of thirty deaths, which is a marked decrease from July, when the deaths from this cause were sixty.

Diarrhoea and dysentery were fatal in thirteen instances, which is also a decrease from the last report.

Heart disease caused sixty-two deaths.

Erysipelas was fatal in four cases.

Alcoholism increased its mortality from six in July to twelve in August.

The following towns report *no deaths*, during the month: Alturas, Auburn, Azusa, Biggs, Bodie, Calico, Castroville, Cot-

tonwood, Downieville, Etna Mills, Elk Grove, Forest Hill, Fort Bidwell, Gridley, Hills Ferry, Igo, Knights Ferry, Lincoln, Lakeport, Millville, Roseville, Sierra City, Shasta, and Williams.

PREVAILING DISEASES.

Reports received from seventy-five localities continue to indicate a very limited amount of sickness throughout the State, and although during some days within the month the temperature ranged as high as 111 degrees in some parts of the State, not a single case of *sunstroke* or thermic fever was reported to this office, or, as far as known, occurred within its borders.

Cholera infantum was noticed with some frequency in Lemoore, Dixon, Sacramento, Mariposa, Cedarville, Fort Bidwell, Sierra City, Pomona, Salinas, San Diego, Los Angeles, San Bernardino, Oakland, and San Francisco.

Diarrhoea and dysentery was observed in Millville, Lemoore, Anaheim, San Diego, Monterey, Jolon, Castroville, San Bernardino, Downey, Tulare, Fresno, Cloverdale, Knights Ferry, Cottonwood, Lincoln, Biggs, Weaverville, Anderson, Etna Mills, Sisson, Truckee, Alturas, Sierra City, Vallejo, and San Francisco.

Measles were noticed in Castroville and Cloverdale

Scarlet fever was present in Sacramento, Lemoore, Biggs, Sisson, Oakland, and San Francisco. The type is singularly mild, and attended by a very limited mortality.

Diphtheria still occupies a considerable part of the State, and adds a large item to our death rate during August. It was noted in reports from San Francisco, Oakland, San Bernardino, Los Angeles, Santa Cruz, Selma, Watsonville, Saint Helena, Anderson, Sisson, Colfax, Etna Mills, Sonora, Gridley, and Fresno.

Whooping-cough was present in Anderson, Calico, Elsinore, Livermore, San Bernardino, and San Francisco.

Erysipelas, in sporadic form, was observed in Millville, Downey, Biggs, Colfax, Sierra City, Fresno, Brownsville, Oakland, and San Francisco.

Typhoid and typho-malarial fever is mentioned as present in Elk Grove, Sacramento, Lemoore, Hopland, Igo, Anderson, Knights Ferry, Cloverdale, Colton, San Diego, San Bernardino, Los Angeles, Pasadena, Pomona, Hills Ferry, Truckee, Fort

Bidwell, Ætna Mills, Tulare, Salinas, Oakland, and San Francisco. In Yuma, Arizona Territory, Dr. Taggart writes typhoid fever and diphtheria are epidemic.

Remittent fever is noticed in Bodie, Millville, Lemoore, Cottonwood, Lodi, Igo, Williams, Alturas, Knights Ferry, Downey, Sisson, Colfax, Fresno, Elsinore, Lockeford, and Shasta.

Pneumonia. A limited number of cases of this disease were noticed in Downey, Salinas, San Bernardino, Dixon, Marysville, Nevada City, Oakland, Santa Clara, Santa Rosa, Stockton, and San Francisco. It is not marked "prevalent" anywhere, and was probably as limited as it will be during the year.

Bronchitis has almost disappeared from our sickness reports, although a case or two was noticed in Bodie, Weaverville, Mariposa, Fresno, and San Bernardino. It was more frequent in San Francisco than anywhere, but there the disease was limited, as a rule, to the advanced in life.

Parotiditis or mumps was quite epidemic in Castroville.

Smallpox has, we regret to say, reappeared in San Francisco, Oakland, and Redding. In San Francisco, August twenty-third, it was introduced by a man trading on the San Joaquin River; in a few days several cases developed, and by the thirtieth of the month fourteen cases were in the hospital. Two cases were detected in Oakland, but were immediately quarantined. One case was also detected in Redding, and placed in the smallpox hospital. Owing to the exceeding mildness in the character of the disease which developed during the past winter, proper precautions were not taken in those parts of the State, outside the large cities, to properly destroy the clothing, disinfect or fumigate the premises, or render it improbable or impossible for the disease germs to exist in or about those attacked by the disease, many of the cases never going to bed, and others as equally careless of the health of their neighbors. As a result we may look for an outbreak of the disease when the winter season approaches and these diseased garments are again brought into use. What was mild in its form last winter may be most virulent in its course this winter. The wisest course to pursue, then, is to get vaccinated early, and thus anticipate disease by timely preventive measures.

PACIFIC COAST WEATHER IN AUGUST, 1888.

The pressure was highest over Northern California on the second, and Southern California on the eighteenth. It was lowest over California on the fourteenth.

TEMPERATURE.--The temperature was slightly above the average in Northern California, and from one to two degrees below the normal in Southern California; the highest temperature reported from any Signal Service Station in the State during the month was from Fresno, where the temperature on the twenty-fourth was reported as 111 degrees.

STORMS.--No storms of violence appeared on the Pacific Coast during the month. A light rain fell in the vicinity of San Diego on the twenty-eighth. It moved northeasterly, resulting in very light showers, disappearing in Inyo County, during the early morning of the thirtieth. A light shower also fell in the vicinity of Fort Bidwell on the sixteenth.

GERRARD G. TYRELL, M. D.,

Permanent Secretary California State Board of Health.

Sacramento, September 10, 1888.

OPIUM IN TAHITI.--The passion for opium is reported to be rapidly destroying the native population on the Marquesan Islands, where the women even more than the men are said to be addicted to this fatal indulgence. According to our consul at Tahiti, the French authorities are afraid that the result will be the same in the Society Islands, where, in spite of the stringent orders issued to the police, the Chinese persist in selling opium to the natives. The traffic in the island appears to be a monopoly, which is put up to public competition and leased for periods of two years. According to the law the contractor at Tahiti is allowed to sell only 1100 pounds per annum, but it is believed that a great deal more is sold, and that directly or indirectly the prohibition upon selling to any but Chinamen is to a great extent evaded. At the last adjudication the successful competitor secured his privilege for Tahiti for 66,000 francs per annum, a sum which it is calculated would yield him a profit of from 45 to 50 per cent. As the quantity of opium which in San Francisco may be bought for 16 shillings is sold in Tahiti for £5 to £5 16 shillings 8 pence, it does not appear that the opium monopolist adds the attraction of cheapness to the allurements of this pernicious drug.—*London Daily News.—Pharmaceutical Record.*

PACIFIC MEDICAL AND SURGICAL JOURNAL

AND

WESTERN LANCET

EDITOR:

WILLIAM S. WHITWELL, A. M., M. D.

The Editor is not responsible for the views of contributors.

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SAN FRANCISCO, OCTOBER, 1888.

Editorial.

THE INTERCOLONIAL MEDICAL CONGRESS OF AUSTRALASIA, MELBOURNE, 1889.

A very cordial letter has been received from Professor H. B. Allen, the Secretary of the Intercolonial Medical Congress of Australasia, inviting all associated members of the Medical Profession of America to take part in the Congress, and he promises to all who may be able to come, a hearty welcome. Free passes over all the railroads of Victoria will be placed at the disposal of all visitors from this country.

We cannot give a better idea of the importance of this event and of its general character than by quoting from Dr. Allen's letter.

He says:

"The Congress will be attended by four or five hundred of the most representative members of the profession in Australasia, including the Medical Advisers of the various governments, the Inspectors of the lunatic asylums in our colonies, nearly all the professors and lecturers in our medical schools, etc. The Governors of all these colonies have consented to act as patrons. The Premier and Members of the Government of Victoria have

promised to do their utmost to promote the success of the Congress, and in particular have undertaken the publication of the transactions of the Congress. Addresses will be given in all the sections; discussions will be held in full Congress concerning matters of most intimate import to the profession in these colonies; a Congress Museum will be prepared; as full a collection as possible of Australian drugs will be exhibited.

"The Centennial International Exhibition will be in full activity in Melbourne, and no better occasion could be found for a visit to Australasia. The Congress will meet on January 7, and rise on January 12. The President is Mr. T. N. Fitzgerald, Senior Surgeon to the Melbourne Hospital, formerly Lecturer on Chemical Surgery in this University."

From the printed circular we gather that much interest is being taken in the proceedings of the Congress by the Medical Societies throughout Australasia.

Numbers of the leading men of the old world have been invited to attend, and circulars have been sent to members of the profession in India.

As is customary the Congress will be divided into a number of sections, but it is intended that these will hold their sessions at such hours that members so desiring may attend them all.

We shall undoubtedly hear of the success of this Congress, and advise all members of the profession who may be going to Australasia to be sure to go armed with credentials, that they may take their seats and enjoy the privileges which are so generously offered to all visitors.

PARISIAN QUACKS.

It appears that San Francisco is not the only city where quacks thrive and "flourish like the green bay tree," but in the older cities where medical laws are supposed to be more strict these birds gain even a sumptuous living. *La Lanterne* of Paris has published an article on the obscene advertisements of the Parisian quacks. It is the kind of article we should like to see in our own journals, but which we fear we shall be some time

waiting for, for our quacks advertise largely and pay handsomely, and for these reasons can always count on the public press in their favor against the regular profession. The article states that one of their charlatans being caught in a punishable act was imprisoned for a term. His occupation must have been a profitable one, for when he presented himself at the prison gate, he was dressed in the latest fashion, eye-glasses with a golden chain, etc.; he was accompanied by a yellow-haired charmer covered with diamonds. During the charlatan's sojourn behind the bars this charmer came daily to see him. She drove a sumptuous equipage with the initials of the "doctor" on the harness, coachman in leather breeches, the whole turnout absolutely correct in style.

The article then goes on to show a comparison between this rogue and the ordinary Parisian family physician. This latter makes his visits for a fee of from forty to sixty cents, and often gratuitiously. He climbs up long stairways the whole day through, and has no equipage whatever. The one shows little pay for good work, the other shows large pay for next to no work at all, for it matters very little to the quack whether he does his patients any good or not, for he is sure of a large clientele through his advertising. Human nature is weak and is often caught by flaunting feathers and large promises.

MICROKINESIS.—A paper by Dr. Francis Warner, on muscular movements in man and their evolution in the infant, was read at the meeting of the Royal Society on June 12. In the new-born infant constant movement may be observed in all parts during the waking state; these spontaneous movements, to which Dr. Warner proposes to apply the term "microkinesis," cannot be stopped by external stimuli. The condition becomes gradually modified during the growth and development of the child, and the movements are gradually more and more controlled by external stimuli, while the phenomena termed memory and imitation are evolved.—*Brit. M. Jour.—N. Y. Med. Abstract.*

Correspondence.

Letter from Melbourne.

The noise, bustle and delay connected with the early days of a great exhibition are about done and I am now at liberty to send you some of my notes taken at odd moments.

Melbourne is a delightful city to look upon—wide streets without a cobble, asphaltum and stone blocks being universally used, making thus a smooth drive way everywhere. The citizens are very proud of their city, and in many respects they have the right, but examined with the eye of a doctor, I must make an issue with them.

If sanitarians desire an example of the direct relation of filth to high death rate here is the city for them. Imagine a city of 350,000 people and not a drain, except a feeble effort in one street to carry off the surface water. The earth closet system is in vogue, but this is a farce, as there is no earth supplied; it is practically a mere pan receptacle, emptied once a week.

The foulness of this plan requires no description—it is beyond description. The subsoil water permeated with filth dampens foundations, leaks into cellars, and in pumping water from cellars it is found to be a concoction, the rankest compound of villainous smell that ever offended nostril ; and this bilge water or sewage is so foul that its contact would pollute the purer water of the gutters, so the law requires that it must be deodorized before it can be pumped into the streets.

Now have I the facts for the sanitarian. If there is any truth in the theories of the day as regards dirt diseases surely we should get results in this town. I have the figures right here, and no further comments will be necessary than the plain bare figures. The general death rate of Victoria is 13.24 pr. 1000 ; of Melbourne—23. Consumption gives the high rate of 23.81 for every 10,000 persons living in Melbourne ; while Victoria's rate is only 8.91 in the same number. This can not be explained by deaths in the hospitals, nor by aggregation of population, as the city has an extensive area ; it can not be the condition of the laboring classes, as they are well paid, with the eight hour system in vogue. No, the facts and figures tell their own tale, and the fraternity are fully aware of it, and they are working away with a good will to obtain the necessary legisla-

tion upon the subject. There has been a health society in operation for twelve years, supported by the very best of the profession and financially aided by many of the citizens who pay an annual membership. This society gives a course of lectures to wives and daughters by lady physicians, a course by male doctors on general health topics, manages a free library for its members and circulates thousands of health tracts, besides watching and directing legislation. As an outcome of this I understand a bill is before the Parliament now for establishment of a metropolitan board of works, and if passed a beginning will be made at once with the works of drainage. I am sorry to give such an unsavory account of fair and beautiful Melbourne, one of the brightest gems in the English crown; I trust this stain, this reproach upon her cleanliness, will be soon removed.

The water supply is abundant and of a good quality, and most strenuous efforts are used to keep it from contamination.

There is more true home life than in San Francisco—the plan of flat living is almost unknown. By a most complete system of cheap trains from the city proper to the wide spreading suburbs, also by the means of cable roads lately laid by a San Francisco man, the working classes live—in fact all classes live in the beautiful suburban homes. It is only positive compulsion that a family resides directly in Melbourne—I am sure it is a little off cast to do so. The topography of the site is such as to admit of a wide area, thus permitting of this most healthful plan of isolation of families.

As at home, the dwellings are built chiefly of wood. In the business portions of town brick and stone are replacing the former wooden structures.

I incidentally mentioned the part the ladies take in sanitary work here, but they do more than lecture. It will be of interest, doubtless, and, possibly, a guide for our ladies in California to learn more of their work. Here is the gist of one of the late reports:

The announcement that there is a meeting for wives and daughters on Thursday afternoons in Rokeby street, Collingwood, generally elicits the question, "And where is Rokeby street?" It is a short and narrow street and it was chosen as the field of our operations simply because it was the centre of an extremely populous and apparently poor neighborhood.

But there was another reason for choosing Rokeby street, and that was that there was a hall there better suited for the purpose of holding the proposed meetings than any other in the district. An ill-ventilated, dismal, or dirty-looking room is scarcely an appropriate theatre for promulgating lessons on health. Besides there was a dim consciousness on the part of the committee that the subjects they had to bring forward were rather unattractive in themselves, and would require as much aid from surrounding circumstances as possible. After deciding upon the locality and the building, the next step was to get ladies to give addresses. It is not every lady who is suited for such work as this. The requirements are—a knowledge of and interest in health subjects, sufficient tact to speak plain home truths without offending the sensitive, the absence of a patronizing style, and the ability to teach without seeming to do so. Add to these a clear voice and genial manner, and you have the beau-ideal at which we aimed. When ladies to whom such a description applies are found, it is not always easy to persuade them that it is a duty to use their talents, especially when it seems to involve a departure from the beaten tracks to which tradition and custom have generally confined them. On account of such reasons, when the first programme was printed, there were only seven addresses promised. The subjects for the intervening days were not named, but very vaguely indicated as 'readings.' The books from which such could be taken have nearly all been written for English readers, and are not suitable for the wants of the people here; and, besides, there is no doubt that the original addresses, even if slightly inferior, are more appreciated than those delivered second-hand. Under these circumstances it was fortunate that the ladies proved better than their promises, so that we only had to resort to reading three times during the whole six months. Having got the hall and the speakers, an important and, as experience taught us, a most difficult part of the business remained to be done: viz., getting an audience. As the best means of accomplishing this, it was determined to make a house-to-house visitation, so the district was divided into sections and thoroughly canvassed.

The first idea was to reach the respectable poor, but it was soon found that the mass of the people did not come under that category. They are working people, but they live in comfort, are well clad, and have their houses decently and sufficiently

furnished. The real poor families, who by sickness, death or vice, have been deprived of their breadwinner, where the mother has to work from morning till night to earn the scanty pittance which serves to keep her and hers from absolute want—these women, whose pale faces and weary eyes remind one too forcibly of Hood's famous song, have no time to think of health or go to meetings. Next to these came the sick, a very numerous class. Many who said they were confirmed invalids looked as if, of all things, they wanted a little sunlight and fresh air, but they echoed in a dreary hopeless way the answer of the overburdened seamstress, "I never go out." Lastly, there were the employees in factories, shops, and schools. To such as could not come must be added others who would not. They may be divided into three classes: First: Those who, having scaled the heights of domestic economy, looked down with contempt upon all sources of information outside themselves, and are in the happy condition of having nothing to learn. Second: Those at the other extreme of the scale, who equally contented with their position in the depths of an ignorance they neither feel nor deplore, and who are not ashamed to tell you that "they don't believe them things;" and, Third: Those who are so afraid of interference with their religious belief, that they will not enter a building belonging to a hostile church, even though assured that the society using it is entirely unsectarian, and that the addresses are to be confined to health subjects. Most of such refusals came from adherents to one particular church, who, while they listened politely to our explanations, had evidently made up their minds from the first that they would not be at liberty to attend. It was most difficult to persuade all classes that the object was not religious. To some, it seemed quite unthinkable that ladies should go round, inviting every one to attend meetings that were neither religious nor proselytizing in character.

It has already been said that many of the homes are clean and tidy; but some are the opposite. The wonder is, not that so many of the inmates are sick, but that they are well. It is a remarkable instance of the adaptability of human beings to their surroundings, that they are able to live and work in an atmosphere so foul that one puff inhaled is sufficient to turn an outsider sickening from the door. But these are the extreme cases. There are many others where cleanliness is practised, both in person and home, but there seems to be a universal dread of

fresh air. Even on fine days the windows are kept closed. Street after street may be traversed, and only one or two discovered open, and it is the rarest sight to see the top sash down. Fan lights over the doors are nearly always fixtures, the rooms are very small, and the children always plentiful, so that there is scarcely a house in which there is sufficient air to make it fresh and healthy.

Many of the yards are evidently regarded only as convenient receptacles for rubbish from the house, and are plentifully besprinkled with old tins, bones, and rags. As the result of the visiting, about 600 programmes were distributed before the opening day, and about thirty per cent of the recipients promised to come. Allowing for a large number of failures, we thought it only reasonable to expect an attendance of not less than twenty or thirty persons. Our disappointment can be imagined when, as the result of our efforts, the sole audience at 2:30 p. m. on the first day of the meeting consisted of one old dame, who told us in broad Scotch "that she was over eighty, and hard o'hearin'." She never came again. Her mission was evidently fulfilled by that first punctual attendance, when for a quarter of an hour she shone out the only ray of hope in the midst of what otherwise would have been the darkness of utter failure. But we were not doomed to quite so great a disappointment. One by one a few more came in, until at 3 o'clock there was, including promoters, a company of sixteen.

It was agreed from the first that, if the meetings were to do any good, they must not only be interesting and instructive, but social and pleasant, so that those who came once might wish to come again. To this end considerable attention was paid to the comfort of the room, and it was made cheerful and homely by a bright fire and a few flowers. To these attractions was added a hearty welcome to all who came; and certainly, if the first meeting was not a success in point of number, there was nothing to complain of on other grounds. From that time the attendance steadily increased, and now there are generally between eighty and a hundred adults present, and occasionally even a larger number. The audience is a very mixed one, the most pleasing feature being the large number of young wives and mothers who make a point of being there every week. Including these there are about forty regular attendants, at least five of them having come since the commencement. The proceedings are announced to commence at half-past two, but at that

time there are seldom more than a dozen persons present; a quarter to 3, when nearly every one has arrived, is the usual time for commencing the address. During the interval some are busy with their needlework, some are greeting their friends, and some are looking over and choosing books and tracts for home reading. During the address there is perfect attention—no laughing, no talking, nor interruption of any kind. Babies are kept wonderfully quiet; the sewing is often put aside as the workers become interested in the subject, and at the close all mark their appreciation of the lecture by a round of hearty applause. After it is over a vote of thanks is given, there are various announcements to make, questions to be asked and answered, and more books to be given out. This takes some time, during which the people form themselves into groups, and linger about the room talking together, or comparing the tracts they have collected. There is a great deal of interest shown in the success of the meetings by the audience. Indeed, it is quite apparent that many of the regular attendants look upon them as their own, and are as much interested in their success as those who commenced them.

The same helpful spirit is exhibited on a smaller scale when, once in four or five weeks, there is an unexpected item in the proceeding in the shape of a 4 o'clock tea. This is a very formal proceeding. The tea is made in the room and handed round, giving those who partake of it the opportunity of enjoying a little longer conversation with their neighbors.

A number of Ladies' Sanitary Tracts belonging to this society have been used as a miniature circulating library, and have been in great demand. About 350 loans have been made, giving an average of five books read by each of the seventy persons whose names are entered as borrowers.

The subjects included lessons on the skeleton; and on clothing, rest, and exercise, on circulation, respiration, and ventilation; on digestion, food, and cookery; on the management of infants and the training of children; on cleanliness and household management; on fever, and sick nursing, and temperance—all of which have been treated in a style as simple and entertaining as possible. During the last three months there has been a question-box in the room, so that any one inquiring further information upon the subject of an address might have the opportunity of asking for it. The last meeting of the course is devoted to the answering of such questions.

Notices of Books, Pamphlets, etc.

PHYSICIAN'S LEISURE LIBRARY. THE MODERN TREATMENT OF DEASES OF THE LIVER. By PROF. DUJARDIN BEAUMETZ. Translated from the Fifth French Edition by E. P. Hurd, M. D., Newburyport, Mass. Detroit: Geo. S. Davis. San Francisco: W. S. Duncombe & Co. Price 25 cents.

To anyone who has had the pleasure of reading any of the works of Dr. Dujardin Beaumetz, this book will be of interest, for the professor is a very brilliant lecturer, and always holds the attention of his audience whether they be readers or listeners. All diseases of this organ are not treated, but only those with which the practitioner is most likely to meet. He has written with the idea of "Utility" kept prominently in view. For a small work on this subject we can recommend it highly, and would at the same time call the attention of the profession to the numerous other works by the same author which appeared from time to time. Some of these have formed volumes of either Wood's Library, or the Leisure Library, or else they have been published as a series of letters in one of the Medical Journals.

ABDOMINAL SURGERY. By HAL. C. WYMAN, M. S., M. D., Professor of Surgery and Operative Surgery, Michigan College of Medicine and Surgery, etc. Detroit: Geo. S. Davis. San Francisco: W. S. Duncombe & Co. Price 25 cents.

This is another of the Leisure Series for the year 1888, and as showing original research is well worth perusal. Although the author advises strongly the use of an anæsthetic in making experiments upon animals, he in some cases employs some apparently brutal experiments upon un-anæsthetized animals even where but little knowledge is to be gained therefrom. With this exception we are pleased with the book which describes in a few words the principal steps of all the modern abdominal operations. Thorough antisepsis is of course insisted upon as the "sine qua non" of success.

THE SURGICAL DEASES OF THE GENITO-URINARY ORGANS INCLUDING SYPHILIS. By E. L. KEYES, A. M., M. D., Professor of Genito-Urinary Surgery, Syphilology, etc. A revision of Van Buren and Keyes' textbook upon the same subjects. New York: D. Appleton & Co., 1888.

We have looked through this book and read some parts of it with much interest. This is a *very thorough* book as regards

matter. The language is straightforward, clipped and to the point. There are not quite so many illustrations as we usually expect in a work of this size, but the want of illustrations is in a manner compensated for by completeness of style, and width of subject. In Chap. XXVI. "Maladies involving the genital function," we have some quite original views marked by strong common sense.

CHEMICAL ANALYSIS OF HEALTHY AND DISEASED URINE, QUALITATIVE AND QUANTITATIVE. By T. C. VAN NUYS, Professor of Chemistry, Indiana University, with thirty-nine wood engravings. Philadelphia: P. Blakiston, Son & Co., 1012 Walnut Street, 1888.

As Prof. Nuys mentions in his preface, the Quantitative Analysis is treated of much more fully than the Qualitative. He wishes to show that disease may be diagnosed by the urine, and thinks that someday it will be quite necessary to call in Quantitative Analysis in making a complete diagnosis, also that the Quantitative Analysis of the Urine throughout an illness furnishes in itself a history of the case. As the methods of testing urine become simplified Quan. Anal. of Urine will become quite as much a part of a patient's history sheet as the ophthalmoscopic examination of the fundus now is.

PAMPHLETS RECEIVED.

BIENNIAL REPORT OF THE PRESIDENT OF THE BOARD OF HEALTH TO THE LEGISLATURE OF THE HAWAIIAN KINGDOM. Session of 1888. Honolulu, 1888.

CONDITIONS RENDERING DIAGNOSIS DIFFICULT IN PELVIC AND ABDOMINAL DISEASE. With illustrative cases. By T. B. HARVEY, M. D., LL. D.

TRANSACTIONS OF THE MEDICAL SOCIETY OF THE STATE OF WEST VIRGINIA. Twenty-first Annual Session.

THE CAUSATION OF PNEUMONIA. By HENRY B. BAKER, M. D. Lansing, Michigan.

SEVENTH ANNUAL ANNOUNCEMENT OF THE NEW YORK POST-GRADUATE MEDICAL SCHOOL AND HOSPITAL.

REGISTER OF THE UNIVERSITY OF CALIFORNIA, 1887-88.

THE ISCHIATIC CRUTCH. By A. B. JUDSON, M. D., New York.

THE ORTHOPEDIC TREATMENT OF PARALYSIS OF THE ANTERIOR MUSCLES OF THE THIGH. By A. B. JUDSON, M. D.

THE AMERICAN HIP SPLINT. By same author.

REMARKS ON THE VESICO-URETHRAL ERETHISM PECULIAR TO LOCOMOTIVE ENGINEERS. By JOHN BLAKE WHITE, M. D.

OUR PRESENT KNOWLEDGE REGARDING MUSCULAR ATROPHIES AND HYPER-TROPHIES. By LANDON CARTER GRAY, M. D.

Translations.

By D. W. MONTGOMERY, M. D.

The Disinfection and Hardening of Rubber Drainage Tubes.

By Dr. JAVARO, of Milan, in *Centralblatt für Chirurgie*.

Rubber drainage tubes which are kept in antiseptic solutions, or are more thoroughly disinfected by being boiled in these solutions, are often made so soft by these procedures that a very little pressure will close their lumen and so render them useless. This may be obviated by first hardening the tubes. You take rubber tubes, preferably of the orange-red variety, because those of gray or black rubber are less amenable to the following mode of preparation. These tubes are placed for five minutes, the larger tubes even longer, in a bath of concentrated sulphuric acid, where the color changes to a dark chestnut, and the tube becomes quite hard. Then they are washed in 75 per cent alcohol, after which they are kept in an antiseptic solution (5 per cent carbolic acid, or sublimate solution 1 or 2-1000) ready for use. Tubes so prepared are capable of withstanding a very considerable pressure. Those which have become too hard may be softened by kneading with the fingers. They are entirely unharmed by the antiseptic solutions in which they are kept—no precipitate being found on the bottom of the jar as with ordinary rubber tubing.

The advantages of the tubes so prepared are, that their lumen remains patent even under considerable pressure, e. g., in the intercostal spaces; and they do not cause more decubitus than the soft tubes.

The Influence of Syphilis on Neuroses.

Fournier in a recent article in the *Gazette des Hopitaux* says that during the second stage of syphilis in women what was previously a slight hysteria or even a latent hysterical tendency, may become very much exaggerated; or even hysteria may develop *de novo* during this stage in a subject who previously suffered from no neurosis whatever. He also cites the case of a woman who suffered from rare and slight attacks of epilepsy, but during the second stage of syphilis the attacks were markedly more frequent. The proper course in these cases is the exhibition of specific treatment, the usual treatment for hysteria or epilepsy is not indicated.

Extracts.

Was it Epilepsy?

By FRANK R. FRY, A. M., M. D., Consulting Physician to the St. Louis City Hospital on Diseases of the Nervous System.

During a recent discussion in the St. Louis Medical Society, a member remarked concerning a case (of "eclampsia nutans") that had just been reported, that the fact that the convulsions had departed in a comparatively short time with the use of bromides, led him to the belief that the case was not one of epilepsy. Another member said that he believed it to be epilepsy, and therefore he confidently believed that the attacks would return. Both of these gentlemen are prominent members of the society and of the profession in this city. It is this fact that has led me to remark their statements. I have frequently heard substantially the same from similar sources.

What do we mean when we say that a case is one of epilepsy? Undoubtedly, at times some of us mean one thing and some another. Hence we frequently find ourselves in contention over this point.

That epilepsy is not a disease, but only a symptom, resultant meditately from various pathological causes discovered and undiscovered, and immediately from some vaso-motor phenomenon, as yet not understood, is not a novel proposition; yet one which is not properly considered by the bulk of medical minds. If it were there would be, I think, less tendency to quibble and, what is more important, more system and success in treatment.

Lest an occasional reader may imagine I am about to fight a shadow, I shall take the liberty of quoting enough of the words of a few prominent authorities to show that their language, with the weight it carries, tends to perpetuate in our minds the idea of "the disease epilepsy;" "pure," "essential," "true" epilepsy.

Gowers—*Manual of Diseases of the Nervous System*—"The term epilepsy is applied to a disease in which there are convulsions of a certain type, or sudden loss or impairment of consciousness, but in which the convulsions are not directly due to active organic brain disease, to reflex irritation or to abnormal blood states, and in which the loss of consciousness is not due to primary defect of the heart's action. In most cases the

change in the brain that causes the convulsions is not visible to the naked eye, and hence the condition is often termed 'idiopathic epilepsy.' "

Strumpell—Text Book of Medicine—"Epilepsy is a peculiar disease of rather frequent occurrence, the main symptom of which is paroxysmal loss of consciousness. In typical cases the unconsciousness is associated with violent general convulsions; but there are many anomalous and rudimentary forms of epilepsy without any symptoms of motor irritation. Genuine Epilepsy is a functional neurosis."

Ross—Diseases of the Nervous System—"The disease epilepsy appears to be transmitted rather more frequently through the mother than the father."

Putzel—Functional Nervous Diseases—"It is very evident, therefore, that the lesions are not the causes, but rather the effects of epilepsy."

Rosenthal—Diseases of the Nervous System—"As a rule, no difficulty is experienced in recognizing an attack of true epilepsy; but certain forms may lead to error, especially those which are characterized by incomplete paroxysms."

"Many authors have complicated the discussion of epilepsy in adults by establishing artificial categories which are hardly justifiable. The classification, moreover, possesses no interest, either from a theoretical or practical point of view. The simplest, and, at the same time, best plan is that of determining in each case whether the disease is central or peripheral, idiopathic or symptomatic."

The above authorities are modern, representative, and popular and the quotations from them serve fully my purpose, without farther enumeration of similar expressions, which, of course, could be continued almost indefinitely.

Gowers attempts in honest English fashion to define the disease epilepsy, at least approximatively; but the best he can do is a definition by exclusion, and that necessarily feeble. He says that in epilepsy there are convulsions of a certain *type*. He does not mean by this that the convulsions that are "not due directly to active organic brain disease" have any peculiarities or characteristics in themselves that distinguish them from convulsions that are supposed to be due directly to active organic brain disease, to reflex irritation, etc. It is hardly necessary to quote a sentence from the author's context to show that

this is not his meaning: "Blows and falls on the head, which cause no symptoms of coarse cerebral injury, are sometimes followed by recurring convulsions having all the characters of idiopathic epilepsy."

As for other authorities on the same point, Ross says (Text-Book): "An attack of eclampsia cannot be distinguished from a true epileptic seizure."

Seguin (*vid. infra*): "We may sum up by saying that eclamptic and epileptic attacks are similar in character and practically indistinguishable."

There was a time when a loss of consciousness was by many made the test of genuine epileptic convolution. That this will not hold, all authorities are now agreed. On this point Gowers says: "In minor attacks (*petit mal*) there is usually brief loss of consciousness, often without any muscular spasm, sometimes with slight spasm, and very rarely there is slight spasm or some sudden sensation without loss of consciousness."

Considering the next step of this definition, in what sense or to what extent may we regard an epileptic convolution to be "directly due to active organic brain disease?" Frequently enough, epileptic convulsions are an immediate sequence of injury to the brain, where the fact of a lesion is established; yet in other instances precisely similar convulsions follow "reflexly," but just as promptly, an irritation at some distant point. Or, briefly stated, in one instance, a brain lesion, traumatic or otherwise, and in another instance, an injury to the sciatic nerve, for example, is followed immediately by an epileptic convolution; the question is, has the brain lesion any more intimate or direct causative relation to the convolution than the injury to the nerve? Because of the fact that epilepsy is due to a disturbance of the physiological action of the brain, it is natural to regard a lesion of that organ as acting in some more direct way in the production of this phenomenon than a lesion at some distant point. But that such a conclusion is not warrantable, even a cursory review of the history and pathology of many cases teaches. The variety of the exciting causes of epilepsy is well known: physical impressions, fright, anger, etc.; peripheral irritation, as cicatrical contractions, foreign bodies in any of the cavities of the body, worms, etc., neuromata, injury and disease of the peripheral nerves, irritability of the sexual organs; over-exertion, mental or physical; diseased

states of the blood; acute infectious diseases; and many others that might be mentioned which do not involve the brain directly at all. When we come to examine the anatomical changes in the brains of those who have had epilepsy, we find an equal variety in the lesions; some of which I shall enumerate for the sake of the argument, without stopping to give references—for I shall include nothing that cannot conveniently be found in the ordinary books of reference—for example: Wounds to the cranium and brain, exostoses, hypertrophy of certain apophyses, neoplasms of dura mater, cerebral tumors, cerebral syphilis, parasites (in the brain), cerebral hypertrophy, etc., etc., for the coarser lesions. Among the microscopic changes, the following are examples of such as have been established as common, or at least not infrequent, by the most reliable class of histologists: dilatation of the vessels, especially in the posterior half of the medulla, secondary atrophy of the medulla, granular cells, increase in the number of amyloid bodies, pigmentation of ganglion cells, etc.; also changes in the cells of the cervical sympathetic, and constriction of the spinal canal, etc. With such a variety of exciting and probable exciting causes, it would seem, without more definite data from other sources to guide us than we possess, presumptuous to select any of them as more immediately causative than others.

Another fact remains; namely, in a very considerable proportion of the post-mortem examinations of the brains of those who have had epilepsy, no changes macroscopic or microscopic, can be detected. And again, as Strumpell says: "The very fact that in the intervals between the attacks the patient often betrays no sign of disease, shows that epilepsy cannot be due to any persistent macroscopic lesion of the tissues." Finally, the current theory of the nature of epilepsy leaves room for the operation of an unlimited variety of cases; that is, of any conditions that may be the occasion of certain functional disturbances in the circulation of the brain. Corroborative of this, I may quote three convenient authors to whom I have already referred. Strumpell says, "We must, therefore, for the present be content to assume that the cause of the epileptic seizures is an intermittent functional condition of irritation."

Gowers: "In the absence of any help from anatomy and histology, the pathology of idiopathic epilepsy is a matter of hypothesis, based on the influence of organic disease in causing

similar symptoms, on the result of experiments on animals, and on the indications afforded by a study of the symptoms in the light of cerebral physiology."

"It may be premised as admitting of no question, that the muscular spasm is to be regarded as the result of the sudden over-action ('discharge') of nerve cells."

Rosenthal: "The hypothesis of a vaso-motor neurosis of the brain offers the most satisfactory and simple solution of the phenomena which occur during an attack of epilepsy. A vascular spasm, starting from the vaso-motor center, rapidly becomes general, and causes cerebral anæmia, thus causing an obstruction to the reciprocal reactions which transpire between the blood and the brain."

By the way of farther harmonizing our proposition with existing facts, two other features must be briefly noticed, namely, heredity and age as predisposing factors in the causation of epilepsy. In about one-third of the most carefully recorded cases a distinct hereditary neuropathic taint has been traced; and, among these, many cases in which parents and other immediate relatives have had epilepsy. But with our present notions of what hereditary transmission consists in, it will be claimed by very few, if by any one, that epilepsy is in itself transmissible. That there is, on the other hand, a transmission of physical defects that are the basis of a neuropathic predisposition, all must admit. Epilepsy is simply one of the evidences of this fact. We find it appearing in neuropathic families alternately with insanity, neuralgia, hysteria, and other conditions that are evidences of this diathesis.

In a large proportion of the subjects of epilepsy, it first appears in childhood and youth. Yet the number of cases of all descriptions of epileptic convulsions first appearing later in life, is sufficiently large to exclude the possibility of making the time of life at which they appear a general criterion of "true" epilepsy.

In view of the facts above, it must occur to every one that there is little if any room left for the term "epileptiform convulsions." We certainly see the most complete epileptic convulsions of a transient character, occurring only once, or twice, and never returning. On the other hand, the slightest kind of spasms are frequently enough very persistent, lasting a lifetime. Where does the distinction between "true" and "false" epi-

lepsy come in? Briefly summarizing, it is not in the character of the convulsions, the presence or loss of consciousness, the exciting or predisposing causes, or in the age, that is to be found. I have purposely left out of consideration one item to make it more conspicuous at this point, namely, the curability of epilepsy, or to put it more mildly, the length of time that it resists ordinary treatment. After all, is this not the point on which most of us differentiate what we are pleased to call true epilepsy from other things? A large proportion of cases are incurable, among them epilepsy of all degrees of severity. It is the prominence of this one fact that has led to the bad habit of regarding epilepsy as practically an incurable disease, and of regarding all convulsions that yield more or less readily to treatment as not epilepsy, and therefore not deserving of much therapeutic attention. If, in this matter, there were only involved a quibble about nomenclature, we might profitably pass it by to finally become arranged in the natural course of events; but there is a very practical matter involved, namely, the evil consequences that are the frequent results of these misapprehensions. It is because I have been frequently and forcibly impressed with this fact, and especially during the past year, that I have attempted this humble protest. In looking over material that would assist me in shaping it, I have found in several instances my own experiences expressed in the language of prominent authorities:

"I have been surprised, in passing among medical men, to learn of the prevalence of the belief that the treatment of an epilepsy is either useless or only temporarily beneficial. Had this opinion been confined to the ill-informed smatterers who saunter into every calling, and who can be found on occasion even in our learned profession, I should have not wondered; but I have also found it largely among earnest, honest, well-read practitioners, whose knowledge of general medicine and surgery was fairly equal to the emergencies of their career."—DR. LANDON CARTER GRAY, *N. Y. Med. Jour.*, Jan. 28th, 1884.

"I have already given it as the summary of my experience, that *petit-mal* is often ignored for years, and is usually looked upon as a trivial affection. It is my present purpose to urge the early recognition and careful treatment of this seemingly insignificant symptom. It appears infinitely less serious than *grand-mal* or fits; yet I can assure you that the contrary is true.

Petit-mal, especially the flash-like form, is exceedingly rebellious to treatment. I have now several little patients who continue to have several ‘turns’ a day, despite the use of as much bromide, etc., as their systems will bear. * * * * In all forms of epilepsy the date of its recognition as epilepsy is an all-important factor in prognosis.”—DR. E. C. SEGUIN, *N. Y. Medical Record*, Aug. 6th, 1881.—*St. Louis Medical and Surgical Journal.*

The New Hypnotism—Its Methods and Its Possibilities.

(A Clinical Lecture Delivered in New York Post Graduate Medical School,
April 25, by PROF. C. L. DANA, M. D.)

GENTLEMEN:—I am especially anxious to bring the subject of hypnotism before you to-day for two reasons: 1. Because it has recently been brought forward in a new manner by certain French physicians at Nancy—Drs. Liebeault and Bernheim, and at Zurich by Prof. Forel. 2. Because hypnotism in a modified form has been recently applied, practically, very extensively in this country by persons who claim to be “Christian Scientists,” “Mind Curers,” etc.

My object will be to-day to show some of the phenomena of hypnotism in the subject before me, and then to show that, by adopting the methods of suggestive medicine as taught by Bernheim and his school, we can accomplish in a safe and rational way all that is done by mind-curers and other like classes of charlatans.

HISTORICAL.

Hypnotism in medicine has been known for over a century. Its methods have been applied, however, mostly by quacks, and no very careful investigation of its methods or results has been made until of late years. Much of the recent scientific investigation has been done by Charcot and his pupils in Paris. Working at La Salpetriere he has, however, had to deal chiefly with hysterical persons, and he has in consequence taught hypnotism in what I believe to be a misleading way. Indeed, I fear that all the works that have come out from his School on this subject have a decidedly erroneous element in them, and should not be adopted as guides in the study of this class of phenomena. The study of hypnotism or suggestive medicine and its applications has received its greatest practical impetus through the work of Liebeault and Bernheim at Nancy, and from Forel

at Zurich. This work has been supplemented, also, by that of Fontan and Segard, of Toulon, who have written a manual on the subject which is called "Elements of Suggestive Medicine," a work not equal in originality and value, however, to one on the same subject by Bernheim.

The differences in the Schools of Paris and the Schools of Nancy and Zurich are very decided. The methods of hypnotizing people are different, their theories are different, and their practical applications of the process are different.

METHODS OF HYPNOTIZING.

Charcot adopts the old methods of hypnotizing—that of braid—in which the person fixes the eyes upon a bright object until he passes off into a hypnotic condition. Bernheim and his pupils adopted what is known as the "suggestive method." The patient is placed in a chair in front of the operator. The operator then talks to the subject in a firm and confident voice, assuring them that they will go to sleep in a short time, telling them to make no resistance—that their sleeping will be natural, that nothing will be done to worry or fatigue them, that they will dream pleasant dreams, that they will wake up feeling better; then that they are feeling drowsy, their eyes are heavy, objects look confused, the lids are falling, they are closed—in a moment more the patient goes off to sleep. This is the persuasive or suggestive method. It requires some little time—five to fifteen minutes. It may fail the first time and succeed the second. I will illustrate these two methods upon the patient before us.

The differences between these methods, according to Bernheim and Forel, are fundamental in their effects. The method adopted by Charcot will sometimes throw hysterical and nervous persons into a state of spasm or hysterics; and this, I am sure, is the case, because I have produced such results myself. On the other hand, the suggestive method, it is claimed, has no such effects and does not leave injurious after-effects.

NUMBER AND CHARACTER OF SENSITIVE PERSONS.*

Profs. Bernheim and Liebeault find that, by their method, they can hypnotize 90 per cent of their patients. Forel, after studying the work at Nancy, says he has been able to hypnotize

*The proportion of persons of all ages found to be hypnotizable by Beaunis was about 18 or 20 per 100. Children up to the age of 14 are very susceptible. After the age of 55 susceptibility lessens. Men are almost as easily affected

at least 80 per cent of his patients. The class of persons that are hypnotized does not include necessarily the hysterical or weak-minded, but includes healthy persons, and the condition of hypnotism as produced by suggestion is not an abnormal one. It is not a neurosis, but simply a form of sleep. Children and highly excitable hysterical persons and insane persons are rather less easily affected by this method than those with a sounder nervous constitution.

DEFINITION.†

Hypnotism is a peculiar mental condition in which the will power is suspended and the person is put in a state in which he has to respond to every suggestion that is made to him by the operator. The powers of his mind that are left are also in such a state that they can be concentrated in one or another direction very powerfully. There are therefore in hypnotism three conditions. 1. Suspension of will power. 2. The condition of automatic response to suggestion. 3. Concentration of mental force in various directions.

EXPERIMENTS.*

I will now illustrate some of the phenomena that this condition shows:

as women; but persons of a docile mind, and those trained to some degree of mental discipline and capacity for submission, such as soldiers and artisans, are more sensitive.

It was abundantly shown by the experiments in this city, some years ago, that the classical stages described by Charcot do not exist except by suggestion; however, there are different degrees in which the subject may be hypnotized, just as there are different degrees of soundness of sleep. And it should not be forgotten that *real therapeutic effects can be gotten even when the patient does not fall into sleep, and that the hypnotic state may not be one of actual unconsciousness.* The stages mentioned by Liebeault are: 1. The patient does not sleep, or close the eyes, or lose himself at all. 2. The patient is awake, but the lids are closed and cannot be opened. 3. Is one of "suggestive catlepsy." 4. The patient cannot move his body spontaneously. 5. Contractions occur on suggestion. 6. Automatic obedience. In all the foregoing the subject recalls what occurs after the seance is over. Three other degrees are described, after all of which the subject does not remember what has happened. These are called somnambulic states. These various degrees are not sharply defined from each other. They all have the common character, *not of sleep, but of suggestibility.* "Hypnotism," says Bernheim, "is the provocation of a peculiar mental state which augments suggestibility."

*Prof. Dana now waved his hand before the subject's face and caused him to pass into a profound hypnotic state. First, he produced hemi-anæsthesia, extending even to the eye, nose and sense of taste, so that quinine was tasted

I can affect his sympathetic system, or organic system, only indirectly. I cannot by suggestion make his heart go faster or slower, or cannot by suggestion make his bowels empty themselves, or his skin grow white or red. I can, indirectly, do this by acting on his feelings. In the same way one can apparently move or increase the power of the special senses—one can increase the sense of hearing or the sense of sight, so that persons can even count figures or see figures through the closed lids.

PRACTICAL APPLICATIONS.

The subject that I show here is what we call a trained subject—a man who has been hypnotized so often that he is hypnotized now very easily. He is a genuine case, however, and illustrates all the phenomena of well-marked hypnotism.

In applying hypnotism to other persons you will not so easily get out all these phenomena, but you can accomplish a good deal practically in the cure of diseases. You take patients in your office, put them through the suggestive method I have described—you suggest to them when in this state that they will have no more rheumatic pains, no more neuralgia, that they will have their menses regularly, that they will give up drinking, using tobacco, will sleep regularly, that the trembling or paralysis will grow less—you do this on several occasions and you will in a pretty large per cent of cases, relieve or cure functional or diathetic diseases. By using this method of the School of

only on one side, anesthesia stopping exactly in the middle line. Very marked motor disturbances were next produced, such as catalepsy and tetanic rigidity, the subject assuming and maintaining the opisthotonus position, holding any part of the body in a state of rigidity wherever it was placed, etc. The subject was then told that hideous forms were in the room pursuing him, which caused a very decided acceleration of his pulse, as proven by my watch, and came near making him escape over chairs and tables from the room. The physiological effects of various medicines held at a distance from the subject were experienced by him, such as emesis from ipecac, etc. But this result was due to suggestion simply. The Professor then told the subject that he had before him an audience of depraved drunkards, and suggested that he make them a temperance speech. This he did *ex consuetudine*, and gracefully finished with a poem from Thomas Hood. He was then told that he had a chill, whereupon his face became cold and pallid, and, shivering all over, he fastened his coat closely about him. Total abolition and then exaggeration of the tendon reflexes were alternately produced. The subject was told that in forty-five seconds he would awake. We all looked at our watches, and just at the time appointed he did awake.—J. M. H.

Fancy, applied in the way I have shown you, being very careful about giving it to hysterical women, imbeciles or insane, but confining it usually to persons of average sound nervous systems, and applying it only in cases where you know there is no malignant disorder, you can accomplish the same results that the mind-curers and Christian scientists do, and you can do more, because you will not do the harm that they do, and you can apply the remedy in the proper cases. Here lies the great importance of this subject at the present time. I believe that by the proper application of suggestive medicine in the hands of trained physicians, we can take away the ground from under the mind-curer and the faith-healer and all that class of charlatans. I would not recommend this practice, however, except under great cautions. Watch the effect upon persons on whom you try it. Don't let the laity experiment on each other. Traveling mesmerizers and professional hypnotizers ought to be abolished. Hypnotism ought never to be used in private parlors—ought not to be made a toy or plaything. It can be made, however, as I have already said, not only useful in medicine, but perhaps it may be used in moral education and in correcting the morbid habits, such as those of tobacco, alcohol and opium.

Those of you who are interested in studying the more recent literature of this subject will find that very little has as yet appeared in English.

In French, there is a monthly journal devoted entirely to hypnotism in *Revue de l'Hypnotism*, edited by Dr. E. Berillon, at Paris. There is an excellent summary of the present condition of "suggestive medicine" in a report of the Royal Academy of Medicine of Brussels.

Bernheim's work is in French ("De la Suggestion"), Paris, 1886. A new edition is just out. Bernheim has given a summary of his views in the *Gazette des Hopitaux* for March 27, 1888.

Fontan and Sequard's work ("Elements de Medicine Suggestion"), Paris, 1887, I have already referred to. Forel's contributions have appeared in the *Munich Medicin Wochenschrift*, 1888, Nos. 5 and 13. Obersteiner has written a monograph upon the subject of Hypnotisms, Vienna, 1887. Ochorowez, "De la Suggestion Mentale," Paris, 1888. Dr. A. Huckel, of Jena, has also written a monograph with a fairly complete bibliography.—*North Carolina Medical Journal*.

The Relative Value of Antipyrin and Antifebrin.

Dr. W G. Barr, of Bridgport, Illinois, has made a most careful clinical study of these remedies as well as of quinine on himself whilst suffering from neurasthenia complicated with malaria. He thus sums up his experience in the *Therapeutic Gazette*. This table, he says, will suggest the relative use of the two former drugs:—

<i>Antipyrin.</i>	<i>Antifebrin.</i>
Lowers the temperature in half an hour.	In an hour or more.
Effects last two hours.	Effects last six hours.
More diaphoretic.	More diuretic.
Depressing after effects.	No after effects.
Cerebral sedative.	Cerebral, vaso-motor and muscular stimulant.
Dose 15 to 30 grains.	Dose 5 to 15 grains.
Tolerance from continued use.	Tolerance from continued use.

FINAL SUMMARY.

<i>Quinine.</i>	<i>Antipyrin—Antifebrin.</i>
Is a tonic of marked effect, and its long-continued use in considerable daily doses improves malarial anaemia.	There is good reason to believe that a long-continued use (four to six weeks) of these drugs or any of the aniline products produces a decomposition of the coloring matter of the blood.— <i>Therapeutic Gazette</i> , Oct., 1887.
Quinine is antiseptic.	Antifibrin is not antiseptic, while antifebrin seems to be.
Antiperiodic.	Not antiperiodic.
Sedative only in doses so large that the stomach may not tolerate enough to produce the effect.	Analgesic.
Produces deafness.	Does not produce deafness.
Is prophylactic against attacks of true malarial poisoning.	Is not prophylactic against malaria.
Reduces temperature in some forms of malarial fevers, but has little effect in typhoid fevers.	Reduces temperature in all cases of fever.
	Remarkable effects in migraine, and substituting morphia almost entirely.

Review of Senger on the Etiology of Cancer.

There is a great tendency nowadays to regard cancer as infectious, in the sense that something is deposited in the animal tissues from without which causes the growth of carcinomatous swellings, with definite histological characteristics. The facts which seem to justify such a view are briefly as follows:—There is a striking analogy between the ways in which cancer and certain inflammatory processes spread; in both, the lymph vessels are the channels; and just as we have pyæmic metastases, so we find carcinomatous metastases. Then again, cases are occasionally met with of miliary carcinoma, which is distributed all over the body in a short time, much like miliary tubercle; indeed, sometimes these two conditions can only be distinguished by microscopical examination. The only view which seems to explain these cases is that the seeds of the disease pass into the blood in large quantities, and become deposited in many different places at the same time. They differ from the embolic particles with which the work of Cohnheim and Virchow have made us familiar, in that they cause growths of the same structure as their own to invade the surrounding tissue. They must be of a diameter smaller than that of the capillaries of the lung. Lastly the forms of the disease known as tar, paraffin, and chimney-sweep's cancer may be mentioned. These attack young and healthy working men in parts of the body in which cancer is not common (the upper and lower extremities and the scrotum). They begin as dermatitis, which often subsides if the irritating material is avoided; if not, this often changes its character from a simple inflammation to that of a pronounced cancer. In such cases we can scarcely suppose that some influence from within works outwards and affects the chemically altered cells; we must rather hold that some agent, some infection, spreads from without inwards. To these may be added the cases of seborrhœic cancer of the skin, which comes on in consequence of the so-called psoriasis linguae et buccalis (Volkmann, Schuchardt), and those in which cancer seems to be developed by a kind of contact action. Von Bergmann recently showed a case of cancer of the upper lip, in which one of the lower lip had developed at a point exactly opposite that on which the one on the upper lip had grown. Cancerous nodules frequently occur along the digestive tract, when the original trouble has originated in the tongue or mouth. So if a carcinomatous peritonitis is tapped,

the growth will often be found to have followed the track of the canula; and similarly in ulcers of the leg, fistulæ, etc., it seems to spread in the direction of least resistance.

Histology and bacteriology teach us with tolerable certainty that the exciting cause of cancer cannot be any bacterium whose characteristics are similar to those of any with which we are acquainted. All pathogenic bacteria we know of cause processes of a homo-o plastic or homologous nature in the parts in which they develop; that is to say, cause a proliferation and growth of such cells as are already present there. Connective tissue, white blood corpuscles and epitheloid cells, such as we find in tubercle or actinomycosis, are present in all parts of the body. But we know of no bacterium which can excite heteroplastic growth, a growth of cells, or of a cell complex, quite different to those already present in the organ. Secondary cancer has, however, very usually the same structure as the primary growth; and such typical and frequently repeated growths of epithelium in places in which no epithelium normally occurs we cannot explain by any bacterial activity, but can much more easily harmonise the facts with the view that we imagine the existence of a micro-organism, or some other exciting agent of infection, to which we attribute such a relation to the cell itself, or in the sense of our karyokinetic studies, to the cell nucleus or the particles of the nucleus, that either the micro-organism together with the cell, or the infected cell itself, yield the material for further infection. We readily imagine an infected nucleus or nuclear particle passing through the capillaries of the lung and exciting heteroplastic growth.

The author considers the etiology of cancer a much more difficult problem to-day than that of tuberculosis in the time of Cohnheim, etc., because no one has succeeded as yet in producing cancer by inoculation. None of those who have hitherto made attempts in this direction have been able to avoid suppuration and pyæmia, and seem to have regarded pyæmic embolisms as inoculated carcinoma. The author thinks the cases recorded by Langenbeck and by Nowincki are open to doubt, and has himself made experiments, with the fullest antiseptic precautions, in mice, rabbits, and dogs. He succeeded in avoiding suppuration and pyæmia. Small portions of tumors were engrafted, immediately after removal, on to the skins of the animals experimented with. These often increased in size for a

few days, but this was due to an influx of white blood corpuscles, which formed new blood vessels, and possibly, too, new connective tissue, very rich in nuclei. Soon, however, they began to get smaller, and were at length completely absorbed or thrown off by a process of ulceration, leaving only an ordinary scar. Not one of the animals used was inoculated, nor was the increase in size in any one case due to the growth of anything similar in structure to the engrafted material. On the contrary, the epithelial cells gradually got fewer and fewer. Further, bits of lymphatic glands, or of the normal breast, gave exactly the same results as the engrafted carcinoma, when used in the same way; nor when the hygienic conditions under which the animals lived were purposely made as bad as they could be did the cancer show any tendency to proliferate. It can scarcely be held that negative results like these prove that cancer cannot be inoculated, though the experiments recently made by others seem to confirm them. Further experiments are needed, and Senger suggests that in these the material should be introduced at different parts of the body, and into arteries, veins, etc.; that as cancer may be infectious at certain stages of its growth and not at others, that the exact stage of the engrafted portion, with its histological characteristics, should be noted; and that some attempt should be made to predispose the animals to the disease, though Albert has attempted this without success.

Hahn placed a bit of a tumor which he had just removed from her breast under a woman's skin, and said that the carcinomatous material increased; but, as Virchow observed, mere increase in size without invasion of the tissues around does not prove inoculation. If it did, we should have to speak of an infection in cases in which skin or hair grows after being transplanted.

As above explained, Senger does not think that the study of the etiology of cancer will be much advanced by bacteriological research. He has nevertheless made numerous experiments with a view more particularly to examining the statements made by Scheurlen. This author relates that in one-third of all cases of cancer, spores can be found in the dried juice which stain in a particular way. Senger believes that the particles taken for spores are really little drops of fat, and says that they cannot be detected if the material is first shaken up with chloroform and ether. He says, too, that they are too small for spores, and remarks that if they are spores, bacilli should be

found also. Scheurlen admits that he has found bacilli in the juice very rarely, and has never discovered either spores or bacilli in sections. Senger attempted cultivations with a variety of media and under different conditions, which are fully related, but in no single instance did he obtain a bacterium which seemed to stand in any etiological relationship to the new growth. Excepting under one set of conditions he never got Scheurlen's organism, and believes that even then it was not contained in the carcinoma. Once only, when a piece of a tumor was placed at once on a potato, and kept for twenty-four hours at a temperature of thirty-nine degrees, an abundant growth occurred. It is often difficult to establish the identity of bacterium, but Senger believes that the organism he then found was the bacillus of Scheurlen, and that it is really to be regarded as a potato bacillus. A potato bacillus is one which readily grows on slices of potato, and which, therefore, may often be found on such accidentally (Flugge). Four of these have been described, but there seem to be more, and the subject is not yet thoroughly worked out. At all events, this potato bacillus and Scheurlen's cancer bacillus seem to have identically the same appearance and properties, as Senger shows in detail in his paper. In conclusion, he remarks that the finding of a bacillus by cultivation from carcinomatous growths, whose activity could not be demonstrated by inoculation, would be a matter not only of great difficulty but also very little value; and that it is therefore from inoculation experiments made under various conditions that we must hope some day to get some light on the very complicated problems which the etiology of cancer affords.—*Med. Chronicle.*

Medical Education.

It is one of the most hopeful signs of the present time that the subject of medical education is attracting a great deal of attention, and that in our own country there is an unmistakable desire to find out and put into operation the best methods for the development of intelligent and successful practitioners of the healing art. A large part of the time of our medical societies is spent nowadays in discussing the plans proposed or followed by different medical schools in educating their students, and the columns of the *Reporter* have, of late, frequently borne witness to the zeal of those who are striving to secure the high-

est efficiency of the schools, and to our own sympathy with the object they have in view. It will be understood, therefore, that we regard with much interest every carefully-considered contribution to this discussion, and think it proper to bring the subject to the notice of our readers again and again.

One of the most important addresses on Medical Education which has appeared of late was delivered by Dr. Ely Van de Warker before the Section of Obstetrics at the last meeting of the American Medical Association, and is published in the *Journal of the Amer. Med. Association*, August 11, 1888. The title of this Address is "How Gynecology is Taught;" but the author considers much more than his title covers, and his address opens up questions which affect the whole subject of Medical Education in the United States.

It would be impossible here to indicate all the matters to which Dr. Van de Warker alludes; but we wish to add our endorsement to an objection which he raises against the tendency in some medical schools toward methods of education which are better theoretically than they are practically. Our own acquaintance with the methods of teaching followed in first-class medical schools does not lead us to share his idea that schools with graded courses of study exalt the text-book above the teacher; but we do believe with him that some of the best schools in the country are pursuing a course which tends to produce men who can pass brilliant examinations, rather than men who will be careful observers and shrewd thinkers. The disadvantages of the old seven-branch system of teaching need not be dwelt upon to justify the general opinion of its insufficiency for the requirements of the present day; but we believe that there will be a reaction from the sentiment which in our day would force all the schools in America to a standard of education which exacts so much of students as is indicated by the examination papers of schools like Harvard and the University of Pennsylvania. Such a standard we believe to be suited to only a very few schools, and utterly unsuited to the needs or conditions of most men who purpose entering upon the practice of medicine. Its fault, in our opinion, is that it attempts to cram into every head the wisdom of a whole faculty, and this in a space of time which is totally inadequate for any such purpose. Everyone who studied under the old seven-branch system knows how severe the strain was then upon the diligent student; and now,

when the subjects of study are divided and multiplied until it is hard to say how many they are, the strain is well-nigh intolerable; beside this, some of the branches which were once only reasonably hard are pushed nowadays out of all proportion to the real needs of the student. Chemistry furnishes a good illustration of the fact. Once the student was expected to acquire a fair knowledge of physics and of general chemistry, but nowadays he is expected to fit himself to pass an examination which would make his father shudder, and which would floor every one of his numerous examiners, except the professor of chemistry. So in physiology: the study of organs and tissues, of functions and disturbances, which sufficed for starting the teachers who now oppress him, was as nothing to the burden imposed by the modern experimental physiology, with its indescribable machinery and its wearisome details.

Let it not be supposed that we deprecate thorough study in chemistry or physiology, or that we fail to appreciate the advantage of a refined knowledge of both. But it seems to us that it is a mistake to push a whole class of medical students as if each member of it meant to be a specialist in these branches. This mistake appears the more striking when we look at the way in which anatomy is treated nowadays. The study of anatomy, in graded schools, is usually regarded as ended at the end of the second year. For two years the student gets what he can of anatomy, fighting hard against the exactions of chemistry, physiology, and *materia medica*, and then he is driven on the so-called practical branches for another year, to the utter exclusion of a branch which ought to be studied as long as he is within college walls.

Then, when we regard the question of modern medical education, and the strain upon students, we must consider the demands of the specialists. The teachers of gynecology, of ophthalmology, of otology, of dermatology, of paediatrics, of orthopaedics, and so on, feel very naturally the importance of giving medical men some preparation for practicing in each of their departments; and all of them are pressing to have their special branches made a part of this regular curriculum. But will human endurance bear the strain? Already the cry comes from some advocates of higher education that we must have an obligatory four years'-course. But it is easy to see that four years will soon be too short a time in which to cover the enlarged field of study, and so may six or ten years be, after a while.

Now, it is easier to make objections than to propose remedies; and we can see the disadvantages of trying to secure too much for and from students of medicine more clearly than we can the way to give them just enough of education to make them useful and contented men. But we believe that the majority of schools which give the degree of doctor of medicine will have to come to a standard which recognizes the fact that there is a limit to the possibilities of the average student, and that the duty of the schools is to give their students a reasonably good start, leaving them to perfect themselves by post-graduate and voluntary study, as their opportunities permit and the conditions under which they are to practice may demand.

How this shall be done is a very large question—too large to be discussed now. What we have said is meant rather to suggest a line of thought than to direct it. We all wish to reach the highest standard of Medical Education which is attainable; but it is worth while to consider seriously whether or not some of the energy nowadays devoted to securing a higher education is not misdirected and likely to do harm to the good cause in which it is enlisted.—*Ed. Med. and Surg. Reporter.*

American vs. Foreign Microscopes; The Verdict of an Impartial Expert.

(Notes from 10th Annual Meeting of the American Society of Microscopists, held at Columbus, Ohio, Aug. 21-25, '88.)

One man that everybody wanted to see, that everybody shook hands with, and that greeted everybody, but more especially the older members, with a warmth and cordiality that made them feel that it came from the heart and that they were truly welcome to Columbus was Prof. H. J. Detmers, M. D., V. S., of the Ohio University.

Dr. Detmers is a German by birth and education, a thorough man of science, however, who when it comes to questions of scientific interest knows no country and has but one creed—"the truth, the whole truth and nothing but the truth" so far as it is possible for man to know and to tell it. The doctor was called to Europe a few months ago on business and has just returned home. He took with him some objectives made by American makers and some test objects, determined that while abroad he would settle so far as possible under the circumstances, the relative merits of these instruments as compared

with those of the best German opticians manipulated by experts. At the morning session of the first day, Dr. Detmers made a report of the result in the shape of a paper which he read, or rather delivered off-hand in his own forcible and convincing manner. The title of this paper was "What I Saw in the Optical Establishments of Germany," and the following is the gist of his remarks: "At the Pittsburg meeting last year when the question came up in a casual way, in talking of a now celebrated screed of a Boston party who affects foreign models and belittles American microscopes, I expressed the opinion that the best foreign objectives and microscopes were in no way superior to the best American instruments. At that time I had had but limited opportunities for testing the foreign lenses made of the new apochromatic glass and my personal knowledge was confined to the examination of certain of Zeiss' own make, notably a one-twelfth (1-12) which I had critically and carefully compared with a one-fifteenth (1-15) of Robert Tolles, a one-tenth (1-10) of the Herbert Spencer, and a one-twelfth (1-12) of Bausch & Lomb. Since that time I have visited and spent several days in the establishment of Leitz and of Seibert of Wetzlar and of Zeiss at Jena. I put one whole day in each place in giving the objectives of each maker a chance to show what they could do with an *Amphipleura pellucida* from Lake Nepesink, mounted in balsam by Dr. Somers. Each maker manipulated his own objectives with the exception of Carl Zeiss. He was ill and the manipulation was entrusted to his brother, Dr. Roderick Zeiss, who is an acknowledged expert in no way inferior to his more celebrated brother.

"Not one of them could effect a resolution.

"I did it easily with my one-tenth of Herbert Spencer and one-twelfth of Bausch & Lomb (the only two that I used).

"Foreigners hate test diatoms and affect to despise their resolutions; but I say that an instrument that cannot find the markings of diatoms cannot show the more delicate and equally fine markings or matters in other things, and that consequently these diatom tests are of great value as test objects.

"When the test of vision with the microscope was over I then challenged them to the crucial test of photography.

"The results were the same. Here I hand you a photograph of the same amphipleura made by Dr. Roderick Zeiss with the most costly and elaborate outfit that I ever saw. He worked

with a specially constructed camera costing hundreds of marks (24 cts. each), sunlight and a marvelously constructed heliostat, and used eosin plates. Here is mine made by lamplight, using the simplest contrivances. Compare them! [Here Dr. Detmers handed around two positive plates for inspection, the one made by Roderick Zeiss with the elaborate outfit and the other by himself with a twenty-five cent coal oil lamp and an ordinary gelatine dry plate. The former was blurred and haloed with diffraction spectra until it looked like a photomicrograph of the markings of a *pleuro-sigma angulatum* rather than of *amphipleura pellucida*, while the latter was as clean and sharp as though it were a photograph of a forty foot ladder. F. L. J.]

"Now they—Zeiss, Seibert, Leitz and all of them, claim that above all things their lenses are free from color, apochromatic, and that photography is the crucial test. There is the result.

"In lenses well corrected for color, the visual and chemical foci should coincide. This I found to be the case in all the German instruments tested by me on these occasions, but the same is true of the American lenses exhibited and manipulated by me, as they very candidly admitted, and further that they were the equal in this respect, of the best that are made of the new glass.

"As to the formulæ used, it seems to me after a critical and exhaustive examination that ours is the best. Our definition is better, sharper and crisper and the resolution is equally as good.

"*As to prices:* A German apochromatic one twelfth (1-12) of the best make costs five hundred marks (\$120.00); an American one-tenth of similarly good make costs \$80.00 to \$100.00. Wherein lies the greater economy, supposing that the German was absolutely as good as the American?

"*As to stands:* Since my day, or rather very lately, the Germans, particularly Zeiss, have improved somewhat, but only in so far as they have borrowed American ideas and followed American models; but they yet stick to the low, squat, clumsy models, leaving no room either above or below the stage for accessories, but getting over the difficulties thus engendered by a multiplicity of ingenious special appliances for which the American stands have no need.

"One thing more about the advantages of American objectives. They do not need special eye pieces and those of the best class, are not so sensitive to a little variation in tube length as

the German's claim to be (although I found in the examination of Zeiss' lenses that a little variation of the tube length didn't make such a great difference either)."

The above is a running report of Dr. Detmer's remarks. Those who had the pleasure of examining the photographs will not soon forget the wonderful difference between the product of Dr. Roderick Zeiss' manipulations, with his costly apparatus, and that taken by Dr. Detmers, as we have seen him do it, with absolutely no apparatus but a lamp and a microscope with a little cheap camera attachment.—*St. Louis Med. and Surg. Jour.*

Postural Treatment of Constipation.

A recent paper on constipation by an eminent surgeon of this city, and its discussion before the Boston Society for Medical Improvement, embolden me to speak of a source of trouble unnoticed, so far as I know, by former writers. I allude to a faulty and unnatural posture at stool.

The act of defecation strongly resembles the expulsive stage of labor. The main propelling force in both cases is the contraction of the diaphragm and abdominal muscles, mere uterine action and intestinal peristalsis playing a subordinate role in both acts when physiologically performed.

The importance of posture and other aids in bringing out this natural action of the abdominal muscles in labor is tolerably well recognized by modern writers on midwifery. One often sees women in confinement quit the bed and take up a crouching attitude on the floor, instinctively feeling that they can bear down better in this position. The pulling and pushing movements with hands and feet so universally witnessed are directed to the same end.

Sixteen years ago I had myself the fortune to hit upon a simple and effective contrivance for this purpose which has proved of vast use in my hands. A description of it may be found in the *Boston Medical and Surgical Journal* of June 11, 1874. It consists simply of a twisted sheet with the ends tied together in the form of a ring or loop, in the lower part of which the feet are placed and pushed downwards, while the upper end is pulled upwards with the hands or wrists. It calls the whole set of waist muscles into powerful action, and secures, where the way is clear, a prompt and natural delivery.

But to return to constipation. I feel sure I cannot be mistaken after twenty years' practice, and, I may say, almost daily study of the subject, in thinking that a faulty posture at stool and consequent inertia of the abdominal muscles have been among the commonest causes of the disease in the patients under my care. A gentleman, having finished his breakfast and lighted his cigar, retires, with the morning paper in his hand, to a cosy and well-heated apartment, takes a comfortable seat and between reading and smoking passively awaits the tardy operation of nature. He either takes no active part at all, or at most inflates his lungs a little and holds his breath, thereby depressing the diaphragm, but having no marked action on the other expulsive muscles—the straight and oblique abdominal, the *psoae* and *quadrati lumborum*. As a result the bowels are imperfectly emptied, a residual mass is left behind in the colon, which, accumulating day after day, must finally be evacuated by artificial means.

Put the same man in the woods, say the Adirondacks. At the call of nature he seeks the nearest thicket, and there assumes a strictly physiological attitude. He neither sits nor stands, he squats. Every muscle of the back and abdomen is brought into play, the bowel is rapidly and completely emptied; and, vacation ended, he returns to his home a new man.

Watch any of the lower animals, the dog, the cat, the pig, the ape at the menagerie, even the horse and cow when hard bound—always an approach to the same attitude. I suppose every one has noticed the same thing in young children.

I believe I need offer no apology for these observations.

We ought, then, to expect, what I have found to be the case, that the assumption of a correct posture at stool would prove a sufficient cure for what may be called passive constipation. The sitting posture should be interdicted, and a stooping one substituted. If the construction of the water-closet does not admit this it should be altered. The margins of the basin should be leaded, and wide enough to afford room for the feet on each side. Above this should be two covers, the lower one perforated, the upper not. One of the best arrangements, for men at any rate, would be to abolish the seat altogether, and have merely a stone or marble slab, with a hole in it, as is often seen in Europe, at or near the level of the floor.

For ladies the matter is less easily managed. I have often

recommended the use of the chamber utensil instead of the ordinary seat. One lady of most distinguished family and position assured me that this was one of the most valuable suggestions she had ever received. I have found it equally beneficial in other cases.

I have now been using and recommending this posture treatment for twenty years. I hardly know any person of sense who ever properly tried it who did not find it of advantage. With proper diet and exercise it will surely cure the majority of cases with comparatively little aid from medicine. Still drugs and clysters are needful at times, and in certain cases must be regularly used: though I believe the greater part of those who require continuous dosing are persons too ignorant or too indifferent to try and cure themselves by natural and simple means. The absurd motto, *natura duce*, too often made a mere cloak for professional ignorance, here finds a wise and wholesome application.—EDWARD T. WILLIAMS, M. D., in the *Boston Medical and Surgical Journal*, Aug. 23, 1888.—*Med. Age.*

A Year's Work in Abdominal Surgery.

By E. C. DUDLEY, M. D., of Chicago.

The Staffordshire Knot.—Three years ago I saw Mr. Tait apply the Staffordshire knot. In the first case, after my return, I attempted to apply it and the patient died of hemorrhage. The next year I saw Mr. Tait operate fifteen or twenty times, and particularly observed his method of applying this knot, and since then have used it invariably, and consider it, generally speaking, the best ligature. A distinguished surgeon in New York has lost a number of patients from hemorrhage with the Staffordshire knot and has discarded it as dangerous. Indeed, a number of operators have had most unpleasant experiences in its use.

The secret of Mr. Tait's success lies in a single manoeuvre. After the pedicle has been transfixed, the loop drawn through and brought over to the point of transfixion, and placed between the two free ends of the ligature, these latter are held firmly between the thumb and finger of the left hand close to the point of transfixion. Then with the right hand he catches each free and separately and draws the ligature perfectly tight, and while the thumb and finger of the left hand still hold the thread at the point of transfixion to prevent the ligature from slackening

again, the operator, with his right hand, aided by the assistant, makes a hard knot.

An additional precaution to prevent the ligature from slipping may be wisely observed by transfixing at two points, first forcing the loop through at the juncture of the Fallopian tube and uterus in a direction of the operator, then carrying it along on the further side of the broad ligament, and drawing it through again in the direction of the operator, transfixing at the hilum of the ovary. The loop may then be drawn over the tube and ovary and that portion of the broad ligament which it includes, and tied as already described. This modification of the Staffordshire knot which, I am informed, Mr. Tait also occasionally employs, makes hemostasis doubly certain, and is to be preferred on this account.—*Maryland Medical Journal.*

THE TURKISH BATH.—Most of those who indulge from time to time in the luxury of a Turkish bath have need to observe a discreet moderation in its use if they would reap its advantages without incurring its occasional risks. For the majority of persons it is, with this proviso, a wholesome and enjoyable aid to cleanliness. The rheumatic, the gouty, and the dyspeptic have often proved its therapeutic value, and the reason for this is not far to seek. Its superior efficiency as a cleanser of the skin surface, and its powerful diaphoretic action, need only be mentioned in order to commend its use in such cases. The action set up is not, indeed, a purely local one. Not only are the skin excretions vigorously stimulated, but the blood vessels, the absorbents, and the deeper tissues generally, are washed by the current of outgoing fluid thus set in motion, while at the same time the strain on the frequently overburdened kidneys is lightened, and this organ rendered proportionally freer and fitter for the discharge of its duties. We must not now allow ourselves, however, to view the matter in its most favorable aspect alone. Serious mishaps do occasionally occur in the Turkish bath, and of this fact the recent sudden death of a man in one of the northern counties affords a suggestive illustration. The deceased had been a very heavy drinker, and suffered from fatty degeneration of the heart. He had been advised by a medical man that he should not enter the bath, but in spite of the warning did so, and appears to have spent the greater part of a night in the hot and cold rooms alternately. It should be mentioned

that about the same time he indulged, though not very freely, in drinking whisky. A few hours later he was found dead in the cooling room. We may remark in passing the obvious need of limitation in the time during which the establishment is allowed to remain open. In this case the immediate cause of death was clear enough to show that the danger in such cases, and it is a real one, depends on the bather's health at the time. It is generally allowed that weakness of the heart muscle from actual disease contraindicates a bath of this kind. There are also cases, however, in which almost equal caution is necessary, though the cause of weakness is mere exhaustion from temporary overstrain. This is a point to which the worried, the anxious, and the overworked would do well to give a due share of attention.—*Lancet*.—*Maryland Medical Journal*.

HYPERTYREXIA IN TYPHOID FEVER.—Dr. J. M. Muselli published in the *Journal de Medicine de Bordeaux* some interesting clinical observations on this question, of which we report the following conclusions: 1. Hyperpyrexia is a danger in typhoid fever, from its effect upon the intestines, the heart and the entire organism. 2. The hydropathic treatment, when employed by cold baths, after the method of Brand, exposes the patient to such grave dangers as sudden death, internal hemorrhages and capillary bronchitis. There is a very slight action on the temperature when it is used in the form of tepid baths and warm and cold sponging. 3. Sulphate of quinine loses very quickly its anti-thermic action, since in a few days the temperature lowered for a short time regains its former height. Its action is not always certain, even in enormous doses. Also, the sulphate of quinine, given in large doses, may cause such accidents as trouble with the hearing and headache which disturb the patient and necessitate the suspension of the remedy. Salicylic acid has an uncertain action upon the temperature. Besides, it increases the danger of intestinal hemorrhages and epistaxis. 5. Antipyrine lowers the temperature with mathematical precision. It causes a typhoid fever to run its course with a moderate temperature without exposing the organism to any grave dangers. It is, in the opinion of the author, the best antipyretic medication with which he is familiar.—*Revue de Ther Medical Times*.—*The Medical World*.

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SOME CLINICAL NOTES ON THE USE OF ESERINE IN GLAUCOMA. A SERIES OF TWENTY CASES.

By GEORGE C. PARDEE, Ph. B., A. M., M. D.

I wish to present the notes of twenty cases of glaucoma which have occurred in my practice during the past three years and a half, and to call attention to the beneficial, even curative, effects of eserine in certain cases of this disease.

I. A. C., aged 40. Bilateral simple glaucoma. Both eyeballs stoney hard; pupils widely expanded; papillæ deeply excavated; vision so bad that the patient could hardly grope his way about the streets. Eserine had no effect on either eye. An iridectomy in each eye reduced the tension. Three years and a half after the operation the patient can see well enough to easily get about the streets, and with glasses (+D 5) can see to read ordinary newspaper print. For months after the operations the patient used eserine steadily; and even now he relies upon the drug to reduce any transient increase in tension which may follow any indiscretion in eating or drinking.

II. Mrs. P., aged 50. Bilateral simple glaucoma. Right eye worse and longest affected. Both papillæ excavated; pupils expanded; right eye stoney hard; left somewhat softer, but very hard. Vision in right eye so impaired that patient could not

distinguish faces at ten feet; while the left eye was fast becoming blind. Eserine improved the left eye, but had no effect on the right eye. I, therefore, performed an iridectomy on the right eye, and ordered eserine for both eyes. Two years and a half after the operation the patient sent me word that vision had improved considerably in the right eye, and that the left (unoperated) eye was "as good as it ever was."

III. J. G., aged 58. Left eye absolute glaucoma. Right eye simple glaucoma; papillæ deeply excavated; slight vitreous opacities; pupil widely dilated; ball stoney hard; vision so reduced that the patient could hardly get about the streets. The patient refused to submit to an operation for five weeks. In spite of the consequential use of eserine his vision became steadily worse. After an iridectomy under the use of eserine, vision increased so that the patient, by aid of a cylindrical glass, could see to read ordinary newspaper print. But, although the tension remained normal, atrophy of the optic nerve set in and vision became so bad that the patient could hardly see to grope his way about.

IV. B. F. C., acute glaucoma of right eye. Pupil widely expanded; globe stoney hard; anterior chamber very shallow; severe ciliary neuralgia; vision reduced to the appreciation of shadows. Eserine contracted pupils, deepened anterior chamber; reduced tension; lessened pain. After a few days treatment the patient disappeared to return in a few days with the story that he had gone to another oculist, who had immediately operated, assuring the patient that my treatment was most injudicious and entirely useless. I believe that the eserine would have accomplished just as much as the operation did, and that without leaving a mutilated eye.

V. E. T., aged 50. Left eye absolute glaucoma. Right eye simple glaucoma; ball very hard; pupil widely dilated; papillæ deeply excavated. Vision in right eye reduced to perception of light and shadows. Eserine was without effect. An iridectomy and consequential use of eserine preserved for over a year (after which time I lost sight of the patient) the great comfort of being able to distinguish darkness from light. This was a particularly sad case. He had been treated for nearly two years by all sorts of physicians—regular and irregular—for all sorts of diseases, being always assured that his blindness was dependent upon his general health, which was and always had been of the best.

He was simply allowed to go blind, when, in all human probability, a large amount of his vision could have been saved.

VI. Mrs. H., aged 63. Acute bilateral glaucoma. Both bulbi very hard; both pupils widely expanded; vision so reduced that she could hardly grope her way about the room; intense ciliary neuralgia. She said that she had gone to a physician for advice because she saw colored rings around the lights. The physician had put some drops into her eyes; and within a few hours she was "suffering the tortures of the damned." Eserine promptly reduced the tension, contracted the pupils, stilled the pain. Vision slowly returned until she could read coarse print and easily pick her way about the streets. This is the only case of bilateral acute glaucoma I have ever seen.

VII. Mrs. J. B. P., aged 45, had noticed for some time that her eyes were rapidly becoming older; that she was compelled to change her glasses quite often; that, especially when she had taxed her eyes or was physically tired, there was a halo around the gas lights. Examination showed the anterior chamber shallow; the pupils moderately dilated; papillæ slightly excavated; slight arterial pulsation; tension +1; vision about 10-xx. Diagnosis, simple glaucoma. Under eserine all the symptoms, except the excavation of the papillæ, disappeared, and vision became normal. One year later she can read with comparative weak convex glasses; has had no trouble with her eyes, except an occasional halo around the lights when she is physically tired, and "sees better than she has for years."

VIII. Mrs. E. J. K., aged 45. Simple glaucoma of the left eye. Pupil dilated *ad maximam*; anterior chamber very shallow; vitreous cloudy; bulbus stoney hard; vision reduced to the appreciation of light and shadows. Eserine had no effect upon the eye. An iridectomy, combined with the consequential use of eserine, helped the eye somewhat; but central vision has remained about the same. This case is also a sad one. The woman's female friends assured her that her blindness was merely transient, was common at her time of life, and that she would surely recover if she kept away from the oculists, who would surely blind her if she submitted herself to their tender mercies.

IX. Mrs. A. A. U., aged 45, glaucoma simplex of both eyes. Both pupils widely expanded, both anterior chambers very shallow; both papillæ deeply excavated; vision so reduced that she

could not pick her way about a room, both eyes stoney hard. Of the two eyes, the left was decidedly the worse. Executive vision in both eyes very bad; her field [of vision being very greatly contracted. Under eserine her condition became slowly but surely better, tension became normal, pupils contracted; anterior chambers deepened and vision in the right eye became centrally almost normal, though the field of vision still remained very much contracted. The left eye improved in all the objective symptoms, except, of course, the excavated papilla, but vision remained very bad. This patient was also advised by her female friends to shun the oculists, and was assured that her blindness was but temporary and dependent upon the change of life. Finally driven desperate by the near approach of blindness, she consulted a physician, who told her that nothing could be done for her and that she was doomed to absolute blindness.

X. J. S., aged 52 years, simple glaucoma of the right eye. Several years ago his left eye was injured by a flying clip of steel. The eye atrophied, but gave him absolutely no trouble. Several months before I saw him he began to notice rainbows about the lights. He consulted a physician, who removed the atrophied eye, but with no diminution of the trouble in the right eye. When I first saw him his condition was as follows: Pupil slightly expanded; anterior chamber shallow; media so cloudy that a fair view of the fundus could not be obtained; tension greatly increased; vision about $\frac{1}{2}$. Under eserine all the symptoms improved, and vision, without glasses, became $\frac{1}{4}$; with concave glasses nearly normal.

XI. F. O. S., aged 55, simple bilateral glaucoma. Both pupils expanded; both anterior chambers shallow; both papillæ slightly excavated; vision so bad that he could hardly pick his way about the streets; both bulbi considerably elevated in tension. Under eserine his condition rapidly improved; all the subjective symptoms became better, and his vision increased until he can now read the papers without any trouble. He claims to see better now than he has for years.

XII. E. B., aged 51. Left eye, absolute glaucoma. Right eye, simple glaucoma. Right eye: anterior chamber very shallow; pupil widely dilated; bulbus stoney hard; papilla deeply excavated; vision reduced to appreciation of shadows. An iridectomy in the right eye, and the consequential use of eserine improved vision slightly. But a few months after the iridecto-

my a cataract began to develop in the right eye and is now almost ready for extraction.

XIII. Mrs. A. K., aged 39. Bilateral simple glaucoma. Left eye cataractous. Right eye: Tension considerably increased; anterior chamber shallow; pupil moderately dilated; papilla slightly excavated. Under eserine all the symptoms ameliorated, and vision improved from $\frac{1}{2}$ to $\frac{1}{2}$.

XIV. H. S., aged 56. Bilateral simple glaucoma with periods of intermittent inflammation. The left eye had been iridectomy by another oculist, but was still very hard; vision about 1-20. The right eye was stoney hard; pupil expanded; media cloudy. A sclerotomy in the right eye according to de Wecker and the consequential use of eserine in both eyes improved all the symptoms. Vision in the left eye improved slightly, and in the right eye rose to 1-10. The eyes are and have been for a year or more normal in tension.

XV. A. D., aged 46, came to me almost blind from atrophy of the optic nerve. After several months treatment he disappeared, to return after two months with a typical acute glaucoma in the left eye. Eserine alone had but little effect, but, combined with paracentesis of the anterior chamber, reduced the tension and quieted the pain.

XVI. G. C., aged 22. Bilateral absolute glaucoma. Both eyes very hard; both pupils dilated *ad maximam*; right eye cataractous. Papilla of left eye deeply excavated. Both eyes absolutely blind. This, on account of the youth of the patient, is a very unusual case. As his father "went blind after an operation on both eyes," there might be a suspicion of heredity.

XVII. Mrs. P., aged 55. Bilateral absolute glaucoma. Right eye cataractous; left eye beginning cataract. Both eyes stoney hard; both pupils widely expanded; both anterior chambers very shallow.

XVIII. Mrs. D., aged 47. Absolute glaucoma in both eyes. Both bulbi stoney hard; papillæ deeply excavated. She lives in the mountains, and, on the advice of the local physician, had calmly allowed herself to be overtaken by absolute and hopeless blindness while waiting for her "cataracts to get ripe."

XIX. G. L. K., aged 56. Simple glaucoma of left eye. Bulbus stoney hard, papilla deeply excavated. Eserine slightly improved vision and stopped the further progress of the disease.

XX. Mrs. W., aged 42. Chronic glaucoma with intermitting periods of inflammation in right eye. Lens cataractous. Pupil widely dilated; anterior chamber very shallow; tension considerably increased. Vision had been reduced to power to see shadows for some time before the appearance of the cataract. Eserine improved vision somewhat and stopped the further progress of the disease. She had been treated by several kinds of physicians—regular and irregular—for various kinds of diseases of the eye and general system, each new physician promising an absolutely certain cure.

My reasons for presenting these twenty cases of glaucoma are two fold. In the first place it seems that such a large percentage of glaucoma in the practice of one oculist in this country is an unusual thing. Indeed, it is claimed that the disease is much rarer in this country than in Europe. Such, however, has not been my experience. Thus, among 55,146 eye patients seen in three large European clinics, there were 688 cases of glaucoma—1.24 per cent. Another collection of 111,691 eye cases averaged about 9-10 of one per cent of glaucoma. *Græfe and Saemisch. Handbuch der Gesammten Augenheilkunde. Band 5. S. 62.* My percentage lies between these two and is a small fraction over one per cent.

Another reason for presenting these cases is to call attention to the beneficial, even curative, effects of eserine in certain cases of this most terrible disease. Up to the time when Von Græfe discovered the curative effects of an iridectomy, this disease was held to be entirely incurable. Thus, Siehel, in 1841, wrote: "Cette maladie est completement incurable." And even in 1858 Desmarres wrote: "Le glaucome etant incurable, il devient tres difficile de poser les bases d'une traitement." In the face of this, when Von Græfe, in 1857, announced his discovery of the benefits of an iridectomy, the whole ophthalmological world rose up and called him blessed. But an iridectomy will not cure all cases of glaucoma. Thus, Webster (Arch. of Oph., Sept., '86,) reports 30 cases of glaucoma operated upon. Of these 30 cases, 11 improved, 6 became worse and 13 remained unchanged. On referring to my cases (leaving out of the question, for obvious reasons, those cases of hopeless, absolute glaucoma) I find that there were 22 eyes with which I attempted any treatment. Of these 22 eyes I operated upon 8—7 by iridectomy and one by sclerotomy. Of these 8 operated cases there was an

improvement in all cases though in some of them the improvement was very slight indeed. In all of these cases eserine was tried without any effect whatever. In the remaining 14 cases in which eserine took the place of an operation, the improvement was in several of them very great; notably so in VI., VII., IX., X. and XI. In fact, the improvement following the use of eserine—where improvement followed its use—was much greater and more satisfactory than in the operated cases. It is true that those cases upon which I operated resisted eserine and were, on the whole, in worse condition than those where I employed eserine. But I am rather of the opinion that those cases which resist eserine are apt to be stubborn and resist even an iridectomy. Even in those cases upon which I operated, eserine was used for a long time after the operation. And I believe that the operation alone would not have yielded as good results. The fact of a glaucomatous eye resisting eserine clouds considerably the prognosis and, in my mind, renders rather doubtful the final result of an iridectomy.

That eserine has been used by others with good effect in glaucoma is well known. Thus, Armaignac (Arch. of Oph., Dec. and March, 1887,) reports 3 cases, one acute, benfitted by eserine and cocaine. Coggin (Arch. of Oph., Sept., '86,) reports two cases, "which, under ordinary circumstances, would have required an operation," improved by eserine. Richy (Arch. of Oph., March, '87,) reports a case of chronic glaucoma benefitted by eserine. Panas (Arch. of Oph., March, '87,) reports four cases "cured" by eserine.

Until something occurs to change my mind I shall rely upon eserine in the treatment of this disease, reserving the knife for such cases as resist the drug.

CÆSAREAN SECTION.

(Discussion of a case reported by Dr. E. G. Zinke, of Cincinnati.)

By E. S. MCKEE, Cincinnati.

Dr. C. D. Palmer, in discussing the case, said that the paper possessed the qualities which both interest and instruct, and is one of more than ordinary value. Every such case should be reported and when the report is as thorough and as painstaking as this one has been it is a matter of congratulation for the Academy of Medicine. Having been present at the post-mortem,

he could testify to the accuracy of the pelvic measures as reported. If classified, the pelvis might be called a justo-minor, except that the antero-posterior diameter of the brain was contracted out of all proportion to the remaining diameters. The contraction at the brim was about two inches at the conjugata, and one to one and one-fourth inches for the oblique diameters.

What was the proper management of the delivery in this and similar cases?

We have five different, distinct methods of delivery at our disposal in treatment of pelvic deformities, viz.: the induction of premature delivery, the forceps, version, craniotomy or its improved modification, and Cæsarean section or some of its modifications. While in some cases these come in conflict, to a great extent each has a special field of application. The question is, how do they apply to the particular case under consideration?

Although the question of the induction of premature labor has no direct bearing in this instance, at the same time it may be interesting to inquire whether this poor woman could not have been delivered of a living child, if the condition of her pelvis had been realized early enough in pregnancy; or, whether if she had recovered and again become pregnant could she have been delivered *per vias naturales*?

Premature labor is induced for the sake of both mother and child from the thirty-second to the thirty-sixth week of utero-gestation; the earlier the better for the mother, the later the better for the child, *cæteris paribus*. Delivery has been induced as early as the end of the seventh lunar month, producing a living child, with a pelvis as small as 2.5 inches conjugata. But when we remember that the pelvis of the reported case was not only thus contracted in the conjugata, but also in all the other diameters, it implies that delivery would necessarily have to be induced prior to the seventh lunar month. It would probably have to be completed by the forceps or version, with some delay and at a time when the child was very young and feeble. It seems barely possible that it could have been born alive, or if alive for it to survive on account of prematurity. Therefore it is safe to say that the induction of premature labor was in this case impossible with the hope of a living child.

If this woman had survived and again become pregnant, the choice between two modes of procedure would have had to be made: the induction of abortion early in the pregnancy, or

better than that, the allowing of the pregnancy to go on to term and then at a favorable time in labor, to perform abdominal and uterine section.

This was no case for the forceps; the range of this instrument is for pelvis from four inches to three and a half or three and one-fourth in conjugata. He would not wish to condemn the practice of the gentleman who used forceps in this case, hoping thereby to effect delivery. Under the existing circumstances almost any obstetrician would have applied the forceps at first to see what they could do. A lack of knowledge with the exact pelvic dimensions to be encountered could only be supplied by the experience then and there obtained. Their application could do no harm unless their use was persisted in unduly and forcibly.

Nor was this a case for the performance of podalic version. The range of application of version is in pelvis with conjugata from three and one-half inches or three and one quarter to two and three quarter inches. In proper cases version offers a most useful method of improvement upon nature's mechanism, as well as the utilization of additional forces to aid the expulsion of the child.

The conjugate diameter of the pelvic brim is more frequently and decidedly contracted in pelvic deformities than any other, therefore, its measurements have served as the chief guide, the key to the lock of the pelvis. A conjugate ranging from 2.75 inches to 1.75 inches, is the field for the utilization of craniotomy and Cæsarean section. The conjugata of the pelvis under discussion was 2.5 inches, and within this range. Manifestly then, one or the other of these two methods was to be considered. A live child at term could not have been delivered *per vias naturales*, and if the child were to be saved Cæsarean section offered the only resource.

As a general rule we may say, if the child is dead with these measurements, craniotomy is the proper resort; if alive, Cæsarean section; but no absolute, inflexible rule can be laid down, there are always exceptions. Under certain conditions, craniotomy may be the best, though the child is alive, and Cæsarean section is to be preferred with a dead child if the pelvic contraction is very great.

To a great extent, Cæsarean section is the operation of selection, while craniotomy is the operation of necessity. The inter-

ests of the mother are not tantamount, but paramount. In all cases we are first to look to the mother; though this principle in management is old, it stands as strong to-day as it ever did. While a mother is undoubtedly called upon to sacrifice somewhat of her chances for life in order that she may have a living child, she should not be asked to sacrifice life itself. No woman in parturition should be advised to submit to operative procedures which place her life in great jeopardy for the sake of her child, if there be a more favorable way. Unless there be a reasonable prospect of saving her life as well as her child's the Cœsarean section should be ruled out. She has the right to decide.

In a recent discussion of this subject, Dr. Meadows, one of the most eminent of the obstetricians of Great Britain, exclaimed: "Where now is craniotomy?" In reply, the speaker would remark, it still lives, and should live.

The question of the risks of each in determining between these two operations, should be next then to the life of the child.

With pelvic contractions not greater than 2.5 inches, the risks of craniotomy are not great, less than by Cœsarean section; if done early very few need die. Death after craniotomy is largely due to delays and other manifestations. But the risks rapidly accumulate when the contraction extends below 2.5 inches. Near to two inches the risks exceed those attending Cœsarean section. All things being equal, as to the time of operations and conditions, it may be said that the risks of the two operations are about the same with a pelvic measurement at 2.5 inches; at this point the two operations must come into severe competition. As the mother's interests are paramount, craniotomy is not to be laid aside unless Cœsarean section holds forth equally good chances for her life.

Although the child is living, the following is a condition in which craniotomy is justifiable. A long difficult labor, extending over many hours, perhaps days. All the liquor amnii has drained off, the uterine discharges are dark, unhealthy looking, offensive. The foetal head is impacted within the pelvis, or it may be floating over the brim, cervix is swollen, œdematosus, bruised; vagina swollen, livid. The uterus is tetanic or has ceased to act. The patient exhausted, anxious face, frequent pulse, feverish. This is no uncommon picture. What conditions are these for uterine section? What chance has such a woman

for recovery after Cæsarean section? In what condition is such an uterus to be cut, to contract, to be sewed, to heal? Craniotomy offers a far better chance for the mother unless the contraction is at or below two inches.

Much of the opposition to craniotomy has arisen from two reasons. First: because it has been performed too frequently and of course unjustifiably, but abuse is no argument for its total abolition. Second: because of the very favorable reports attending Cæsarean section, especially in Germany. In the hands of Sænger, Martin, Leopold, Crede and a very few others, the recovery has been nearly eighty per cent. If we contrast this high rate of recovery in Germany with the rate in the United States it speaks very unfavorably for us. Out of nearly 160 cases collected by Robert Harris, the per cent of recoveries is only 37.5. These figures must not simply be taken on their face, however, without inquiry into the attending causes and circumstances.

In the first place, the operations in Germany are done by a few experienced and skillful men. Most of them have been performed in hospitals with good surroundings. They have been done early in labor at the most favorable time. As a rule the exact opposite is true in the United States. No better proof is offered of the earliness of the operations done abroad, than out of thirty-three cases thirty-one children were born alive. If we select the cases in which the operations were performed early in the United States we will see that the rate of recovery is very good, viz.: about seventy per cent.

Great stress has been placed by Sænger upon his method of suturing. While the speaker would not wish to detract one iota of merit justly due this faithful and deserving worker, yet nevertheless it must be apparent to the careful investigator that his great success is not attributable so much to this as the early performance of his operations. The Sænger operations in this country (five in number) have all proven fatal, because they were done late. The Sænger technique could not save them, they died despite the operation.

The three great factors in the success of Cæsarean section are first: that it is to be done early while the general condition of the patient is still good, and while the local conditions are favorable. Second: it must be done anti-septically. Third: the uterine wound must be most carefully sutured. The first factor is the most important of all.

So long as the dangers of Cœsarean section exceed those of craniotomy, so long will the conflict between them continue. When the technique of the Sænger operation is completed, when this technique is well understood, when the operation is performed early, when pelvic deformities are more thoroughly studied and appreciated in this country; then will the section be more frequently made, its ratio of success gradually increase, and in the same ratio will the necessities for craniotomy diminish. We will then be obliged to encounter fewer of those dreadful cases, when at our first interview we are brought face to face with a parturient woman, exhausted after several days labor; a midwife and several practitioners in attendance, each wearied out with fruitless efforts to deliver; soft parts bruised, swollen and lacerated, and finally a craniotomy or section with a forlorn hope. The abolition of craniotomy on living children is a consummation devoutly to be wished, but in the present state of affairs is an advance not yet to be realized.

In the case of Dr. Zinke, conditions were certainly unfavorable for Cœsarean section; still it was probably to be preferred to craniotomy, because the child was living and the pelvic measurements were at that border line where the risks of the two operations did not widely differ. Of course it will now remain an open question whether this woman might not have recovered under craniotomy.

The speaker did not regard this as a proper case for the Porro operation. The uterus was in fair condition for section, and it is always to be preferred except in those instances where the organ is bruised, lacerated, gangrenous or septic. These complications may make the Porro-Muller operation not only superior but necessary. Laparo-elytrotomy possesses certain advantages in the diminished risks of a loss of blood and septic infection, but its technique is not so well understood or so easy of execution. The improved section is generally preferable. The improved Cœsarean section is the outgrowth of many advances in abdominal surgery running through a long period of years. The Sænger method has nothing distinctly original due to Sænger, but embraces points introduced and executed by Muller, Frank, Leopold, Kehrer and others. Sænger has, nevertheless, formulated all these improvements and shown their combined utility, hence with perfect propriety, the operation as now understood and now recognized as the best, ought to be called the Sænger.

In conclusion the speaker said, that the Cæsarean section had only to his knowledge been performed three times in Cincinnati. Once by Dr. Walton on a dwarf, done early in labor, once by Dr. Dandridge (laparo-elytrotomy) done late; and finally, the case reported this evening by Dr. Zinke. All were fatal.

The Choice of Anæsthetics.

Scarcely a week passes without our having to record one or more deaths from the administration of chloroform, and this in spite of the fact that we have one or more anæsthetics the use of which, though not, of course, absolutely safe, is nevertheless, as statistics show, vastly less dangerous to the patient. Experts in the administration of anæsthetics have over and over again protested, *urbe et orbi*, against the employment of so treacherous an agent except under special and strictly defined circumstances, yet both inside and outside hospitals the administration of chloroform goes on in cases in which the only reasons for its use can be those of convenience. In private practice chloroform is preferred for several reasons, in the first place because it is less bulky, and secondly, because the administration of ether requires special and somewhat expensive apparatus, with the use of which the anæsthetist must already be familiar. But surely reasons such as these ought not to be allowed to influence one in the choice of an agent, the use of which under the happiest circumstances is not unattended with danger. Every death under chloroform is a death by other than natural causes and calls for official investigation. A medical coroner would even be justified in cross-questioning the medical witnesses as to the reason for giving chloroform in preference to ether, and should a *prima facie* case not be made out in favor of the former, it would rest with the jury to express their sense of such conduct. It is not sufficiently borne in mind that no one has a moral right to administer an anæsthetic unless they have trained themselves thereto. The average student never gets a chance of acquiring any practical experience in this department, and he is therefore reduced to one of two alternatives, either to forswear the use of anæsthetics altogether or call in a specialist as occasion may require. The latter is the only course consistent with public safety, and a man who administers an anæsthetic without having been taught so to do lays himself open to censure.—*Medical Press and Circular.*

State Medical Board of California.

At the regular meeting of the Board of Examiners, held October 3d, 1888, the following physicians were granted certificates to practice medicine and surgery in this State:

- DAN PUTNAM ALBEE, Blocksburg; Coll. of Physicians and Surgeons, N. Y., May 10, 1888.
- HENRY ARNOTT, Los Angeles; University of Toronto, Canada, June 8, 1870, and College of Physicians and Surgeons, Ontario, Canada, April 20, 1870.
- CHAS. P. BAGG, Los Angeles; Med. Coll. of the Univ. of Southern Cal., Cal., April 11, 1888.
- WILL. C. BRUMFIELD, San Diego; St. Louis Med. Coll., Missouri, March 7, 1877.
- FELIX A. CALLAHAN, Grafton; Med. Dept. Univ. of Oregon, April 2, 1888.
- S. E. CAPPER, Santa Paula; Louisville Med. Coll., Louisville, Ky., Feb. 25, 1880.
- EDW. F. CUNNINGHAM, Campionville; Beaumont Hosp. Med. Coll., Mo., March 15, 1888.
- BERNARD DALY, Lake View, Or.; Med. Dept. Univ. of Louisville, Ky., March 1, 1887.
- JOHN R. DORROH, Sheep Ranch; Miami Med. Coll., O., March 5, 1884.
- THOS. A. FAIRBAIRN, San Diego; Bellevue Hosp. Med. Coll., N. Y., March 1, 1867.
- SARAH VAN TUYL B. FLEMMING, Colorado; Coll. of Med. and Surg. of Syracuse Univ., N. Y., Feb. 23, 1873.
- JOHN MICHAEL FUCHS, San Francisco; Philadelphia Coll. of Med., Phil., Penn., July 7, 1855.
- DENNIS S. GREEN, Pasadena; Jefferson Med. Coll., Penn., April 2, 1885.
- FORTUNATO HERNANDEZ, San Francisco; Med. School of the City of Mexico, Mex., Aug. 3, 1886.
- HESTER ANN HEWLINGS, Los Angeles; Woman's Med. Coll. of Pennsylvania, Penn., March 15, 1883.
- WALTER B. HILL, San Jose; Jefferson Med. Coll. of Philadelphia, Penn., March 10, 1864.
- ANTOINETTE WRIGHT HINTON, San Francisco; Woman's Med. Coll. of New York Infirmary, N. Y., May 29, 1885.
- SIEGMUND KNOFF, Los Angeles; Bellevue Hosp. Med. Coll., N. Y., March 12, 1888.
- MARTIN KROTOSZYNER, San Francisco; Univ. of Leipzig, Germany, Aug. 12, 1887.
- JOHN M. MACLEAN, Riverside; Med. Dept. Univ. City of New York, N. Y., March 11, 1884, and King and Queen's Coll. Phys., Ireland, July 14, 1885.
- GEORGE D. MARVIN, San Jose; Detroit Coll. of Medicine, Mich., March 23, 1886.
- CHAS. LARKIN McCRAKEN, Oakland; Univ. of Toronto, Canada, June 8, 1881.

SAMUEL B. MILLER, Modesto; Rush Med. Coll., Ill., Feb. 26, 1878.

CHARLES P. MURRAY, Lamanda Park, Coll. of Phys. and Surg., New York, Feb. 28, 1879.

JOHANNES P. NANNINGS, Livermore; Med. Dept. Univ. of Leiden, Holland, June 23, 1888.

WILLIAM F. PERRY, Perris; Kentucky School of Med., Ky., June 30, 1885.

HENRY C. RANKIN, Monrovia; Bellevue Hosp. Med. Coll., N. Y., March 14, 1887, and Ohio Med. Coll., O., March 10, 1886.

JOHN B. STONE, San Diego; Med. Coll. of Ohio, O., Feb. 28, 1877.

CHARLES TOOLE, Valley Springs; Coll. of Phys. and Surg. of Baltimore, Md., March 25, 1886.

RICHARD G. TYNER, Forest City; Royal Coll. of Surgeons, Ireland, April 28, 1877, and King and Queen's Coll. of Phys., Ireland, July 11, 1877.

Twelve incompletely completed applications were laid over and the Secretary was instructed to notify the applicants to complete the same without delay, or show sufficient cause for further continuance. A communication was received from G. Beaumont, of San Diego, stating that the unprofessional advertisements complained of had been withdrawn. Communications were received from Los Angeles, Modesto, Sacramento and Woodland, on the subject of prosecutions. Edward Davison, of Woodland, was arrested for practicing without a license. His case will be ably and earnestly prosecuted by the indefatigable District Attorney, F. S. Sprague, to whose intelligence and industry was due the successful prosecution of A. O'Leary last year. It will be remembered that the Supreme Court rendered its first decision in this case in favor of the defendant; but upon petition by Mr. Sprague, sanctioned by the Attorney-General, the case was re-opened, and finally decided in favor of the people. The Secretary presented the decision of the Supreme Court in the case of the People *v.* P. Roscoe McNulty, who was convicted in the Police Court, and again in the Superior Court, and carried on *habeas corpus* to the Supreme Court. By an ingenious method of reasoning the Court arrived at the conclusion that the law provides a penalty only for those who practice medicine without first having procured a certificate from one of the Boards of Examiners. They failed to find any law to convict one of practising without a certificate after the same has been revoked. It will be remembered that McNulty's certificate was revoked on the charge of unprofessional conduct. This decision was concurred in by four members of the Court, of whom Justice Sharpstein was the feed attorney of the illegal practitioners before he was exalted to the position of Supreme Justice, chiefly through the

influence of the Kearny element of society. Chief Justice Searls dissented. Justice Temple was absent from illness, and Justice McKinstry, on the eve of his resignation, declined to participate.

This decision demonstrates the necessity of the Board's exercising greater care in granting certificates where there is any question of professional conduct.

It also demonstrates the necessity of passing the new bill recently adopted by our State Society. We again call upon the profession throughout the State to aid the Board in its efforts to enforce the law. Look after your would-be representatives, and other officers in the coming election.

Make it a professional matter, rather than a political one. Let us support those who support us. The profession is more than two thousand strong in this State, and may hold the balance of power.

Chas. E. Blake then offered his resignation as President of the Board which was accepted, and Chas. H. Steele was elected to fill the vacancy.

R. H. Plummer then called up his resignation as Secretary presented at the September meeting, which was read and accepted, and Chas. E. Blake was elected to fill the vacancy, with office at 431 Geary street.

R. H. PLUMMER.

Secretary.

Grafting a Nerve.

Dr. Ernst Fleischl, Professor of Physiology in the University of Vienna, who was one of the Austrian Commissioners at the Centennial Exhibition, recently submitted to one of the most curious surgical operations on record. In consequence of blood-poisoning from a dissection, he had been for years a sufferer from excruciating neuralgic pains, accompanied by swellings. The eminent surgeon, Prof. Billroth, had failed to give permanent relief by repeated operations, and finally gave up the case. Recently Billroth's assistant, Dr. Gersuny, called his attention to a similar case on record in which a cure had been achieved by a resection of the diseased nerve and the substitution of the corresponding nerve of a rabbit. Prof. Billroth urged Dr. Fleischl to assent to a like operation, which Dr. Gersuny performed with complete success.—*The Medical Register.*

Health Reports.

San Francisco Health Report.

ABSTRACT.

	1887	Jan	Feb	Mar	Apr	May	June	July	Aug.	Sept.
Total, 1887.....	5649	522	451	445	450	475	409	459	409	427
Total, 1888.....		650		488	502	504	479	519	478	425
Phthisis.....	858	89	78	87	90	75	74	72	71	68
Pneumonia.....	320	103	56	62	47	39	41	39	32	19
Bronchitis.....	127	25	31	14	11	19	9	12	13	9
Heart Disease.....	273	43	27	26	29	22	34	35	31	27
Aneurism.....	27	0	3	4	2	0	0	4	2	1
Apoplexy.....	147	11	15	22	8	18	13	14	11	12
Typhoid.....	121	23	8	6	13	12	16	12	10	18
Paralysis.....	109	16	8	7	8	9	3	9	11	10
Cancer.....	174	18	21	17	15	22	8	24	15	11
Diphtheria.....	222	10	15	7	11	15	5	7	12	5
Croup.....	92	10	6	4	5	6	3	4	7	8
Infant Cnvlsns.....	156	12	13	13	10	18	14	16	9	11
Meningitis.....	130	18	20	16	21	12	21	10	14	3
Casualties.....	174	12	15	10	16	22	19	18	22	11
Suicides.....	84	8	5	9	10	6	4	5	6	4
Homicides.....	21	2	5	2	2	2	1	1	0	3
Small Pox.....	24	27	9	4	4	2	0	2	0	2
Enteritis.....	..	17	..	12	11	19	21	9	9	11
Measles.....	..	11	5	2	1	1	0	0	0	0
Alcoholism.....	..	..	5	3	4	2	6	3	7	4
Daily mean tem ...		46.3°	52.8°	52.5°	56.2°	54.4°	61.°	59.1°	57.8°	59.°
Precip. moist're...		6.81	0.94	3.60	.11	.38	.27	.01	.01	.98

Population according to U. S. census, July 1st, 1880, was 234,520; Caucasian, 212,520; Chinese, 22,000. Estimated population, June 30th, 1887, 330,000; Caucasian, 300,000; Chinese, 30,000.

Report of State Board of Health.

Mortality reports received from sixty-four cities and towns, with an estimated population of seven hundred and two thousand seven hundred, record the deaths therein at eight hundred and eighty-two, giving a monthly percentage per thousand of 1.25, or an annual death rate of 15 per thousand, which is the same as that in August, and unmistakably shows the healthy condition of the State, and how exceedingly low our death rate is compared with that of any other State in the Union. The principal causes of death were :

Consumption, which carried off one hundred and sixteen de-

cedents, the larger number dying in San Francisco, where such cases congregate in large numbers.

Pneumonia was fatal in thirty-eight instances, which is a slight decrease from last report, but large enough to indicate an increase in the frequency of the disease.

Bronchitis caused fourteen deaths, all of which occurred in the coast counties, except one, which is credited to Oroville.

Congestion of the lungs was fatal in five instances.

Diarrhoea and dysentery were fatal in fourteen cases, which shows an abatement in the prevalence of the disease.

Cholera infantum, although abating, gives a record of thirty deaths, which is the same as recorded last month.

Diphtheria was fatal in twenty instances which is a decrease of eleven from last report. Only five deaths occurred in San Francisco from it. Five were reported from Oakland, four from Los Angeles, two from Nevada City, two from St. Helena, one from Stockton, and one from Santa Barbara.

Croup. Fourteen deaths are recorded from this disease; eight in San Francisco, three in Oakland, two in Los Angeles, and one in Lincoln. In all these places diphtheria was present. The inference is therefore strong that all these cases were diphtheritic.

Whooping-cough was fatal in six instances.

Scarlet fever is credited with four deaths; one in Hollister, one in San Jose, one in Red Bluff, and one in San Francisco. The disease is not prevalent.

Measles caused no deaths this month.

Smallpox was fatal in two instances, both occurring in San Francisco.

Typhoid fever is beginning to increase our mortality tables, forty-two deaths being recorded against it; nearly double the number of those dying in August.

Typho-malarial fever has, however, only four deaths attributed to it.

Remittent fever, on the contrary, records seventeen deaths, an unusual number; not quite as many as were attributed to it last month by one.

Cerebro-spinal fever caused seven deaths; three in San Francisco, two in Santa Rosa, one in Tulare, and one in Woodland.

Erysipelas was fatal in three instances.

Heart disease is credited with fifty-one deaths.

Alcoholism was fatal to eight decedents.

The following towns, with an estimated population of fourteen thousand four hundred, report no deaths during the month: Anderson, Bodie, Castroville, Colfax, College City, Colton, Dixon, Elk Grove, Fort Bidwell, Lemoore, Millsville, Newman, Ontario, Sierra City, Shasta and Wheatland.

PREVAILING DISEASES.

Reports received from eighty-five localities in different parts of the State all agree upon the extreme healthfulness of their respective districts.

Cholera infantum was observed in several instances in San Bernardino, Sisson, Elsinore, Dixon, Sacramento, and Oakland.

Diarrhoea and dysentery is mentioned in reports from Lincoln, Elsinore, Shasta, Benicia, Weaverville, Anaheim, San Bernardino, Fresno, Sisson, Downey, Livermore, Tulare, Fort Bidwell, Sierra City, Bakersfield, Gonzales, Marysville, Sacramento, Oakland, Pomona, Vallejo, and Truckee.

Smallpox, during the month, numbered twenty-four cases in San Francisco. In Stockton one case was imported from San Francisco; another appeared in Livermore, one case developed in Elk Grove, and one in Sacramento City. All were strictly quarantined, and so far the disease has not spread. For reasons heretofore given, we may look for a gradual increase of the disease. Prudence should, therefore, suggest that vaccination be insisted upon throughout the State, as time can alone tell whether the disease now commencing may develop an epidemic, or malignant tendency, or continue in the mild form assumed during the past winter and spring. Better far to prevent either by timely vaccination, which is safe and certain to protect those availing themselves of it.

Measles are mentioned as in Jolon.

Scarlet fever is lingering here and there throughout the State. The type is particularly mild, and the mortality very limited. It is noted in reports from San Francisco, Jolon, Anderson, Hollister, San Jose, Visalia, and Red Bluff.

Diphtheria. Nineteen cases were reported from San Francisco, where the disease is abating. In Oakland a good many cases occurred; also in Los Angeles. Sporadic cases were mentioned in St. Helena, Sonora, Sisson, Lincoln, Jolon, Etna Mills, Truckee, Nevada City, Santa Barbara, and Stockton.

Whooping-cough is present in St. Helena, Livermore, Angels Camp, College City, Chico, Petaluma, and Bakersfield.

Erysipelas was noted in Sacramento, San Bernardino, Fresno, Weaverville, Millville, Mariposa, Bakersfield, Oakland, and San Jose.

Typhoid fever is mentioned in reports from Anaheim, Sisson, Alturas, Jolon, Newman, Livermore, Fort Bidwell, Etna Mills, Truckee, Colton, Healdsburg, Jackson, Marysville, Oakland, Pasadena, Petaluma, Sacramento, San Bernardino, San Diego, San Francisco, Santa Ana, Santa Barbara, and Stockton. At this season of the year we expect typhoid fever to prevail more or less, but so far there have been only sporadic cases, without any tendency to become epidemic.

Remittent fever seems much more prevalent than any fever except the intermittent fever, and seems to take the form called bilious. It is reported in Fresno, Oakland, Oroville, Sacramento, San Bernardino, San Diego, San Francisco, Downey, Benicia, Sisson, Knights Ferry, Cottonwood, Newman, Lakeport, Tulare, Truckee, and Bakersfield.

Pneumonia is again mentioned in our reports, in different places. Fresno, Livermore, Ventura, Calistoga, Anderson, Bakersfield, Oakland, San Francisco, Santa Rosa, San Diego, Oroville, Los Angeles, Healdsburg, Red Bluff, and Chico.

Bronchitis is also noticed in reports from San Bernardino, Fresno, Cottonwood, Hopland, Bodie, Lakeport, Lemoore, Merced, Red Bluff, Santa Rosa, Oakland, and San Francisco.

Varicella, or chicken pock, is prevalent in Dixon and Mariposa.

Yellow fever. The presence of this disease in Florida, and its rapid dissemination into neighboring States, has caused some uneasiness in California, lest the large immigration from the South into this State might carry some of the infective germs with it into our warm valleys, where they would have all the requisites for development into destructive activity to the ruin of our State. To guard against such a possibility, the State Board of Health have appointed Dr. S. S. Herrick, an expert in the diagnosis of yellow fever, to visit our southern frontier, and ascertain the extent of our liability to infection either from Florida or Mexico, and to take every means known to science to guard against the entrance of yellow fever, if it should threaten us. A great many persons, with confidence begotten of an unfamiliarity with the disease, believe that yellow fever could not

exist in California, and, therefore, think that we have nothing to dread from intercourse with States afflicted with the disease, or countries where it is endemic. Experience, however, teaches us that special sanitary precautions are requisite whenever yellow fever approaches us within five days' travel, as within that time it may get into our State before the fever developed. Years of past immunity will not save us if once we permit the disease germs to get a lodgment in the warm valleys of our State. It is absurd to suppose that yellow fever could find no abiding place upon this coast; the same fallacy was entertained for years in Mazatlan, Le Paz, Guaymas, Hermosillo, and Rosario—the latter place 3,000 feet above the level of the sea, where, until within a few years since, the fever was unknown. Yet, when through carelessness and the belief in the invulnerability of the climate to such disease it was admitted, it not only decimated the inhabitants, but is now permanently established as endemic to these places.

Yellow fever requires simply the initial germ, a temperature of 70° to 80° , with a humidity of 70° to 80° , to flourish. The mean temperature of Southern California is between 70° and 80° during the warm months. The mean humidity, say of Los Angeles, is, August 77° , September 82° , October 80° according to Signal Service report of last year. The humidity of San Diego was 79° , 80° , 82° for the same months. In Jackson, Florida, the mean temperature is 76° to 80° , and the mean humidity is respectively 82° , 82° , 80° ; so that as far as the temperature and humidity of Jackson, Florida, and that of our southern border, there is not much to choose between them. In the Sacramento Valley the mean humidity is for the same months 58° , 59° , 70° ; so that the greater dryness of the air would render us less liable to cultivate the disease, but the truth must be acknowledged, that we are as yet ignorant of the limits within which yellow fever can be confined. Therefore, instead of waiting for it to enter our doors for the purpose of experimenting as to whether it can or cannot live in California, the State Board of Health concluded that the safest course for the State to pursue was to exclude it altogether, if ceaseless vigilance and unremitting attention to complete sanitation can accomplish such purpose.

PACIFIC COAST WEATHER FOR SEPTEMBER, 1888.

The September just passed has been an unusually warm month over all the country west of the Rocky Mountains. The

greatest departures from the normal temperature occurred in Idaho and Nevada, where the mean temperature for the month was nearly fifteen degrees above the average mean for September. In Northern California the mean temperature was about ten degrees above the normal in the interior and three degrees along the coast, and in Southern California about five degrees above the normal.

The rainfall for the month was light, except in the central portion of California, where heavy showers of rain, accompanied by thunder and lightning, fell on the fourteenth and fifteenth.

GERRARD G. TYRELL, M. D.,

Permanent Secretary California State Board of Health.
Sacramento, October 10, 1888.

How to Administer Sulphonal.

The *Chemist and Druggist*, in an article on sulphonal, states that the sparing solubility of sulphonal is one of the chief difficulties which have to be dealt with in dispensing the remedy. It is placed on the market in the form of small white crystals, which powder easily, but the resulting powder mixes badly with water. Were there not this objection, the best form of dispensing sulphonal would be as powder, for, the dose being comparatively large (15 to 60 grains), pills are out of the question. The patient might, however, take a powder dry on the tongue and wash it down with water, or, better, it may be taken in rice paper. In mixture, the drug requires the addition of something viscous to suspend it, otherwise the powder rises to the surface of the liquid as soon as agitation ceases. For a draught it advises the following formula as a suitable one: Sulphonal, gr. xxx; syrup, mucilage of acacia, aa fʒii; distilled water, fʒi.

Powder the sulphonal, and mix the syrup with it in the mortar, then the mucilage diluted with three fluid drams of water. Wash out the mortar with the rest of the water. Dr. Lovegrove recommends compound tragacanth powder for suspending sulphonal, and it may be used if the viscosity is not objected to. The remedy makes a good pill with glycerine and tragacanth, but, as already stated, the dose renders this form of administration objectionable.

Sulphonal is practically tasteless, the extremely slight bitter after-taste of the aqueous solution being observable only to those who expect it, and not to the ordinary patient—*The American Medical Digest.*

PACIFIC MEDICAL AND SURGICAL JOURNAL
AND
WESTERN LANCET

EDITOR:

WILLIAM S. WHITWELL, A. M., M. D.

The Editor is not responsible for the views of contributors.

All communications relating solely to the editorial management of the JOURNAL, should be sent to No. 438 Bryant St., San Francisco.

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SAN FRANCISCO, NOVEMBER, 1888.

Editorial.

YELLOW FEVER IN 1888.

The reappearance of yellow fever in Florida the present year was an event clearly to be apprehended after its existence in 1887 at Tampa, Monatee and Plant City; and that it has become an actual fact is just as clearly the result of bad sanitation. Those places are small enough to have undergone a thorough process of cleansing and disinfection during the interval between the two summers, by which it is reasonably sure that the wintering over the infection might have been prevented. This was the proper business of a State Board of Health, which the legislature of Florida, in its shortsighted parsimony, has not yet seen fit to organize; nor had the Governor the wisdom to call a special session for this specific purpose. Now it can hardly be doubted that the calamity presses so painfully by its destruction of life, its interruption of traffic, its arrest of business and its damage to the future prosperity of the State, as to compel the creation of a State board, amply provided with means and abundantly clothed with power.

In respect to rate of mortality, this epidemic of yellow fever

is exceptionally mild, showing a ratio of less than ten per cent. This fact and the indisposition of the infection to spread with its accustomed rapidity, indicate less violence of the specific cause than was found in the grievous visitation of 1878, which spread over the greater portion of Louisiana, Mississippi and Tennessee, and invaded Alabama, Arkansas and Kentucky. Decatur, Alabama, and Jackson, Mississippi, are the only two places outside of Florida which have seriously suffered this year, though the alarm has been so profound as to cause resort to the barbarous "Shot-gun Quarantine" almost to the same extent as in 1878.

The culpability of the citizens of Florida in this instance has been manifested not only in neglecting preventive measures after the warning of 1887, but also in the concealment of the first cases of 1888 at Jacksonville, through apprehension that its usual influx of Northern visitors would be warned off during the coming winter. For such an offense against the confidence of strangers it is now clear that there will be a heavy future reckoning, in addition to the present penalty. Surely in sanitary matters honesty is true policy.

Here it is gratifying to note in contrast the prudence of our California legislature, in appropriating a contingent fund for the prevention and suppression of contagious diseases. Though the danger appeared by no means imminent, the State Board of Health, at a special meeting called for September 29th, determined to send a yellow fever expert to the southeastern extremity of the State, in order to forestall any danger of invasion by contagious disease (whether yellow fever or small-pox). For this service Dr. S. S. Herrick, for some months Assistant Secretary of the San Francisco Board of Health, was selected, as he was known to have had large experience with those diseases.

At present writing (November 1st) we are able to state that he has travelled as far as Guaymas, whence yellow fever spread through the Mexican State of Sonora, and two cases even

reached Los Angeles in 1885; and that he has found no trace of the disease this year. It is further to be hoped that this investigation will be extended to the other Pacific ports of Mexico, and even to Panama, so that our State Board of Health may gain precise information of the actual health of those places and of their liability to become foci of infection. "To be forewarned is to be forearmed."

THE BOVINE PLAGUE.

An outbreak of pestilence among cattle in the Salinas and San Joaquin Valleys, which has come to light the present month, threatens the most serious consequences, not only in pecuniary loss to the owners of the animals, but to the health of consumers of their flesh. Though at the present moment the investigation is not complete, it appears that more than one distinct disease of a contagious nature is now raging extensively in Southern and Central California, and perhaps three or four in all. These are anthrax, the Texas fever (so-called), actinomycosis (or big-jaw), and tuberculosis.

Already the San Francisco Board of Health have taken action to prevent the slaughtering of these diseased cattle in the city for its ordinary meat supply, by the employment of Dr. Thomas Bowhill, Veterinary Surgeon, and several additional market inspectors; and there is evidence that their labors have not been fruitless. It is to be hoped that the Board of Supervisors may make provision for the permanent employment of this additional force, for a duty which has long been clearly beyond the power of one market inspector adequately to discharge.

The State Board of Health, at its recent quarterly meeting, also took the matter into consideration, and determined to open communication with all local health authorities and the supervisors of various counties in relation to cattle diseases, calling upon them to take steps to stamp them out wherever existing ; also to send a competent veterinary surgeon to visit those coun-

ties where suitable action shall not have been taken within sixty days. Here it seems opportune to remark, that the time has come when the State Board of Health should have permanently in its service a competent sanitarian for the purpose of visiting any point, within or without the borders of the State, to learn whether any danger threatening the lives and health of our population actually exists, and to use all the means which the law may confer on the Board to ward off or suppress the same. Another suitable duty for such an officer would be the inspection of all public institutions, in whole or in part sustained by State appropriations. The certainty that their mode of administration and sanitary condition would be made the subject of annual report to the Governor and Legislature would go far toward keeping them up to a high state of efficiency.

With special reference to the subject of diseased cattle, we are clearly of the opinion that the true remedy for San Francisco is a public *abattoir*, in which all the animals destined for its supply of fresh meat should be slaughtered. Here all these animals could be satisfactorily inspected beforehand, diseased animals could be discovered, and all danger of diseased meat be obviated. The Health Department should constantly supervise both the inspection of the animals and the sanitary condition of the *abattoir*. The present troubles afford an advantageous opportunity for the health authorities, both State and city, to move in the matter; and it is to be hoped that the public press will take an interest and urge the adoption of such a measure with all its energy.

DR. FORMAD says: "My experience has taught me that cirrhosis with contraction of the liver is at least as rare an affection in drunkards as it is in 'teetotalers, and that the traditional 'hobnail' or 'gin drinker's' liver is not diagnostic at all, while the large, fatty liver is one of the most prominent signs of alcoholism. The facts are that in 250 drunkards, I found enlarged fatty livers 220 times, and the contracted cirrhotic liver, but six times." — *Northwestern Lancet*.

Correspondence.

Johns Hopkins Hospital and College.

BALTIMORE, Md., Oct. 17, 1888.

ED. LANCET:—I have just completed a tour of the above institution, the future of which I believe will mark an advance in medical history and inaugurate another step in higher medical education. This great hospital which has been in process of construction for ten years is now complete and ready for furnishing. It is situated upon a commanding eminence overlooking the city and occupies fourteen and one-third acres of ground. The buildings are arranged around the sides of a quadrangle leaving a central square of the finest lawn divided by neat walks into artistic plots. There are sixteen different buildings, separated from each other by intervening spaces of sixty feet, united by connecting corridors. The architectural style throughout is Queen Anne. The outer walls are of pressed brick with blue stone trimmings, while the roofing is of slate. The administration building is an imposing three story structure in the middle front of the quadrangle. The interior is finished in solid carved oak wainscoting, with massive doors and window casings of the same wood. The floor of the great vestibule is of variegated marbles. The first floor of this building is dedicated to the various offices of superintendence and administration and comprises the directors' rooms, parlors, library, visitors and waiting-rooms. The second floor will be occupied by the resident physician and staff. The third floor is dedicated to the use of the post graduates of the Johns Hopkins University. Separated from the main building is the nurses department, commodiously arranged for the accommodation of sixty-five nurses, with parlors, sewing rooms, dining room and library. A separate building sixty-five by forty feet is skilfully arranged for the use and accommodation of the Turkish, Russian, electric and other medical baths. There are two large pay wards, one male and the other female, accommodating thirty patients in each ward. Here each patient can be accommodated with elegant rooms, single or *en suite*, as necessity or fancy may dictate. The common wards are one-story buildings containing twenty-eight beds each. The *isolating* ward for contagious diseases is a one-story building containing twenty-eight bedrooms.

These rooms are furnished with a double set of doors separating them from the corridor. The *excreta* of the patient is deposited in an earth closet, that occupies a zinc lined compartment entirely cut off from the room itself, and is removed through a trap opening into the corridor without the necessity of entering the apartment of the patient. The octagonal ward is a large two-story building containing sixty beds, together with the necessary service department, dining room, etc. This building is arranged with every attention to comfort and convenience, and is to be devoted entirely to the use of convalescent patients. The operating amphitheater is a well arranged structure capable of seating two hundred students. Adjoining and upon the same floor is the receiving room, the examining room, bath room, ether room, bed rooms, etc. The deadhouse is also an elaborate structure. It contains the autopsy room, friends' waiting rooms, photographic department and pathological rooms. The relation of air-space to patient, and the ventilation of each and every department in this vast establishment are most perfectly observed. The system of heating is by *indirect radiation*. The warm air is admitted at the bottom of the room opposite the beds, and the escape of the *consumed* air is provided for by eight-inch openings at the foot of each bed, which communicate with a large metallic box beneath the floor, that leads to a large brick chimney having a steam coil near the top to ensure a strong draught. In this manner a supply of air at *any* temperature can be admitted into each ward. The warm air as it enters rises to the top of the room, while the cooler contaminated air falls below and is *drawn* out through the openings provided for its escape in the floor. Experiment demonstrates that the entire volume of air in a given room can be *completely changed* in ten minutes. Open fire places are used in all of the pay wards and private rooms, the escape of *consumed* air being provided for at the back of each fire flue. Nothing has been omitted in construction that could add to the sanitary keeping of the establishment. There are no *square* cornered apartments—circles at the junction of all walls render cleanliness and disinfection easy. The ward floors are of selected Georgia pine, oiled and rubbed to a glossy hardness and lustre, and the closets and bath-room floors are covered with a patent cement as hard and smooth as marble. The kitchen resembles in construction and appointments that of a first-class metropolitan hotel. There is an out-door free dis-

pensary, containing twelve physicians' offices, and a large apothecary establishment. It is likewise capable of seating and warming two or three hundred patients. Every ward, hall, nurses' apartment, doctors' and officers' room, contains a large air clock of uniform construction run by a large central clock in the main building, thus securing a perfect uniformity of time for the entire establishment. The injunction in the will of the late Johns Hopkins requiring his executors, "to construct the most perfect hospital in the world," has been accomplished. Two millions, two hundred thousand dollars have been expended upon the present system of buildings. During the course of construction the most eminent scientists of Europe and America have been consulted, and every detail of this great work has been suggested or revised by the most enlightened men of the age. The medical college building of the Johns Hopkins University will be completed within the next three years, and advanced medical instruction will be regularly begun under the auspices of the university by the best teachers to be had. Advanced pupils can matriculate at the university taking the so-called "Chemical-Biological" course of three years, giving the student a comprehensive basis for a sound medical education. This school will shortly possess every available facility for advanced training in the medical and collateral sciences, and it is not too much to believe that the Johns Hopkins medical course of six years will be sought and appreciated by men who desire as thorough a medical education as can be obtained of the universities of London, Paris or Berlin. This Hospital is the finest and most complete in the world, said a noted English scientist yesterday, and I predict that the medical school will attract students from every land.

W. S. THORNE.

State Mortuary Commissioners.

SAN FRANCISCO, CAL., Oct. 22, 1888.

EDITORS OF THE WESTERN LANCET:—It frequently falls to the lot of the physician to witness suffering, whose pangs he can only temporarily alleviate; and it also happens that he is forced to witness suffering which is beyond his power to soften. The friends of such sufferers sometimes importune him for more lasting relief than he gives; and not infrequently suggest that

the physician has the power to give some potion by which the sufferer may gently and painlessly pass into that deep sleep from which there is no earthly awaking. "Will he not kindly give such a boon to the poor sufferer?"

For example : A case of malignant cancer is before us. The patient must die of this painful disease. The final event may be delayed for days, weeks, months ; and, perhaps, a year or more of this dreadful suffering may pass away before the prayed-for relief arrive in death. Is there no help for such poor sufferers? Cannot the humanity that interests itself for dogs, cats, cattle and the remainder of brute kind find a little practical humanity for the stricken and suffering of its own kindred and race? Sentiment seems to forbid that man should in any wise shorten the span of human life on earth ; but shall a false and superstitious sentiment bar the way to a practical embodiment of humanity for humankind ? Shall we be kinder to the dumb (and less sensitive brutes) than to the more keenly suffering members of our kind ?

These thoughts have been forced upon me, because of direct appeals made to me to administer such relief to a mortal sufferer as has been pointed out above.

As a healer of the woes and sufferings of mankind, the physician has nothing to do with sentiment. His efforts lie in the direction of facts, as these meet him in his beneficent work, in society ; and out of such sorrowful facts as the above, there arises the practical question: may not society wisely plan some judicious means by which the sufferings incident to lingering, malignant disease may be mercifully and legally shortened?

Let us suppose society educated to look properly upon this matter. Then—that the State appoint local commissioners, in different local centers of the State. Let these commissioners be men of the highest moral character and professional ability among the local, medical faculty. To these medical men of high moral character and professional ability let there be added one or more members of the legal profession. Let it be the duty of these local boards to examine into the facts, proprieties and necessities of each case which might claim its humane counsel ; and in case the individual in whose behalf the advice and authority of the counsel was claimed in the dire extremity of incurable disease and dreadful suffering ; let the Mortuary Commissioners have the authority to sanction the administration,

by the medical attendant, of some medicinal agent by which the poor sufferer might gently and painlessly enter into rest.

Of course, such a power might be abused ; but, if hedged about with proper safeguards, it might be made a merciful means of humanity for humanity.

I merely suggest this, hoping it may draw out discussion and eventuate in something practical for poor, suffering humankind.

Respectfully yours,

HUMANITAS, M. D.

Paralysis Agitans.

The following are the conclusions of an interesting article by Dr. Leonard Weber, of New York City, in the June No. of the *Journal of Nervous and Mental Disease*.

1. In the pathology of the paralysis agitans we have not come much further than at the time when Parkinson first described the same.
 2. The progressive tremor, while the patient is awake and the muscles are passive, and the progressive motor weakness, are as yet the pathognomonic symptoms, while the absence of both the intention-tremor and the contractures of spastic paralysis distinguishes it from disseminated sclerosis.
 3. In the etiology of two of my cases an hereditary element can be proved ; but emotional influences and long exposure to damp cold appear to be the most potent excitors of the disease.
 4. In the fully developed stage of paralysis agitans the patients often suffer greatly by neuralgias and otherwise, and need our help as much as those who may be afflicted with more malignant disease. Opiates afford no relief, and are contra-indicated according to common experience. Hyoscyamin combined with tonics is praised highly by many authors. Antipyrin in 15 to 20 gr. doses, and particularly paraldehyde in 3ss. doses at bedtime, have proved quite efficacious in my hands to alleviate part of the sufferings of these invalids.—*Virginia Medical Monthly*.
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Preserve Your Instruments.

To preserve your instruments from rusting, immerse them in a solution of carbonate of potash for a few minutes, and they will not rust for years, not even when exposed to a damp atmosphere.—*Columbus Medical Journal*.

Notices of Books, Pamphlets, etc.

A REFERENCE HAND-BOOK OF THE MEDICAL SCIENCES, EMBRACING THE ENTIRE RANGE OF SCIENTIFIC AND PRACTICAL MEDICINE AND ALLIED SCIENCE. By various writers. Illustrated by chromolithographs and fine wood engravings. Edited by ALBERT H. BUCK, M. D. Vol. vi. New York : Wm. Wood & Co., 1888. San Francisco : W. S. Duncombe & Co.

The earlier volumes of this extensive and valuable work we have already noticed in this JOURNAL, the present one being their equal in information and interest. The subjects touched upon include those between pregnancy and tenotomy, and are treated to as full an extent as space will allow. The microscopic wood-cuts are especially good, and the botanical cuts well executed. The following articles are worthy of especial mention: Sanitary Plumbing; Sphygmographic Traces of Pulse Wave; Resection; Septicæmia; Sewerage; Spinal Nerves and Their Distribution; The Stomach and Syphilis.

Standard authorities are frequently quoted, and at the end of many of the articles will be found a list of authorities which have been drawn upon and a reference to some standard work where the subject under discussion is more fully treated, with the name of the book and number of page, thus saving labor, time and trouble.

The foot-notes are numerous and well written. Altogether the work is a valuable one, especially desirable for students and country practitioners.

A SYSTEM OF GYNECOLOGY. By American authors. Edited by MATTHEW D. MANN, A. M., M. D., Professor of Obstetrics and Gynecology in the Medical Department of the University of Buffalo, N. Y. Vol. ii. Illustrated with four colored plates and three hundred and sixty-one engravings on wood. Lea Brothers & Co., Philadelphia, 1888. The Dewing Publishing Co., San Francisco.

The earlier volume of this extensive and valuable work we have already noticed in this JOURNAL for September, 1887. The price for each volume being from \$5 to \$7, depending on the binding. There are four volumes. In this volume there are many well written articles from men well known in this specialty. Extra-Uterine Gestation, by Prof. T. Gaillard Thomas, is especially good. Tumors of the Breast, by Prof. Samuel Gross; Malignant Diseases of the Uterus, by Dr. W. T. Lusk; Lacera-

tion of the Cervix Uteri, by Dr. Bache McE. Emmet; The Treatment of Ovarian and of Extra Ovarian Tumors, by Prof. Goodell; Diseases of the Fallopian Tubes, by Drs. Coe and W. Gill Wylie; and Clinical History and Diagnosis of Pelvic Tumors, Other Than Uterine and Tubal, by Dr. M. D. Mann, the editor.

The article written by Dr. Engelmann on Hystero Neurosis is well worth reading. A number of cases are given, showing that the attending physician's diagnosis was erroneous and necessarily his treatment and medication nil.

Prof. T. G. Thomas' essay on Extra-Uterine Gestation is brief and to the point. He claims that the following axiom should be followed as a rule in ectopic gestation, prior to viability of the child. "*A diagnosis of extra-uterine pregnancy being arrived at, destroy foetal life as promptly as possible.*" Prof. Thomas prefers the galvanic or faradic current, without acupuncture, to all other methods. At the end of this essay will be found a table of thirty primary laparotomies prepared by Dr. A. P. Harris.

The colored plates and wood engravings are well executed, especially those showing operative work about the vulva and in the vagina. The printing is on good paper and in large type, so that "he that runs can read." The work is an excellent one and is cheap for the price.

A MANUAL OF GENERAL PATHOLOGY, DESIGNED AS AN INTRODUCTION TO THE PRACTICE OF MEDICINE. By JOSEPH FRANK PAYNE, M. D., F. R. C. P. Philadelphia : Lea Brothers & Co.

In the present state of rapid change in our ideas on general pathology such a book as this before us is very interesting, and very useful. We, of course, get all the recent advances in the medical sciences in our journals, but our journals are read from day to day, our knowledge so acquired being necessarily disconnected, and we think this book is good and useful because it unites all such knowledge in orderly fashion, giving us an opportunity of forming more general views on the subjects in hand. From the size of the work the subjects are treated in as brief a manner as is consistent with clearness. The illustrations are numerous, well chosen, and good.

PAMPHLETS RECEIVED.

TRANSACTIONS OF THE AMERICAN ASSOCIATION OF OBSTETRICIANS AND GYNECOLOGISTS AT THE FIRST ANNUAL MEETING HELD IN WASHINGTON, D. C., VOL. XXXI—43.

SEPT. 18, 19 AND 20, 1888. Abstract reprinted from the *Buffalo Medical and Surgical Journal*.

HAND-BOOK OF PHARMACY AND THERAPEUTICS. Eli Lilly & Co. 1888.

THE PREFERABLE CLIMATE FOR PHthisis; OR THE COMPARATIVE IMPORTANCE OF DIFFERENT CLIMATIC ATTRIBUTES IN THE ARREST OF CHRONIC PULMONARY DISEASES. By CHARLES DENISON, A. M., M. D.

REPORT OF PROCEEDINGS OF THE ILLINOIS STATE BOARD OF HEALTH QUARTERLY MEETING. Chicago, October 25-26, 1888. Yellow Fever Epidemic of 1888—Unnecessary, Ruinous and Inhuman Quarantines—The “Danger-Line” in Yellow Fever, etc.

THE TREATMENT OF EMPYEMA: THE PROCESS OF REPAIR, AND METHOD OF SUBCUTANEOUS DRAINAGE AND IRRIGATION. With illustrative cases. By G. J. ROBERTSON, M. B., C. M. Reprint from *Medical Chronicle* for March, May, June and July, 1888,

VESICO-VAGINAL FISTULA. By REUBEN A. VANCE, M. D. Cleveland, Ohio.

THE PROGRESS OF MEDICINE MEASURED BY THE PROGRESS OF THERAPEUTICS. By SAM'L O. LEWIS POTTER, A. M., M. D. Reprinted (in part) from *Transactions of State Society* of 1888.

HOT WATER IN THE MANAGEMENT OF EYE DISEASES. By LEARTUS CONNOR, A. M., M. D.

THE TRADITIONAL ERRORS OF SURGERY. The Presidential Address at the Thirty-Ninth Session of the Medical Society of the State of Pennsylvania. By R. J. LEVIS, A. M., M. D.

ADDRESS ON RHINOLOGY. The President's Address before the American Rhinological Association. By CARL H. VON KLEIN, A. M., M. D., of Dayton, O.

RECTAL INSUFFLATION OF HYDROGEN GAS. By N. SENN.

PARTIAL SYLLABIC LISTS OF THE CLINICAL MORPHOLOGIES OF THE BLOOD, SPUTUM, FECES, SKIN, URINE, VOMITUS, FOODS, INCLUDING POTABLE WATERS, ICE AND THE AIR, AND THE CLOTHING (after Salisbury). By EPHRAIM CUTTER, M. D.

HOW FAR CAN LEGISLATION AID IN MAINTAINING A PROPER STANDARD OF MEDICAL EDUCATION? By W. A. PURRINGTON. Boston. 1888.

Effect of Cocaine.

Dr. R. H. Harrison, Jr., of Columbus, Texas (*Daniel's Texas Medical Journal*, June, 1888) says he was called to see a lady after a dentist had injected cocaine in the gum for the removal of a tooth. He found her insensible, pupils dilated, jaws locked, head drawn back, extensions of the arm contracted and hands clenched, respiration forty per minute, pulse full, 80, surface cold. She had then seven convulsions in rapid succession; after the last everything relaxed and she came out very prostrate, but in a few days made a good recovery.—*Virginia Medical Monthly*.

Extracts.

Should Inebriates be Punished by Death for Crime?

By T. D. CROTHERS, M. D., Hartford, Conn.

It is a common error to suppose that law and its practice, and the facts and theories of science generally accepted to-day, are final and fixed truths. The fact is not often recognized that theories, creeds, and laws, and their application to the events of life, are only human conceptions of truth. Hence the demand for change and readjustment of the relations of life to conform to the new truths and new facts constantly appearing. Whenever human conduct, thought, and law fail to adapt themselves to these new conceptions of life, great injury and loss follow.

The treatment of insanity, medically and legally, has totally changed from that of the past century. A better knowledge of such cases has demanded an adjustment of theory and practice to conform to the new views. The armies of the lawless and defective are no longer concealed by the fogs of superstition. Their origin and march are growing more and more distinct with every advance of the age. The hosts of the insane have been outlined and traced; the idiot has appeared as a growth from distinct causes; the epileptic has emerged from the theory of being possessed with an evil spirit; criminals are found who are not deceitful and desperately wicked, but the direct products of conditions of life and living; the inebriate, who for ages has been the subject of ridicule and punishment, comes into view as defective and diseased. Thus, from the front lines of advance come new facts, new views, requiring new laws, new adjustments of the theory and practice of yesterday to meet the clearer, wider knowledge of to-day. The farmer must put aside the old implements of his fathers; the merchant must use the telegraph and telephone because correspondence is too slow; the practice of the courts, the theory and treatment of diseases, the teaching from the pulpit, are all changing. The spirit of the age questions and demands reasons for the theories and practices of to-day. It inquires if our methods and theories are destructive or obstructive in the race march from the lower to the higher. My purpose is to show that the death penalty, as a means of punishment for inebriates, is opposed by all the teachings of science and experience, and should be superseded by other means based on a more accurate knowledge.

An outline view of the present legal methods of dealing with inebriates who commit petty crime will make clear both the destruction and obstruction which follow from the failure to comprehend and utilize the facts which science and experience teach.

Of the estimated half million inebriates¹ in this country, ten per cent are yearly convicted of crime of all degrees. Of this number, two per cent commit capital crime, and one per cent of this number, or about one hundred persons, are executed every year. These statistics are only approximate estimates, but they illustrate in a general way the extent of inebriety, and how far the courts are called to restrain and check it. A study of the local statistics show that in every town and city of this country a large part of the business of courts of justice is the legal punishment of inebriates. The inmates of jails and prisons who are inebriates are variously estimated at from fifty to eighty per cent of the whole number. Year after year the courts administer the same treatment of fine and imprisonment for both inebriety and crime, and yet the number of inebriates is increasing. When this fact is studied, it appears that a species of fatality seems to follow the first legal punishment of inebriates, seen in a repetition of the same offence and the same punishment, with an ever-increasing frequency. In the courts these are called "repeaters," and the number of sentences of the same man for the same crime in some cases extends into the hundreds. In one thousand cases confined on Blackwell's Island, nine hundred and thirty-five had been sentenced for the same offence from one or twenty-eight times before. This fatality seems to start with the first sentence and punishment; and the victim is precipitated lower and lower, becoming more degenerated and incapacitated, until finally death follows in prison, the insane asylum, or almshouse.

The natural history of such cases is continuous punishment for inebriety, assault, theft, burglary, and petty crime, and finally murder. Each period of punishment is followed by the same or more aggravated crime. The intent and purpose of the law is defeated, and this means of treatment both directly and indirectly increases crime and prepares the inebriate for worse and more hopeless states. The courts and prison officials are powerless, public opinion sustains the law and demands its execution irrespective of all consequences. The poor victims pun-

ished to-day reappear to-morrow, under arrest for the same or a worse crime. The severity of the punishment makes no difference. The inebriate who, under the influence of alcohol, commits assault to-day, will do so to-morrow, and next year, and so on, as long as his inebriety continues. No legal punishment of fines and imprisonment can stop him. The facts are sustained by the experience of all courts and prison officials. They are also equally true in the death punishment of inebriates for crime.

When the crime is the direct or indirect result of inebriety, it is only the natural outcome or logical result of conditions of brain disorder and surroundings. The assumption that inebriety is always a voluntary condition, within the control of the person, is a most fatal error. On this error is based the death penalty. Its practical failure is apparent in the increase of capital crime by inebriates. The inebriate who has been arrested for petty crime while intoxicated many times before, finally commits murder in the same condition, and is executed. His friends and companions do the same thing and suffer the same penalty. Thus one brutal murder committed in a state of intoxication is followed by another equally brutal, and the execution of the murderer makes no diminution in the number of similar crimes that follow. In every daily paper appear records of the same murders by inebriates under the same circumstances. A wave of public vengeance may dispose of the criminal by lynch law, or only be satisfied when he is hung, but the same murders are committed again by the same class of men. This is only the repetition of the same blunder of fining and imprisoning inebriates for inebriety and petty crime. In both cases the victims are destroyed, and similar offences are increased rather than diminished. In one case imprisonment and fines make the inebriate more incurable and less capable of change of life and living; in the other, the execution of the inebriate leaves a brutalizing, combative influence and a form of contagious glamor that defective brains are powerless to resist. These are the facts which experience and observation fully confirm, and which the latest teachings of science explain and point out.

To-day it is known that the action of alcohol on the brain and nervous system is anæsthetic and paralyzant. The use of alcohol to excess, at intervals or continuously, always numbs and paralyzes the higher operations of the brain; the over-stim-

ulated heart reacts, and depression and feebleness follow. All the senses are disturbed and become more or less incapable of transmitting the impressions which are received. The brain is incapable of accurately comprehending the nature of acts and the relation of surroundings when under the influence of alcohol. The palsy which follows from this drug masks all brain action. Delusions of vigor and strength appear; events and their consequences and motives and conduct are all exaggerated, misconceived, and misinterpreted, and the brain is unable to correct them. The pronounced delusions, illusions, delirium, mania, imbecility, and stupor, seen in states of intoxication, are only the advanced stages of brain conditions which begin with the first glass of spirits. The early changed conduct and speech of men who use spirits are the first symptoms of the paralyzing action of alcohol. More spirits are followed by more paralysis, and finally all judgment and experience, and all distinctions of right and wrong, of duty and obligation, are confused and unreal. The supposed brilliancy which follows from the use of spirits is unreal and transient—it is the glamor of the mind which has lost its balance and is unable to correct itself. No other drugs are known whose paralyzing effects on the higher brain centers are so positive and insidious. The inebriate and moderate drinker have always impaired brain force and nerve power. The automatic nature of their life and brain-work may cover up this fact; but change the surroundings and demands on the brain, and its incapacity appears. Every toxic state from alcohol more or less permanently impresses and debilitates brain integrity.

The fear of the law and consequences of acts make little impression in such cases. The brain is anaesthetized and crippled, and cannot realize events and their nature and consequences. The crime committed by an inebriate cannot be the act of a healthy brain. The more pronounced his inebriety and the longer its duration, the more positive the disease and incompetency to reason and control his acts. The effort to fix a point in all disputed cases where sanity and responsibility join insanity and irresponsibility, is an impossibility which every advance of science demonstrates. It is equally impossible to use alcohol to excess for years and have a sound, normal brain. It is impossible in such a case to fully realize the nature and consequence of acts and obligations. It is a legal fiction to suppose

that a crime committed while under the influence of alcohol was the voluntary act of a sane man. It is a legal fiction to suppose that a sane man would plan a crime and then become intoxicated for the purpose of executing it. It is a legal fiction to suppose that premeditation in crime committed by inebriates is evidence of sanity and consciousness of his acts. These are some of the facts of science which bring additional evidence of the error of capital punishment in such cases.

A study of the crime committed by inebriates amply confirms the fact of brain incapacity and disease. Thus in cases of capital crime by inebriates, delusions, illusions, morbid impulses, and epileptic explosions, are common symptoms. In many cases capital crime is the result of peculiar circumstances and sudden strains on the enfeebled brain, or the possession of a morbid impulse, a delusion, or illusion, that suddenly dominates the mind; also epileptic explosions, that are real attacks of maniacal fury and unreasoning. Alcoholic somnambulism or trance is present in many cases. The mind in these cases is oblivious to all outside influences or considerations, and is subject to every passing impulse that may come from either external or internal causes. At the time no general indications of unconsciousness may be present, yet a certain automatic line of conduct and history of crime give clear hints of brain enfeeblement. All crime by inebriates will be found associated with concealed or open delusions, morbid and epileptic impulses, and sense deceptions. In all these cases the brain is unsound and cannot act rationally and clearly. There are present in these cases either insanity of inebriety or the inebriety of insanity. The inebriety of the prisoner has merged into insanity, or some concealed insanity or brain degeneration has developed into inebriety or dipsomania. The death penalty to such cases has no horrors. It is rather welcomed. The struggle for life is the attractive publicity that makes a hero of the man, and the mystery of the end of life intensifies the interest to the last moment.

A summary of the facts we have outlined would sustain the following statements:

1. The legal treatment of insanity has changed in obedience to a more accurate knowledge of the brain and its diseases.
2. The legal treatment of inebriety is unchanged to-day. Although it occupies two-thirds of the time of courts, all teach-

ings of science and a larger knowledge of the inebriate and his malady are ignored.

3. The ruinous error of punishment by fine and imprisonment of inebriety, and petty crime associated with it, which notoriously increases and perpetuates the inebriate and criminal, is a fact demonstrable in every community.

4. Thus public opinion, through mediæval theories and laws, is training and preparing a class of inebriates who first commit petty, then capital crime, with a certainty which can almost be predicted.

5. The death penalty for such crime utterly fails for the same reason. The execution of any member of this class simply opens the door for an army already prepared and trained to take their places.

6. From a scientific study of these cases, it is clearly apparent that they are diseased and incapacitated to act sanely. Alcohol has palsied the brain and made them madmen. The very fact of continuous use of alcohol is evidence of mental impairment and unreasoning act and thought.

7. To hold such men accountable for their acts, and by punishment expect to deter them from further crime, and by such punishment check others from similar crime, is an error which both scientific teaching and experience point out.

8. The object of the State, through the law, is to protect society and the individual; but if the execution of the law-breaker fails to accomplish this end, the laws are wrong.

9. The unfounded fear that the plea of insanity in crime, and the failure to punish, is an encouragement for further crime, is flatly contradicted by statistics.

10. Among the mentally defective, the insane, and inebriates, the death penalty is followed by an increase rather than a diminution of crime.

11. The inebriate should never be hung for crime committed while under the influence of alcohol.

12. This method of punishment is never deterrent, but furnishes an attraction for other inebriates who commit similar crime in the same way, following some law of mental contagion.

13. The inebriate murderer should be confined the rest of his life in a military work-house hospital. He should be under the care of others, as incapacitated to enjoy liberty and incompetent to direct his thoughts or acts.

14. A change of public sentiment and law is demanded, and a readjustment of theory and practice called for. The criminal inebriate occupies a very large space among the armies of the defective who threaten society to-day, and his care and treatment must be based on accurate knowledge, not theory.

15. Inebriate murderers should never be placed on public trial, where the details of the trial are made prominent, or the farcical questions of sanity are publicly tested. They should be made the subject of private inquiry, and placed quietly in a work-house hospital, buried away from all knowledge or observation of the world.

16. The contagion of the crime and punishment would be avoided, and his services might repair some of the losses of society and the world.—*The Medical Record.*

Address on Some of the Recent Advances in Surgery.

(Read before the Surgical Section of the Canadian Medical Association, at Ottawa, September 12th, 1888.)

By FRANCIS J. SHEPHERD, M. D.

Mr. President and Gentlemen.—When informed by our worthy President that I was appointed to deliver the address on Surgery before this Association, I felt that the duty might have devolved on one much more competent of treating this great subject satisfactorily; one who had the faculty of making his address interesting to every one of you. When writing me, Dr. Graham said that the address should be limited to a period of—well, say that of an ordinary sermon, and hinted that the members of the Association did not want to be lectured to. I shall endeavor to the best of my ability to carry out these instructions.

It is not so many years ago that Boyer, after the French war, said that “Surgery seems to have attained the highest degree of perfection of which it is capable.” The history of surgery, which during the past fifty years has been one of continuous advance, has proved the falsity of Boyer’s opinion. During the last decade this advance been almost phenomenal, and now scarcely a month passes without the introduction of some new operative procedure, or some daring operation in cavities and organs, which have from time immemorial been regarded as sacred. The causes of this advance have been two in number,

the discovery of anæsthesia and the introduction of aseptic surgery, with which the name of Lister will ever be associated. Formerly, surgery was regarded as a mere mechanical art, and practitioners of medicine looked down upon the surgeon as one who practiced a trade. How different is the relationship now. Surgery now takes the lead, and the surgeon has wrested from the physician many regions which he thought to be essentially his own. The abdomen, for a long time the hunting ground of the physician, has been almost completely surrendered to the surgeon, and with what brilliant results you all know. Certain diseases of the kidney, liver, ovaries, lungs, brain, etc., which were formerly purely medical, have become chiefly surgical; and owing to modern methods of operative treatment many lives have been saved which heretofore the physicians let slip through their fingers as being beyond their skill to cure, though they endeavored by a copious, and it is to be hoped, judicious use of the various preparations in the pharmacopœa to alleviate the sufferings of their unfortunate patients. The brain, within the last few years, has yielded not a few results to surgery, which medicine has striven for in vain. The victorious advance of surgery has been positive, and the success which follows its onward course stimulates to further exertions. Still medicine and surgery are not opposed to one another, and should go hand in hand. Without the aid of the physician, many cases would escape the beneficent treatment of the surgeon; and one cannot afford to do without the other. In an address given by Prof. Bergmann before the German Scientific Medical Association in 1887, he says, "There is more or less rivalry between medicine and surgery in the cure of disease, but further progress in surgery can only take place through an increased knowledge of internal medicine. Surgeons must now avail themselves more of the accurate means of investigation which we owe to physicians; auscultation and percussion, thermometry, chemical, microscopical, and electrical investigation. As long as internal medicine remains the guardian of scientific methods and scientific principles, so long will it remain the parent tree of which surgery is only a branch." Again, "It follows from what has been said, that surgery owes all its recent development to clinical medicine, and just as antiseptic treatment is the product of careful observation in etiology, so the energetic procedures of internal surgery will have successful results only when firmly

established by the methods of clinical medicine; otherwise surgery will sink, in the hands of expert specialists, to a mere display of manual dexterity." Such are the opinions of one of Germany's greatest surgeons. His warning note that surgery may degenerate into a mere display of manual dexterity is timely, for what strikes me most in reading the surgical literature of the day, is that it treats almost entirely of surgery in its operative aspects, and those departments of surgery which are not operative seem to be treated with but scant consideration. There is great danger of the surgeon becoming too limited; already there are men who profess to perform but one or two operations; they certainly do them well, but such limitation must induce a narrowness of mind which is detrimental to surgery in general, and will in the end have a dwarfing effect on the more scientific branches of surgery. It is to be hoped that this is merely a temporary condition which is induced by the novelty of invading territories hitherto but little known to the surgical traveller.

However, even if it must be admitted that surgery to-day is chiefly operative, still it is more conservative than formerly, as witness the great advance made in the surgery of the joints. Where formerly a limb was amputated, now the joint is excised and the diseased matter removed with scissors and a sharp spoon. How rarely is the foot now amputated for disease of the articulations. I have only once amputated a foot for tuberculous disease of the joints, and have always regretted it. Who would now amputate an arm for disease of the elbow, or a hand for wrist joint disease?

But, gentlemen, I fear I am tiring you with my platitudes and generalizations, so I shall pass on and give in as brief a manner as possible, an account of the recent advances in some of the more important departments of surgery. At the Toronto meeting of the Association in 1882, it was my privilege to read the report on surgery. At that time, among other subjects, I discussed the modern treatment of wounds; since then, not much progress has been made in the treatment of wounds. The same principles laid down then are still in force—cleanliness, rest and asepticity. The dressings applied to wounds have become much simpler, and the antiseptics most relied on are soap, water, and a good nail brush. Not only should the hands of the operator be cleansed with soap and water, but the parts

operated on and their vicinity should also be similarly treated. Faith in germicides is being lost, and although irrigation has supplanted the spray, the solutions used have become weaker and weaker, until some surgeons use water only, especially in operations on the abdomen and thorax, where antiseptics have been proved to be absolutely injurious and often dangerous.* Sponges have become objects of suspicion, their place is now taken by the irrigator, linen or pieces of washed gauze. The spray, which formerly was a trusted friend, a valued ally, and with some the sheet-anchor of antiseptic surgery, has been all but abandoned, and is now seen as a mere survival of a past condition. Whilst in Germany last summer, I saw in every surgical clinic the magnificent ruins of the spray-producer, looking like some old castle which marked the customs and conditions of other days. Lister, himself, was one of the first to give it up, and last summer at King's College Hospital he spent some time in explaining to me how especially useless the spray was in those operations on the thorax and abdomen, where it is still retained in a sort of superstitious way by some enthusiastic men. Whilst on the subject of the treatment of wounds, I might allude to one point where it seems to me practitioners in reporting cases might be more explicit. We read of a successful case of abdominal or other operation where the result was, of course, a brilliant success (how few unsuccessful cases do we read of), and the author states that the operation was performed with full antiseptic precautions. Now, what does this mean? "Full antiseptic precautions," with one surgeon may mean an elaborate ritual, and with another simple cleanliness. It would be a great improvement if, when reporting cases of remarkable recoveries from astonishing operations, the reporter would state exactly the method of treatment employed to which he attributes his great success. The patient gets but little credit for the part he plays in bringing about a favorable result, and nature gets still less.

In the *surgery of the abdomen* much progress has been made. In ovariotomies and extirpations of the uterus the mortality after the operation is being steadily diminished, chiefly by the simplification of the methods of performing the operation. Rapidity of operation and not too elaborate "*toilette* of the

*See Senger's paper read at a recent meeting of the Berliner Medicinischer Gesellschaft.

peritoneum," with drainage if there be bleeding, have been most successful in reducing the mortality in these operations. Following the lead of such men as Tait, Bantock, etc., antisepptic solutions are being discarded for plain water.

In cases of *acute intestinal obstruction* it is now becoming a recognized custom for the physician to call a surgeon in consultation, and the result has been that many lives have been saved. In my opinion these cases should be placed in the hands of the surgeon from the first, as in the great majority of cases there is little hope of relief being afforded by medical means alone. Not a few cases of *intussusception* have been cured by early operations, and also many cases of strangulation due to bands, twists, etc. It is now an axiom of surgery not to let any case of acute intestinal obstruction die without at least an exploratory incision. Some patients will be as anxious for operations in these cases as they are now in cases of strangulated hernia. Physicians still procrastinate in cases of intestinal obstruction. They often do not advise operation until all hope of recovery has been abandoned, and operation is looked upon as a *dernier ressort*. The treatment by rest, starvation and opium has still charms for most practitioners, who are always hoping that "something will turn up." Cases of operation are reported where no cause could be found for the obstruction, and where an opening was made in the distended bowel, with the best results. The artificial anus which ensued being, after some time, spontaneously closed. This affection, in spite of operation, will always be a very fatal one until some better means of diagnosis are available before collapse sets in. On many occasions the gravity of the case is overlooked until the patient is almost moribund.

In *inflammations of the cæcum and appendix*, surgical interference has been attended in numbers of cases by remarkable success. It is now held by many surgeons that all cases of so-called typhlitis ending in suppuration, are due to perforation of the cæcum (rare) or appendix, and that early operation in this most fatal affection is the proper procedure. In some cases the perforated bowel has been closed with sutures or the diseased appendix has been excised. The results have been most satisfactory. It has been attempted to close by operation perforations due to the ulcers in typhoid fever, with but little result; the condition of the patient and the state of the bowel itself,

renders it improbable that much progress will be made in this direction. The operation has been performed by Kussmaul, of Strassburg, Bartleet, of Birmingham, and Morton, of Philadelphia, with fatal result in each case.

In *tubercular peritonitis*, most brilliant results have been effected by operation. The early operations were chiefly cases of mistaken diagnosis for ovarian disease, or were doubtful cases in which an exploratory operation was called for; the good results following these mistakes led to the adoption of incision and drainage as a recognized treatment for this affection. Many remarkable cures are reported, but in the majority of cases this treatment is only palliative.

In *suppurative peritonitis*, the treatment by incision and drainage has also afforded some remarkable results, and in all cases this method should be adopted even if the cause, which is usually perforation of the intestines or appendix, cannot be discovered.

In *perforating gunshot wounds of the abdomen*, good results have been obtained by immediate operation. W. T. Ball and J. F. S. Dennis, of New York, on this side of the Atlantic, have led the way in showing the profession what excellent results may be obtained by immediate operation. Prof. Nicholas Senn, of Milwaukee, at the International Congress held last year in Washington, read a remarkable paper on "Intestinal Surgery." His experiments were made on dogs and he showed how gunshot wounds of the intestines could be healed by omental grafting, with or without scarification of the serous surfaces.* Dr. Senn has also quite recently devised a method for the detection of perforating wounds of the intestines, by means of hydrogen gas insufflated per rectum, the escape of the gas from the abdominal wound can be recognized by its inflammability, and this, of course, is proof positive that the intestine has been perforated.

At the meeting of the British Medical Association held in Dublin last year, some admirable papers on the *radical cure of hernia* were read by such surgeons as MacEwan, of Glasgow, Mitchell Banks, of Liverpool, Ball, of Dublin, Barker, of London, etc. The results of operations by excision of sac and stitching up the wound were most encouraging. MacEwan reported sixty-five cases operated by his method, without a

*Meeting of American Medical Association, 1888.

death, and only one failure. Banks, who was one of the first advocates of this method of operation, reported 106 cases. Ball, twenty-two cases without a death, and Barker thirty-five. Mac-Ewan does not excise the sac, but after reducing the hernia makes use of the sac as a pad, by drawing it up through the internal ring and fixing it there. Banks, Barker, and others advise excision of the sac and fixing the stump at the internal ring, whilst Ball's method consists in torsion of the sac before excising. The open method has been advocated on this continent by McBurney, of New York. French surgeons after ligation and excision of the sac, do not advocate closing the inguinal canal by sutures, as is done by English and German surgeons. My experience in this operation has been small, but some months ago I operated on a very formidable case, the details of which I shall venture to mention. A blacksmith, aged 52, had an enormous, irreducible, scrotal hernia of the left side, from which he had suffered for many years. The tumor had become so large that he could not wear trousers or follow his occupation. He was, besides, a rather corpulent man and a hard drinker. I performed the operation for radical cure of the hernia, on the 25th of April last. The sac was dissected out and opened, and the contents reduced with the greatest difficulty. The sac contained all the small intestines, the transverse and descending colon, and the sigmoid flexure, together with a large mass of omentum. Several pounds of the latter was excised, and it was only by suspending the patient by his heels (a suggestion of Dr. Bell's), that I was enabled to reduce the protruded bowel. The intestines had not been in the abdomen for some years, and that cavity now seemed too small to contain them; and when, after an hour and a half's exertion, the intestines were all returned, the abdomen was as tense as a drum. The sac was excised and the stump fixed to the internal ring according to Barker's method, and the canal closed by suturing the conjoined tendons to Poupart's ligament. The patient made an excellent and uninterrupted recovery, and is now pursuing his occupation as a blacksmith with comfort. I saw him a week ago, and there was not the slightest tendency to a return of the hernia.

In the victorious advance of surgery the liver has not escaped. Langenbeck, of Berlin, has successfully resected the greater part of the left lobe, and Dr. Dalton, of St. Louis, and

Prof. Postempski, of Italy, have successfully sutured the liver for gunshot wound and stab wound respectively. Hydatid cysts have been frequently and successfully evacuated.

The surgery of the gall bladder has been making steady and uninterrupted progress. Lawson Tait has reported no less than thirty cases of operation on the gall bladder, with one death. He differs from Langenbeck, of Berlin, who prefers excision of the gall bladder to incision and drainage. Mr. Tait says,* "The more experience I have in dealing with these cases the less necessity, it seems to me, arises for anything more than the simple process of cholecystotomy, and the extremely favorable results obtained from it put it in the first rank of modern operative procedures." Diseases of the gall bladder are among those affections which should be looked upon as surgical, and which the judicious practitioner should treat as such. In some cases of obstruction from gall-stones, the gall bladder is shrunken and can be with difficulty brought to the surface. It is often difficult to say whether a case of obstruction of the common duct is due to impacted calculus or malignant disease; when the cystic duct alone is obstructed there is no jaundice. In doubtful cases an exploratory incision is now considered justifiable.

When the gall-stone has escaped from the common duct it may still prove a source of danger. Obstruction of the intestine due to gall-stone is more common than is supposed, a small stone may cause symptoms of complete obstruction and consequent death. Such cases should be treated by early laparotomy. It is not necessary to incise the bowel to free the stone, for it may be passed in through the ileo-caecal valve by external manipulation, as has been done by Mr. Clutton, of London, or broken up *in situ* with a needle, as recommended by Mr. Tait.

The stomach has been frequently successfully opened for the removal of foreign bodies, or the performance of Toreta's operation of dilating a contracted pylorus; operations of excision of malignant growths of the stomach are not growing in favor, the game, as a rule, is not worth the candle. The pancreas has been successfully operated on for cystic disease, and the spleen has been so frequently successfully excised that the subject is no longer a matter for wonderment.

We come now to the surgery of the kidney. Since Simon first extirpated a kidney in 1869, great advances have been made.

**Lancet*, April 14th, 1888.

The surgery of no other abdominal organ has been so rapidly developed and perfected. No doubt many kidneys have been removed unnecessarily, and too often, unfortunately, with a fatal result ; but surgeons are now beginning to see their way more clearly in this, until recently, little known branch of surgery. It is now a well established rule that no kidney should be removed without a previous nephrotomy, or exploratory incision. Again, no kidney should be removed until the condition of its fellow is ascertained. Several cases are on record where the surgeon has removed the only kidney in the patient's possession. A preliminary nephrotomy enables the surgeon to avoid this fatal mistake. The most brilliant results have been obtained in the operation of *nephro-lithotomy*. During the past year, Mr. Jordan Lloyd,* of Leeds, England, has introduced a method of exploration of the kidney, which is a great improvement on the old needle puncture. He advises puncture of the lower end of the kidney with a long-bladed tenotome, in a direction upwards and inwards till the lowest of the calyces is reached ; a small short-beaked child's bladder sound is then introduced, and the calyces and pelvis explored. In June last I had an opportunity of putting Mr. Lloyd's method into practice, and find it a simple and admirable one. The patient had been subject for several years to attacks of renal colic, latterly the pain had been continuous and was located in the left lumbar region and down the course of the ureter ; great pain was felt on pressing over the left kidney. He had never had any blood or pus in his urine. Knowing the comparative harmlessness of the operation of nephrotomy, and having had experience in several other cases, I determined to cut down on the painful kidney and examine it. When the kidney was reached the exploration was made with the greatest facility and with but little disturbance of the parts. After incising the lower end of the kidney with a bistoury, the short-beaked sound was introduced and the pelvis and calyces of the kidney thoroughly explored, but without result ; no stone was found. The hemorrhage from the kidney, which was free, was easily controlled by pressure. The wound was closed and a drainage tube placed at its lower end. Urine ceased to come from the wound after the second day. In ten days the patient was out on the gallery and in two weeks the wound had soundly healed. - The pain which

**Practitioner*, Sept., 1887.

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previously had been most intense was much relieved, and has since almost entirely disappeared. When last seen the patient was attending to his work and looked strong and healthy. I might mention that a woman from whom I removed a kidney in September, 1884, for calculous pyelitis, is still alive and in good health, and since the operation has given birth to three healthy children. Another operation which is finding favor in the eyes of surgeons is nephrorraphy or fixation of a floating kidney. Removal of the kidney was formerly practiced for the relief of the pain and inconvenience of a floating kidney, the substitution of nephrorraphy for nephrectomy in these cases is a decided advance, for the former operation is a much safer as well as a more scientific one.

In the surgery of the bladder progress has also been made, though not to the same extent as in that of other abdominal organs. Tumors of the bladder are now successfully removed, and Guyon, of Paris, and Thompson, of London, have done excellent work in this direction. The introduction of the electro-endoscope has much facilitated diagnosis. The old supra-pubic operation is now the fashionable one for the removal of stone from the bladder, and it is being practised largely everywhere. The operation has been much improved by the introduction of Petersen's rectal bags and the practice of moderately distending the bladder before operation with an antiseptic solution. The operation is suitable for cases of large and hard stones, and for the removal of tumors and foreign bodies, but it will no more supplant the old operation of lateral lithotomy than did lithotripsy. In some cases of stone in the bladder, Mr. Reginald Harrison,* of Liverpool, justly remarks, "It is necessary to do something more than merely remove the stone. In cases of cystitis with enlarged prostate where stone has formed, removal of the stone is necessary, but it is also necessary to prevent further formation, by getting the bladder into better condition." The bladder, says Mr. Harrison, is like a chronic abscess with a stone in it, and it is quite as necessary to drain the one as the other. These cases are unfit either for supra-pubic lithotomy or lithotripsy ; but the lateral operation provides an excellent means not only for the removal of the stone but of after-drainage of the bladder. Ruptured bladders have recently been successfully treated by abdominal section, and suture of the blad-

*Lettsonian Lectures, 1888.

der rent. An early diagnosis is of course important in these cases.

I fear I have already exceeded my allotted time, and although many other subjects of intense interest to the surgeon might be touched upon, yet I feel constrained, for the remainder of my address, to confine myself to giving a short account of the remarkable advance which has been made during the past two or three years in the treatment of various *diseases and injuries of the brain and spinal cord* by surgical operation. Brilliant results have been obtained in this department of surgery, results which a few years ago, would have been looked upon as Utopian. The operation of trephining the skull is a very old one, and was frequently and often unnecessarily performed by surgeons in the early part of this century. I have heard, that it was quite the fashion for Dublin surgeons to have their pockets full of buttons of bone which had been removed with the trephine from the skulls of pugnacious Irishmen. However, the surgeons at that time only trephined for injury, and their explorations did not extend further than the dura mater ; it was considered injudicious and dangerous to interfere with the brain itself, not, as in earlier times, for superstitious motives, but owing to such interference being followed by fatal inflammation. It is only with the introduction of antiseptic surgery, and a more accurate knowledge of the localization of brain functions that the brain itself has been interfered with. Our knowledge of the functions of the brain has been greatly extended by the researches of such men as Broca, Hughlings Jackson, Fritsch and Hitzig, Goltz, David Ferrier, Yeo and others. The observations of these investigators chiefly go to prove that many areas in the brain are connected with separate and distinct functions. It was found that if these areas in the surface of the convolutions were stimulated electrically, distinct movements were excited in certain groups of muscles on the opposite side of the body. These facts were not discovered all at once, but were the result of prolonged clinical observation and careful experiments on the brains of animals. Many cases of severe injury to the brain have been saved in the past by early trephining. Abscesses of the brain following injury have been frequently opened successfully. Again, many cases of epilepsy, due to injury, have been cured by trephining over the spot injured ; but it is only quite recently, in fact only since the truth of the theory of Broca's

localization has been established on a firm basis, that operations have been undertaken where there was no external indication of injury or disease. The lesions have not only been successfully diagnosed, but the brain and its membranes have been incised without resulting in fatal inflammation. It has been clearly shown that inflammatory conditions following operations are due to sepsis. If the wound be kept aseptic the case does well. Dr. MacEwen, of Glasgow, an old pupil and house-surgeon of Lister's, noticed that cases of severe injury to the skull with extensive loss of cerebral substance, were quite amenable to treatment, and exhibited no tendency to inflammatory action as long as the tissues were kept aseptic ; hence, he said, if such injuries can be recovered from, how much more likely is recovery from a carefully planned operation. His first case was in 1876 for abscess, which he diagnosed to be in the vicinity of Broca's convolution ; operation having been refused during life, he was permitted to trephine over Broca's convolution after death ; the abscess was found as diagnosed and easily evacuated. In 1879 Dr. MacEwen successfully evacuated from beneath the dura mater of a boy, who had previously received an injury of the head, some fluid which had collected there and had given rise to convulsive seizure of arm and leg. In the same year a tumor of the brain was diagnosed and successfully removed from the frontal lobe of a woman, who lived for eight years after and then died of Bright's disease of the kidneys. Up to 1884 MacEwen had operated on seven brain cases, with one death, a case of abscess of the temporo-sphenoidal lobe. In December, 1884, the first case of tumor of the brain was operated on in London, having been previously diagnosed by Dr. Hughes Bennet, and removed successfully by Mr. Rickman Godlee ; the patient lived four weeks relieved of his previous symptoms, and then died from septic complications. The report of this case, at a meeting of the London Medico-Chirurgical Society in May, 1885, gave rise to a most interesting and important discussion, in which Drs. MacEwen and Ferrier took part. Dr. MacEwen related several cases in which he had successfully operated, and mentioned his method of re-implanting the removed disc of bone. Up to this time MacEwen had operated on seventeen cases for the relief of cerebral pressure and other brain lesions. At the Brighton meeting of the British Association, in 1886, Mr. Victor Horsley excited the admiration

of the meeting by his remarkable paper on the *Advances of the surgery of the central nervous system*. In this paper he minutely detailed his method of operating, and showed how, if performed carefully, the brain might be incised and tumors removed without any great risk to the patient. His experience was chiefly derived from operations on monkeys. He also showed three patients on whom he had successfully operated—one for tumor, and two others for scarring of the convolutions, causing epileptiform fits. Since this time operations on the brain have become comparatively frequent for epilepsy following injury, for abscess of the brain (especially that form connected with suppurative disease of the ear), and for tumors. On this side of the Atlantic, Drs. Keen and Roberts, of Philadelphia, and Drs. Weir and Seguin, of New York, have done good work. Dr. Keen has recently successfully re-implanted, in one piece, the bone removed by the trephine.

At the second meeting of the British Medical Association, in Glasgow, Dr. MacEwen read an epoch-marking paper, on the surgery of the "Brain and Spinal Cord." He related how, for years, he had been working at this subject—and with what great results. His paper is certainly a wonderful contribution to surgical science. He says: "Of twenty-one cerebral cases (exclusive of fractures of the skull and other immediate effects of injury), in which operations have been performed by me, there have been three deaths and eighteen recoveries. Of those who died all were *in extremis* when operated upon. Two were for abscess of the brain, in one of which pus had already burst into the lateral ventricles; in the other suppurative thrombosis of the lateral sinus had previously led to pyæmia and septic pneumonia. The third case was one in which, besides a subdural cyst over one of the hemispheres, there was extensive softening at the seat of the cerebral contusion in the opposite hemisphere, accompanied by oedema of the brain. Of the eighteen who recovered, sixteen are still alive, in good health, and most are at work; leaving two, who have since died, one eight years after the operation, from Bright's disease, the other forty-seven days after operation from tubercular enteritis."

These results are certainly remarkable and very encouraging, as to the future of the surgery of the brain. I had the pleasure, last year, while in Glasgow, of seeing some of Dr. MacEwen's cases, and some were most interesting. In one case the diag-

nosis of the lesion was made from sensory phenomena alone, and successfully operated upon. Notwithstanding the success of such men as MacEwen, and Victor Horsley, operations on the brain should not be rashly undertaken. Each case should be studied on its own merits, and the surgeons who attempt these operations, need not only experience of general surgery, but an accurate knowledge of motor and sensory phenomena in connection with the localization of the functions of the brain.

Dr. MacEwen's name is also associated with the surgery of the spinal cord, he has operated on no less than six cases. In all, the posterior arches of the vertebrae were removed; four to relieve paraplegia, caused by pressure from connective tissue, neoplasms and displacement of the vertebrae, due to caries or traumatism. Out of the six cases operated on four were successful and two died. The first case was operated upon as early as 1882. Mr. Victor Horsley successfully removed a tumor, diagnosed by Dr. Gowers, from the posterior end of nerve opposite the third dorsal vertebra. The patient suffered from paraplegia. He completely recovered and was shown to the London Medico-Chirurgical Society, January 24th, 1888. I have frequently trephined the spine in the dead subject, and I can say that the operation itself presents no great difficulties. The cases which call for this operation are, however, rarely met with.

There are many other interesting subjects on which it might be profitable to dwell, such as : intubations of the larynx, re-implantation of bone, transplantation of the eyeball and conjunctiva, new theories as to the cause of inflammation, tetanus, etc., surgery of bronchocele, surgery of lungs, joints and many others, but time will not allow me to more than mention them.

—*Canada Lancet.*

Review of Salgo on Hyoscine and Sulfonal.

Dr. Salgo used only the hydrochlorate of hyoscine and not the hydriodate and hydrobromate. He preferred a two-per-cent solution, and injected a half gram. His first experiments were made on patients suffering from severe exaltation and excitement, from whatever clinical cause. They embraced cases of simple maniacal exaltation, acute hallucinations, raving maniacal excitement, and post-epileptic, and paralytical mania. As a rule the cases were such as were not influenced by hypodermic injections of morphine, and only occasionally by paraldehyde

and chloral hydrate. He only strove to combat the symptom—exaltation. Patients who were well able to give information did not complain of it.

As regards its effects, after giving several hundred injections, S. has come to the conclusion that, for the indications mentioned and given as described, it is unequaled by any known drug. No other drug even approaches it in efficacy, in the promptness of its effect, or in the thoroughness of its quieting influence. All other sedatives and narcotics have a limited application, whereas hyoscin finds application in the stage of excitement of all psychoses.

In no single case did the hyoscin fail. In some, to be sure, the effect was less complete, less energetic and of shorter duration than in others, but at no time did it fail entirely.

Hyoscin can not be regarded as a hypnotic. It does not produce a true sleep, although the condition is very like it. If one milligram (one sixtieth of a grain) is injected into a patient during maniacal frenzy, after ten or fifteen minutes a few pauses are noted between the incessant movements—the patient seems to be growing tired and to be gathering his strength. His speech and cries become quieter. Soon the voice becomes hoarse, the tongue heavy, patient seeks a leaning posture, gradually staggers, falls to his side, his disjointed words become unintelligible, the extremities become limp, the knees are bent, the patient seems drunk. This condition is reached, at the latest, twenty minutes after the injection. Respiration is regular, loud, pulse stronger and fuller than before the injection, and yet not more rapid; the muscles are relaxed, sensibility retained, reaction to skin reflexes slow. Patients remain in this condition from two to eight hours. When one approaches them they look up tired and sleepy, murmur unintelligibly and turn around, declaring themselves sleepy; one finds the patients always sleepy, yet always awake. When the effect of the hyoscin is over, the patients, as if waked from sleep, begin to rage and roar as before the injection. Subjectively and objectively there are no evil consequences from the injection.

In all such cases as those described, hyoscin works with more certainty and more promptly than chloral, morphine, and paraldehyde, without mentioning other less valuable drugs. In the doses mentioned it is not dangerous, no cumulative effect has been noted even when three injections in twenty-four hours

have been given. The system does not become used to it, as at no time was it necessary to increase the dose.

Sulfonal, on the other hand, is clearly a hypnotic, and is to be classed with chloral and paraldehyde. It consists of small, white crystals, soluble in water. It is tasteless and odorless, and should be given in doses of from 1-3 grams (15-45 grains). Its hypnotic effect is produced, as a rule, inside of thirty minutes—rarely after an hour. The sleep produced by it lasts from six to eight hours. Insomnia is regarded by Salgo as the indication for sulfonal, while exaltation requires hyoscine. He did not find it superior to paraldehyde, and in many cases not as effective as chloral.

In one case of hysteria in a patient with the morphine habit, after a dose of two grams the patient fell into a sleep lasting several hours, although his dose of morphine had been reduced one half. In another case of hypochondriacal depression, two grams of sulfonal were more effective than six grams of paraldehyde. S. observed no ill effect to follow the use of sulfonal. Patients take it more willingly than they do paraldehyde and chloral.—*The American Practitioner and News.*

The Free Use of Water as a Therapeutic Agent.

The opinion that the civilized races are too sparing in the use of drinking water has been advanced during the past few years by some of the leading therapeutists of the world, and the idea that this proposition is correct has taken a considerable hold, not only upon the majority of the members of the medical profession, but through them has permeated to the more intelligent of the laity. Water is said to be a solvent of more substances than any other fluid, which is nothing more than might be expected if we consider its vast importance in the whole system of nature.

Now, the unsparing use of this solvent may be looked upon as the surest method of flushing the system, and of keeping the various organs and their ultimate histological elements in good working order.

Regarding the use of waters at spas and mineral springs, there can be no doubt that the complete change in the mode of life which frequenters undergo while taking a course at one of these resorts, has as much to do with the favorable results ob-

tained as the inhibition of quantities of nasty sulphurous or chalybeate water. The rest and freedom from work and worry is perhaps more needed by the worn-out merchant or jaded politician than is iron or alkalies. Indeed this principle is now so widely recognized that sanitariums are springing up in places where no medical properties are vaunted for the waters. To ladies who have gone through a "season," with its many anxieties, its intense excitement, and its reversing the periods of rest and wakefulness, the change also to an out-door life, pure air, healthful exercise, lessened excitement, and pleasant, easy-going life at the seaside or health resort, is just what is needed to restore the over-worked nervous system to its proper balance, and give that sense of lightness and well being which can only be felt when all the organs and tissues of the body are thoroughly depurated. Doubtless the waters at medicinal springs, taken in large quantities, are beneficial to many forms of disease. Why is it, however, that with all the refinement of analysis of our chemical laboratories brought to bear upon mineral waters, with a positive knowledge of their every constituent, even down to three decimal places in grains, that we are not able to get the same good results from the administration of such remedies, when artificially prepared as we get when prepared in Nature's laboratory? We can prescribe any or all of the salts found in the most noted springs of the world, to be taken out of a spoon with the utmost regularity; we may regulate the diet, the sleeping hours, the amount of work, even, which shall be indulged in by our patient, and yet get no such results as are got at health resorts. The difference in results is believed to be due, leaving out the advantage gained by the change of scene, air, etc., already referred to, to the greater dilution of the remedies contained in the natural waters. We said just now we could order our patient's remedies to be taken out of a spoon. If we ordered them taken out of a large tumbler, we should have better results with many of them. There is not enough plain water taken by most of us, especially in cities and towns. For social reasons women refrain from drinking water, and so often do men. Our working population, afflicted by no such restraints, and prompted to quench their thirst by plentiful draughts of water, are much better off in this respect. Such people rarely need a sojourn at a spa, and, indeed, get much of the benefits which visitors to such

resorts obtain, by drinking largely at home. It flushes the system, bathes every tissue, dissolves and removes the products of tissue metamorphosis, keeps the skin more active, stimulates the kidneys to the removal of waste matter, and unloads the emunctories generally, and so leaves the cells in the best condition for functional activity, unclogged by surrounding debris and able to perform their respiration freely and naturally. Thus it not only removes old, worn-out matter, but paves the way for the reconstruction of new material, and the whole system is, as it were, from day to day rejuvenated. This explains the popular idea that drinking much water increases the weight of the body, which, under many circumstances, is absolutely true. Fuller pointed out the necessity of ordering large draughts of water when administering chalybeates. Ringer speaks of water as being a "true tonic, improving the vigor of the body and mind." The tumblerful of cold water every morning is an excellent hygienic measure; it washes out the stomach, clearing its membrane of mucous which would hinder the free secretion of the gastric juice, acts locally as a tonic to the gastric walls, stimulates the action of the bowels, and is, as Fothergill says, "a true hematinic, by its removal of waste matter, which hinders histogenesis." The same writer also states that the difference between no results from the administration of iron and satisfactory treatment lies in no more than this, the free use of water as a diluent.—*The Canada Lancet.—Dietetic Gazette.*

Shock.

By DAVID W. CHEEVER, M. D., of Boston.

(Read before the American Surgical Association; at the First Triennial Congress of American Physicians and Surgeons, at Washington, September 20, 1888.)

The operative surgery of our time has annulled pain temporarily, arrested hemorrhage permanently, averted septic absorption. It has not prevented shock. This is still a cause of much fatality. It is the object of this paper to inquire whether modern surgical procedure has diminished shock; wherein it fails to do so; and to suggest improvements of its defects.

What is shock?

When any one gropes his way in a dimly lighted passage, and meets unexpectedly a strange person at some turning, he experiences a start, a mental apprehension, his heart turns over,

flutters, but at once recovers its balance. Pursuing his path, if he now, in descending, misses a step in the dark, he has a greater shock to his nerves, he braces himself, flutters, sweats, or is chilled. If he falls and bruises himself moderately, he has vertigo, nausea, cold sweat, pain. If he falls and breaks open a joint, he has syncope, epileptiform convulsions, nausea, fluttering pulse, sweat, pain. If he injures himself more severely, he has unconsciousness.

This is a simple description of the degrees of shock:

Apprehension,
Fluttering,
Sweating,
Chilliness,
Pain,
Vertigo,
Nausea,
Faintness,
Convulsions,
Unconsciousness,
Collapse.

The phenomena of a fainting-fit are the phenomena of shock. Sudden, disagreeable, painful, destructive impressions produced on the surface or efferent nerves, and affecting the brain; thence the ganglionic system; then the heart, the stomach, the skin; and thus the brain, at last.

Moderate shock terminates in reaction. This is the *recoil* of the system. It restores the balance; but the pendulum which marks the nervous force, swings back beyond the normal line. We have temporary fever, flush, full pulse, excitement.

Severe shock is more lasting. The pulse vibrates, intermits, flags, rallies, flags again, is soft, compressible, uncertain; faintness is constant, but partial; vomiting occurs; cold extremities; dilatable pupils; pallor; imperfect reaction; very slow recovery; a condition where a feather turns the scale against the patient.

If now an operation is done, we have renewed shock, prolonged shock, secondary shock; a matter of days rather than hours; persistent nausea; exhaustion; lowered temperature; diarrhoea; imperceptible and gentle death. Or, if an old person, that state known as prostration with excitement; typhoidal delirium, a dusky flush over the malar bones, dull eyes, intermittent pulse, jactitation, exhaustion, death.

Primary shock, reaction; early and perfect; or slow and imperfect. Secondary shock: prostration, nausea, excitement, collapse. Loss of blood, from accident or operation, adds to the shock or complicates its symptoms.

Jar, crushing, mutilation, pain, cutting, bleeding, chilling, all act on the nervous center; react on the ganglia, the heart, the power of breathing, the temperature, the consciousness, the life.

Given then the problem and the phenomena of shock, what particular influences have the operative procedures of *modern* surgery upon them?

They may be summed up in three points:

The effects of anaesthetics;

The effects of the operations;

The effects of the dressings.

These all belong together and affect each other.

Anaesthetics annul pain, but end in nausea.

Operations under anaesthetics are needlessly prolonged and exhausting.

Modern dressings are tedious and chilling.

Have we lessened, or added, to shock by modern surgery?

Pain and bleeding are *less*. Slow cutting, nausea, exposure, low temperature are *more*. Primary shock is diminished; secondary shock is increased.

Formerly the time consumed in a operation was short. An amputation was hurried, now it is deliberate; an abscess was incised, now it is aspirated and curretted; a joint injury was cut off, now it is excised; the peritoneum was peeped into, now it is boldly explored; the bladder was cut for stone, now it is a prolonged crushing and washing; a breast was amputated, now the axilla is formally dissected. The old method was a matter of minutes; now it is one of hours.

Patients are frequently from one and a half to two hours on the operating table; and three hours in recovering consciousness so that they can swallow. Do we realize what this prolonged cutting, pinching and dissecting mean to the nervous system after anaesthesia is past? Does not the long exposure of the great veins to the air, in dissecting tumors, increase coagulability and future infarction? Can the peripheral nerves be lacerated *seriatim* without exhausting their constitutional irritability? It is recognized that long continued and large dissections on the front and sides of the neck are especially fatal.

Operations of secondary magnitude are now so prolonged that I have repeatedly seen patients die of primary shock, or *repeated shocks*, where the patient was one to two hours under the knife. It is said that he had not the vitality to resist. He had not; but consider what a perineal section, scooping out a uterine tumor, curretting a bladder, removing glandular enlargements, sometimes involve in time, in exhaustion, in capillary oozing, in shock.

Equally unphilosophical and fatal is the practice of operating in cases of primary shock before reaction has come on. An amputation is begun in half-life, and ended in death. Especially difficult to decide are the cases where the patient reacts imperfectly, and relapses. These cases are easily made fatal, and only saved by quick amputations, slight exposure and short anaesthesia. The golden moment of fairly established reaction must be seized, before traumatic fever sets in. This moment comes in from six to eighteen hours after the injury, or it never comes.

It should be considered an *axiom* that anaesthesia does not diminish existing shock, but only annuls the additional shock which the pain of cutting produces. It prevents the pain of an operation from increasing the shock which may be present from an injury. It prevents the pathological case from experiencing the shock produced by the pain of cutting out a tumor; it does *not* prevent the secondary shock of the mutilation; it adds to secondary shock if the anaesthesia is prolonged.

In feeble subjects the lack of nourishment which precedes an operation, desirable on account of safe anaesthesia, is much aggravated by their inability to retain food after the operation. This has an important influence in bringing about collapse.

Lowering of the bodily temperature is constant after an operation under anaesthesia. The thermometer frequently falls to 97°, to 96°, and after severe and prolonged operations, to 95° Fah. This is a very serious matter, and has a marked influence in delaying reaction from shock. This chilling of the vital heat is induced, first, by anaesthesia, which, if prolonged, ends in a dripping sweat; next, by careless exposure during an operation. Then also it is largely due to antiseptic irrigations, to vapor douches of similar agents, to applications of cloths wet in corrosive or carbolic solutions around the site of the operation. The axillæ, the neck, the thorax and the abdomen are especially prone to deleterious chilling in this way.

Evaporation is a great factor in reducing heat; and this is constantly occurring on the body of the patient, in a warm atmosphere, during a prolonged operation. Especially is this dangerous when the peritoneal surfaces are exposed; evaporation then is very rapid and very extensive.

Warm douches and washes give as great a subsequent chilling as cold ones, as all experience who take a tepid bath.

The sufferer is frequently allowed to lie about too long under an anaesthetic, waiting for his turn, in busy hospital practice.

The surgical toilette of wounds, in the modern modes of dressing, is depressing, exhausting, devitalizing.

Finally, comes the greatest evil of all, nausea. Nausea is one of the marked symptoms of severe shock, primary or secondary. Unfortunately, anaesthetics very frequently produce this as a secondary effect.

Persistent vomiting and retching mark the slow sinking and collapse of secondary shock after capital operations. Continued nausea is one of the worst of symptoms; begun in pain, and shock, it recurs after anaesthesia, and continues as the most dangerous factor in preventing reaction.

What can we do to prevent or diminish shock?

(1) Wait for reaction.

(2) Never neglect to calm those suffering mental shock by a cheerful word and personal presence.

(3) Give alcohol, either spirits or wine, a quarter of an hour before the anaesthetic.

(4) Make the anaesthesia short; never begin it until everything is ready; suspend it during the less painful dressings. Consciousness returns *tardily*. We keep up the anaesthetic longer than is necessary.

(5) As rapid an operation as can prudently be done.

(6) As short a dressing as is practicable.

(7) As a cardinal point, avoid *chilling* the patient.

To promote reaction after the operation:

(1) Persistent and *carefully* applied dry heat. (Be over-careful about accidental burns.)

(2) Liquid nourishment, combined with a stimulant and a little laudanum, by enema.

(3) Subcutaneous injection of brandy.

(4) Aromatic spirits of ammonia by the mouth. Champagne is sometimes retained when other things are rejected.

(5) Black coffee and brandy, the stimulant *par excellence*, when it can be retained on the stomach.

(6) Quiet: a horizontal, or more than horizontal position; sleep; assurance that all is over, and doing well.

Modern surgery has won *three* great triumphs:

It substitutes sleep for pain.

It averts secondary hemorrhage by the animal ligature.

It prevents fermentation by germicidal applications.

Can we add a *fourth*, by stilling the nervous system, and averting, or diminishing secondary shock?—*The Boston Med. and Surg. Journal.*

Tannin in Dilatation of the Stomach.

Dr. H. Boulland, thinking that tannin—which acts on the retractility of the mucous membrane, and is at the same time absorbent and antiseptic—might be useful in dilatation of the stomach, has employed it in many cases with success. In cases in which constipation was present, Dr. Boulland administered doses of 10 centigrammes ($1\frac{1}{2}$ grains) instead of 20 centigrammes (3 grains). By this means the regularity of the bowels was not interfered with, and the dilatation decreased in proportions analogous to those obtained by washing out the stomach. In twenty days, the stomach was reduced nearly to its normal condition. At the same time, the patients took frequent but light meals, chiefly of pasty substances, and no starchy matter. When the dilatation is due to a tumor, tannin does not give better results than other methods. It diminishes mucous secretion, however, and renders the digestion less painful. Dr. Boulland has found the hemostatic properties of tannin equal to those of ergotin and perchloride of iron. In particular he has used it with success in many cases of epistaxis, when all others means had failed.—*British Medical Journal.*—*Montreal Medical Journal.*

Pus is one of the easiest things imaginable to detect when it exists in fresh urine, but sometimes urine sent from a distance undergoes fermentation and putrefaction and the pus corpuscles disappear. Vitalti has recently discovered a chemical reagent which will in such cases assist the microscopist in his work. It is tincture of guaiacum, which, when brought into contact with such material, imparts a blue color. It can be used for the same purpose in fresh urine, but here the microscope needs no assistance.—*The Pacific Record of Med. and Surg.*

Sulphonal in Insomnia.

A. Cramer (*Neurolog. Centralblatt*, 1888, 430) reports the results of 407 administrations of sulphonal to forty-five patients with various mental disorders. 30 times there was no result; 377 times sleep lasting five or more hours was produced, usually one-quarter to one hour after the medicine had been taken. The dose varied from one to three grammes. Unpleasant secondary effects were only observed in one instance, and consisted merely in some sleepiness on the following morning. The author then instituted experiments to determine whether the drug possessed any disturbing influence on the diastasic action of saliva, and on the power of artificially prepared gastric and pancreatic secretions to digest fibrin. The results showed such power to be absent.

Rabbas (*Berliner klin. Wochenschrift*, 1888, 330) has also obtained only good results with sulphonal in the insomnia of mental disorders. In doses of two to three grammes it acts better than either amy1 hydrate or paraldehyde; and though sleep is produced by chloral more promptly, it does not last so long. He has found the remedy efficient in the worst maniacal conditions where chloral and paraldehyde had proved unavailing. Most of the twenty-seven cases to whom the medicament was given 220 times were instances of mania and melancholia.—*Am. Jour. of Med. Sciences*.

A New Treatment for Gonorrhœa.

Thallin, one of the group of antipyretics, is also a powerful antiseptic, and it has been largely employed by the Germans as an injection in gonorrhœa. Dr. d'Hercourt, having experimented with the drug, reports very favorably on the effects produced by a 1 or 2 per cent solution of the tartrate of thallin in a saturated aqueous solution of naphthol. He gives one injection daily. He claims that in acute attacks the scalding may be suppressed by the second day, and the discharge by the fifth or sixth day. It is, nevertheless, necessary to continue the injections for some time, and to observe the usual hygienic precautions. He has been enabled to follow up the treatment in forty cases with the most satisfactory results. The treatment may be employed from the very commencement; indeed, it is in the acute stage that it affords the greatest amount of relief.—*Med. Press.*

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ACUTE INTESTINAL OBSTRUCTION.

Thesis by TENISON DEANE, Cooper Medical College, October 1, 1888.

Ileus was the old term for intestinal obstruction. Other terms were used which referred to the symptoms accompanying as passio-iliaca, miserere, etc. Before much knowledge of pathology existed, these names were given to all conditions which presented the symptoms of intestinal obstruction, but with the advance of pathological knowledge definite classes were made, having a distinctive anatomical basis to which names of special lesions were given.

At the present day with a case of obstruction of the bowels, the location, nature and cause of the trouble is ascertained, if possible, and classified accordingly.

PATHOLOGY.

The lesions involving acute intestinal obstruction are the following:

1. Congenital atresia.
2. Intussusception or invagination.
3. Strangulation of hernia within the abdomen.
4. Rotation of a portion of intestine upon its own axis, or around the mesentery, or around another coil of intestine.
5. Compression of one portion of intestine by another portion, or pressure from

a tumor from without the canal or bands of organized lymph surrounding the bowel constricting it. 6. Stricture caused by morbid growths within the canal or contraction following cicatrization of ulcers. 7. Obstruction from impaction of feces, enterolithes and foreign bodies. 8. Appendicitis, and 9. Functional obstruction. I shall now endeavor to discuss the pathology of each of these forms in turn.

1. Congenital obstruction may result from improper development of the foetus. The most common form shows itself in the imperforate anus with rectum perfectly formed above, and secondly, the rectum ending in a blind pouch at a greater or less distance from the properly formed anus. Congenital atresia has been found in the large and small intestines, and in the duodenum, most probably resulting from foetal peritonitis.

2. Intussusception or invagination is the reception of one portion of the intestine into another portion, generally from above downward. In post mortem examinations this condition has often been found without any previous symptoms during life that such was present. In such instances the invagination must have occurred in the last moments of life.

Forty-three per cent of obstruction of the intestines are due to invagination.

Three layers of intestines are brought into apposition to one another in intussusception, an entering, returning, and receiving layer. Mucous surfaces are in contact inside the canal, they do not become adherent; but the outside or serous coverings become adherent, consequent upon the inflammation caused by the congestion of the intestinal vessels. Congestion and great swelling of the intestine followed by gangrene and sloughing away of the strangulated portion if the life of the patient be prolonged.

Invagination may occur at any portion of the intestinal tract, but generally at the junction of the ileum and cæcum.

3. Hernias within the abdomen may be the result of slits in the mesentery which are common in the portion attached to the ileum. Their size varies from a very small slit to an opening large enough to admit several fingers, and through this aperture the bowel slips and becomes strangulated.

Diaphragmatic hernia.—Of this variety there are two kinds in which strangulation may occur. Firstly, from congenital or traumatic lesions admitting the intestines, or secondly, where

the bowel passes through any of the normal openings which may have become stretched.

4. It may occasionally happen that a heavy coil of intestine will fall over a tight ligament, and by its own weight become strangulated.

Twisting of the intestine on its own axis, or volvulus, as it is sometimes called, is most apt to occur at the sigmoid flexure of the colon where a previous peritonitis has caused a contraction of the meso-colon, and upon this the intestine becomes twisted.

5. Pressure from without causing obstruction.

Professor Cushing relates of a case of this kind, following an attack of peritonitis, there were symptoms of intestinal obstruction, and upon operating there was found bands of organized lymph binding the rectum down upon the sacrum, forming a complete obstruction.

Acute intestinal obstruction caused by the twisting of an ovarian tumor on its pedicle is reported by Hochenhegg (*Wien. Med. Wochenschrift*, April 22, '88), which gives complete notes of a case which presented symptoms of acute intestinal obstruction in a very marked degree. Laparotomy was performed, disclosing a multilocular cyst of the left ovary which had become twisted on the pedicle. Similar cases have been reported only a few times.

The ways in which occlusion of the intestines may be caused by torsion of the pedicle, are:

1. The tumor may have become attached to the intestine or mesentery before the torsion occurs, then when it happens, the intestine is wound about the pedicle and occluded. Such a case was reported by Rokitansky in 1865.

2. A portion of intestine may be involved in torsion, and so be completely closed.

3. The torsion shortens the pedicle so that it may pull the tumor into the upper pelvic strait, where it will press upon and close the rectum.

4. After the torsion but before the venous stasis, a portion of the tumor may be carried into the true pelvis, and there swell so as to compress the flexure between itself and the bony walls. In the case related it was a combination of the second and last form.

6. Benign and malignant growths may cause an obstruction of the intestine by invading in their growths upon the caliber of the canal.

Cancerous growths are more often found in the rectum or sigmoid flexure of the colon. Cicatrizations of ulcers or other inflammations on healing may progress so far as to completely obstruct the bowel.

7. Any portion of the large intestines may be the seat of obstructing fecal accumulations. Intestinal calculi and gall-stones massed together may obstruct the bowel, and also substances swallowed accidentally or intentionally have become lodged in the intestines, causing a stoppage in the progress of matter through the canal.

8. Foreign bodies in the appendix vermiformis causing inflammation and ulceration of the same, and a swollen condition of the parts around may resemble intestinal obstruction. Perforation and general peritonitis may follow.

9. Functional obstruction is consequent upon a nervous lesion, and is generally found in combination with hysteria.

AETIOLOGY.

Much has already been said of the aetiology in the discourse on pathology, but those unmentioned will be here considered.

Strangulation generally follows some muscular effort. The abdominal muscles being fixed in attempting to lift; the diaphragm also fixed, and by the muscular exertion the abdominal viscera are compressed. Now is the time that a portion of the intestine might be forced through a small aperture in the mesentery, or between firmly fixed parts, or diaphragmatic hernia take place, invagination result, and strangulation of the bowels follow.

CLINICAL HISTORY.

At the moment of the occurrence of the attack the patient is usually seized with a feeling of something wrong having taken place in the abdomen with intense pain at one point. Gradually, perhaps rapidly, the suffering increases, the parts become exquisitely painful both at the site of the tumor and for some distance around; the slightest touch of the finger is intolerable. The patient lies in a position to relieve the parts of as much tension as possible. There is restlessness and jactitation. The abdomen becomes swollen and painful, the intestines being blown up with gas so as to give rise to immense tympanic distension.

The intestines rolling over one another occasion loud rum-

bling and gurgling noises. If the abdominal walls are thin, the rolling of the intestines can be distinctly felt, and in some cases seen through them, and may sometimes be observed to continue up to one spot where they cease. At this point an intumescence may be felt corresponding to the seat of strangulation. The mouth is dry and thirst excessive. The surface is hot, the countenance flushed and the head oppressed with pain.

Presently nausea and vomiting occur, first of ingesta, then bile and mucus, and finally of stereoraceous matter. Hiccough now sets in. Twitching of the tendons is a prominent symptom. The mind wanders even in the early stage. By the inflammatory products mucus and excretions take place in the bowel below the obstruction, and excreta are present which are in the form of mucus, blood, etc., etc.

If relief be not afforded a new series of symptoms appear. The countenance now assumes that peculiar shrunken appearance described by Hippocrates and called after him. The tongue is dry, tremulous and unable to protrude itself. The gums and teeth are encrusted with sordes. The surface is covered with a clammy perspiration and the extremities are icy cold. The tumor is of a livid color and crackles under pressure.

The patient is now weak and exhausted. The pain suddenly ceases and he becomes unconscious of his condition. This is a sign that mortification has taken place of the strangulated parts. Death soon follows.

DIAGNOSIS.

Acute obstruction may be taken for cholera, poisoning, peritonitis resulting from perforation of the intestines, hepatic or renal colic. When called to a case resembling intestinal obstruction it is the duty of the physician to examine all points where an external hernia might occur, and even unlikely orifices should not be passed over.

The rectum should be examined digitally and instrumentally. Cholera can only be suspected when an epidemic is prevalent.

Irritant poisoning is somewhat difficult to differentiate, and at times is impossible; however, the physiological action of the drug may be a clue to the diagnosis. Hepatic or renal colic possess pathognomonic symptoms which are sufficiently significant; but error in diagnosis is possible.

Symptoms to arouse the suspicions of the surgeon are continual vomiting of mucus, bile, then stercoreaceous matter attended with obstipation, followed by excessive prostration in the bowels, tenderness of the abdomen, and a pinched and anxious expression of countenance. Such symptoms should excite the suspicion of the existence of obstruction or strangulation, and no time should be lost in exploring every region of the body in which this affection is likely to occur. Functional obstruction associated with hysteria has been spoken of. In this form there is no sensitive point. The obstruction is spasmodic and the vomiting of intestinal contents is dependent upon the reversed peristaltic movement of the bowels.

When the correct diagnosis of a case of intestinal obstruction is made, it is then often difficult to determine whether the obstruction is of a mechanical nature, or whether it depends upon a spasmodic or inflammatory affection of the intestines. The history of the symptoms should be carefully ascertained. The abdomen and rectum should be carefully examined. This may throw light on the case and allow the surgeon to determine what means to use.

When an intestinal obstruction has been diagnosed; it would not be safe to further endeavor to complete the diagnosis. The symptoms of one variety or the other are precisely the same, and an exploratory incision is the only other means of fully substantiating the diagnosis.

Mr. Lawson Tait, of Birmingham, England, said to one of our professors, when having made a mistake in diagnosis of an abdominal growth, and upon revealing the truth by operation:

"Diagnosis as to the correct pathology of abdominal trouble is almost impossible. If you should bring me a table with a cloth cover upon it and ask me what kind of wood the top of the table is made of, I would say, remove the cloth and I will tell. So the most exact diagnosis is only made by abdominal incision or upon the post mortem table."

A case is here reported from the St. Joseph Hospital, where a dark field is evident for diagnosis in a common case.

Dr. Jno. H. Packard said that the amount of material presented for discussion in the papers read were so large that it would be difficult to do it justice. In connection with the cases of hernia reported he briefly mentioned another in which an old femoral hernia had been subjected to unjust suspicion. The

patient, a woman about fifty years of age, had been brought to St. Joseph's Hospital with intestinal strangulation of four days standing; her general condition had been bad, and she had had faecal vomiting. She had had an old femoral hernia which had given trouble on several occasions, but had always been successfully reduced. This was cut down upon and found to be empty. Laparotomy was then performed, a twist of small intestines being found and relieved, flatus was discharged per anum and the intense congestion and distention of the bowel relieved so that the mass was easily returned. In spite of vigorous stimulation hypodermically and by the mouth the patient sunk and died in six hours. Had an earlier operation been performed the result would probably have been different.

PROGNOSIS.

The higher the seat of the occlusion the more acute the course, but invagination of the sigmoid flexure of the colon may be very rapid. The average duration of all cases is four and a half days, the shortest being a few hours and the longest ten days. Strangulation, unless removed by operation must be looked upon as a condition following in order peritonitis, exhaustion with or without perforation and death.

The majority of all cases die after running a short and very painful course. The exceptions to this rule are few.

In instances where spontaneous recovery has taken place, there is uncertainty as to the actual cause of the trouble and the means by which relief has been obtained. It is easily seen that the natural efforts might counteract almost any occlusion. Bands may give away. A noosed knuckle may slip and again a volvulus may untwist; an invaginated portion may slough off or a foreign body may become dislodged; but the patient is not safe after an apparent recovery of this kind, for the condition causing the original attack may reoccur, perforation may take place or gangrene finally result. The natural recovery is of rare instances and it is without doubt a criminal negligence at the present day for a surgeon to wait for nature's course unaided. This is looked upon as a most serious condition tending more often toward a fatal result than recovery. Often precious time is wasted both in private practice and in hospital by neglecting to operate. When the tumor is inflamed, sensitive and intolerable of the slightest manipulation, it denotes local peritonitis which is often the forerunner of speedy death.

Inflammation may not kill but the shock may, and extraordinary cases have been reported of death in two or three hours.

Sir Astley Cooper mentions an instance where a patient from strangulation of the bowels lost his life in eight hours.

TREATMENT.

The treatment of acute obstruction is surrounded with difficulties. The past generations relied entirely upon rest, opium and starvation, but at the present day such treatment does not satisfy the profession, and the conclusion is arrived at that if relief can be afforded at all it must be by some form of operation.

Purgatives should be strictly avoided. Opium in full doses should be given subcutaneously to allay pain and arrest the peristaltic movement of the bowels.

Food should never be given by mouth as it will always be rejected, but the strength should be maintained by nutritious substances thrown into the rectum. The sucking of ice is very acceptable as it quenches the thirst and allays vomiting.

If after washing out the lower bowel several times the fluid injected returns unchanged and at the same time vomiting continues incessantly no relief can be hoped for by any other means than laparotomy.

Delay is most dangerous, the earlier the operation the greater the chances for success.

In cases ending fatally following operation the result is not as a rule caused by laparotomy, but as a result of its too late performance and the advanced condition of the grave changes in the bowel which follow the long continued obstruction.

Opium is a valuable agent; it not only allays pain, but arrests the peristaltic action of the bowels, hence giving inflamed parts physiological rest. Opium has its dark as well as its bright side, and if given early in obstruction it obscures the symptoms and so lessens the chance of making a diagnosis and of knowing the true condition of the patient. So it should be used with discretion.

Enemata are very useful and should be used early and thoroughly. In fecal accumulation or foreign body by enema may be dislodged and carried off.

Intussusception has been reduced by enemata and for diagnostic purposes they offer a great aid in endeavoring to locate the obstruction ; for if the gurgling fluid is heard in the cæcum the lesion can be located in the small intestines.

The best instrument with which to administer an enema is an invention of Dr. Wales, late Surgeon of the U. S. Navy.

On a bougie which is to be inserted into the bowel, is attached around its middle a rubber bag which can be inflated with air or water after being inserted beyond the sphincter ani muscles preventing all liquid from escaping after being injected. It has been generally supposed that water could not be made to pass beyond the ilio-caecal valve ; but in three out of four cases Dr. Battey, of New York, reports having found enemata to pass the valve into the small intestines.

When all conservative treatment has been used and decided improvement is not immediate then the operation must be resorted to as the only means of saving life. Appendicitis should be treated the same as acute intestinal obstruction, by operation, as the consequences would prove fatal if allowed to continue, ulceration and perforation would take place and death would follow from general peritonitis.

When peritonitis is present from perforation of the bowel, I even then think it is justifiable to operate. Close the aperture in the bowel, cleanse the cavity thoroughly and establish complete drainage. If peritonitis from perforation be left to go on it terminates fatally without a doubt.

"If you have a man down a well forty feet deep, and you have no rope to drop to him, you may let down a piece of thread. It is not likely that you will get him up, but then you might." Such was the remark of the learned Professor Velpeau, of Paris, in a similar condition of things. In one hundred and twenty cases of strangulation of the bowel where laparotomy was performed the death rate was fifty-seven per cent. This mortality, though a very high one, will be considerably reduced when surgeons realize the importance of advising an early operation.

OPERATION.

Although opening of the abdominal cavity was practiced before the era of antiseptics it was done with a great risk and high mortality. How often, even to-day when antiseptics are at their height, do we find death immediately following an operation, the result of peritonitis. The secret of this is the neglect of aseptic precaution. Is it not far wiser to prevent the entrance of such destructive organisms than to burn the house down trying to rid yourself of them ?

It is evident that many of these common organisms, as the spores of the anthrax and many others, have a greater power of resistance and survive under circumstances that would kill a human being. Then how in a rapidly absorbing cavity containing these spores are you to preserve the seat of the germs and still destroy them?

The secret of success in surgery is asepticism.

The operation should be performed in a room containing nothing but the articles need for the operation, without curtains nor carpet on the floor. Everything should be well scrubbed with a strong antiseptic solution, as one in five hundred of hydrargyri bichloridum or potassi permanganas, and the room well ventilated. The surgeon's apparel of clean linen which has been antiseptically prepared.

Nothing will be said about the condition that the surgeon's hands should be in when they are about to be thrust into such a delicate and absorbing sac as the peritoneum.

The instruments should be first sterilized by heat, 212° or more, and then placed into a tray filled with five per cent of carbolic acid and now with a carbolized spray you are ready.

The incision should be made in the median line below the umbilicus and should be long enough to allow the whole hand to enter the abdomen. Cutting through the peritoneal cavity, the hand is introduced and the right iliac fossa first examined. Then examine the coils of intestine carefully and to prevent the intestines from extruding a flat sponge wrung out of hot carbolized water should be kept on the opening. If the obstruction cannot be made out by the introduction of the hand, it would be the proper course to pursue to allow the bowels to extrude and make a systematic search, protecting the extruding intestines with warm carbolized sponges.

When the strangulated portion is found it should be carefully examined to ascertain if gangrene is present, and if found should be excised above the point where the strangulation took place and the cut ends be sutured or an artificial anus established.

If the strangulation be due to obstructing bands, they should be divided after ligating each extremity.

An intussusception may be reduced by gentle traction, but if by effused lymph they are tightly glued together rendering reduction impossible, resections of the parts should be made suturing the ends together or an artificial anus constructed by

stitching the end of the bowel to the opening in the abdomen. Treat malignant growths similarly by excision and if not, otherwise, construct artificial anus.

If the trouble is traced to the appendix this can be without trouble ligated close to the bowel and excised.

In case of foreign bodies, the incision should be made parallel with the long axis of the intestine removing the foreign body and suturing the opening with Lembert's or Geley's suture.

Having remedied the strangulation, the abdominal opening should be closed, but before this be done, the sponges, haemostatic forceps, and other instruments should be found to correspond with the list that had previously been taken, and now with large margin stitch the external opening including in the stitch peritoneum and all the tissues. Cutaneous stitches should then be taken, completely closing the whole wound favoring healing by first intention. A flannel bandage should be snugly pinned over the external dressing of equal parts of carbolic acid and glycerine. Should the temperature rise the wound should be reopened and the cavity washed out with all previously explained precautions, and a glass drainage tube inserted running down to the bottom of the cavity and left, replacing the large one by a shorter one, etc., until the abdominal cavity is free from abnormal secretions. If the external wound does not unite at every point a ventral hernia is liable to be induced.

Enema should be the only means of administering food. Ice cracked and small quantities of barley water can be taken by the mouth with opium to allay pain and arrest peristaltic movement of the intestines and with most perfect quietude the patient's recovery may be hoped for.

SURGICAL NOTES.

By Dr. J. F. MORSE, Surgeon to German Hospital, San Francisco.

Within the past twelve to eighteen months the following are some of the surgical cases which have come under my observation. Some of them may be of sufficient interest to warrant the publication.

Case 1. Mrs. L., entered German Hospital with large, freely movable ovarian cyst, right side; suffering from mitral insufficiency as well. Patient had noticed the tumor growing for

some months past, and as it began to distress her she resolved to have it removed. After a preparation of several days the usual incision was made and the tumor removed without any difficulty, the patient making an uninterrupted recovery. Assisted by Drs. Douglass and Maas.

Case 2. Japanese; admitted to City and County Hospital with large tumor on right side of abdomen. Examination under ether revealed its situation to be deep down in the abdominal wall. Incision into it proved it a large gumma, broken down in its center. It was thoroughly scraped out, during which process the abdominal cavity was opened. The opening was at once enlarged, the cavity thoroughly washed out, drained, and the wound united. Recovery rapid, with no untoward symptoms whatever. Assisted by Drs. Douglass and Von Hoffman.

Case 3. Mr. H., age 33, entered German Hospital in Dec., 1887. Cryptorchid. Left testicle situated in abdominal cavity near brim of pelvis to which it was apparently adherent. Formed a tumor as large as the fist, hard, fixed and painful. Diagnosis, sarcoma testis. After a short preparation, the abdomen was opened and with great difficulty portions of the sarcomatous mass was removed. The bleeding was quite profuse, and as it seemed impossible to thoroughly eradicate the growth, toilet of the abdominal cavity was made, drainage inserted and wound closed. Patient died about forty-eight hours after the operation. No post-mortem permitted. Assisted by Drs. Von Hoffman and Hans Hoffman.

Case 4. Mr. J. F. F., admitted into German Hospital March 2d, 1888. Cholecystotomy made April 2d, 1888, reported at length in PACIFIC MEDICAL AND SURGICAL JOURNAL, June, 1888.

Case 5. Mrs. —, residing in Oakland. Was requested by Dr. Wilhelm to see patient and make cholecystotomy. The patient was very old and had been suffering for a long time, becoming accustomed to excessive doses of opium to relieve her pain. Made an incision over tumor, in the region of the gall-bladder. Drew it forth, incised and evacuated a quantity of mucus and a great number of calculi of various sizes. A number were left in the sac which was then carefully stitched to the abdominal walls. Toilet of the abdominal cavity and closure of wound followed. In spite of the excellent care, which the patient subsequently received at the hands of Dr. Wilhelm and

Liliencrantz, she died on the third day after the operation. No autopsy permitted.

Case 6. Mrs. M., admitted to German Hospital with large abdominal tumor on left side, freely movable. After two days preparation, incision and removal of the multilocular ovarian cyst, with long pedicle. Easy removal and speedy recovery with no bad symptoms.

Case 7. Mrs. —, private. Came to me suffering with great pain in left side of abdomen low down, near tube. Stated that she had an extra-uterine pregnancy seven years previous and that the growth increased for eight or nine months, when it collapsed and she recovered and was well until recently. Her physicians advised her to let the growth alone. When she came to consult me she had been suffering from loss of appetite and perspirations at night. I put her to bed and kept her there for two weeks. During that period her temperature was never above normal, nor could fluctuation be detected in the mass either from the abdominal walls or vagina, or by bimanual palpation. Still she emaciated and became constantly weaker. I resolved to operate and did so with the assistance of Drs. Lovelace, Healy and Sherman; Dr. Wagner being present. An incision three inches in length was made in the linea alba and the result of the tubal pregnancy exposed. One arm was sticking into the abdominal cavity. In attempting to detach the sac, it burst, flooding the abdominal cavity with a foul, stinking pus. Hastily enlarging the opening in the sac, I removed a large portion of the foetus and a couple of handfuls of detached bones. The sac and abdominal cavity were thoroughly washed out with a two-per-cent solution of carbolic acid and a drain of carbolized gauze pushed into the sac and allowed to hang from the lower end of the cut. The wound was closed and dressed in the usual manner. Patient was very weak after the operation, but rallied nicely toward evening. Next day, dressing removed, drain pulled out and two large drainage tubes inserted instead. Cavity thoroughly washed out with one-per-cent carbolic-acid solution. This was continued every day for a week, when all drainage ceased and tubes were removed. During all this period the patient's temperature was never above 100° F. At the end of ten days stitches removed. It is now scarcely six weeks since the operation and patient is well, dresses herself and gets about her room.

Case 8. Mr. G., entered German Hospital with carcinoma pylori, much emaciated and very weak. Both he and his wife insisted upon an operation being performed. Incision of abdomen, incision of anterior wall of stomach, dilatation of pylorus, after Loretta's method. Patient seemed better for a day or two, but finally died of exhaustion, taking no nourishment. No rise in temperature, no peritonitis after operation. Wound healed per primæm. Assisted by Drs. Lovelace and Kirchhoffer.

Case 9. Mrs. — First under care of Dr. Dawson, of St. Helena. He found ulceration of os and suspicious hemorrhages and other symptoms pointing to carcinoma uteri. Called me into consultation, confirmed his diagnosis, but to be positive had a piece of the growth removed and submitted to Dr. Douglass Montgomery, who pronounced the growth cancerous. Advised immediate removal of uterus. The patient went to the German Hospital and on Aug. 25th, 1888, with the assistance of Drs. Dawson, Douglass, Maas, Lovelace, I removed it, with appendage through the vagina, after the method of Schroder. Duration of operation one hour and a half; loss of blood minimal. Drainage by two rubber tubes of large caliber. Recovery uninterrupted, tubes removed on eighth day. Left the hospital at the end of four weeks. Has since gained flesh and has had no trouble except on the first two menstrual periods, when she had what she called cramps for a day. Of course, it is too soon to tell if the operation will prove a permanent cure.

For the incompleteness of the notes, I can only ask to be excused, on account of the lack of time I have for keeping them, receiving but little assistance from those who are generally required to take them.

Atropin and Hyoscyamin.

Some remarkable results have been obtained in regard to the interchangeability of atropin and hyoscyamin. It has been shown that in treating belladonna root for the purpose of extracting the alkaloid, it is possible to obtain either atropin or hyoscyamin, or a mixture of both alkaloids by varying the process. These results would seem to authorize the supposition that atropin does not exist as such in the belladonna plant, but is really hyoscyamin, which is converted into atropin in the course of manufacture. The discovery was made at the *Chemische Fabrik* at Aktien, and possesses considerable interest from many points of view.—*Medical Press.*

Proceedings of Societies.

Proceedings of the San Francisco County Medical Society.

SAN FRANCISCO, September 11, 1888.

The meeting having been called to order by the President, Dr. J. D. Arnold, the minutes of the former meeting were read and approved.

The Committee on Admissions reported favorably on the application of Dr. Henrietta Brown, who was forthwith elected to membership.

Dr. Morse reported a case of facial neuralgia relieved by neurotomy. In 1862 the patient was attacked with tic doloureux after exposure to a severe snow-storm in the mountains, and for the relief of this, Dr. Bulkley, of New York, performed some operation in the region of the superior maxillary nerve, the nature of which is unknown to the patient. This did not afford him any relief, and after a time the pain became associated with spasmoidic contractions of the facial muscles so that in 1873 he applied to Prof. Jas. Wood who performed a second operation. The patient remained free from pain for eighteen months, but after a severe wetting it recurred, and was only kept in subjection by the continuous use of large doses of morphine until 1885, when, by dividing the inferior dental nerve, Dr. Lane relieved him for other three months. Acting on the recommendation of Dr. Lane, he applied to Dr. Morse, telling him that unless some relief could be given him he certainly would be compelled to commit suicide.

Dr. Morse suspected that Wood's operation had failed to divide the posterior dental branches, as there was intense pain in the area of their distribution, and as dissection verified the suspicion, these branches were removed together with the inferior dental; the gustatory and supra-orbital also being divided. The patient has not complained since the operation, but it is too soon to regard the case as cured since the pain may return as on former occasions.

Dr. H. M. Sherman said that Wood practiced before the days of Listerism or antisepsis, and adopted the custom of leaving wounds open and allowing them to heal by granulation from below. This would account in some measure for the deep cicatrices which his operation had left upon the face of the patient.

Dr. Morse replied that the scars were due to the method of operating and not so much to the healing process. It was to obviate these that Lawson and Brown's method, which he himself had followed in dividing the superior maxillary, had been introduced. He had not any faith in bloodless stretching of nerves for neuralgic affections, but in several instances relief had followed cutting down upon the nerve and stretching it. He did not think that the result was due to stretching of the nerve fibers, but to the setting up of an inflammation which might lead to the absorption of other products.

Dr. W. W. Kerr reported a case of congenital absence of the left kidney. The patient was admitted to hospital suffering from ascites, the abdomen being enormously distended, and the dyspnoea very great. No relief was obtained from cathartics, diuretics, sudorifics or any other medicinal agent; indeed, the urine always remained scanty but free from albumen, and consequently the patient was tapped. This permitted percussion which revealed a marked diminution in the area of hepatic dullness. On auscultation a regurgitant murmur could be heard in the mitral area. The diagnosis was mitral incompetence and cirrhosis of the liver. The fluid accumulated so rapidly in the abdominal cavity that paracentesis had to be performed three times in fourteen days to relieve the pain of distension and the dyspnoea. Post mortem examination conducted by Dr. Cook showed a well marked cirrhosis of the liver and shortening of the mitral valves. The strangest feature was the entire absence of the left kidney or any trace of it, while the right was uniformly hypertrophied to nearly twice the normal size. The case was interesting as showing how well one kidney could, under ordinary circumstances, perform the functions generally carried on by two; and also as the discharge of urinary functions by one organ would require a higher blood pressure than normal, such cases would indicate that the cardio-vascular changes in Bright's Disease were due to a rise in blood pressure throughout the body, probably caused by action of retained material upon the vaso-motor centers, and not simply to rise in renal pressure.

Dr. Le Tourneux had a case under observation at the present time in which the cavity always refilled within two or three days after tapping, but he could not discover any indications of disease or abnormality beyond the portal obstruction.

Dr. Morse remembered seeing a patient operated upon for hy-

dronephrosis. The operation was followed by total suppression of urine and death; the autopsy showed that the remaining kidney was only rudimentary.

Dr. Douglass Montgomery thought that in Bright's Disease a general rise in blood pressure was caused by action of urinary constituents on the walls of the vessels.

Dr. Arnold suggested that in cases where one kidney was absent the other might be hypertrophied sufficiently to compensate for the diminished excreting surface caused by the absence of the other organ, and, therefore, no rise in renal arterial pressure would be necessary for the efficient performance of the work.

There being no further business the Society adjourned.

W.M. WATT KERR,

Recording Secretary.

SAN FRANCISCO, September 25th, 1888.

The meeting having been called to order by the President, Dr. J. D. Arnold, the minutes of the former meeting were read and approved.

Dr. F. W. D'Evelyn, a graduate of the University of Edinburgh, was proposed for membership by Dr. D. W. Montgomery and Dr. W. W. Kerr; also Dr. Wm. S. Wallace, by Dr. C. G. Kenyon and Dr. W. W. Kerr. Both applications were referred to the Committee on Admissions. A bill of \$97.20 from Duncombe & Co. for library books was approved and ordered paid by draft on the Treasurer.

Dr. Wm. E. Taylor exhibited a specimen of lymphoid cell sarcoma which he had taken from a patient who during life had presented all the symptoms of visceral syphilis; the tumor had been very slow in growth, and, to the naked eye, appeared to be a gummatous affection of the liver, but microscopic examination by Dr. Douglass Montgomery showed it to be the form of sarcoma above mentioned.

At the request of the President, Dr. Taylor opened the discussion on "Visceral Syphilis." He regarded the importance of a more accurate knowledge of visceral syphilis as increasing every year, since the tertiary manifestations of syphilis are the most serious of all lesions to internal organs. The disease was not local, but general, affecting every tissue in the body; and

while the disappearance of a certain group of symptoms led some to believe that the disease tended towards a selfcure, and to regard re-infection as proof that the disease in the first instance had been rooted out, he felt some hesitancy in accepting the accuracy of the diagnosis, especially when he remembered the many diseases it resembled. He doubted extremely if any one ever did fully recover from syphilis, and believed that many of the chronic diseases, which at present are held as distinct from venereal affections, are really syphilitic in their origin.

Dr. D. W. Montgomery said that after making sections of the specimen exhibited he found that the nodules were made up of lymphoid cells containing a large granular nucleus, they did not stain readily, and around the tumor were capillary blood vessels and extravasated leucocytes which were smaller than the cells of the tumor and did not possess the granular nucleus. Was the tumor syphilitic? The syphilitic granuloma were in the same category as tubercle, glanders, and lupus—i. e. they were all made up of small round cells, like leucocytes, which stain easily; in this case the cells were larger, contained a granular nucleus, did not take the staining fluid. In some instances the tumors presented signs of slight fatty degeneration in their centers.

Dr. Rosenstirn believed that it used to be regarded as a differential point between gummata and sarcoma, that the former underwent degenerative changes while the latter did not. In view of Dr. Montgomery's last statement he would be inclined to the first opinion of Dr. Taylor that the tumors were syphilitic in their origin.

Dr. Abrams said that particular stress had been put upon the fact that the cells did not absorb the staining fluid. Now, if the tumor had undergone degeneration the cells must have contracted and their vitality being impaired the difficulty in staining could be explained. He noticed lately that some statistics showed 80 per cent of the cases of aortic aneurism were due to syphilis, and he believed that in such cases the benefit derived from iodide of potash was due to its being a direct antidote to the syphilitic poison.

Dr. Montgomery recognized the difficulty of diagnosis. In syphilis the degenerative changes are very well marked, while in this case they were very slight when compared with granuloma, and commenced at quite a distance from the periphery.

The cells did not resemble those of granuloma and the presence of the blood vessels also spoke in favor of sarcoma.

Dr. Arnold said that some time ago Dr. Taylor called attention to the degenerative changes in the blood vessels which did not readily respond to specific treatment; as the management of these later forms of the disease is very difficult he thought that some remarks upon this subject would be appropriate.

Dr. Taylor replied that he had avoided mentioning treatment as he believed that to be pretty well agreed upon. It used to be taught to give mercury in the first and second stages and iodide in the third, but now he never gave iodide alone in the third stage as he obtained better from a combination of the two, either in the same prescription, or as inunction, or both. Of course, the failure of a disease to respond to this treatment did not show that it was not specific, for the tissue degeneration might have proceeded so far as to be beyond the influence of any drug. The great difficulty in the administration of remedies lay in the location of the disease, for if the alimentary system were involved we would have to contend with the digestion as well as the syphilitic poison. If the emunctories were kept working freely much better results would be obtained from medication, and it was on this account that so much benefit frequently followed a visit to hot springs.

There being no further business the Society adjourned.

WM. WATT KEER,
Recording Secretary.

CHLOROFORM-WATER AS A SOLVENT FOR DRUGS.—Dr. Una (*Therapeutische Monatshefte*, July, 1888,) has employed the antiputrefactive power of chloroform-water for the preservation of solutions of drugs for subcutaneous employment. When a solution of chloroform-water is injected under the skin a slight burning sensation is produced; but general action attributable to chloroform is but rarely produced. In many cases, however, no objective sensation follows the injection of chloroform-water in the gluteal muscles. Una commends the substitution of chloroform-water for distilled water in the preparation of Fowler's solution, and all ergotine preparations, even when intended for internal use. He likewise recommends the addition of a few drops of chloroform to morphine solutions, and, in fact, he finds it preferable to dissolve all alkaloids, whether intended for internal or external use, in solutions of chloroform-water.—*Therapeutic Gazette*.—*The Medical Record*.

Licentiates of the California State Board of Examiners.

SAN FRANCISCO, CAL., October 24, 1888.

In a special meeting of the Board of Examiners held October 22, 1888, the following physicians were granted certificates to practise medicine and surgery in this State.

CHARLOTTE ALLEN, Los Angeles ; Med. Dept. University of Michigan, Mich., June 26, 1879.

CARL ADAM BECK, San Francisco ; Med. Dept. State University Iowa, Iowa, March 7, 1888.

HENRY EDW. CREPIN, San Diego ; College of Physicians and Surgeons of Chicago, Ill., Feb. 23, 1886.

EDW. P. H. GRISWOLD, Los Angeles ; Med. Dept. University of New York, N. Y., Feb. 19, 1878.

STERLING C. NEWTON, East Los Angeles ; Berkshire Medical College, Mass., Nov. 21, 1854.

JOHN SAMUEL SARGENT, Fresno ; The College of Physicians and Surgeons, Ill., Feb. 21, 1887.

ALFRED A. STONEBERGER, San Francisco ; Med. College of the Pacific, Cal., Nov. 8, 1881.

ROLAND EDGAR WOODWARD, San Diego ; Med. Dept. University of Georgetown, D. C., March 3, 1864.

GEORGE F. WRIGHT, San Diego ; Miami Med. College, Ohio, Feb. 28, 1873.

The following names were rejected on the ground of insufficient credentials : Theo. E. Bennett, Los Angeles ; Garcia de Leon, San Diego.

Dr. Winslow Anderson was appointed to fill the vacancy made by the resignation of Dr. Plummer.

CHAS. E. BLAKE, M. D., Secretary.

SAN FRANCISCO, November 8, 1888.

At the regular meeting of the Board of Examiners held Nov. 7, 1888, the following physicians were granted certificates to practice medicine in this State.

JOHN K. BARTLETT, Berkeley ; Med. Dept. Yale Coll., New Haven, Conn., Jan. 21, 1841.

MANUEL CARRANZA, San Francisco ; Board of Public Instruct. of Guatemala, C. A., Aug. 2, 1888.

EDWARD S. CLARK, San Francisco ; Hospital Coll. of Medicine, Louisville, Ky., Feb. 26, 1880.

CHESTER E. COULTER, Los Angeles ; Med. Dept. Univ. of Michigan, Mich., June 28, 1883.

HENSON H. CROSS, Los Angeles ; College of Phys. and Surgeons, Keokuk, Iowa, Feb. 27, 1883.

- WM. L. CUTHERBERT, Long Beach ; Rush Med. Coll., Ill., Feb. 4, 1862.
CYRUS R. DIXON, Whittier ; Med. Coll. of Indiana, Ind., March 3, 1881.
CHAS. W. DOYLE, San Francisco ; University of Aberdeen, Scotland, Aug. 3, 1875.
MARY C. FRITCHER, nee CHAPMAN, Los Angeles ; Quincy College of Medicine, Ill., March 10, 1886.
ALFRED F. FUHRS, Los Angeles ; Rush Medical College, Ill., Feb. 21, 1882.
HARRY O. HOWITT, San Francisco ; Cooper Medical College, Cal., Nov. 17, 1887.
ELMER E. KELLY, San Francisco ; Cooper Med. Coll., Cal., Nov. 17, 1887.
J. C. KENDRICK, Downey ; Med. Dept. Univ. of Louisville, Ky., March 1, 1877.
LUCIA M. LANE, San Diego ; Woman's Med. Coll., Pa., March 15, 1888.
AGNES LOWRY, San Francisco ; Faculty of Medicine, Paris, April 12, 1884.
ISABEL LOWRY, San Francisco ; Faculty of Medicine, Paris, April 12, 1884.
WM. S. MANLOVE, Perkins ; University of Pennsylvania, Penn., April 3, 1847.
HARLEY P. MATHEWSON, Los Angeles ; Dartmouth Med. Coll., N. H., Oct. 31, 1862.
AUG. L. MORRILL, San Francisco ; Med. Dept. Univ. of California, Cal., Nov. 15, 1887.
C. B. NICHOLS, Sacramento ; Dartmouth Med. College, N. H., Nov. 1, 1871.
JOHN SCHNITZ, Los Angeles ; Rush Medical College, Ill., February 21, 1882.
JAS. H. SCOTT, Los Angeles ; Med. Dept. Univ. of Michigan, Mich, June 23, 1885.
GEO. F. SHIELDS, San Francisco ; University of Edinburgh, Scotland, April 15, 1884; Royal Coll. of Phys., Edinburgh, Scot., July 26, 1884; Royal Coll. of Surg., Edinburgh, Scot., March 16, 1888.
VIRGINIA W. SMILEY, San Diego ; Woman's Med. College, Pennsylvania, March 17, 1887.
ELTON R. SMILIE, San Francisco ; Phil. Coll. of Med. and Surgery, Pa., March 6, 1849.
JOSEPH T. SMITH, La Verne ; Med. Dep. Western Reserve Univ., Ohio, Feb. 15, 1855.
JOSEPH B. WAIT, Red Bluff ; Coll. of Phys. and Surg., Keokuk, Iowa, Feb. 14, 1878.
ANNES T. WASS, East Los Angeles ; Woman's Hosp. Med. Coll., Ill., Feb. 28, 1882.
GEO. R. E. WILLIS, Winchester, Vanderbilt University, Tennessee, March 1, 1879.
W. LESTER WILSON, San Jose ; Med. Coll. of Indiana, Indiana, March 2, 1887.
GEO. WRIGHT, North Ontario ; Toronto School of Med., Toronto, Canada, June 6, 1867.

THE Southern Surgical and Gynæcological Association will hold their Annual Meeting December 4, 5 and 6, at Birmingham, Alabama.

Health Reports.

San Francisco Health Report.

ABSTRACT.

	1887	Jan	Feb	Mar	Apr	May	June	July	Aug.	Sept.	Oct.
Total, 1887.....	5649	522	451	445	450	475	409	459	409	427	486
Total, 1888.....	650	504	502	504	479	519	478	425	460		
Phtisis.....	858	89	78	87	90	75	74	72	71	68	77
Pneumonia.....	320	103	56	62	47	39	41	39	32	19	25
Bronchitis.....	127	25	31	14	11	19	9	12	13	9	13
Heart Disease.....	273	43	27	26	29	22	34	35	31	27	32
Aneurism.....	27	0	3	4	2	0	0	4	2	1	5
Apoplexy.....	147	11	15	22	8	18	13	14	11	12	10
Typhoid.....	121	23	8	6	13	12	16	12	10	18	13
Paralysis.....	109	16	8	7	8	9	3	9	11	10	6
Cancer.....	174	18	21	17	15	22	8	24	15	11	11
Diphtheria.....	222	10	15	7	11	15	5	7	12	5	5
Croup.....	92	10	6	4	5	6	3	4	7	8	5
Infant Convulsions.....	156	12	13	13	10	18	14	16	9	11	9
Meningitis.....	130	18	20	16	21	12	21	10	14	3	12
Casualties.....	174	12	15	10	16	22	19	18	22	11	21
Suicides.....	84	8	5	9	10	6	4	5	6	4	7
Homicides.....	21	2	5	2	2	2	1	1	0	3	0
Small Pox.....	24	27	9	4	4	2	0	2	0	2	2
Enteritis.....	..	17	..	12	11	19	21	9	9	11	6
Measles.....	..	11	5	2	1	1	0	0	0	0	0
Alcoholism.....	..	..	6	3	4	2	6	3	7	4	
Daily mean tem			46.3°	52.8°	52.5°	56.2°	54.4°	61.°	59.1°	57.8°	59.°
Precip. moisture			6.81	0.94	3.60	.11	.38	.27	.01	.01	.98

Population according to U. S. census, July 1st, 1880, was 234,520; Caucasian, 212,520; Chinese, 22,000. Estimated population, June 30th, 1887, 330,000; Caucasian, 300,000; Chinese, 30,000.

Report of State Board of Health.

Reports received from seventy-nine localities return a mortality for the month of October of nine hundred and two dececents, in an estimated population of seven hundred and twenty-six thousand eight hundred and fifty, giving the remarkably small monthly percentage of 1.24 per thousand, or an annual death rate of 14.88. We believe that this is a lower percentage of deaths than will be found in any State within the Union for the month of October. The deaths for the month from infectious or zymotic diseases, including typhoid fever, did not reach

one-tenth of the total mortality, which shows how remarkably free the State is from any epidemic disease with a fatal tendency.

Consumption, as usual, holds the highest place in our mortality record; one hundred and forty-three deaths being attributed to it, which is an increase over the previous month.

Pneumonia also shows an increase, having caused forty-seven deaths in October. This may be attributed to the meteorological changes during the month, causing an increased number of persons to be attacked by the disease rather than to any malignity in its type.

Bronchitis was fatal to fifteen decedents.

Congestion of the lungs caused eight deaths.

Diarrhea and dysentery was fatal in twenty-two instances, which is an increased mortality from this cause over that of the month previous.

Cholera infantum records thirty deaths, which is a large mortality so late in the season. August and September had the same number of decedents from this cause.

Diphtheria was fatal in twenty-six instances, an increase over last month's report. Of these, four died in Los Angeles, four in Santa Barbara, three in Oakland, five in San Francisco, two in Watsonville, and one each in Alameda, Downey, Nevada, Pasadena, Pomona, Rocklin, Sacramento, and San Bernardino.

Croup caused fourteen deaths. As these were probably all the result of diphtheritic infection, the fatality from this preventable disease is quite a prominent feature in our death record.

Whooping-cough caused two deaths.

Scarlet fever is credited with three deaths—one in Marysville, one in Truckee, and one in San Francisco.

Measles was fatal in but one instance.

Smallpox caused two deaths, both in San Francisco.

Typho-malarial fever is credited with six deaths.

Typhoid fever had a fatality of thirty-six, which is a decrease from last report. San Francisco is credited with thirteen of these fatal cases, Los Angeles five, Sacramento four, Redding two, and one each in San Diego, Anaheim, Santa Ana, Santa Barbara, San Bernardino, Watsonville, Riverside, Placerville, Truckee, Oakland, Napa, and Chico.

Remittent fever caused six deaths—two in San Francisco, and

one each in Oakland, San Diego, San Bernardino, and Santa Ana.

Cerebro-spinal fever was fatal in eleven instances, which is an increase over the report for September. Seven of these were reported from Oakland, one from Chico, one from Igo, one from San Francisco, and one from Santa Rosa.

Erysipelas caused no deaths.

Heart disease caused fifty-five deaths.

Cancer was fatal in eighteen instances.

Alcoholism caused nine deaths.

The following towns report *no deaths* during the month: Alturas, Castroville, Cedarville, Etna Mills, Lockeford, North Bloomfield, Roseville and Forest Hill.

PREVAILING DISEASES.

Reports received from eighty-four localities are singularly united in the assertion of the reporters that there was no sickness worth speaking of in their several fields of practice, and this assertion seems founded upon fact when compared with the reports of mortality from acute disease.

Cholera infantum was observed in many localities in sporadic form, and is mentioned in reports from Wheatland, Elsinore, Lodi, Bakersfield, Colfax, Gonzales, Nevada City, Anaheim, Los Angeles, Oakland, Pomona, Salinas, Sacramento, Santa Ana, Santa Rosa, and San Francisco. The season is late for this disease to be so prevalent, but may be owing to the increased temperature over normal that prevailed throughout the month.

Diarrhoea and dysentery seem to have been quite marked in several localities. In Sacramento, Nicolaus, Cedarville, Brownsville, Wheatland, Merced, Lakeport, Lockeford, Tulare, Redding, Igo, Lemoore, Lincoln, Williams, Red Bluff, Fresno, Downey, San Bernardino, Benicia, Newcastle, Bodie, San Francisco, and other places, they have been quite noticeable from their frequency, but not from their fatality, as the type has been mild and yielded readily to appropriate remedies.

Scarlet fever was quite prevalent in Sacramento, San Francisco, Sisson, Colton, Lockeford, Truckee, Biggs, Anderson, Red Bluff, and Marysville. The type is particularly mild, and rarely shows malignancy. This form of the disease leads to gross carelessness upon the part of parents and guardians, in permitting their children to attend school, and in allowing the visits

of other children to their houses while the disease is still there; as it is impossible to tell in what case it will take on the mild course, or in what the malignant type. Every case of scarlet fever or scarlatina should be promptly isolated, and no intercourse permitted between the sick and the well, until perfect convalescence was established, and the place of sickness thoroughly fumigated and disinfected. Scarlet fever germs are among all germs most persistent in their tenacity of life; they will live for months, perhaps years, in infected garments, and come forth at some favorable opportunity to reap a harvest of sickness, perhaps death, or, in many instances, to impress a lifelong impairment of bodily strength and vigor. The mildness of the attack is often the precursor of serious disease, and too much care cannot be taken of those affected by scarlet fever in any form, and no words can sufficiently condemn any person who permits the intermingling of the sick, suffering from scarlet fever, with the well, where it is within the bounds of possibility to prevent it.

Measles are mentioned in reports from Jolon. In other places it seems to have exhausted the susceptible material.

Smallpox appeared in one instance during the month in Sacramento. The man was working on a ranch some distance from the city, and knew of no means whereby he could have become infected. In San Francisco some few cases were detected in the County Hospital. One case came from Cincinnati on the train, and developed the disease on arrival in San Francisco. As we knew not how soon the disease may take on an epidemic character and extensive range, the necessity of immediate vaccination cannot be too earnestly urged. Through it we can avert an epidemic, and by it can positively protect the person from attack. We would, therefore, urge our local Boards of Health and Health Officers to attend to the vaccination of all unprotected persons at once. A pandemic wave is slowly but surely passing over these United States, and we cannot escape it except by thorough vaccination and revaccination, when it will pass harmlessly by.

Diphtheria unfortunately is a constant visitor in many towns. It is noticed in reports from Rocklin, Truckee, Redding, Biggs, Anderson, Sacramento, San Francisco, Oakland, Watsonville, St. Helena, Santa Barbara, Los Angeles, Tulare, Jolon, Oakland, San Bernardino, Pasadena, Pomona, Downey, and Alame-

da. The cases seem sporadic, without any tendency to epidemicity. When attacking children in the form of croup, its fatality is greatest. The necessity of taking all possible sanitary measures to prevent the spread of this formidable disease, is apparent, or ought to be, to everybody, and yet we witness public funerals of those dead of the disease; we see houses crowded with mourning friends where the spores of disease are floating all around them, and if they escape it is not owing to their own prudence, but to the condition of their system, which renders them antipathic to the disease at that time. Until such foolish proceedings are forbidden by law, and under a penalty, we may expect diphtheria to be carried from place to place and to take its victims wherever it can find a suitable medium for its development.

Whooping-cough is noticed in Merced, Angels Camp, Anderson, and San Francisco.

Erysipelas. Sporadic cases are reported in Sacramento, Truckee, Fresno, and St. Helena.

Typhoid fever is mentioned as noticeable in Elsinore, Colfax, Sacramento, Fort Bidwell, Etna Mills, Colton, Anaheim, Redding, Truckee, Igo, Watsonville, Downieville, Millville, San Bernardino, Santa Ana, San Diego, Los Angeles, San Francisco, and Chico.

Pneumonia is becoming quite prominent among the prevailing disease reports, which is to be expected as the temperature lowers and winter rains appear. With—

Bronchitis, it is noticed quite frequently in San Francisco, Oakland, San Bernardino, Los Angeles, Downey, Fresno, Tulare, Wheatland, Etna Mills, Lemoore, Lakeport, Truckee, Williams, Anderson, Marysville, Brownsville, Rocklin, Downieville, Igo, and other places. The type is not severe, and the disease is not epidemic anywhere.

Yellow fever. In our last report we mentioned the fact of this Board sending an expert to the frontier, to ascertain our liability to the inroad of yellow fever. Dr. Herrick having visited all the suspected points, reports that no danger is to be apprehended this year. None of the nursery products of Florida will be imported into this State until February or March, when the frost will have entirely killed the microbe upon which yellow fever is supposed to depend, consequently we run little or no danger from this source.

The Board is now engaged upon the work of ascertaining how far the prevailing diseases among cattle are dangerous to human life and to what extent they prevail or are likely to affect the food supply of the State.

PACIFIC COAST WEATHER FOR OCTOBER, 1888.

Weather. The storms appearing off the Pacific Coast during October, passed to the east, north of the northern boundary of the United States, and accompanying rain areas did not extend as far south as California. Rain fell in Oregon and Washington Territory on the 6th, 7th, 8th, 12th, 13th, 16th, 17th, 22d, 23d, 24th, 25th, 27th, 28th, 29th, 30th, and 31st, and local showers occurred in the same districts on the 9th, 10th, 11th, and 20th. In the extreme southern portion of California, local rains fell on the 6th, 17th, 18th, and 19th, and in northern California there were local showers on the 30th.

Temperature. The month has been warmer than usual over all the country west of the Rocky Mountains; the greatest departure, eight degrees, occurring over Nevada, Utah, and eastern Washington Territory, and the least, two degrees, along the coast of California.

Rainfall. The rainfall for the month has been about the average rainfall for October in Oregon and Washington Territory, and the extreme southern part of California. In northern California little or no rain fell during the month, except on the northern coast, where the amount was about half the normal.

GERRARD G. TYRRELL, M. D.,

Permanent Secretary California State Board of Health.

Sacramento, November 10, 1888.

The Spread of Puerperal Disease by Indirect Infection.

Fehling (*Archiv fur Gynakologie*, Band 32, Heft 3, 1888) regards direct infection, since the hands and instruments of obstetricians are disinfected, as infrequent. He believes that pathogenic germs often obtain access from infected linen and furniture, and from the atmosphere. He cites a case in his own experience in which erysipelas and puerperal sepsis followed the bursting of a drain which infected the air of a ward. He considers primary infection to be that conveyed by direct contact of pathogenic germs from without. Secondary infection is produced by the absorption of ptomaines produced by germs which have entered the genital canal before or after labor.—*American Journal of Medical Sciences*.

PACIFIC MEDICAL AND SURGICAL JOURNAL

AND

WESTERN LANCET

EDITOR:

WILLIAM S. WHITWELL, A. M., M. D.

The Editor is not responsible for the views of contributors.

All communications relating solely to the editorial management of the JOURNAL, should be sent to No. 438 Bryant St., San Francisco.

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SAN FRANCISCO, DECEMBER, 1888.

Editorial.

With the current number of the JOURNAL we take leave of our subscribers and friends as editor, having transferred all rights in said JOURNAL to Dr. D. A. Hodghead. Dr. Hodghead is a Virginian by birth. He is a graduate of King's College, Bristol, Tennessee, where he received his A. M. His M. D. he received from Bellevue Medical College, in 1884. After graduation he remained in New York for some time, taking special courses with a number of the professors of the College. In his new undertaking we wish him success and hope that under his editorship the JOURNAL, which for so long was the only one upon the Coast, may receive the patronage of the profession. We bespeak for him the good will of our friends who have always given us such encouraging support in the past.

THE STATE BOARD OF HEALTH.

With surprise and regret we learn that our friend, Dr. G. G. Tyrrell, whose term as member of the State Board of Health has just expired, has not been re-appointed by the Governor, and thereby that the State is to incur the serious loss of his services as Secretary of the Board. We say "with surprise," for it was

understood that the Governor had promised he should remain undisturbed in the place which he has filled with signal ability and fidelity, and to full satisfaction of the Board and the public.

Hitherto there has been a tacit understanding that the State Board of Health and the insane asylums should be kept out of politics, and it is an evil day for State medicine, in any or all its branches, when they, one or all, shall be dragged into its mire. The certain consequence will follow, that the medical officer will employ himself less in his legitimate duties than in making himself "solid" with the party managers and in working for the success of his party; and another consequence equally sure will be the subordination of official duties to his private practice. It is too much to expect of human nature, that a medical practitioner should sacrifice, or imperil, his private and permanent business for official work which he is liable to lose at the end of a stated term; but let it be fairly expected that faithful and efficient service will assure continuance in office, and there will be a powerful incentive to activity, with corresponding advantage to the public.

The principle is of special importance in sanitary and asylum practice, for they are properly specialties in medicine, and proficiency requires not only extensive reading but prolonged experience; and the latter qualification is the more important of the two. Rotation out of office certainly prevents the latter, and the "spoils system" of appointment eliminates the former as a factor.

In most of the Eastern States the executive affairs of State Boards of Health and of Municipal Health Departments are undisturbed by the political changes which periodically take place, and the result is that their services constantly become more and more valuable to the public; on the contrary, where this principle is disregarded, officers have neither time nor inducement to become sanitarians.

As long as war remains the chief concern and main occupation of states, they can never become civilized (the polity of Rome

was never civilized in the modern sense); and so long as a state of civil war prevails among those who profess an interest in sanitation, so long will it halt in the stage of barbarism.

Cooper Medical College.

The sixth annual commencement exercises of the Cooper Medical College, took place on November 18th in the college building, corner of Sacramento and Webster streets.

The exercises were opened with prayer by Rev. N. L. Rowell, D. D., after which Professor L. C. Lane, M. D., President of the College, addressed the graduating class. The names of the graduates are as follows: Joseph Henry Campbell, Santa Rosa; Tenison Deane, Thomas Louis Mahoney, San Francisco; Mary Gertrude Page, Alameda, Jonathan Morffew Peel, Nathan Rosencrantz, George Rothganger, A. B., Fred H. Stahl, Ludwig Rudolph Stammer, George Burbank Somers, A. B., John Bernard Tennent, Joseph Wolf, Jr., Effie Deane Worley, Minnie Greenstreet Worley, San Francisco.

The valedictory address was given by Professor C. N. Ellinwood, M. D., the Rev. W. H. Scudder made a short address, and the proceedings closed with the benediction by the Rev. N. L. Rowell, D. D. A prize was awarded to Dr. D. F. Reagan, a graduate of 1887, for the best history of several important medical cases.

Medical Department University of California.

The exercises of the Medical Department of the University of California were held at Metropolitan Temple on Friday evening, November 16th.

The address on behalf of the Faculty was by Professor Washington Ayer, M. D. The degrees were conferred by the President of the University, Horace Davis, A. B. Professor R. Beverly Cole, the Chairman of the Faculty, administered the Hippocratic oath to the graduating class which consisted of eleven members. The names of the graduates were as follows: Monroe Elizabeth Alexander; John Henry Barbat, Ph. G.; Rosamond Louise Cox; Nathan Park Dennis; James P. Hamp-

ston Dunn, S. B.; Melvin Burnham Estes; Euclid Bernardo Frick; Albert Karl Happersberger, A. B.; John Albert Noble; John Lee Kelly; James Taylor White.

College of Pharmacy.

The sixteenth annual commencement exercises of the College of Pharmacy, University of California, were held at Odd Fellows' Hall, Market and Seventh streets, on Tuesday evening, the 20th of November, at 8 o'clock.

The following was the order of exercises: Presentation of the candidates by the Dean; conferring the degrees, by Horace Davis, President of the University of California; waltz dedicated to the class of '88; valedictory address on behalf of the graduating class, by Frank W. Ralston; xylophone solo, by Mr. J. Kidd; presentation of prizes, by E. W. Runyon, Dean of the Faculty: First prize, a gold medal donated by the Faculty awarded to Wm. K. Sanborn; Second prize, an Encyclopedia of Chemistry, donated by Chas. M. Troppman, awarded to Horatio B. Emerson; Alumni prize, Scientific Books, donated by the Alumni Society, awarded to Wm. K. Sanborn; Junior prize, Lecture tickets to senior class, donated by the Trustees, awarded to Geo. J. Harvey.

The names of the graduating class are as follows: Adolph G. Busseniers, J. F. A. Delicat, Edward P. Driscoll, H. B. Emerson, Geo. E. Flint, David L. Henderson, Chas. C. Higgins, Harry D. Kelsey, James H. McCarthy, James J. Molony, Frank B. Petrie, Philip J. Perkins, Frank W. Ralston, Geo. A. Root, Wm. K. Sanborn, Ernest J. Therenet, Wm. Topley and Thomas J. White.

Alumni Association of Cooper College.

A meeting of the Alumni Association of the Cooper Medical College was held at the college building on Nov. 13th, and the following officers elected for the ensuing year: President, Dr. Albert Abrams; 1st Vice-Pres., Dr. G. F. Hanson; 2nd Vice-Pres., Dr. Gallimore; Secretary, Dr. D. F. Reagan; Corresponding Secretary, Dr. M. M. Chipman.

Notices of Books, Pamphlets, etc.

CHEMICAL EXPERIMENTS FOR MEDICAL STUDENTS, ARRANGED AFTER BEILSTEIN. By W. S. CHRISTOPHER, M. D., Demonstrator of Chemistry, Medical College of Ohio, at Cincinnati, O. Cincinnati: Robert Clarke & Co.

This is a small volume of eighty pages of well printed matter, and there are fifteen blank pages, in the back of the book, for reference notes. Printing is good, type large, and impression clear. The subjects treated by the author are well written, concise and to the point. This book is written for students of medicine, and makes an excellent text book. A half hour could be spent with pleasure and profit by older members of the profession.

PRACTICAL ELECTRO THERAPEUTICS. By WM. F. HUTCHINSON, M. D. Philadelphia: Records, McMullen & Co.

This book disregards theoretical problems, and deals with practical facts. The author's experience justifies him in the assertion that cases tabulated in this work are conclusive proof that electricity used according to its physiological action is conducive with the cure of a great many cases of nervous derangement, which are not applicable to medicinal remedies. The book is well written, practical, and contains all knowledge required in the general practice of medicine, for the judicious use of electricity in such cases as are tabulated in the index. Students, after carefully perusing this work, will gain sufficient knowledge to apply practically, electricity for the various nervous diseases which are liable to apply to the general practitioner. The application of electricity to diseases of the genito urinary organs as elucidated in this work, are in accordance with well recognized authors upon diseases of impotency, spermatorrhœa, etc. The forepart of the work, containing as it does, the general application of electricity to the treatment, is concise, yet explicit enough to enable a student to readily attain the essentials of electricity, as a therapeutical measure to the busy practitioner. It is highly recommended as a book of reference. The author seems to hold that static electricity is not as judicious a therapeutical remedy as galvanic and faradic, in which respect he differs with most authors. He holds these views, no doubt, from his failure to gain the success with static, that

he has done with galvanic and faradic. As strictly practical in intent, all theories have been avoided, and only such illustrations inserted as present a few instruments of his own device, for both theory and technical terms are uncared for by the busy worker, who is only looking for aid from electricity, not for a panacea.

THE EAR AND ITS DISEASES, being Practical Contributions to the Study of Otology. By SAMUEL SEXTON, M. D., Aural Surgeon to the New York Eye and Ear Infirmary. Edited by Christopher J. Colles, M. D. Octavo, 473 pages. Numerous illustrations. Extra muslin, \$4.00. New York: William Wood & Company. San Francisco: W. S. Duncombe & Co.

This is a well written work, and is intended more for the specialist, than the general practitioner. The wood-cuts are exceptionally well done; the clinical notes well selected, and well presented to the reader. The book is the result of close study and clinical observation, at the author's oral clinics at the N. Y. Eye and Ear Infirmary, and at the N. Y. Ear Dispensary; also from his private practice, covering a period of more than twenty years. This volume is divided into four parts: 1st, The Anatomy and Physiology of the Ear, External and Internal; 2nd, Causes of Ear Diseases; 3rd, Wounds, Injuries and Diseases of the Ear and their treatment, and 4th: Miscellaneous Articles. Part four has an especially good article on Defective Hearing in School Children, and the author makes some very pointed suggestions to the classification of deafness in the many forms, and the injustice done to children under the present classification. This work will be found pleasantly instructive to the general practitioner, and of double interest to the specialist.

THE PHYSICIANS' VISITING LIST (Lindsay and Blackiston's) 1889. Thirty-eighth year of its publication. Philadelphia: P. Blakiston, Son & Co., 1012 Walnut street. San Francisco: W. S. Duncombe and others. Sold by all book-sellers and druggists.

We find the present volume similar to that of last year, with the exception of the addition of the almanac of 1889 and '90, and one page, containing the wood-cuts showing the transportation of injured persons, without additional injury or traumatism. This book is practical and concise, and contains enough information to refresh the memory. The visiting list is all that can be desired, and we recommend it to all, as we have used it with great satisfaction for a number of years. Prices, \$1, \$1.25,

\$1.50 and \$2, according to the accommodation of the book for 25, 50, 75 or 100 patients daily or weekly.

THE LIFE INSURANCE EXAMINER. A Practical Treatise upon Medical Examination for Life Insurance. By CHAS. F. STILLMAN, M. S., M. D. New York : The Spectator Co. San Francisco : W. S. Duncombe & Co. Price \$3.00.

The author is a medical examiner of the Mutual Life Ins. Co. in New York City, a position he has held seven years, and is also examining surgeon for the Travellers Ins. Co. of Hartford. This work, which is concise, comprehensive and practical, and written to the present state of the science of life insurance, is most serviceable to the profession, in that it shows a recently appointed examiner the *modus operandi* of his work in that position. We commend it to life insurance companies and to those desirous of becoming medical examiners. The volume is divided into three parts. First, the Life Insurance Formalities; second, Examination of the applicant; and third, Diseases Relating to Life Insurance.

A PRACTICAL TREATISE ON DISEASES OF THE SKIN. For the Use of Students and Practitioners. Second Edition, thoroughly revised and enlarged. By JAS. NEVINS HYDE, A. M., M. D., Professor of Skin and Venereal Diseases, Rush Medical College, Chicago, and one of the physicians for diseases of the skin, to the Presbyterian Hospital, Chicago. Philadelphia : Lea Brothers & Co., 1888. San Francisco : Samuel Carson & Co. Price \$5.50.

This volume is the second edition of this work, and many improvements have been added. The wood cuts are well executed and there are a few good lithographic plates. The author has drawn his authorities from all over the world, and has quoted largely from standard works. Each disease is discussed in a plain, lucid manner and is made as brief as the subject matter will allow. A short history of most of the subjects written upon is given, followed by the symptoms, etiology and pathology, diagnosis and treatment. When it is advisable a short and pithy resume of the principal points is given, thus enabling one to easily make a differential diagnosis. This work is recommended to the busy practitioner, as one easy of reference, and where knowledge can be obtained in a short time.

THE MEDICAL NEWS VISITING LIST FOR 1889. Philadelphia: Lea Bros. & Co.

This is a handsomely gotten up little volume containing many very useful articles, besides blank spaces for daily record of prac-

tice, clinical record, consultation practice, obstetric engagements and practice, vaccinations, deaths, addresses of patients, addresses of nurses and cash account.

PAMPHLETS.

CATARACT EXTRACTIONS, WITH ONLY EYE OPERATED UPON, CLOSED BY ADHESIVE STRIPS, THE OTHER EYE LEFT OPEN FOR THE GUIDANCE OF THE PATIENT. Also

THE GREAT VALUE OF A 0.25 D CYLINDER IN THE RELIEF OF HEADACHE AND EYE PAINS. Reprints from the *Journal of the American Medical Association*. By JULIAN CHISOLM, M. D.

INEBRIATE ASYLUMS AND THEIR WORK. By T. D. CROTHERS, M. D., Superintendent of Walnut Lodge, Hartford, Conn.

ECZEMA : ITS TREATMENT. By ALBERT E. CARRIER, M. D. Detroit, Mich.

STATE BOARD OF HEALTH BULLETIN. Nashville, Tenn.

THE CONTAGIOUSNESS OF PHthisis (Tubercular Pulmonitis). By LAWRENCE F. FLICK, M. D., of Philadelphia.

THE ANNUAL REPORT OF THE HEALTH OF THE IMPERIAL NAVY. For 1887.

THE CONSTITUTION AND BY-LAWS WITH THE OFFICERS AND MEMBERS FOR 1888-9 OF THE AMERICAN PEDIATRIC SOCIETY, ORGANIZED IN WASHINGTON, D. C., Sept. 18, 1888.

THE COMPARATIVE MERITS OF TRACHEOTOMY AND INTUBATION IN THE TREATMENT OF CROUP. By GEORGE W. GAY, M. D. Boston : Cupples & Hurd, Publishers.

MINERAL AND THERMAL SPRINGS OF CALIFORNIA. By W. F. McNUTT, M. D. San Francisco.

REPORT ON HYDROPHOBIA. By CHARLES W. DULLES, M. D., of Philadelphia.

ST. LOUIS ORTHOPEDIC INFIRMARY FOR THE TREATMENT OF CONGENITAL AND ACQUIRED DEFORMITIES. By JOSEPH L. BAUER, M. D. 515 Pine St., St. Louis, Mo.

In January, 1889, there will be issued from the press of A. L. Chatterton & Co., New York, a new quarterly entitled *The Journal of Ophthalmology, Otology and Laryngology*.

728 is the record in numbers of the articles printed during 1888 in the *Archives of Gynaecology* on the special subjects of its title. It is the aim of the editors to publish all current thought in these departments of medical knowledge. The publishers, Leonard & Co., 141 Broadway, New York, do not send sample copies, but if you are not pleased with the first number it may be returned and the order erased. Subscription \$3 per annum. Payment is not asked till end of the year.

Extracts.

The Toxic Effects of Cocaine.

In a former number, attention was called to some of the medicinal uses of coca. A voluminous literature has extolled the beneficial, pain-relieving effects of the drug, while its untoward, toxic action has been belittled and by some denied. That it often produces alarming symptoms and sometimes death cannot be gainsaid, as several well-authenticated fatal cases are on record and doubtless many more have never been reported.

It seems to matter but little in what way the drug is given or in what dose, whether to young or old, robust or feeble; now and then toxic effects of the most distressing sort develop when least expected, and tax the fortitude and resources of the medical attendant to their utmost.

In general terms the toxic effects of cocaine are sensory, physical, and circulatory, the two former groups of symptoms being alarming, but not dangerous, while the symptoms arising from the circulatory disturbance are distressing beyond expression and betoken a pathological condition incompatible with safety. It is then by syncope that cocaine kills, and that, too, in subjects with presumably healthy hearts. In some cases a previous stoppage of respiration takes place.

According to Bignon, cocaine is only poisonous indirectly, i.e., when, as a consequence of the anuria, the accumulation of the toxic constituents of the urine attain dimensions sufficient to give rise to uræmia. Very few, if any, observers corroborate this theory. A condition of nervous instability without doubt predisposes to its toxic action, and in such cases nervous symptoms sometimes predominate, as the following cases, where tetanic seizures occurred, will show.

A man applied for treatment for hemorrhoids. One drachm of a four-per-cent solution was injected. The author's own words are best used to describe an attack :

"In about five minutes after the injection, and before I had taken any other step in the operation, he complained of strange feelings in his legs, accompanied by twitching of the muscles. In a few minutes more these twitchings amounted to decided general tetanic convulsive movements, which involved all the muscles of the trunk and extremities. By the time these con-

vulsive movements had become general he complained of fulness in the head and soon became unconscious, remaining so for about five minutes. As the convulsive seizures gradually subsided, he regained his consciousness, but only gradually. For instance, would answer me, look bright, and said he felt all right, but in a few seconds more would complain of fulness in his head and become drowsy. This occurred several times before he recovered entirely. Altogether the attack lasted about half an hour. His pulse was weak, although it could not be felt well on account of the convulsive movements. Pupils slightly dilated. The following day found the patient doing very well, only complaining of some soreness in his muscles.

"In the case reported in the *Maryland Medical Journal* for January 15, 1887, I injected a solution of the drug containing altogether about five grains of muriate of cocaine. In about fifteen minutes, without any premonitory symptoms, except a little nausea and faintness, she was seized with violent general convulsive movements, which were so strong, and so much more pronounced on the right side, on which she was lying, as to turn her over on her belly. She had episthotonus, entire loss of consciousness for about five minutes, after which it gradually returned, and seemed entirely restored at the end of fifteen minutes. Asphyxia; muscles of the lower jaw violently convulsed; pupils unevenly dilated after consciousness began to return; mouth drawn to the right side; speech decidedly thickened for some minutes after her return to consciousness; respiration very labored, and at the height of the attack was arrested for some seconds; pulse very feeble; cutaneous surface decidedly blanched, where not purple, until after consciousness began to return, when it alternately became flushed and pallid; she now broke out into a profuse sweat. There was great prostration following the attack and a disposition to sleep. She recovered entirely after several hours, and only complained of feeling tired. This patient had never had any nervous attack previously, and both patients were remarkably robust and healthy."

In spite of many reported cases with seizures like these the drug is actually recommended in the treatment of tetanus and strychnia poisoning.

A nervous woman of thirty was given three injections of a six-per-cent solution for extraction of carious teeth. Symptoms:

immediate syncope, dilated pupils, trismus, head drawn back, arms extended, hands clenched, feet extended and inverted, respiration 40, superficial and spasmodic, pulse 80 and hard. Ammonia by inhalation and mustard to extremities relieved symptoms, except trismus and insensibility. A second attack, with opisthotonus, came on. After a third, one half drachm each of fluid extract lobelia and tinct. assafoetida were given. One spasm after this, followed by a period of great relaxation and prostration.

Nervous phenomena sometimes take on an epileptic phase, as the following case shows :

Dr. Slayter hypodermically injected fifteen minims of a ten-per-cent solution of cocaine hydrochlorate into the toe of a patient previous to operation. In ten minutes the patient became cyanosed, and developed an epileptiform fit. This passed off after a few minutes, and the operation was proceeded with, but he remained dazed for a couple of hours, and suffered from pain and smarting in the eyes for twenty-four hours. He had never suffered from epilepsy.

Transitory manifestation of an hysterical nature are very common. At the recent meeting of the New York Obstetrical Society many members testified to the frequency of aggravated hysterical symptoms following the use["] of cocaine.

Callaghan, besides the common nervous disturbances from cocaine, has seen it produce a marked diminution in the acuity of the sense of smell, and a scarlatina-like rash, over the body.

Other special senses also suffer, as amaurosis, tinnitus, deafness, etc., are not unknown.

In a case where the ordinary prostration and syncope followed the use of cocaine in dentistry, Bock reports that an examination of the eyes with the ophthalmoscope showed that the veins were normally full, the arteries rather thinner and paler than was natural, and the papilla of the optic nerve of the normal fulness. The inhalation of three drops of nitrite of amyl brought color into the face in a few minutes, and in six minutes another three drops having been inhaled, there was considerable flushing of the face and return of consciousness.

Psychical symptoms are common, and consist chiefly of varying degrees of delirium.

To facilitate the removal of a small epulis and a tooth from a young negro woman one-half gr. cocaine was injected into the

gum. Symptoms : wild staring look about eyes, with dilatation of the pupils, great restlessness ; rapid, gasping, irregular respiration ; wild delirium and jactitation, coldness of extremities, and weak, rapid pulse. Dry heat was applied, and alcohol, ammonia and ether given both by the mouth and hypodermically. Vomiting and collapse ensued. The collapse was recovered from, but delirium persisted for several hours, until sleep supervened.

Inability to speak is often noticed, and though often called aphasia, it is in most cases due to stiffness and impaired sensibility of lips and tongue. In a woman of twenty the larynx was sprayed with four-per-cent solution to allow removal of small excrescence from left vocal cord. Symptoms : pallor of lips and face, impending syncope, indistinct speech from stiffness of tongue, large lump in throat, complete numbness of lips (tested and found anaesthetic), and, for twenty-four hours, violent headache and nausea.

Woman with acute coryza. Four-per-cent solution passed through the nose on pledget of cotton. Symptoms: pallor of lips and face, syncope, extinction of pulse, preceded by extreme rapidity and smallness, final cessation of visible respiration. Apparently dead for ten minutes ; vomited repeatedly for an hour, and had headache and nausea for two days.

A healthy man of forty, with nasal polypi. A five-per-cent cocaine solution introduced into nose on pledget of lint. Symptoms : constriction of throat, pallor, dyspnoea with stridulous respiration, and great nervous excitement. Relieved by inhalation of amyl nitrite.

A similar case of laryngeal spasm has been reported by Dr. H. Hall, which he relieved by causing chloroform to be inhaled.

An imperative desire to evacuate the bowels has been noticed by Drs. F. H. Potter, F. W. Ring, and others.

Great cardiac excitement is often present, which is manifested by violent palpitation, and perhaps precordial pain.

One-half grain was injected into the gum of an adult male. A tooth was extracted without pain. In about four minutes vertigo and nausea ; rapid, weak pulse; violent palpitation of the heart, dyspnoea, great pallor, dilated pupils, general tingling, staggering gait, and boisterous conduct.

In a woman with painful alveolar abscess, one-half grain was injected. Relief from pain in two minutes. Symptoms : almost

maniacal excitement, "strange" feeling in legs; pallor; feeble, rapid pulse; sighing respiration; general tingling; burning pain at stomach, clutching at the throat, eyes staring, with dilated pupils, cold perspiration of face, which was pale; and irregular palpitation. Hot alcoholic drinks and hot applications to extremities gave her relief; vomited and fell asleep. As a general thing, cardiac symptoms are those of weakness.

Three minims of a twelve-per-cent solution were injected near a small tumor on the face of a healthy man of twenty-three. Symptoms in thirty seconds; great depression, coldness and faintness, rapid cyanosis, with cold perspiration, respiration sighing, pulse weak and 140, with frequent short attacks of syncope. Stimulants and external heat were employed, after which mild delirium supervened.

In a boy of thirteen, one and a half grains of cocaine were injected for operation on abscess of the forehead. Symptoms: in five minutes, pallor, restlessness, and hurried respiration and pulse. The heart's action became tumultuous and irregular, the pulse weak. The pupils were dilated. The patient was in great distress, tearing off his collar and shirt to expose his neck and chest. Ammonia by the mouth and dry heat externally gave relief, after nausea and vomiting had occurred.

As examples of the commoner toxic effects of cocaine, the following cases may be cited:

A student had been experimenting on himself by hypodermic injections of a four-per-cent solution of cocaine at regular intervals during the day, but they were not followed by its toxic influence until some four hours after its last exhibition. These were shown principally by irregularity of the circulation accompanied by cerebral excitement.

Patient's attacks came on in paroxysms whose onsets were indicated by a steady, constant rise in the pulse, accompanied by tinnitus and a sensation as though the head would burst. Capillary circulation somewhat interfered with, the extremities being colorless. At the height of the paroxysms, patient grasped the head between the hands and labored under intense excitement, lasting from thirty to sixty seconds, when there was a gradual decline in the pulse to normal (and sometimes below), and also of the cerebral symptoms, patient becoming quiet during the interim, which lasted from one to two minutes, when the same cycle of symptoms was repeated. Pupils and tactile

sensibility normal ; respiration not markedly interfered with, except at the height of the paroxysms, when it became more superficial and hurried.

Amyl nitrite seemed clearly indicated, and was used by inhalation with immediate relief, followed in a short time by an entire disappearance of all untoward symptoms.

A dentist inserted cocaine in the gums of a strong young man. The patient was bathed in a cold perspiration, his eyes glistening, yet the pupil was not dilated ; complaining that he was blind, and that he would die, asking to be held. Pulse was much accelerated, feeble, soft, and compressible. Morphia subcutaneously had a good effect.

A colored woman was found on the floor in the dentist's office, complaining of being dizzy, unable to walk, of being sick, with vertigo, pulse slightly increased in frequency, not cold ; somewhat excited, no perspiration. She recovered within two hours and without any remedy save the inhalation of ammonia.

In another case, morph. sulph. hypodermically, with the inhalation of aq. ammonia and nitrite of amyl, gave prompt relief.

A healthy middle-aged woman used freely in spray form a two-per-cent solution for "irritable throat and cough." Symptoms : coldness and numbness of the tongue, weakness of the lower limbs and staggering, mental distress and great depression from the very first. Unconscious from 9 P. M. until 2 A. M., but she says that she had glimmering of consciousness most of this time, although she could not articulate ; thought there were strange objects in the room, and feared lest any one should speak to her. Great prostration followed, and it was some weeks before this lady regained her usual strength.

In a case of tonsillotomy in a man twenty-four, Dr. E. W. Bullock used two drachms of a four-per-cent solution as a spray and forty minims as an injection to produce anaesthesia. Two hours later, severe headache, vertigo, burning in the stomach, and nausea came on, followed by tingling of the extremities, dryness and constriction of the throat. There was flushing of the face, dyspnoea, and delirium. The pupils were dilated, respiration 10-14, pulse 126 and weak. Alcohol and digitalis relieved the symptoms, and sleep ensued. The next day there were peripheral numbness and tingling, dryness of the throat, and blurred vision. This and the preceding case are remarkable and unique, because of the long interval between the administration of the drug and the onset of toxic symptoms.

Local disagreeable effects are not unknown.

Preparatory to an incision into a cyst of the hand, five drops of a twenty-per-cent solution were injected. In less than half an hour the finger began to swell, and in two hours the swelling was extreme, the finger appearing as if constricted by an elastic band. Systemic symptoms were not wanting, dizziness, headache, pallor of skin, nausea, and diarrhoea being present. Local inflammatory symptoms lasted four or five days.

In a healthy man of fifty with simple hypertrophy of the turbinated bones and septum nasi, a spray of a twenty-per-cent solution was used to simply facilitate examination. In twelve hours there developed a severe and painful inflammation of the nose which lasted over a month.

Gangrene sometimes follows its hypodermic use, Dr. J. A. Nichols having seen such a result in two cases : an amputation of the finger and a circumcision.

Dr. V. Zanchevski, of St. Petersburg, has published some observations on the pathological changes found in the bodies of animals poisoned by cocaine. The experiments were made in two series. In the first series the animals (dogs) were given hypodermically a single lethal dose of cocaine—viz., 3 centigrammes per kilogramme of the weight. In the second series of dogs chronic poisoning was induced by the subcutaneous injection of a much smaller quantity—about a fifth part of the lethal dose was given every day for six days. A day was then missed, and during the next six days an increased dose given. Every seventh day was missed, and the dose gradually increased. Thus, dog No. 6, weighing 5,650 grammes, was experimented on for seventy-three days. During each of the first six days 3 centig. were given ; during the next six, 4 centig. For ten days 5 centig. were given, for thirteen days 6 centig., for eleven days 7 centig., and for the last eleven days 8 centig. The total quantity given was 3.35 grammes. One day in the week was always missed. At the beginning the immediate effect of the cocaine was seen in increased frequency of the cardiac beats and of the respiration, which, however, did not last more than a quarter of an hour. Afterwards great weakness of the legs came on, the animal remaining in a sitting posture and swaying its head to and fro. The pupils were dilated and sensation intact. In three hours the normal condition returned. When larger doses were given the disturbance was greater, the

animal commencing to try to run about and the subsequent weakness lasting for a longer period. The general results obtained by observation of the animals during life and by post-mortem examination of the bodies showed that in acute poisoning the mode of death was asphyxia. In chronic cases without asphyxia there was a marked hyperæmic condition of the central nervous system, which presented a contrast to the state of the rest of the organs, which were anæmic. Albuminoid degeneration was especially marked in the ganglionic cells of the spinal cord and the nerve cells of the heart ganglia; it was present also, but in a less marked degree, in the muscular fibers of the heart, in the ganglionic cells of the medulla oblongata, and in the hepatic cells. In these last there was found an accumulation of glycogen. In chronic poisoning the degenerative processes were found to have advanced further in the cells of the spinal cord and medulla, minute cavities, atrophy, and hyaline degeneration being noted. In the heart there was fatty degeneration of the muscular tissue; in its nerve ganglia there were fatty degeneration, minute cavities, and simple atrophy, and in the liver atrophy of the hepatic cells was present. The vascular system was most affected in the spinal cord, there being cellular proliferation and hyaline degeneration of the coats. In the heart and liver an atrophic condition of the tissues was found, also a swelling of the endothelium of the capillaries of the cardiac ganglia.

The most recent fatal case is reported by Dr. J. H. C. Simes.

A. M. was admitted into the surgical ward of the Episcopal Hospital on February 23, 1888. Age, twenty-nine years, English. He gave a history of having suffered from stricture of the urethra some years before, for which the operation of external urethrotomy had evidently been performed. At the time of admission there was some difficulty in passing water, and the urine, he said, "comes out of an opening between the legs." Upon examination there was found the cicatrix of a perineal section, having a small fistula communicating with the urethra. The urethra was examined, and the existence of a stricture was ascertained, situated about four and a half inches from the meatus. The stricture admitted a No. 11 French bougie.

Gradual dilatation, by means of sounds introduced every other day, was the treatment under which the patient was placed for two weeks. Favorable progress was made, and the

urethra now easily admitted a No. 20 sound. Internal urethrotomy was determined upon, in order to remove all hindrance to the passage of urine through the urethra, and permit the healing of the perineal fistula. On March 3rd, the day I had intended to perform the operation, the patient complained of sore throat, had a slight chill, and there was a slight increase of temperature. This proved to be nothing more than a mild attack of bronchitis. On March 9th, he was feeling quite well, and I had him removed to the operating-room for operation.

Previously to performing internal urethrotomy, I have, for the past year or two, injected into the urethra a solution of muriate of cocaine, which has lessened the pain of the operation, although not completely rendering the parts insensible to the cutting. The strength of the solution used in my previous cases had been five per cent.

The man was placed upon the operating table, one drachm of a twenty-per-cent solution of muriate of cocaine was introduced into his urethra, by means of a long-nozzled urethral syringe which passed about four inches into the canal. The instrument had scarcely been taken out of the urethra when the patient made a foolish remark, the muscles of his face began to twitch, the eyes staring, pupils dilated, frothing at the mouth, face much congested, respiration interfered with, and ending in a violent epileptiform convulsion, lasting for some seconds. These convulsions were continued with increasing violence, several times a minute, the whole muscular system taking part in the spasms, requiring considerable force to keep him from falling off the table. The action of the heart was not much interfered with, and appeared only to be secondarily affected. It was the respiratory function that seemed first to fail, and then the heart's action became irregular and slow. The breathing was gradually more and more interfered with, in fact, the entire surface of the body became deeply cyanosed, the pulse slow, and at the end of twenty minutes from the first convolution had ceased to beat. The man was dead.

The means employed to relieve the patient were all useless ; nothing had any effect in controlling, lessening or in any way influencing the ultimate result, and I may say every thing was promptly and efficiently done ; the entire staff of resident physicians of the hospital ably assisted me in my efforts, which unfortunately were futile.

The *post-mortem* was made by Dr. Grimm. *Thorax*: Lungs normal, but much congested ; heart normal, right side empty, left side filled with currant-jelly clots. *Abdomen*: Liver much congested ; spleen presented on its surface several stellate cicatrices ; kidneys much congested and also cicatrices similar to those seen on the surface of the spleen ; they were thought possibly to be syphilitic in nature. The *urethra* was examined to ascertain if there had been a rupture made in introducing the syringe, but no such lesion was found. The *brain* showed the blood-vessels very much congested : its membranes on either side of the longitudinal sinus at the vertex, covering a space of two square inches, were thickened and closely attached to the brain substance ; this probably was the result of some previous inflammatory action.—*Med. Analectic.*

The Treatment of Typhoid Fever.

(Clinical Lecture by Professor Jaccoud, Hôpital de la Pitié, Paris. Translated by Thomas Linn, M. D., Paris.)

GENTLEMEN : Those among you who follow my service constantly have no doubt noticed that I put typhoid fever patients under a form of treatment that is somewhat complex, but it is always the same and uniform in character, although some of the means used are variable ; but these last are not always used, as they are subject to certain conditions that I will explain more exactly after I have first given you my regular or constant treatment.

The moment the diagnosis is certainly made, I invariably place the patient on a fixed regimen which consists of one and a half to two quarts of milk per day, and this is the fundamental agent of the system. You must never forget that one of the essential and constant dangers in typhoid fever is urinary insufficiency, both in quantity and quality. By the administration at once of milk, I assure as far as I can, a proper uresis. You will have no trouble in getting these patients to take milk ; they gladly accept any fluids, even those who dislike milk when well will readily take a quart the first day, and get up to two in a few days. You may also add a little soup to this diet, and in all cases give at least a half pint of good wine every twenty-four hours (Bordeaux claret used here). This give pure or mixed in a little water, and in several doses, but always the full quantity of wine every day.

days of cold lotions and is serious. You will ask me, when is a fever serious? You must *not* judge of the gravity of fever by the vesperal or evening temperature and believe that a high evening temperature is a sign of a dangerous fever. It of itself means nothing at all. If there is a series of high evening temperatures it is more important, say 40.5° to 41° for several days; but your real and only true guide is the remissions; a fever relatively weak, if it has very weak remissions, is more serious for the organism than a fever that may have high vesperal temperatures and strong morning remissions. In the last case, the body rests more and is not *constantly* under a maximum of combustion. But how are you to judge that the remission is sufficient? So that the fever of itself shall not be a serious danger, the principle, gentlemen, is an infallible one. *The remissions must be equal to the diurnal oscillation of the temperature.* If the fever does not present daily remissions at least equal to the oscillation, the fever is serious of itself and must be treated.

The diurnal oscillation of physiological temperature is from 0.8° to 1° , and if a fever presents remissions equal to this it has no intrinsic gravity, and I only use the regular treatment as described; but when the remissions are less, for instance only 0.5° , and the more so when the line approaches the level, then I give, as a rule, quinine. I consider the salicylic acid better in this malady; but I am not always free to give it owing to the contra-indications; so that quinine is the base of my additional treatment. What dose, and how do I use it? First, I never give quinine three days in succession; as a rule only two, and the first day I give the maximum dose, 2 grammes of bi-hydrobromate of quinine, which is equal to 1.50 grammes of sulphate of quinine.

I find this salt to be best borne by the stomach, and when there is cerebral excitation the bromine in it is not to be despised. The full dose of two grammes is given in an hour, in four parts, every quarter of an hour 50 centigrammes, so that there will be accumulation, which cannot be obtained otherwise, owing to the rapid elimination of the quinine; you know that this must be done seven or eight hours before the high temperature is expected, to get the full effect in time. If you wish to modify the evening temperature give it in the morning, and *vice versa*. I never give the same dose the next day; if two grammes are given one day, I give 1.50 the next, and then suspend treat-

ment one to several days, depending on the result obtained ; remember that the effect is more marked on the morning temperature than on the evening, as the physiological fall is added.

When I use salicylic acid I give it in the same way ; but I told you it had certain contra-indications, while I am sure it has an equal action on the fever, and it also has a diuretic action, as it is eliminated as salicyluric acid ; but since I have used milk I don't attach so much importance to this last action, but certainly its antiseptic power is superior to quinine. Then why don't I use it ? Because, gentlemen, of its contra-indications, as I said before ; they are its renal determination, heart weakness, cerebral accidents, and alcoholism in the patient. Even in rheumatism we have to respect these contra-indications, so much more in typhoid fever, where the heart, kidneys and brain are so often affected ; even when there are bronchial troubles it should not be given, as the heart is weakened ; but when these contra-indications are not present I prefer salicylic acid to quinine.

In regard to the use of digitalis in typhoid fever, many times, gentlemen, you will find after the second week, even when you have modified the fever and all is doing well, that the pulse will be weak, and if you examine the heart you will find its action is poor, the impulsion feeble, and the sounds, above all the first, very much weakened ; in some cases you won't even hear the first sound at all. It is not a pericarditis, nor endocarditis, for if the patient dies you will not find the signs of those troubles, but a weakness of the muscular fibres of the heart structure itself. I treat these symptoms with digitalis, and I am confident that many of these patients owe their lives to its action. It is perhaps useless to tell you that no other medicine is given while using the digitalis, as you know I am not in favor of medicinal warfare by mixtures. I continue the lotions, wine and milk, and the cordial potion, and add an infusion of digitalis, according to the state of the heart and the tolerance of the patient for the drug. I rarely give more than 0.60 gr. in twenty-four hours and give less the next day, say 0.40, and if the heart weakens again, I return to the charge.

In all this treatment you have not heard me speak of the diarrhoea you find in typhoid fever ; and the reason is that I never try to stop it, and even provoke it when it does not exist. This should not surprise you. You, like myself, must represent this

typhoid process as having its source in the intestines; there must exist there a pullulation of pathogenic germs that, either by themselves or their products, poison the organism and keep up the disease by re-absorption; so, therefore, let them come away by the natural diarrhoea in these cases. (Professor Peter uses cold water in rectal injections for this purpose.) I prefer to provoke the diarrhoea if it does not continue; on this account I am not a partisan of what is called intestinal antisepsis, as I believe there is no advantage in disinfecting the intestinal matters, if they are evacuated as they should be. It is only the intestinal infiltrations of the innumerable pathogenic agents that are mostly deep in the intestinal mucous membrane and their passage into the mesenteric ganglions and the spleen that is dangerous. How can antisepsis act against these sources of re-absorption? So that if these matters are eliminated I do not bother about their disinfection, which can only interest the nurses by the smell. But I fear there is great danger in constipation, by closing the door of this natural outlet of poisons, as I find may be caused by *naphthol beta*. Besides I do not know of any cases as yet where the duration of disease has been shortened by intestinal antisepsis nor any statistics showing that it has modified the figures of mortality of typhoid fever. I shall be glad to know that it can be done, however, and will hasten to use the method.—*Philadelphia Medical Times.*

Abortive Treatment of Gonorrhœa.

By E. M. WILEY, M. D., Harrodsburg, Ky.

(Read to the Kentucky State Medical Society, July 15, 1888.)

I am well aware of the fact that a large proportion of Genito-Urinary surgeons are in opposition to any form of abortive treatment of gonorrhœa. They consider efforts to abort by the injection of corrosive substances, not justifiable, because, they say, substances that destroy gonococci will do violence to the urethra, more serious in its consequences than the worst form of the disease. It is now generally admitted by all the prominent pathologists, and I am sure abundantly proven, that there is a micrococcus, called gonocoecus, that is the cause of the disease. Subscribing to this theory, and believing the destruction of the germ on its first appearance in the urethra would greatly shorten if not arrest the disease, has led me to make some experiments with the well-known and popular germicide, corrosive sublimate.

It is not my intention to enter into a discussion of the modern theory of this disease, as I have nothing new to offer in proof of it. I simply wish to present a new method of treatment, so far as I know, not yet published. I shall proceed at once to describe, as briefly as possible, the method, and present a few cases illustrating results.

The necessary outfit is simple, inexpensive, and is found in the offices of all well equipped physicians. It consists of a fountain syringe, large size, soft catheter attached, solution of cocaine, five per cent, Price's glycerine, for lubricating catheter, (vasaline and fatty substances prevent the immediate contact of the microbicide with the mucous membrane) and a hot corrosive sublimate solution 1-3000 or 1-4000, according to severity of case, to be used in the following manner: Elevate the syringe filled with sublimate solution, as hot as can be borne, a short distance above the patient's head while standing, as the treatment can best be used in that position. Introduce catheter beyond site of disease as well as can be determined, which, usually, can be easily done in recent cases. Allow the fluid to flow slowly, washing all parts of the urethra in its outward flow. A catheter of medium size is best, as the outflow is materially obstructed if one of the capacity of the urethra is used. I use a No. 6-8. If there is a high degree of inflammation, it is best to cocainize the urethra before commencing the irrigation, as the pain will be greater than patient can bear. In milder cases I do not use the anæsthetic until after treatment, as the cocaine contracts the urethra, interfering with the introduction of catheter and the outflow of the irrigating fluid. The pain following the irrigation is quite severe, lasting about two hours, unless controlled by frequent injections of cocaine. I have selected from my notes the following cases that will best demonstrate the value of this treatment.

Case 1.—R. P., aged 18, presented himself for treatment July 12, 1887, with what had every appearance of a typical case of gonorrhœa, claiming it as his first exposure, and that with a street walker, on 4th of same month. Being apprehensive of trouble, from what his friends told him, he was on the look-out, and when the first sign of discharge was observed he was promptly on hand for treatment. Being a strong, vigorous youth, I considered him a very suitable subject to try the retro-injections on, which I proceeded to do, as described above, using

in this case a sublimate solution 1-2000, causing great pain and requiring large and frequent injections of cocaine to control it. He did not return until the 14th, and then to announce a complete recovery, which I found, on examination, to be correct. The question then presented itself to my mind, was it a genuine case of gonorrhœa? Or was it a case of non-specific urethritis? Yielding so promptly to treatment caused a doubt in my mind. To obviate trouble of this kind in the future, I determined to make a microscopic examination of all other cases presented.

Case 2.—A. S., aged 40, mechanic, applied for treatment August 22, 1887, on the tenth day after attack, having received no treatment. Case moderately severe. He was given a retro-injection of hot sublimate solution on the 22d, 23d, 24th, all acute symptoms rapidly subsiding from first application. Patient discharged, cured, on the sixth day.

Case 3.—D. V., aged 20, presented himself October 4th, after ten days' treatment by the ubiquitous drug clerk, with usual results. The inflammation was of such a high degree that cocaine was freely used before treatment. Two applications were all that were required to arrest the severe symptoms. The decline of the discharge was rapid. By the tenth day patient was discharged, well.

Case 4.—H. S., hotel porter, presented for treatment October 14th, a severe case of four days' standing. After three days treatment by the above method all inflammatory symptoms subsided, and was followed for ten days by mild non-irritating discharge.

Case 5.—G. W., aged 38, married, applied for treatment December 26, 1887, on the first appearance of discharge. One irrigation 1-3000 sublimate solution promptly arrested the discharge. There was no doubt of the genuineness of this case, as it was transmitted at home with the most disastrous results.

Case 6.—J. V., aged 39, came to me December 30th, after six weeks' treatment by drug clerk, with an heroic case. After three applications he was discharged on the 7th of January, cured.

Case 7.—C. H., aged 40, came under treatment March 10, 1888, second day after attack, discharging freely. Received one irrigation and left town. On his return three days later a mild and non-irritating discharge made its appearance and continued for two weeks, notwithstanding the irrigation was repeated several times.

Case 8.—H. C., aged 39, received first treatment May 2d, third day after discharge was observed. One retro-injection dried up the discharge. One week later a thin, gleety discharge made its appearance. As it was causing no pain or inconvenience, the patient left town, with instructions to use the following injection: Hydrag Bi-chloride gr. 1, bismuth sub. nit ʒss, listerine ʒij, aqua bulens oj, to be used twice daily, which had to be continued two weeks before cured.

All the cases except case 1 were examined microscopically, both before and after treatment. Gonococci were found in all but case 6, which was of six weeks standing before treatment, but not in a single case after treatment.

Since I have employed this treatment I have aborted a large per cent of cases that presented early, and those of longer standing, instead of growing more formidable, responded promptly to treatment. In not a single case has stricture resulted, nor have I had chordes to follow the treatment, but cases already having it were promptly relieved.

Viewed from my present limited experience, I believe the severe cases with which we are all so familiar will be unknown in the future, if this treatment is faithfully and scientifically carried out.—*Progress.*

A Cure for Dipsomania.

By E. J. KEMPF, M. D., Jasper, Ind.

Dipsomania is a mental alienation due to a morbid condition of the nervous structures, generally, though not always hereditary. The strictly periodical return of active phenomena, the tendency to gradually shorten the intervals as the years pass, and the peculiar mental conditions preceding the debauch are a proof that dipsomania is a disease of the cerebral nervous centers analogous to recurring neuroses, such as epilepsy, etc.

The disease is nothing but an attack of uncontrollable drunkenness, always kept up until the stomach refuses longer to tolerate the alcoholic drinks. Then the attack stops as suddenly as it came, the sufferer recovers his usual health and spirit and enters into his business in a way as if nothing had happened. As a general thing these attacks recur at intervals of from one to six months, and the end is, some disease of the renal, hepatic, or gastric organs carries off the patient.

Earnest resolutions and pledges do no good to ward off the attack. When the time comes the patient succumbs. An indescribable feeling of weakness of the nervous system is generally the first sign of an attack. This may be brought on by over-work, over-study, anxiety, worry, trouble, anger, etc., and the patient, thinking himself proof against a debauch by his long interval of sobriety, yields to the tempter, and then nothing can head him off. Friends, family, duty, rank, affection, morality, resolutions and pledges are all forgotten, and the patient drinks as long as his stomach will bear it. So strong is this desire for drink whilst the attack lasts that the patient will drink as long as he can get the liquor though he may have to beg or steal it.

External momentary temptation in which the patient may be placed is only dangerous when the patient's nervous system is ready for an attack, that is, craves strong drink. At any other time you can tempt the patient, and he will be able to resist just like any well man.

Malaise describes the premonitory symptoms exactly. As I have already stated, an indescribable feeling of weakness always precedes the attack.

A dipsomaniac is not always an habitual drunkard. There lives a young man near my office who gets drunk about once every two months, though the attacks are getting more frequent, and during the intervals he is honest, honorable, industrious, and upright. During a spell or spree he is a sot.

In the earlier part of the nineteenth century there lived a worthy married couple in Baden. The husband was addicted to the excessive use of alcoholics. The wife was his superior in will-power and intelligence. At her solicitation they moved to this country for the sake of the children, four girls and two boys. The husband started a saloon in _____. His rapid downfall was the consequence. The elder of the boys followed the father into a drunkard's grave. Some of the offspring of the girls are dipsomaniacs. Among the number one granddaughter fell a victim to the destroyer.

The younger son, who had inherited all of his mother's ambition and family pride, determined to better his lot. He studied medicine and graduated, and engaged in the practice of his profession in the backwoods of _____. Acquiring an immense practice for his extent of territory, and his physical condition being much below the average, his health broke down, and now

appeared on the surface the dormant hankering for liquor. A tremendous will-power enabled him to struggle successfully against what seemed to him "fate." This physician, a surgeon of no mean repute, is now dead. He left three sons and four daughters. One of the daughters is a chronic sufferer of hysteria, palpitation being the predominant symptom. Two of the boys are extremely melancholic. One other of the boys is a confirmed dipsomaniac. The oldest son was in a worse condition six years ago, as far as periodical drinking is concerned, than his brother, but he has not been intoxicated from alcoholic liquor since 1882. He considers himself cured.

A very close friend of mine, in fact, my boyhood partner, who died four years ago from apoplexy, was the worst dipsomaniac that I have ever met. His case enabled me to formulate the cure I here present. The treatment did my friend much good, and I believe I could have cured him if he had remained under my care.

Up to date I have but one cure to offer in favor of my method of treatment, but it seems to have been so effectual in this case that I consider it my duty to report the system of treatment.

Treatment.—First, the patient must have a desire to be cured. After he is once a chronic drunkard, with his nervous system totally ruined, I take it for granted that nothing can be done for him outside of an asylum.

Second, the patient must have the idea in his head that he is not a drunkard, but that he is really sick, just like an *epileptic*.

Third, the patient must continue to use alcoholics, but in a temperate way. He should avoid fancy drinks, which are, by the way, not fit for a hog's stomach, let alone the human, but good beers (Tarrant's Malt, or Nicolson's Liquid Bread, or Bests' Tonic), mild wines (not champagne), and eggnogg at meal-time or with a little *lunch* will benefit the patient. His system needs it. You cannot cure a dipsomaniac by making him swear off, unless you pen him up.

Fourth, the patient must take two grains of the sulphate of quinine in pill or capsule three times a day, before meals. And continue to do this for six months. After that he should take ten grains of quinine once a week in divided doses for the rest of his life, unless, as time passes by, he is certain against a relapse.

Fifth, whenever, through an accident or otherwise, the patient

gets into a debauch, give him ten grains of quinine every four hours with whisky until he becomes thoroughly cinchonized. Do not give him bromides, etc., but if he needs anything in that line give him morphine hypodermically. Go on with the treatment as soon as the patient recovers from the debauch, and tell him men who have no dipsomania and who are kings, statesmen or scientists occasionally "git that way."

Sixth, improve the patient's social relations as much as you can, and induce him to avoid bad company. Make him realize that you are confident you can cure him.—*Progress.*

On a Simple Method of Preventing Sore Throat.

By H. VALENTINE KNAGGS, M.R.C.S., Eng., etc., London.

The interest that often attaches itself to simple methods of treatment must be my excuse for resuscitating an old but, at the same time, very little known remedy for preventing the recurrence of ordinary sore throats.

Most people, when they hear of it for the first time, are very apt to smile incredulously, and to at once put it down among the category of superstitions, "old women's remedies," etc. In fact, nearly every patient to whom I have suggested it has appeared sceptical of its utility at first, although subsequently a careful trial has frequently convinced them to the contrary. Its prophylactic powers are undoubted.

The treatment alluded to consists merely in placing round the neck from ten to twenty threads of Berlin wool. This must be worn continuously night and day, and not taken off except for the purpose of making ablutions. With some cases it is necessary that the wool should be worn all the year round; with others, during the months when the complaint is likely to return. When it is thought desirable to discontinue its use, it should be done gradually by discarding a single thread each day until none are left. If objected to on the score of unsightliness, a small coin or locket may be attached, which will effectually keep the wool out of sight, and, after a time, out of mind.

Laryngitic and tonsillitic forms of disease, which are especially prevalent among children, are due in very many instances to exposure and cold, and are particularly apt to recur periodically, especially in the colder and more changeable periods of the year. It is in such cases that the treatment is productive of marked benefit.

A considerable number of cases, both among children and adults, have been thus treated in our practice. Observations as to its efficacy have extended over a number of years. Strange as it may seem, scarcely in any single instance has it failed in our hands to avert future attacks. One case in particular occurs to me which I would mention as a type of many others.

A gentleman, who was much exposed to the weather, regularly suffered from a severe form of quinsy every year. On applying the Berlin wool in the usual way seven years elapsed without his having even so much as a sign of recurrence. Thinking, however, after the lapse of so long a time, that he was perfectly safe, he suddenly left off wearing it, and, as a consequence, paid the penalty of his indiscretion, for shortly afterwards a most severe return of the old complaint manifested itself. Subsequently he resumed the use of the wool, and has had no further return, although two years have now elapsed.

The question naturally arises, how can a simple remedy like a few threads of wool possibly effect this object? Or in what manner does it act? In the first place, we know that wool is a bad conductor of heat. Secondly, according to the principles laid down by Dr. Jaeger in his system of sanitary clothing, ventilation is one of the best means at our disposal for promoting skin action, and for retaining the body at an equitable temperature both in summer and winter. It is probable, therefore, that the skein of wool, when attached round the neck, *keeps up a belt of skin-action, and so acts continuously, and in a slight degree, as a mild counter-irritant.*—*The Archives of Pediatrics.*

Medicine as Practiced by Animals.

M. G. Delaunay, in a recent communication to the Biological Society, observed that medicine, as practiced by animals, is thoroughly empirical, but that the same may be said of that practiced by inferior human races, or, in other words, by the majority of human species.

Animals instinctively choose such food as is best suited to them. M. Delaunay maintains that the human race also shows this instinct, and blames medical men for not paying sufficient respect to the likes and dislikes of the patients, which he believes to be a guide that may be depended on. Women are more often hungry than men, and they do not like the same kinds of food; nevertheless, in asylums for aged poor, men and

women are put on precisely the same regimen. Infants scarcely weaned are given a diet suitable to adults—meat and wine, which they dislike and which disagree with them. M. Delaunay investigated this question in the different asylums of Paris, and ascertained that children do not like meat before they are about five years of age. People who like salt, vinegar, etc., ought to be allowed to satisfy their tastes. Lorain always taught that with regard to food, people's likings are the best guide.

A large number of animals wash themselves and bathe, as elephants, stags, birds, and ants. M. Delaunay lays down as a general rule, that there is not any species of animal which voluntarily runs the risk of inhaling emanations arising from their own excrement. Some animals defecate far from their habitations, others bury their excrement, others carry to a distance the excrement of their young. In this respect they show more foresight than man, who retains for years excrement in stationary cesspools, thus originating epidemics.

If we turn our attention to the question of reproduction, we shall see that all mammals suckle their young, keep them clean, wean them in the proper time, and educate them; but these maternal instincts are frequently rudimentary in women of civilized nations. In fact, man may take a lesson in hygiene from the lower animals.

Animals get rid of their parasites by using dust, mud, clay, etc. Those suffering from fever restrict their diet, keep quiet, seek darkness and airy places, drink water, and sometimes even plunge into it. When a dog has lost its appetite, it eats that species of grass known as dog's grass (*chiendent*), which acts as an emetic and purgative. Cats also eat grass. Sheep and cows, when ill, seek out certain herbs. When dogs are constipated they eat fatty substances, such as oil and butter, with avidity, until they are purged. The same thing is observed in horses. An animal suffering from chronic rheumatism always keeps as far as possible in the sun. The warrior ants have regularly organized ambulances. Latreille cut the antennæ of an ant, and other ants came and covered the wounded part with a transparent fluid secreted from their mouths. If a chimpanzee be wounded, it stops the bleeding by placing its hand on the wound, or dressing it with leaves and grass. When an animal has a wounded leg or arm hanging on, it completes the amputation by means of its teeth. A dog, on being stung in the muzzle by a viper,

was observed to plunge its head repeatedly for several days into running water. This animal eventually recovered. A sporting dog was run over by a carriage. During three weeks in winter it remained lying in a brook, where its food was taken to it; the animal recovered. A terrier dog hurt its right eye; it remained lying under a counter, avoiding light and heat, although habitually he kept close to the fire. It adopted a general treatment—rest and abstinence from food. The local treatment consisted in licking the upper surface of the paw, to which he applied the wounded eye, and again licking the paw when it became dry.

Cats also, when hurt, treat themselves by this simple method of continuous irrigation. M. Delaunay cites the case of a cat which remained for some time lying on the bank of a river; also that of another cat which had the singular fortitude to remain for forty-eight hours under a jet of cold water.

Animals suffering from traumatic fever treat themselves by the continued application of cold, which M. Delaunay considers to be more certain than any of the other methods.

In view of these interesting facts, we are, he thinks, forced to admit that hygiene and therapeutics, as practiced by animals, may, in the interests of psychology, be studied with advantage. He could go even further, and say that veterinary medicine, and perhaps human medicine, could gather from them some useful indications, precisely because they are prompted by instinct, which are efficacious in the preservation or the restoration of health.—*British Medical Journal.*—*Columbus Medical Journal.*

A Substitute for Transfusion.

By CELEST. H. BENEDICT, M. D., Bridgeport, Connecticut.

I was called Dec. 6, 1877, to see Lillie B——, nine years of age, sick with typhoid fever. She passed through the various stages until Jan. 3, 1878, when convalescence seemed established, and the child sat up, called for her doll, and played until exhausted. Epistaxis then set in and became alarming. Pulse from 140 to 150. I applied cold to the forehead, and gave tincture of the chloride of iron in ten-drop doses every half hour. The hemorrhage ceased, and I left to attend a case of hemiplegia seven miles distant, directing the mother to apply ice to the forehead should the trouble recur in my absence. I was called at midnight, and found that hemorrhage had occurred from posterior nares and filled the stomach with blood; the child had

vomited, and a state of collapse set in. I sent for a surgeon to assist in plugging the posterior nares. He said it was too late, as she was then to all appearance dying. He left, saying there was nothing for us to do. The child was unconscious. The death damp was upon her face. Pulse and respiration too faint to count. A faint flutter now and then indicated that the heart was still struggling to carry on its work. In considering what could be done, I decided to experiment. Transfusion was out of the question, as no instruments were at hand, and no physician to assist. I directed the father to bring in a young fowl from the barn. As soon as possible he complied. I then placed a tin cup, with a little warm water inside, in a basin of hot water, and held it under the fowl's throat, while he severed the vessels of the neck. Enough warm water to prevent clotting was added, and I injected the fluid into the rectum through a Davidson syringe, previously warmed by pumping hot water through it, care being taken to perform the injection under the bed-clothes without moving the child, for fear the exposure might hasten a fatal result. Fifteen minutes later the flutter of the pulse was more perceptible. The injection was repeated in half an hour, and in twenty minutes the pulse was regular and readily counted. An hour or two later she opened her eyes and wished to know why it was so dark. I repeated the blood injections a few times, and then substituted warm milk or beef tea every three hours for a day or two. She made a good recovery, and has since enjoyed good health.

On February 26, 1888, I delivered Mrs. B. of a healthy child. After tying and cutting the cord, I handed the child to the nurse while I removed the placenta. I then turned to the child and saw a pool of blood upon the floor, found, upon examination, that the cord, which was unusually large, had shrunken and caused the hemorrhage. I retied the cord, but the loss of blood had weakened the child so that the respiration was difficult, and the sound caused by it was so loud that it was readily heard in the adjoining rooms. I requested the father to procure a young fowl, and this time a glass fruit-jar containing a little hot water, placed in a basin of hot water, was used to catch the blood. Two teaspoonfuls were then injected into the rectum through a small hard-rubber syringe previously warmed by filling with hot water. This operation was repeated every hour or two until respiration and the general appearance of the child were

restored to a normal condition. The child is now eight months old, strong and healthy. Should similar cases occur at night in large cities where it was difficult to procure young fowls, I have thought that some concentrated liquid preparation of beef similarly employed might prove equally successful, and also be of benefit in wasting diseases and anaemia due to loss of blood from various causes.—*The Med. Analectic.*

The Treatment of Flatulent Dyspepsia.

Pepper, in a clinical lecture, stated that flatulence may result from the excessive formation of gas. Under these circumstances, such remedies as sulphurous acid, which is a powerful antiseptic, will be found useful. It may be given alone or combined with small doses of strychnia. He prescribed as follows:

R	Acidi Sulphurosi,	ʒiss vel ʒij
	Strych. Sulph.,	gr. ss
	Tr. Card. Comp.,	ʒss
	Aquæ ad,	ʒiv

Sig.—One drachm after meals, in water.

You may resort to a different class of remedies and give creosote. This is a local stimulant to the stomach, and in atonic cases is of service. It is at the same time a powerful antiseptic and antifermentative agent. Creosote is best given one-half or one hour after meals, when the process of fermentation is about beginning. At this time the gastric digestion should have passed through the acid stage, and the contents of the stomach should be neutral or alkaline. Given at this time, the creosote may be advantageously combined with an alkali, as sodium bicarbonate.

R	Creosote, -	gtt. x
	Sodii Bicarb.,	ʒij
	Pulv. Acaciæ,	q.s
	Aquæ, -	ʒv.

Sig.—Two drachms one hour after meals.

In place of the sodium bicarbonate in the above formula the subnitrate of bismuth may be employed. If it is recognized that there is not only a state of atony with a tendency to fermentation, but that there is also a deficiency of gastric power, pepsin may be given. Pepsin is best taken in acid mixtures, and should be given at the acid stage of the digestion. At the

same time, if the administration of the drug is postponed for a short time after meals, it comes at a time when the power of the gastric juice is about exhausted.

R	Pepsin. fort.,	5j
	Creasot.,	gtt. x
	Bis. Sub. Carb.,	3ijss
M	Et. ft. pulv. No. xxx.	

One of these powders, in a small gelatine capsule, can be given one hour after each meal. Again, in this same line of thought, we have agents, like powdered charcoal, which act as absorbents of the gases, and are, at the same time, anti-putrefactive and anti-fermentative in their action. Powdered charcoal, with soda or bismuth, may be given a couple of hours after meals, and in the class of cases of which I have been speaking, may afford a great deal of temporary relief. When charcoal is given, the patient should be informed that it will cause blackening of the stools.—*The Polyclinic*.—*Montreal Med. Journal*.

Hemorrhoids.

Dr. T. W. Poole gives vent as follows in the *Canadian Practitioner*:

"The piles ! Aha ! I knew them well, each feature, though I may not see 'em; old foes, which fume and fret, and swell and vex and plague my perineum. You blush at mention of a "pile," and would, perhaps, the theme avoid; well, then, suppose, to put on style, we call the thing a hemorrhoid. Though bearing an ill-omened name, it seemed as if they might not pain us, when first, as visitors, they came and took up lodgings in the anus. But at each succeeding bout the pelvic pains appear distincer, and there can be no longer doubt of their relations to the sphincter. You ask me by what obvious signs one may with certainty detect 'em. Well, I can only say that mine are like a hornet in the rectum, which, having wandered from the way, and angry at the situation, stings right and left while yet it may, and tortures me in defecation. Avaunt ! it is a vulgar rhyme.' Yet stay, there must be means to cure 'em. Oh, yes, if you but give them time, and meantime patiently endure 'em. There are a thousand cures, you know, all certain sure as dead-shot candy. 'Tis well to buy a score or so and lay them by to have them handy; and when the hornet's rage is spent and things assume

their wonted quiet, the cure, though it may not prevent, will quickly quell the painful riot."

" *Owed Teucrium Scordium.*—How slick and cool in Dr. Poole, to run a rhyme on hemorrhoids. The red hot shot that he has got has prompted him and all his kin their best attempts to them avoid. To ease his pain, advance his gain, relief we may accord him. Upon the spot which is so hot, and makes him fret and sometimes sweat, apply the Teucrium Scordium. A powder fine, if good and prime, the days are shortly numbered when he will grin and lively spin, free from the foe, to come and go no more with piles encumbered.

" Alas ! the day I found the way, how many have I trusted ? My praise is sung on every tongue; from lip to lip, so goes the tip, and every pile is busted. In capsule clean, with lanolin, preserve the ointment nicely. Insert at night; each weary wight in sweet repose his eyes will close; you have the plan precisely. No more to say upon this lay; the muse is nigh exhausted. Whoever tries, if virtue lies in easing man by this new plan, will kindly keep me posted."

DR. JOHN AULDE, Philadelphia.

Both Dr. Poole and Dr. Aulde
Have of their piles so nicely told
One might be sure that perfect cure
Would follow soon and follow faster
To rid of this extreme disaster.

But we have felt the " hornet sting"
All round and round the luckless " ring,"
And candy ate and capsules poked
Till we have thought we've been joked,
And never were we satisfied
Until a specialist was tried.

He placed our note within his coat,
And, looking wise, he fixed our thighs
Till self and limbs were in the " Sims,
Then, by a trick I did not see,
He thrust a needle into me.

I close my rhyme, for since that time
I've had a cool sensation
Where long before I was quite sore
And " hot as all creation."

Medical Age.—Cincinnati Lancet-Clinic.

The Strychnine Cure for Inebriety.

The inordinate crave for intoxicants seems at last to be in a bad way, and, if we can rely on various emphatic declarations, to be in danger of extinction. As if the absolute cure of the "drink curse" by vegetarianism were not enough, the official organ of an influential temperance organization gravely states, in speaking of the hypodermic injection of strychnine, that nothing more simple could have been discovered, nor anything so absolutely removed from any risk to health. This "simple and safe" cure is further described as a daily injection subcutaneously of five drops of a solution of one grain of strychnine in 200 drops of water. It is puzzling to understand why there should be a daily administration, as after the very first injection the inebriate is depicted as regarding intoxicating liquors with positive aversion. After this wondrous discovery, surely the next step must be the "happy dispatch" of the Inebriates Legislative Committee of the Association, the immediate repeal of the Inebriates Acts, the disbandment of all our abstinence and prohibition societies, and absolutely free and unrestricted manufacture and sale of inebriating drinks. All that will be necessary will be the arming of missionaries, district visitors, and policemen with hypodermic syringes and a supply of the "simple and safe cure," so that, on anyone showing the slightest symptom of inordinate alcoholic indulgence, the subcutaneous strychnic panacea may be administered, and a positive distaste for the seductive fluids be immediately engendered. We trust that the true friends of temperance will take our advice in good part when we warn them against all cures, antidotes and specifics warranted to cure and prevent inebriety or to destroy the drink crave. Were strychnine an efficient antidote to alcohol (which it is not, though it has often been useful in the therapeutic treatment of alcoholism), the popular practice of strychnine auto-injection would be but an added evil and danger, for few lovers of liquor would care to go about without so potent a talisman against the perils of inebriate excess. The administration of powerful medicinal poisons ought to be limited to duly qualified medical practitioners, and we cannot be too emphatic in warning the non-medical community of the very great risk involved in the administration of poisonous therapeutic remedies by the non-medical clergy and laity.—*British Med. Journal.*
—*The Cincinnati Lancet-Clinic.*

An Absolute Cure for Inebriety.

Of "infallible cures" and "never-failing specifics" verily there is no end. Among the most recent is that propounded by some vegetarian enthusiasts as a cure and a preventive of inebriety, and publicly endorsed by one of our leading teetotal champions, Archdeacon Farrar. At a vegetarian tea a few evenings ago the archdeacon is reported by the daily press to have declared vegetarianism to be "an absolute remedy for the cure of drink." Were the archdeaconal therapeutics sound, his own course and that of the other apostles of temperance would be clear. They are bound to abjure the use of fish, flesh, or fowl, and thus stamp out the "alcohol plague," as Professor Bunge tersely calls it. As Dr. Farrar confessed that he was a "beef-eater," and threw out no hint of forswearing indulgence in the flesh of slaughtered animals, perhaps he has not implicit faith in his own "absolute cure." Physiologists and those who have had much experience in the scientific treatment of inebriety well know the fallacy of all these vaunted "cures" for the drink or opium crave, from "raw beef" to a vegetarian dietary. That the latter is no real remedy or prophylactic is proved by the prevalence of inebriety in various narcotics among many tribes who drink to excess as often as they get the chance, but whose religion forbids them to taste animal food. In Scotland, too, where a large proportion of the people used to be practical vegetarians, with often not more than one meal of flesh in a year, intemperance in alcohol was much more prevalent than it now is, when a great deal more animal food is consumed. The truth really is that no one restricted form of dietary will suit every case. Regard must be paid to the individual idiosyncrasy. In some cases a non-flesh diet contributes to temperance in alcohol. In other cases a similar mode of life leads to alcoholic excess, from the depression and nervous distress consequent on mal-assimilation. Vegetarianism has much that is reasonable in its claim as an ordinary dietary; but no enlightened advocate of it can do anything but prejudice these claims by insisting on its efficacy as a specific or a cure for inebriate indulgence. The roots of our national disgrace are not in a chump chop or in "the roast beef of old England."—*British Med. Journal*.—*The Cincinnati Lancet-Clinic*.

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Next to this I use the *antithermic* methods. I say the antithermic, and not the antipyretic, as the first acts by *subtracting* a certain quantity of caloric from the patient, while the last acts on the production of the heat itself. I employ cold lotions of aromatic vinegar, and have two of them applied if the evening temperature is not over 39° centigrade. If it goes to 39.5° I use six lotions, and if it rises to 40° and *a fortiori* over, I have eight applied; that is to say one every three hours. This causes a fall of temperature varying from 0.7° to one degree after each application, and this lasts from half an hour to an hour. The result is that this temporary refrigeration, often repeated, will sometimes become permanent or antipyretic. But I only wish to impress you with its antithermic effects. These lotions are used from the first and are continued on into the convalescent period. Besides this I use *stimulation*. From the first day these patients take some form of alcohol, rum, brandy, etc., whatever they find the most agreeable or least disagreeable. I give at first 40 grammes, and where the dynamic phenomena are intense, I raise the dose to 60, 70 and 80 grammes in twenty-four hours. I put this in the form of a cordial, adding four grammes of cinchona extract to it, and during the last half of the malady, I put in from 4 to 7 grammes of acetate of ammonia. This cordial may be slightly varied to suit the taste of different patients, by adding such flavoring matter as is desired, but the plain form is best when well taken. Should bronchial or broncho-pulmonary catarrh be intense during the thoracic symptoms, I have applied on the inferior members at least 40 dry cups, repeating this for six to eight days, according to the case.

This is the whole of my uniform treatment in a large majority of cases, so that if there are no bronchial symptoms you can readily put it in one line, *milk, wine, cold lotions, and the alcoholic potion.*

Now, what is my variable treatment? Well, first of all, it is not a modification of the regular system used, which always remains the same. Whatever else I introduce the fundamental treatment described remains fixed and the rest is added to it. I use then in addition sometimes antipyretic medication, that is to say quinine and salicylic acid and another agent of which I will speak later on, this is digitalis. First as to quinine and salicylic, these I use when the fever is not subdued by several