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# THE CANADA LANCET.

A MONTHLY JOURNAL OF

MEDICAL AND SURGICAL SCIENCE,  
CRITICISM AND NEWS.

## Original Communications.

### THE THERAPEUTICS OF BLOOD- LETTING.\*

BY THOMAS T. HARRISON, M.D.

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Ont.

Born at a time when venesection was recognized as a great therapeutic agent, and having from my earliest infancy the run of a surgeon's office, there is nothing more firmly fixed in my early memory (except perhaps the extraction of refractory molars with the key of Garangcot), than the bared arm, the flowing blood, the lancet and the bandage.

Later, when as a boy I became acquainted with the practice of medicine in the woods of Canada, bleeding was the popular remedy for all fevers, on their accession, sudden pain and injuries. There was scarcely a settlement that did not possess at least one man who kept a lancet and could use it. If at a gathering a woman fainted, or a man was knocked senseless, the sleeve was drawn up, and some neighbor—perhaps with a penknife—opened a vein; and the fact that when the blood began to flow the patient revived, firmly convinced the operator of the value of this remedy.

Venesection was considered *the* remedy in pneumonia. You will remember that when O'Meara was arguing with Napoleon on his want of confidence in the value of medication, he instanced inflammation of the lungs as a disease not likely to be removed without it. Bonaparte asks, "What is the remedy?" "Blood-letting is the sheet anchor." "Oh!" says Napoleon, "'tis the surgeon cures it. I always had faith in surgeons." The pregnant woman thought bleeding a necessary precaution to prevent the accidents and diseases peculiar to her condition, and I have repeatedly seen her come to be bled on her own responsibility,

without asking a question as to whether it was necessary or useful. The farmer bled his horses when he turned them out to pasture, and had himself bled when the weather became warm. The lancet, like the swallow, was the harbinger of spring.

From time immemorial bleeding in some form had been recognized as a valuable agent in the treatment of diseases, and as little likely to do harm as any other remedy in use. Virgil, in one of his pastoral poems, talking of the diseases of sheep, says, as rendered by Dryden:—

"Deep in their bones when fevers fix their seat,  
And rack their limbs, and lick the vital heat,  
The ready cure to cool the raging pain,  
Is underneath the foot to breathe a vein."

Now we have changed all this. If we were to propose to our patients to take sixteen, twenty, or forty ounces of blood from them, the proposition would shock them more than the loss of the blood affected their fathers or mothers, and it is doubtful if among the younger members of the profession, there could be found a man that would know how to draw it. Bleeding has truly become a "lost art." I doubt whether you could find one in fifty of the graduates of the last fifteen years who had ever bled a patient, or seen a vein opened. When in consultation I have advised venesection, I have been repeatedly called aside by the doctor and asked to do it, he adding "I have never seen a patient bled."

To what can we attribute this complete neglect and disuse of a remedy so universally employed in the memory of men still practising—that had been in use so long, and that had been endorsed by so many celebrated physicians? Was it wise to give it up so entirely? Is it useless as a remedy? Is it dangerous? Were our forefathers all fools?—all mistaken? Or have we other remedies quite as efficacious, and less unpleasant?

The days of venesection were the days of enormous dosing. We read in the old medical works of the "*vis medicatrix naturæ*," but the ordinary practice of the time would lead one to suppose it was little trusted in. The patient seemed to be considered in a slough, out of which he was to be lifted bodily by the power of medicine and medication; and, besides bleeding and blistering, the enormous doses of crude drugs, and the rapidity

\*Read before the Ontario Med. Association, June, 1893.

with which dose succeeded dose, would take the breath of a modern patient.

When in the latter part of the last century Samuel Hahnemann deemed that he had discovered the principle upon which all remedies acted, as expressed in the aphorism "*simil ia similibus curantur*," and acted upon it with the decided dosage of those days, he soon found he would have to give up his theory or his practice. He got over the difficulty by administering his infinitesimal doses, which really equal nothing. Patients undoubtedly recovered under his treatment. He professed the greatest contempt for the efforts of nature, and held that she rarely, if ever, made a cure, and therefore extolled the wonderful curative power of his dilution of a shadow. Sensible men learned from his practice the great recuperative power of the system, when neither assisted nor retarded by the action of medicine; and the result was a school of sceptics, led perhaps by Scoda, and a more or less general distrust in the use of medicine.

It was during this period, before the more modern, scientific, and exact method of investigation had demonstrated the real power and value of remedies, that the Edinburgh Professor, John Hughes Burnett, made his attack on blood-letting, especially in pneumonia; and by showing a larger percentage of recoveries without bleeding, than under the indiscriminate antiphlogistic, evacuant, and depressing treatment then in vogue, gave the death-blow to the use of the lancet. It was not a pleasant operation, especially for the nervous patient, and many a timid physician was glad to give up the use of it.

Undoubtedly, the indiscriminate use of blood-letting, on nearly every occasion, did a great deal of harm; but so did the indiscriminate use of medicine. A therapeutic agent to be in all cases, and in all hands safe, must be useless. The powerful remedy is only safe in the hands of those who know its power, recognize its dangers, and understand its *modus operandi*. To these, the more powerful the agent, the more certain its action, the more useful it is found to be in cases of serious disease; and I feel certain that discarding so potent an agent as blood-letting, has not been to the advantage of our patients.

My own personal experience had given me the greatest confidence in bleeding as a remedy in

congestion of the lungs. Just as I entered manhood, I had a most severe attack of pneumonia, and I well remember the sensation of suffocation, the feeling of impending death that I experienced. At the height of the congestive stage, my father took about sixteen ounces of blood from my arm, and I felt so much relieved, and so well, that I got out of bed and walked to the fireplace while I changed the linen that had become soiled with the blood. I was bled again the next day, and though the disease ran its course, I do not think that the loss of about a quart of blood within twenty-four hours retarded my getting up, and I am sure that no one who has experienced the relief which followed the loss, would ever forget it.

Soon after I commenced practice, I had a patient with congestion of the lungs, and all the symptoms of commencing pneumonia. My patient had been exposed to typhoid fever, and some of the symptoms led me to fear she would have it. This alone prevented my using the lancet. I saw her in the evening, and was in doubt whether to bleed or not. I left without doing so, and was called before morning to stop a profuse hæmorrhage from the nose. She had lost a pint or more; the flushed face had become pale, pulse soft, congestion of lungs relieved, and she recovered without a bad symptom, or the inflammation passing the first stage.

Dr. Shand, of Edinburgh, reports a case of congestion of the lungs; and as the patient, a student, was the son of a medical man, he deferred bleeding until he had the father's views on the subject. Before he left the house, blood gushed from both mouth and nostrils. Dr. Shand immediately opened a vein. As soon as enough blood had flowed from the arm to affect the system, the epistaxis ceased; and, after free bleeding, the patient was relieved, and rapidly recovered.

He gives a number of cases to prove that he has relieved congestion of the lungs, and cut short pneumonia by bleeding in the first congestive stage; and in one case of pleuro-pneumonia, in which the patient had been steadily getting worse—the pain and dyspnoea increasing—he bled on the fourth day. The pain became less, the breathing easier, as the blood flowed; and his patient recovered so rapidly that he did not repeat his visit.

Dr. Ogle, of St. George's Hospital, says that a

patient with all the symptoms of double pneumonia, was struggling for breath. Thirty ounces of blood were rapidly drawn from the arm, and its effects were immediately manifest. The pulse became fuller and slower, breathing greatly relieved, and the patient easier. Sydenham says, quaintly: "In these cases, bleeding does the work of the windpipes."

Dr. Reid, of Edinburgh, in 1836, demonstrated on dogs and rabbits, that in cases of poisoning causing enfeeblement, or suspension of the heart's contraction, on freely opening the external jugular, and unloading the right cavities of the heart, circulation returned.

Dr. Clark, of Oswego, tells us that he bled a woman, at the period of whose menopause double pneumonia set in, six times within three and a-half days, twelve ounces or more at a time. Each bleeding relieved the congestion then present, and though the disease ran through all its stages, she recovered; yet her case was so critical that, at the time of the third bleeding, an experienced consulting physician thought her beyond hope, and was convinced that nothing but the relief of the congestion by that bleeding could have saved her.

A lady, 51 years of age, with dilated heart and dropsy, had a very violent attack of pneumonia. Dr. Clark bled her thrice, a pint or more each time, and in thirty-six hours she had recovered.

At the American Medical Association, held a few days ago at Milwaukee, Dr. Washburn read a paper on "Pneumonia," in which he stated, and his statement was uncontradicted, that pneumonia is more fatal in our hands than in those of our fathers, and that the results of their active, combative treatment were better than the expectant treatment of to-day. In the discussion, though one gentleman advocated blood-letting—it was hypothetically—not one of the speakers seemed to have used the lancet.

Dr. Samuel Wilks, in the *London Lancet*, gives a case of a small boy in extremis with capillary bronchitis; face livid, eyes starting out of his head, and the external jugular full and prominent. The doctor opened the jugular, letting out several ounces of blood; when the breathing became easy the lividity passed away, and in a very short time the child recovered.

In a case of chronic bronchitis, in an elderly

lady, Dr. Wilks had her cupped between the shoulders, and was surprised at the wonderful relief that the evacuation of a few ounces of blood gave, the relief taking place as soon as the blood flowed. In cyanosis and emphysema, Dr. West has seen it give prompt relief, even when the organic lesions were so great as to be beyond aid.

In heart disease, with sudden accession of congestion, overloaded right ventricle, and difficult breathing, we have a wonderfully prompt and efficient agent to relieve it in the lancet. This I have more than once demonstrated in my own practice.

Dr. Shand gives a case in which he relieved the pain and dyspnoea caused by stenosis of the mitral valve by free bleeding; and parallel cases which did badly where he did not bleed.

Dr. West, of St. Bartholomew's, had a case of aortic disease, where his patient was suddenly attacked with congestion, spitting of blood, and such difficulty of breathing that he considered him in imminent danger. He took from the arm a pint or more of blood, and in less than an hour he dropped asleep, all the urgent symptoms relieved. A patient of his with mitral disease, great dilatation and well-marked Cheyne-Stokes' respiration, was seized with sudden dyspnoea and became cyanosed. Eight ounces of blood taken from his arm promptly relieved the urgent symptoms, so that he slept comfortably for some time. Of course, it did not cure the heart disease, of which he died two days later.

In apoplexy—or attacks at least closely resembling it—bleeding has frequently given prompt and marked relief, and though it can scarcely affect the already extravasated blood, if taken in time it may prevent it, and even after it has taken place may limit the amount.

Dr. Shand gives a case of apoplexy where the patient fell against the corner of a table, laying open one of the temporal vessels; profuse hæmorrhage occurred, which restored consciousness and greatly relieved her.

Dr. Perigal, of Edinburgh, took a few ounces of blood from a man who had been many hours unconscious from injury to the head, and consciousness returned while the blood was flowing; and Dr. West gives many instances of brain injury or disease permanently cured, or temporarily relieved by venesection.

Dr. Russell Fosbrook says he had a case of impending death from apoplexy. He took a pint of blood from the arm. The face, which was livid, rapidly assumed its natural hue, the dilated and fixed pupils contracted and became mobile, and the patient became conscious.

Dr. Clark, of Oswego, bled a boy, of less than five years, to the amount of sixteen and a half ounces. The boy had convulsions, was in deep coma, pulse small and weak, surface pale and cool. The relief from this enormous depletion was so great, that he found him at play on his next visit.

I have seen many cases of eclampsia. I have treated them with chloroform, with chloral and the bromides, with morphia, with calomel and croton oil, variously combined, and with blood-letting, and although of course all cases do not require depletion, I can say, that I never regretted having used the lancet, though in cases where I neglected to bleed I have more than once felt sorry for the omission.

In one of my cases, a very large fat woman, I had been giving morphia freely for neuralgic pain, when the first convulsion occurred. It was early in my practice, before the days of chloral and the bromides. I had no chloroform with me. I had to make a dissection before I could find a vein, but when I did, I took blood to the amount of seven or eight pints before I made a decided impression on the circulation. The convulsions ceased, and before my father got there to my assistance, and I got a supply of chloroform, my patient was sleeping quietly, and she recovered from the abortion which ensued, as readily as if she had not lost an ounce. I would not advise bleeding in all cases of eclampsia, but where I had the slightest doubt, I would bleed.

Dr. Wilks had a case of uræmic convulsions, where his patient was comatose, face and extremities livid, skin cool, the woman nearly pulseless, and said to be dying. He bled freely, when the pulse rose, the lividity passed off, the skin became warm, and the patient recovered. He reports another case with albuminous and scanty urine, engorgement of the lungs and hæmoptysis, in which the good effects of venesection were as clearly and speedily manifested, and as permanent. Some medical men who have tried bleeding in uræmia, have failed to see much or any benefit from it.

Even the presence of tuberculosis, according to many observers, need not deter us from using blood-letting where the state of the system seems to require it. Dr. Huggard, of Davos, says, when hæmorrhage from the lungs takes place in a plethoric patient, he does not hesitate to bleed, in some cases to forty-eight ounces. In all such cases it lowered the temperature, improved the pulse, and, at least, had no unfavorable influence on the tuberculous disease.

Cases of chlorosis and anæmia, where we should suppose loss of blood could do nothing but harm, are frequently benefited by moderate blood-letting; the loss of a few ounces of blood seeming to stimulate the blood-forming organs, and to greatly assist the action of iron and the bitter tonics.

As the result of my experience and investigations, I am strongly convinced that while we have adopted many of doubtful utility, we have, in blood-letting, discarded an old one of great power and value, an agent whose therapeutical actions and capabilities are well worthy of a new, patient, and impartial investigation. That while in the present state of our knowledge we cannot consider it a remedy for any special disease, there are many pathological states and conditions, which it will counteract more promptly certainly, and perhaps more safely than any other agent at our command. This is the conclusion Dr. Pye Smith arrives at in a paper read before the Royal Medical and Chirurgical Society. He tells us it is especially useful in local congestions, cyanosis, and engorgement of the right side of the heart. He has used it with advantage in cases of miliary tuberculosis, broncho-pneumonia, apoplexy, epilepsy, and uræmic coma; in all cases of which there was this condition of local congestion.

#### A UNIQUE VAGINAL ATRESIA.

BY E. J. BOYES, M.D., OAKLAND, CAL.

On the 14th of August, Mrs. H. came to me for relief from pains in the lower abdomen. These being periodical, suggested examination of the uterus. Before doing so, my patient, a young healthy married woman, gave me a history of perfect health till her recent marriage. Since that event, she had suffered from difficulty and distress in coitus, and from this inferred that she

was different from other women. At the time of consultation, she had missed one menstruation, and was complaining of morning sickness, and suspected pregnancy in consequence. On examination, the external parts were found normal. But an attempt to pass the finger into the vagina developed the fact that it was firmly vaulted over in its middle third by a fleshy mass, a partition as it were (and so it proved eventually to be), and about one-half inch in thickness. *Per rectum*, I discovered an enlarged uterus; and on resorting to a speculum to more closely determine the vaginal condition, found it of that darkened hue, dubbed "port-wine color." The inference was that she was pregnant. But *how*? And it was only on a most careful inspection, that a minute central canal could be made out, through which a very fine probe passed with difficulty.

An operation was proposed and agreed to; and the following day a dissection upward defined the bridge, which was carefully cut away, exposing the upper third of the vagina, fairly normal, and the cervix of the gravid uterus in plain view, though smaller, and not distinctly protruding into the vagina, as is usual.

The patient was kept in bed two weeks, and sedatives given to insure local rest, so that now she is in good health, shows no tendency to miscarry, and will probably carry her unique conception to the usual conclusion.

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### Selected Articles.

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#### ON THE INTERNAL ADMINISTRATION OF CALOMEL IN THE TREATMENT OF PSEUDO MEMBRANOUS LARYNGITIS.

Any fixed and definite method, which promises only a modicum of success, in the treatment of membranous croup, must command the respectful attention of every practising physician; in no other acute disease of childhood is the mortality so great; in no other does the hopelessness of the physician's efforts seem so manifest.

The numberless methods of treatment of this disease attest the industry with which physicians have striven to overcome the gradually increasing laryngeal stenosis which has been regarded as its greatest danger.

Venesection, veratrum viride, antimony, the emetics, vegetable and mineral, nitrate of silver solutions (ten to sixty per cent.) locally (Breton-

neau and Green), medicated steam inhalations, and numberless drugs newly invented and older ones, have had their warm supporters, who have claimed for their methods a certain percentage of recoveries without operation.

Taking the consensus of opinion of recent years, the most widely popular drug in the treatment has been mercury, in the form of corrosive sublimate, in large doses, with or without the muriated tincture of iron and chlorate of potash; still more recently inunctions with blue ointment have been recommended in the treatment of laryngeal and faucial diphtheria.

It may seem superfluous to mention these different methods, but the object is to show that, after all the varying phases of treatment which an historical survey of the literature reveals, mercury to-day is essentially the drug upon which most reliance is placed by the majority of medical men.

Before speaking of the treatment by hourly doses of calomel, which will be recommended in this paper, the writer would direct attention to the characteristic clinical features of the disease in their relation to the treatment. A child, with or without discernible diphtheritic processes in the pharynx, exhibits the signs and symptoms of so-called "true croup," or laryngeal diphtheria, viz: a low, rasping inspiration; dry, brassy cough; retraction of the soft parts of the chest on inspiration; hoarseness; fever. Each symptom in this complex gradually increases in intensity; the inspiratory stridor becomes louder; expiration also becomes noisy and prolonged; the breathing meanwhile grows rapid, assuming the characteristic sawing sound; cough is more metallic and drier; the retractions become extreme; the hoarseness gives place to aphonia; cyanosis appears. The two factors productive of this condition are the closely adherent diphtheritic membrane and the inflammatory swelling of the mucous membrane and submucous tissue of the larynx.

The membrane, starting at one point, say the posterior surface of the epiglottis, extends to the upper surface of the vocal cords, invades the ventricles of Morgagni, passes on to the vocal bands, and may extend into the trachea and bronchi of smallest calibre; the glottic aperture is slowly encroached upon, until complete closure occurs and death from suffocation ensues; or croupous plugs in the bronchi and broncheoli may so limit the lung capacity that the patient succumbs. This growth of the membrane produces, in addition to the disturbances in the respiratory organs, a gradually increasing carbonic-acid intoxication and infection of the organism.

The growth of the membrane may, on the other hand, be self-limited; and when complete occlusion of the glottis seems imminent, a change in the character of the breathing is noticed; instead of the dry; sawing sound, a moist, fine r le is heard

in the larynx; the metallic cough becomes moister, softer; the retractions of the soft parts of the chest become less marked; the aphonia gives place to hoarseness. The membrane having ceased to extend, has become disintegrated, soft; suppuration has separated it from the underlying mucous membrane, it has been expelled by the cough, either piecemeal or *in toto*, and slowly but surely a "restitutio ad integrum" occurs in the larynx.

The remedy, which experience has shown to have the effect on the membrane of liquefying or softening it, is therefore the great desideratum; medicated steam inhalations (lactic acid, lime-water, turpentine), and sublimed calomel (Dillon Brown) have been given with this object in view.

Calomel administered internally, in the manner to be hereafter described, has, in my experience, seemed to have this effect; and the results have been so satisfactory, that this method of treatment seems to me worthy of the highest commendation.

To a child under two and a half years, 0.05 of pure calomel is given hourly, sleeping and waking; for each year above two and a half years, add 0.02 of calomel to the hourly dose. A child of five years would therefore take 0.10 of calomel every hour. The calomel must be absolutely pure and undeteriorated; it should be given without the admixture of sugar of milk or of any sugar whatever; it may be administered, either floating on a teaspoonful of water, or if the child refuses this, because he knows it to be medicine, it may be given in milk, entirely unnoticed by the patient.

The case should be under the watchful care of a trained nurse, who must keep an accurate record, noting the slightest perceptible change in any of the characteristic signs; after one or two grammes of calomel have been given, a change in the laryngeal breathing sound should be noticed. The treatment should, and can, be instituted at the earliest possible moment after the diagnosis is made.

The writer has given a child of two and a half years, 0.05 of calomel hourly, until four grammes were taken; the patient recovered. To another child of three and a half years, five grammes were given with success. A stimulating and supporting regimen to combat the sepsis was adhered to—beef soup, white of egg, milk; Tokay wine, or whisky, were administered alternately, at very frequent intervals.

The administration of nourishment and stimulants, half-hourly, to sustain the heart power, is of the highest importance; everything given the little patient should be palatable and easily taken, as every struggle of the child against taking food or medicine increases the laryngeal stridor, and perhaps causes the membrane to extend downward.

The use of mercury in plastic inflammations is one of the traditions of medicine; its praises have been sung by medical writers for more than a hundred years; whether its so-called antiphlogistic

properties are explicable by reason of its destructiveness of germ-life, it is not for me to say. The action of calomel in croup, given as above described, bears out the old belief, in actual experience. Under its use I have seen the stridor, the aphonia, the cough, in short all the symptoms, slowly abate, showing that the membrane was gradually loosening its hold and becoming innocuous.

The advantages of calomel over sublimate are self-evident; the former is mild, non-irritating, can be taken for the necessary length of time without any other effect than a passing diarrhoea, perhaps; while the sublimate is a pronounced irritant poison which, taken in frequent doses, will cause pronounced gastro-intestinal irritation, necessitating an interruption in the treatment at a critical period.

The powder of calomel of six centigrammes is small, tasteless, and easily administered to the most obstreperous child; not so with the bichloride mixture, when given hourly. If inunctions with blue ointment have been attended by the success claimed for them in diphtheria, then mercury *absorbed into the circulation* seems to have a controlling influence over the diphtheritic infection, and its local manifestations.

For administration to children, calomel must be preferred to all other preparations of mercury, for reasons that are obvious. The danger of salivation, in my experience, is minimal; I haven't seen a case of ptyalism among the children that I have treated with calomel.

Severe diarrhoea has also been very rare. Three, four, or even five movements a day under the calomel therapy I should consider rather an advantage in this disease, provided the patient take nourishment; the sepsis is, to a certain degree, mitigated by the free action of the bowels.

Should the diarrhoea assume a severe or alarming character, the dose of calomel may be diminished, or the intervals between doses prolonged; or a starch injection, with or without a little paregoric, may be given; and if the laryngeal obstruction seems to be lessening, I would not stop the calomel altogether under any circumstances.

A very strong argument, from a pathological standpoint, in favor of the antiplastic treatment by calomel, or by mercury in any form, is found in the statistics and post-mortem examinations of Prudden and Northrup. In 151 fatal cases, pneumonia was found in 104. In Northrup's article in Keating, in 87 cases, the larynx alone was affected in only one case; in another the membrane extended from the pharynx to the middle of the trachea; between this point and the bronchi of the fourth division nothing was to be found; from these to the finest bronchi, membrane was present; in 34 cases the membrane extended from the pharynx down to the finest bronchi. In view of this extensive growth of membrane, of what use can

an inhalation be? The tidal air, which alone can carry the inhaled medicament, never reaches the finest bronchi; of what use, therefore, is any local treatment? The treatment by sublimed calomel (Dillon Brown) seems to me to be the treatment which is advocated in this paper, but in a different form. It formerly was one of the methods of mercurializing a patient, to volatilize calomel on a metal plate by means of an alcohol lamp. The treatment has the disadvantage of salivating the attendants of the child.

In mercury we have a drug, then, which, absorbed into the circulation, would seem to have a specific effect on the membranous exudation of laryngeal diphtheria; and of all its preparations, the mild chloride for administration to children is the best for easily bringing the system rapidly under its influence.

It is not claimed that recovery occurs in every case, nor am I in a position to bolster up assertions by statistics; favorable statistics would be accepted with incredulity, anyway.

The object of this paper is simply to direct your attention to a specific and definite method of treatment, which, from inquiry, I am convinced is not at all in use among physicians in this city, and which in my practice has proven eminently gratifying in a number of cases; which, if followed to the letter, will fully meet your expectations. Its simplicity, ease of application, the fact that treatment can be instituted the moment laryngeal stridor is noticed, in even the youngest child, are arguments in its favor.

Should the patient go from bad to worse, in spite of the treatment, and the symptoms assume a grave character, recourse can always be had to intubation or tracheotomy; and here I would say, although it has nothing directly in common with my subject, that early operation is to be decidedly discountenanced, be it intubation or tracheotomy. In either case a new danger is added which, in my opinion, may have been, in some cases of early operation, the cause of death.

Recovery from diphtheria of the larynx is undoubtedly possible without an operation, and the child's chance of life should not be jeopardized at the outset of the disease, to satisfy the theory of "early operation." The writer has tracheotomized children apparently at the last gasp, and has saved the life of the patient by the operation. Operation should be the *dernier ressort*. The chance of success in my experience has been just as great in late as in early operations.

A few brief histories may be of interest. In the fall of 1887, Dr. Arnim Fischer called me in consultation to see a baby, two and a half years of age, who had all the symptoms and signs of diphtheritic croup. Two children in the same family had succumbed to the disease a few days previ-

ously; the elder, aged six years, had been tracheotomized; the younger, aged four years, had been intubated by other physicians. When the third and youngest child was taken sick the parents determined to have no operation performed. I advised the attending physician to give pure calomel in doses of 0.06 hourly. A slight amelioration of all symptoms was noted after 1.0 had been given. The child recovered, having received 4.0 of calomel in all.

Another case, seen by Dr. A. Jacobi in consultation late at night, was that of a boy, three years of age, who had gray patches on both tonsils, marked sawing stridor in the larynx, with inspiration and expiration. Dr. Jacobi thought intubation indicated. The parents, when I had explained to them the dangers of the disease with and without operation, decided to wait and consented to a trial of the internal treatment. The calomel was given in hourly doses of 0.1. The stridor was slowly overcome, the dry sawing sound in the larynx gave place to the moist flapping of the loosening membrane, expectoration became copious, purulent, and the patient recovered. This patient took 6.0 of calomel in all.

I might relate case after case in which the calomel has not disappointed my expectations, in the treatment of croup, but it would not strengthen the assertions already made in this paper. These cases have been recorded for the purpose of showing how large a quantity of calomel can be taken in divided doses by young children, with impunity. No urgent signs of mercurialism occurred in any of my cases, which would have necessitated a discontinuance of the treatment, nor can I say that I noticed any bad after-effects. It is an argument against all treatment by mercurials, that their deleterious effects on the blood and tissues remain long after the disease for which they are given is past; in my opinion, a drug that promises to rescue a child from the terrible agony of death by suffocation may be given, even at the risk of incurring bad after-effects; there is ample time to treat these later and to get rid of them, but the suffocative attacks of laryngeal diphtheria don't allow much time for the consideration of after-effects. The writer considers steam inhalations, in any form, an important adjunct to the treatment.

To sum up, the claims for consideration of this drug, in the treatment of laryngeal diphtheria, are based on the following grounds:

1. Mercury is to-day the one drug upon which most reliance is placed by the medical profession in the treatment of diphtheria; and from the various ways in which it is used with benefit, it probably exercises its good effect through absorption into the circulation.

2. In the experience of the writer the hourly administration of 0.05 of calomel has had, in many cases, the satisfactory result of softening and lique-

fyng the diphtheritic membrane, and of avoiding the necessity for operation.

3. The case of administration to children, and the absence of irritation in the gastro-intestinal tract.

In closing, the writer must state that, though this method of treatment is the result of his own thought and experiment, he does not and cannot lay claim to originality, inasmuch as Dr. W. H. Daly, of Pittsburg, in a paper read before the American Laryngological Association in 1886, advocates the same treatment with great enthusiasm. Dr. Daly's paper is very brief, and in reality is simply a statement of his belief in this therapy. He, in turn, makes the admission that he is indebted for his knowledge of this method to Dr. William C. Reiter, who, in 1878, directed attention to it in a monograph "On the Treatment of Diphtheria, Based upon a New Etiology and Pathology;" nor is this the first time that the treatment was given publicity. Sidney Smith, the noted divine and essayist, by the advice of his physician, treated his grandchild for a disease which must have been, from the description, diphtheritic croup, by hourly doses of calomel, and saved its life. In gratitude to the physician he published the method to the world.—C. H. Kohn, M.D., in *Med. Rec.*

#### CHRONIC CYSTITIS AND ITS TREATMENT—CYSTOCELE.

As this woman illustrates a condition of not a very uncommon occurrence, I present her to you to-day, and will give you a brief history of the symptoms she complains of.

She is, she says, forty-four years of age, and commenced to menstruate at the early age of ten years. I wish to call your attention to a matter in connection with menstruation, and my own experience bears out the statement that the earlier a woman begins to menstruate, the later she ceases. It is a sign of unusual physiological activity in that particular function. She was married at the age of seventeen and is the mother of eight children. She gives no history of instrumental delivery, but some of her labors have been difficult. She had a miscarriage the centennial year and has not been well since. She passes her water about four times a day and rises only once at night to empty the bladder. This may be nothing more than the result of habit on her part. Her urine, she says, looks like milk.

This woman has been sent to me as a patient suffering from chronic cystitis, but I want you to notice that there is a very evident departure from some of the symptoms of cystitis here, and for that reason it is a good case to show you. A

woman may have a chronic cystitis and yet not pass water often, and it seems to me that this is the peculiarity of the female bladder as contrasted with the male. A man with a chronic cystitis is a very miserable object. In many cases of chronic cystitis in the male, you have a deep-seated stricture, perhaps anterior to or in the membranous portion, and blocking up the passage, leading to the development of a cystitis. It may also be due to the presence of stone in the bladder. This is just exactly what does not occur in women. Women very rarely suffer from stone in the bladder, and gonorrhœa very rarely gives rise to vesical trouble. Cystitis in women is generally due to displacement of some kind. The bladder is either drawn down or fixed in an abnormal position, so that she cannot pass her water readily. When that happens, you get decomposition of the urine and chronic cystitis as a result.

I will now see what the physical condition of this woman's pelvic organs is: There is a very fair skin perineum and a well defined fourchette. The sphincter contracts to the touch, showing an unimpaired condition of the external parts. You can notice a gaping of the vulva, and the nymphæ are small. You notice a pyriform tumor, which comes down to the posterior wall of the vulva. The anterior vaginal wall is prolapsed and has dragged down the bladder. As I pass my finger into the vagina I find the cervix has descended almost to the vulva, and as I palpate the abdominal wall there is some tenderness and the patient complains of pain. Now, what is the cause of this tenderness of the abdominal wall? It may be due to the remains of a former inflammation, or it may be the distress conveyed to the swollen parts by increased abdominal pressure. If you were to open that abdomen, you would not find any pathological condition to account for this soreness. I find here a descent of the uterus, and will now proceed to investigate the state of the bladder.

As I introduce the catheter into the bladder and withdraw it, the end of the instrument is marked with blood, and a milky urine has escaped. It is difficult to imagine that this woman has so few symptoms with such evidence of great disturbance. Here is a bladder drawn all out of place, and the urine shows well marked symptoms of chronic cystitis. A great many women with this condition of the bladder have to get well down on their knees and pass their water in that posture, for they find they cannot empty the bladder when they stand up. Do not imagine that because you get blood when you pass an instrument in this way, that it is due to a papilloma or malignant disease of the bladder. As a rule, it is due to a polypus or a caruncula of the urethra; but above all, to a chronic cystitis, in which you have a velvety mucous membrane

which bleeds on the slightest touch. The most of the symptoms this woman complains of come from the bladder.

The treatment of this, then, resolves itself into rectifying the displacement. I think we could promise her almost immediate relief if she were to remain in a hospital, by keeping the uterus up in position and washing out the bladder. But what can be done for an ambulant patient like this woman? I should not proceed to operate at once, but reserve that procedure for a later period. In the first place, I should try tamponing the vagina, using a fifty per cent. solution of boro-glyceride, with a five per cent. solution of chloral. There is nothing that I know of better for overcoming the congestion of the parts, and chloral is decidedly a local anaesthetic. It is also an excellent antiseptic. This will give her some relief. I would next wash out the bladder with a weak solution of boracic acid, or with Thiersch's solution, which is an excellent bladder wash. You can use Thiersch's tablets, which are sold in all chemists' shops and which are very convenient. These cases are usually a good deal relieved, if there has been congestion and bleeding like this, by the administration of salol in five-grain doses three times a day, which will improve the condition of the urine. If there is a great frequency of micturition, with a local congestion, you may try the effects of belladonna, which in some cases does give relief.

After the tampons have been used in this way for a week, you will see that the symptoms are all changed and there will be less local irritation. Then I should try to support this prolapsed uterus by means of a suitable mechanical pessary. I would first use a soft ring of some kind, and while I do not use half a dozen pessaries a year, in a case like this I consider one advisable. After a time when the irritation is considerably diminished, I should then do an anterior colporrhaphy, and the simplest operation is the oval or circular one. This has proved the most satisfactory one to me. One thing is important—in all colporrhaphies do not go too high near the urethra.

The after treatment is a matter of some consideration. You will have to put in a wool tampon or iodoform gauze, and draw the water about once in four hours. Use the greatest possible care and do not allow the urine to accumulate until the wound is well united, for by doing so you will negate the result of the operation. This treatment is as important as the operation itself.—G. M. Tuttle, M.D., in *Internat. Jour. of Surgery*.

## THE INFLUENCE OF THE ERECT POSITION ON THE DEVELOPMENT OF THE HUMAN BODY, AND ESPECIALLY OF THE BRAIN.

After a few introductory remarks on the scope of anthropology, Dr. Munro proceeded to deal with the following propositions:

1. The mechanical and physical advantages of the erect position.
2. The differentiation of the limbs into hands and feet.
3. The relation between the more perfect condition of these organs and the development of the brain.

The primary object of locomotion, he said, is to enable the organism to seek its food over a larger area than is attainable by a fixed position. In the higher vertebrates this is accomplished by means of the well-known mechanism of four movable limbs capable of supporting and transporting the animals. As these quadrupedal animals became more highly differentiated in virtue of the struggle for existence and the necessities of their surroundings, the limbs became modified in various ways so as to render them suitable for various kinds of locomotion, and for other purposes in the animal economy. The anterior limbs have been specially subject to these changes, but man alone has been able to divert them altogether from their primary function. This has resulted from his attaining the erect position, which has necessitated a complete division of labor in the functions of the limbs, the anterior pair having become restricted in their use to manipulative and prehensile purposes, while the posterior have retained their original function of locomotion. Coincident with this notable specialization in function of the limbs a new field for advancement was opened to man, in which intelligence and mechanical skill became the leading factors in his further development. The maintenance of his body in the erect position has necessitated great changes in its structure, not only in the osseous system, but also in the soft parts. In the distal segments of the limbs the most remarkable changes took place. The changes which have occurred in the foot to make it the perfect mechanism for progression that it is, as well as an efficient basis for supporting the weight of the body, were then enumerated. The modifications which the hand has undergone are quite as radical, but in an entirely different direction, namely, towards rendering it capable of performing the most delicate and intricate prehensile movements. The possession of such a perfect piece of mechanism at the extremity of a movable arm attached to the upper part of the trunk gives man a superiority in attack and defence over all other animals.

Cantani, the great author and teacher, died May 1st, of nephritis, at Naples.

Moreover, he possesses the power of performing a variety of movements, and of assuming attitudes and positions eminently adapted to the exercise of his manipulative skill, by which he is able to counteract the superior brute force of many of his antagonists. All his morphological peculiarities have been brought about without the destruction of any of the primary and typical homologies common to all the higher vertebrates.

It is, however, the intellectual and psychical manifestations of the brain—the organ of the mind—which gives to man's life functions their most remarkable character. We are forced to the conclusion that conscious sensation invariably takes place by means of nerve cells, whose functional activity requires to be nourished in precisely the same way as the muscular force required in walking. The brain is a dual organ, consisting of a double series of distinct ganglia, and connected to some extent by a complex system of nervous tissues not only with each other but with the central seat of consciousness and volition. In reflex action the efferent message is often under the control of volition, which may prevent the motor action from taking place, and can affect a similar movement *de nova* without the direct intervention of external impressions, and it has been proved that the volitional stimulus regulating movements of the body starts from definite portions of the brain. This shows that the homology which characterizes the structural elements of animals' bodies extends also to their brains, and the law which differentiates animals according to the greater specializations of function has its counterpart in the brain; an increase of brain substance is naturally expected therefore whenever the functional activity of a specific organ is extended. That man's brain and his intelligence are correlated to one another is well-known. A question of much interest is to account for the evolution of so large a brain under the influence of existing cosmic forces. Dr. Munro stated his belief that it is the result of natural laws, and that one of the main factors in its production was the conversion of the upper limbs into true hands. From the moment man recognized the advantage of using a club or a stone in attacking his prey or defending himself, the direct incentives to a higher brain development came into existence. Acquaintance with the mechanical powers of Nature would gradually extend, and there would also be a corresponding development of his reasoning faculties. Particular sounds would be used to represent specific objects, and these would become the first rudiments of language. All these mental operations could only occur through the medium of additional nerve cells, hence the brain became more bulky and complex in its structure.

On the question as to whether natural selection has been sufficient to account for the great growth

of man's brain, the ideas of Huxley and Wallace were discussed, and the conclusion arrived at was that the higher development of humanity is nothing more than the gradually acquired product of the reasoning faculties themselves. The reasoning power of man is virtually a higher intelligence, which has to a certain extent superseded the laws of natural selection. A note of caution was sounded regarding the inferences to be drawn by comparing the weight and mass of the brain of animals and man. Evidence was brought to show that probably savage man is in a more degenerate condition than his forefathers, who originally acquired higher mental qualities under natural selection. This would account for the savage possessing a brain greatly in excess of his requirements.

On the supposition that at the start the evolution of man's hand and the development of his sensory faculties were synchronous, the question arises, When, where, and in what circumstances did it take place? Imperfect as are the materials to answer it, the osseous remains yet found indicate that during the quaternary period he had already acquired his human characteristics; this throws our search back to the tertiary period for his appearance in Europe. His corporeal structure shows that he has passed through a stage when his limbs were adapted to arboreal life. In the gradual lowering of the subtropical temperature which occurred in Central Europe and Asia during the eocene and plicene periods and culminated in the great Ice Age, also in the concurrent changes in the distribution of land and water, there exist such conditions as would have necessitated a change in such arboreal habits and even his form. During this early and transitional period might was right, whether from strength of arm, skill of hand, or cunning of brain; the weak would succumb, and ultimately there would survive only such as could hold their own. — Robert Munro, M.A., M.D., in *Br. Med. Jour.*

#### THE SUBCUTANEOUS INJECTION OF SALT SOLUTION A SUBSTITUTE FOR THE INTRAVENOUS METHOD; REPORT OF CASES AND A SIMPLE APPARATUS.

In a number of cases of collapse seen during the past three months of my hospital service, sterilized salt solution was used subcutaneously instead of intravenously. A large-sized trocar of the aspirator pattern with a stopcock and entrance on the side, about six to eight feet of rubber tubing, and a hard-rubber funnel was the apparatus. The funnel and tubing after being sterilized were kept in corrosive sublimate (1-1000). The trocar was kept sterilized in a tin box. The sterilized salt

solution was kept at a strength of twelve parts to the thousand, so that when needed the addition of an equal amount of boiling water made it of the proper strength and temperature for instant use.

The following cases were all grave emergencies from hæmorrhage or shock :

CASE I.—Brought to hospital with a stab wound through the popliteal vein. When first seen had no pulse, was blanched, with a sighing respiration and cold extremities. Three pints of hot salt solution were injected under the skin of the abdomen and thighs. The time of preparation taken was only that needed to scrub the skin and add boiling water to the solution. The pulse responded almost at once, and twenty minutes after the injection was good. The case fully recovered.

CASE II.—Internal hæmorrhage from ruptured kidneys and spleen. Four hours after entrance unconscious, cold extremities, blanched and pulseless. Three pints of hot salt solution injected into inguinal regions and thighs, resulting in rapid improvement of the pulse. The man regained consciousness and talked with his friends for an hour, but after this slowly failed, and died during the day. In this case the improvement in the pulse and mental condition was surprisingly lasting.

CASE III.—Marked signs of internal hæmorrhage, pulse almost imperceptible, blanched, unconscious. A quart of hot salt solution injected, giving fairly good pulse and return to consciousness for half an hour; but after this he became again pulseless, and died.

CASE IV.—Railroad accident. Crush of lower leg, with evident marked loss of blood. Pulse very faint and rapid, cold extremities. A quart of hot salt solution was injected (after vigorous stimulation with digitalis, atropine and strychnine had failed to cause reaction), and resulted in rapid improvement; eventually he recovered sufficiently for a successful amputation.

CASE V.—Severe abdominal operation for fibroid with profuse hæmorrhage followed by collapse. A quart of hot salt solution caused rapid improvement, and the case ultimately recovered.

CASE VI.—Both legs crushed in railroad accident. Condition of extreme shock, not reacting to vigorous stimulation. Three pints of hot salt solution under the skin caused steady gain. Pulse became fairly strong, the face regained its color, and the improvement lasted for three hours, though ultimately the man died.

The advantages of this method are its simplicity and the rapidity with which it can be done. The pressure of from four to six feet is enough to make the fluid run freely. In the above cases the loose skin in the inguinal regions was selected, and the assistant stood on a chair or table holding up the funnel which he kept filled with salt

solution from a pitcher. The inguinal regions took from ten to twelve ounces, and the outside of the thigh somewhat less. The fluid always ran rapidly, and was absorbed with astonishing rapidity. The effect on the pulse was not quite as soon noticed as if the solution had been thrown directly into a vein, but improvement began in every case before six ounces had been injected, and was after that as marked and as lasting as in the intravenous method. The two or three minutes wait for a response was more than offset by the saving of time in the technique as compared to opening a vein.—Dr. Cobb, in *Boston Med. and Surg. Jour.*

### ENURESIS DIURNA.

In the *Amer. Pract. and News* Dr. Simpson says: I have in the past four years come in contact with quite a number of cases of day-wetting, and one or two I have failed to treat with as much satisfaction as I would like. I have tried any number of drugs, and failed. A child who is not relieved by the ordinary drugs has a cause for his incontinence that is worse than the incontinence, and that is masturbation; and you will find when you treat him for masturbation that he gets well. You must keep a close watch on him, for he is so sly, and will repeat the act as soon as the blisters heal. You must have complete control over your patient or you do him no good. If you make close inquiry of the mother, you will find that she frequently catches the child rubbing the parts, and this results in an erection, and immediately you find the little fellow has made water. He is unconscious of the desire until he finds that his water is trickling down his leg and his clothes are wet. You find that the majority of these patients play with the parts. The question of masturbation is becoming quite a serious one for the physician to cope with and experience brings this question up quite often during the year.

The constant irritation of the parts by self-abuse leads to chronic inflammation of the whole prostatic portion of the urethra and the neck of the bladder, which is very sensitive.

My experience with these cases is that I find this condition to occur in children from five to eight years of age. I speak only of that class that are free from the trouble at night, and suffer during their waking hours. I have found tight prepuces in two cases, and they were circumcised with relief, so long as the wound did not heal, and as the parts were well, why they would return to their old habits. In both cases I blistered along the dorsum of the penis and down on the perineum. I found, as long as I kept the blister from healing, that they did not suffer from the incontinence and for some time afterward before they had any

return, and then they began their old habits of playing with the parts, and the incontinence returned with the same regularity as before the blistering. I had to repeat the blisters on one three, and the other four times before I controlled the trouble, and as it is now four months since either one has suffered from any trouble of that character, I do not question in either of these cases but the cause of the incontinence was masturbation. And I based my belief upon the fact that the mothers of both of these boys would catch them playing with the parts, and almost immediately following they wet their clothes, and one mother told me that she found the little fellow frequently with an erection when she caught him playing with the parts. You find that these children are exceedingly nervous little fellows. They have loss of appetite, seem to be debilitated, and show some mental hebetude.

In regard to treatment, will say that I have gone all the way down the list, and find that these intractable cases that you can not do any thing for them, except the frequent blistering, and it must be persisted in until you give them relief. I have the first case in which to see it fail, while circumcision, atropia, rhus aromatica, and all the drugs that are said to do good, in a great number of these cases, fail signally in giving more than temporary relief.—*Maryland Med. Jour.*

#### THE PUNISHMENT FOR THE CRIME OF PRODUCING ABORTION.

This crime has been particularly rampant in this city in the past year. A statement of the punishment accorded to it in various countries of Europe may therefore prove interesting. In England and Ireland the punishment is penal servitude for life, or a less term. Should the mother die, the crime becomes murder, which may be punished by death. In Scotland (says *The Lancet*) the punishment is arbitrary; in France, Spain, the German Empire, Austria, Hungary, Italy, Russia, Norway, Sweden, and Denmark—in short, throughout the whole of Europe—the crime is punishment with imprisonment for from six months to twenty years, or for life. In Sweden the penalty is death if the mother dies; and in Russia the mother, if a consenting party, may be exiled to Siberia; in the Dominion of Canada the penalty is imprisonment for life; in Nova Scotia, Quebec, Ontario, British Columbia, and in Prince Edward Island it varies from imprisonment for two years to for life; in New Brunswick the penalty is death; in Australia and New Zealand the punishment is very severe, ranging from two years' imprisonment to penal servitude for life; in the United States it is punished with fines ranging from \$100 to \$5,000, with imprisonment for long periods, and with death.

There is, as will be seen, a very general unanimity of view regarding the high degree of criminality of the practice. Despite all this, the crime is increasing both in our country and in Europe. There is no doubt that this is due to the fact that many more women than formerly know of the possibility of abortion and refuse to accept the consequence of indiscretion or the responsibilities of maternity. There is but one way to look at it, however—abortion involves the destruction of one life and danger to another. Hence it is a crime never to be justified even under extreme circumstances.

It is true that many obstetricians still regard the induction of premature labor, even before the infant is viable, as a necessary measure in certain very rare cases. But the indications for it are becoming more and more restricted as medical science advances, and it is not improbable that the time is near at hand when the operation will no longer be thought of as a means of saving life. This legitimate obstetrical procedure, however, has nothing in common with criminal abortion, and medical men owe it to the community as well as to their profession to assist in limiting the work of those whose trade is infanticide. The daily papers could, doubtless, do more than any other agency toward abolishing the crime if they would consent to give up the small fees they get for advertising this class.—*Med. Rec.*

VARICOSE ULCERATIONS OF THE RECTUM AND ANUS.—In the *Revue de Chirurgie*, Quénn writes on this subject. No other mucous membrane is so frequently the seat of ulceration as that of the ano-rectal region. Ulcers here may occur in the course of a general affection, as tuberculosis, dysentery, syphilis, Bright's disease. Perhaps more frequently they result from purely local causes, such as soft chancre, mechanical obstruction, or disintegration of a neoplasm. Besides these symptomatic, constitutional, and venereal ulcers, a variety is met with that merits the title "simple ulcers of the rectum."

Simple ulcer is most frequently limited to the region of the sphincter; at times, however, it may be situated higher in the rectal mucosa. The most common of the simple ulcers in the sphincteric region is the ordinary fissure-in-ano. Along with this may be classed the irritable and painful ulcer of Allingham, and the varicose ulcer. According to Allingham, irritable ulcer differs from the simple variety by being round in shape, and by the high situation of the former, which may even be within the internal sphincter. Chronic varicose ulcer was first described by Rokitansky. It is always found in connection with hemorrhoids. In this variety there is less thickening of the borders and less pain than in fissure.

A person suffering from hemorrhoids is more prone than others to fissure, which may develop into a true ulcer. In women, exploration of the rectum is facilitated by introducing one finger into the vagina and pressing downward. As a further assistance the patient may be asked to bear down.

In simple ulcer above the sphincter, the lesion is round, the edges are thickened, the base unequal and red, and very vascular. The varicose ulcers are divided into the irritable and the non-irritable. The irritable variety includes the round ulcer, the painful and irritable ulcer of Allingham, and the more common fissure-like ulcer. The symptoms closely simulate those of fissure. The non-irritable variety includes the superficial ulceration of the mucosa, the small round ulcers, supra- or infra-sphincteric, and the larger ulcer of the margin of the anus, of Péan and Malassez. These are most common in middle and later life. The primary round ulcer is more particularly observed in the aged. The non-irritable varicose ulcer presents three principal symptoms: sensory disturbances, the discharge of mucus more or less purulent, and hæmorrhage. The latter is the most important of these, and is at times profuse. The diagnosis depends upon detecting the presence of the ulcer, and determining its exact nature. Digital examination will detect a painful area. It is necessary to employ the speculum for ocular examination.

Syphilitic lesions of this region may belong to the primary, secondary, or tertiary stages. Hard chancre presents its usual characteristics. The lesions of the secondary period are mucous patches, and of the tertiary period, ulcers; the latter is rarely observed. Tubercular ulcers have been observed as primary lesions and as secondary to pulmonary disease. According to Ball, they present large lesions in the rectal or ano-rectal mucous membrane; they are irregularly rounded and elongated in the vertical diameter; the borders are irregular and raw; the mucous membrane in the neighborhood is infiltrated and thickened.

The treatment differs with the seat and variety of the lesion. For fissure, the usual treatment suffices. Round ulcers of the margin of the anus require topical applications; they may be cauterized and dressed antiseptically or excised. Superficial erosions may be excised or cauterized. Supra-sphincteric ulcers require the galvano-cautery. Anæsthesia is necessary, and the use of the Sims speculum to give access to the lesion. Boric-acid lotions and iodoform tampons may be used in the after-treatment, and antiseptics, such as naphthol, administered internally.—*Amer. Jour. of Med. Sciences.*

**AUTO-INTOXICATION FROM THE GASTRO-INTESTINAL TRACT.**—In a communication recently presented to the Vienna Medical Club, Katz, *Wiener*

*medicin. Presse*, undertakes to point out the inadequacy of the assumption that the many symptoms presented by individuals suffering with chronic affections of the stomach and intestines depend upon auto-intoxication from the gastro-intestinal tract, and defends the view that ascribes these symptoms to mechanical and reflex influences. The argument is as follows: Among the products of abnormal gastric fermentation butyric and lactic acids are not generated in quantities large enough to produce symptoms of intoxication, as the organism upon which their development depends cannot survive in strongly acid solutions. Even in the case of a greatly dilated stomach the dilution is so great that no harm results from the presence of an excess of acid. That the lactic acid formed and taken up by the system is disintegrated is indicated by the fact that the acid does not make its appearance in the urine. The same applies to butyric and acetic acid. Even in cases of hyperchlorhydria the concentration of the acid is not sufficient to cause intoxication. Basic products would not be produced in the stomach unless there were a marked deficiency of hydrochloric acid. Salkowski has shown that the peptotoxin of Brieger (which is but feebly, if at all, toxic), is not generated if pure reagents are employed and if accidental putrefaction is guarded against. In the intestine, likewise, the fatty acids and the aromatic products, the phenols, indol, and skatol, are developed in but small amount. The aromatic bodies would have a tendency to exert an antiseptic influence. Ptomaines have seldom been found in the fæces, and it is more than probable that they are never formed in the healthy intestine, as they have hitherto only been found in states of abnormal or unusual nitrogenous metabolism, such as occurs in connection with cystinuria, and in case of grave infectious diseases, such as cholera. Thus far, chemical investigation has failed to furnish evidence of the occurrence of auto-intoxication from the gastro-intestinal tract. The varying toxicity of the urine is not more demonstrative, and clinical evidence is likewise not more convincing. The transient sense of fatigue, the dyspnoea, the palpitation, the vertigo are readily to be explained by mechanical and reflex processes, for these symptoms usually bear some relation to the ingestion of food and the processes of digestion. This view receives support from the fact that the symptoms occur especially in neurotic persons, and largely in women. Therapeutically, also, the best results are not obtained from the administration of antiseptics, but rather from agents that stimulate peristaltic activity.—*Am. Jour. of Med. Sciences.*

**PAGET'S DISEASE OF THE NIPPLE.**—In 1874 Sir James Paget described a peculiar condition of the breast characterized by superficial excoriation be-

ginning at the nipple and gradually invading the surrounding skin, resistant to all treatment, and usually associated with a carcinomatous mass in the other breast. The exact nature and cause of this malady has been the subject of much speculation and investigation, some advocating the view that it is nothing more than an unusual form of epithelioma, others accepting Darier's theory that it is a parasite disease caused by a micro-organism of the psorospermic type, Darier having observed structures resembling psorospermiae in cases of the disease. A pronounced case has recently been described by Schulten, *Nordiskt medicinskt Arkiv*, Professor of Surgery at the University of Helsingfors. A woman, sixty-nine years old, had for fifteen years suffered from a superficial moist excoriation of the right nipple and breast gradually spreading until two or three square feet of the skin of the right side were involved. A tumor removed eight years ago from the same breast showed the structure of ordinary glandular carcinoma. The axillary glands were not affected. Histological examination of the ulcerated tissue showed decided proliferation of the epithelial elements of the skin, but no penetration of the subjacent tissue, and many of the parasitic (?) forms described by Darier, both in and between the cells. Psorospermiae were also found in the deeper cancer. Schulten considers the clinical picture presented by Paget's disease to be quite different from that of ordinary epithelioma, because of its softer consistence, its lesser tendency to ulceration, and the non-invasion of the subjacent tissue, though he admits that the microscopical structure closely resembles that of epithelioma. The presence of the so-called psorospermiae is not conclusive, as they have been found in both conditions. He believes, therefore, that Paget's disease, though not identical with the ordinary epithelioma of the skin, is closely allied to that affection, and cites the varieties of tuberculosis of the skin in illustration. —*Amer. Jour. of Med. Sciences.*

#### RECURRENCE OF CARCINOMA OF THE BREAST.—

Doubtless every practitioner who has had any considerable experience in the removal of carcinomatous tumors of the breast has had occasion to be discouraged with the results of the operative treatment, however thorough this may have been. Early and complete extirpation of the growth removes the local disease, but does not remove the susceptibility or predisposition to the disease; and surgeons always speculate as to the length of time a patient on whom they have operated for ablation of a cancerous tumor will enjoy immunity from the disease.

Dr. Frederic S. Dennis, of New York, who has made an exhaustive study of the subject, affirms that surgical interference can prevent recurrence in 90 per cent. of the cases, if, in addition to the

complete removal of the breast, the axillary glands and fatty tissue are also removed. He says the liability to recurrence is reduced by an early diagnosis and operation, and that in a large majority of cases the diagnosis can be made before glandular infection has taken place; he adds that if within six months from its incipiency the tumor is removed, together with the axillary glands, fatty tissues, pectoral fascia, perimammary fat, and paramammary areolar tissue, the chances of recurrence will be small. The operation should be so thorough as to leave out of consideration altogether the question of flaps to cover the wound.

Dennis reports a series of seventy-one cases in which he performed the complete operation, with no mortality. The radical operation removes cancerous cells that form the foci for recurrences. These cancer cells may be found outside the limits of the breast gland, lodged in the adjacent mammary region, whither they have been carried by the lymphatic current. Cancerous masses have been found upon and in and under the pectoral fascia, as well as in the neighboring muscles. Here removal of the breast is inadequate to remove the entire disease.

The recurrence of carcinoma of the breast is influenced by the histological character of the carcinoma itself. According to Dennis, the more typical the structure, the better the prognosis—the more atypical the structure, the more unfavorable the prognosis. The appearance simultaneously of carcinoma in both breasts—a condition which exists in 5 per cent. of all cases—also affects the chances of permanent recovery. There seems further, as Dennis shows, to be less malignancy in carcinoma affecting the early stages of obsolescence of the gland than when the gland has fully completed its degenerative changes. In other words, the prognosis is more unfavorable for old people than for persons in the full vigor of life. "The nearer the gland is to a healthy functional activity, the less likely is it to assume malignancy."—*Med. Age.*

SIR JOSEPH LISTER ON ANTISPESIS.—Recently Mr. Lister announced his views and described his practice with respect to surgical antiseptics. In it we witness a departure from troublesome and complicated methods and a return to the simpler. In the first place, he has now practically abandoned the once necessary bichloride of mercury. It has been found by experiment that the tubercle bacillus is much less capable of resisting a carbolic than a bichloride solution. The sponges, the instruments and the field of operation are cleansed and sterilized in a carbolic solution, generally five per cent. For absorbents, Mr. Lister still employs sponges, though the latter are regarded by many as the frequent carriers of septic organisms. Sterilized tissues, such as gauze and cotton, have

less absorptive capacity, and cannot take the place of sponge. His sponges are first washed with soap and water; then with soda; then washed again and dried; and then steeped in a five per cent. carbolic solution, when they are ready for use. After an operation the sponges are placed in a tank of water, and the fibrin clinging to them allowed to putrefy. They are then thoroughly washed and put away in the carbolic solution.

Mr. Lister thinks it entirely unnecessary to keep the skin soaked in an antiseptic lotion for several hours previous to an operation. To cleanse the parts he used simply the five per cent. carbolic solution; he does not even use soap and water. Carbolic acid has a greater affinity for the epidermis than corrosive sublimate, combining in all proportions with the fatty matters of the same. The elaborate methods of sterilizing instruments by boiling are troublesome and unnecessary. In his own practice he begins to place his instruments into the carbolic solution just as the patient is brought into the room. By the time all the preparations (including anæsthesia) are completed, the sterilization is accomplished. Iodoform continues to be the best antiseptic application, though it seems to have little effect upon the development of bacteria. Its potency seems to be due to its chemical action upon the products of the bacteria. Iodoform is specially valuable in the interior of wounds. An external dressing of iodoform gauze, when it becomes solid with wound discharges, will not prevent the development of bacteria.

The perfect external antiseptic dressing should have these four qualities:

1. It should contain some thoroughly reliable antiseptic ingredient.
2. That substance should be of such a character as not to be dissipated to a dangerous degree before the dressing is changed.
3. It should be unirritating.
4. It should be a good absorbent of discharges.

Sir Joseph has found the double cyanide of mercury and zinc to meet these indications better than any other agent. It is a significant point that this great apostle of antiseptics is returning from the complicated and cumbersome methods to the more simple. The results which he now gets are said not to be surpassed by those who observe antiseptic precautions the most rigid.—*Atlanta Med. and Surg. Jour.*

**NEURALGIA.**—A most interesting study, even from a practical or therapeutical stand-point, is that of the true seat of neuralgic pain. The entire subject can be reduced to a single question. Is the pain of the different forms of neuralgia really originated at the very spots at which the patients complain of it, or is it simply felt at those spots as though it arose there, in the same way, for instance, as patients who have undergone

amputation of a limb, still complain of pain in the stump although the limb, which was the seat and sole cause of their suffering, has been removed? The former hypothesis seems probable *a priori*, and has given rise to the so-called peripheral theory of neuralgia; but a number of neuropathologists, and among them some very eminent men, defend what is known as the central theory of such suffering. Although there can be no doubt that the latter theory is not applicable to all cases, still it accounts for the greater number of them, and is based on arguments that are well fitted to carry conviction, and of which the principal ones are the following: When a nerve has been completely severed, as is sometimes done in cases of neuralgia that defy all treatment, it is not uncommon to find the pain going on unchanged after the operation; it could not, therefore, have had a peripheral origin. Just as no one disputes nowadays the existence of nutritive disorders in hysteria, in the same way no one can deny that in certain forms of neuralgia, without neuritis, the same kind of disorders may arise. Now, is not the most rational way of explaining these disorders that of granting the central theory of neuralgia? Under these circumstances it is easy to see that the morbid irritation extends from the original nucleus of the diseased nerve to the original nuclei of the neighboring nerves, which will manifest their implication by creating nutritive disorders *loco dolenti*.

In the third place, a number of diatheses, and certain altered conditions of the blood, give rise to neuralgic pains; unless we admit that the spine is affected primarily, how can we understand why these diatheses and modifications of the blood should affect one nerve more than another, and, in some cases, only a few centimetres, or even millimetres, of a given nerve?

Fourthly, it is known that neuralgic pains are connected very closely in different ways with hereditary neuroses. Now, the latter are undoubtedly localized in the nervous centres; how, therefore, could their effects be other than central? The theory of the central seat of neuralgic pains explains (and is the only theory that does so) the way in which such pains jump from one spot to another, alternate from one side to the other, and pass rapidly from this nerve to the next. We know how near to each other in the spinal cord are the original threads of the different nerves, and can consequently understand with readiness how the painful irritation of one nerve can extend with the greatest ease to its neighbor in the spinal cord. After all, the daily practice of medicine supplies the central theory of neuralgic pains with a decisive argument. It is a matter of common occurrence that cases of neuralgia of the trigeminal, sciatic, or superficial nerves, that have stubbornly resisted the action of the various local

anæsthetics and different forms of counter-irritation, disappear as if by magic after only a few days' use of bromidia. This extraordinary result is readily explained by the well-known physiological effects of the active elements of bromidia. Purified brom. potass. and chloral, cannibis indica, and hyoscyamus: for it must be remembered that they act on the cerebro-spinal centers. Therefore, in the great majority of cases, neuralgic pains have a central origin; and in this is once more verified the truth of the old Hippocratic axiom, "*Naturam morborum ostendunt curationes*," by the use of a preparation that is now so well known as to no longer require any praise—bromidia.—Dr. Dujardin-Beaumont, in *Bulletin General de Therapeutique*.

TREATMENT OF SYPHILIS.—I have surely not the intention, in this correspondence, to speak to you of the last work of Professor Fournier upon the treatment of syphilis. It is a book to have, and one which one can scarcely analyze. Its appearance has freshened an old quarrel. It is well known that Professor Fournier believes that we must treat methodically and preventively every primary and secondary syphilis. Usually he prescribes to a patient who comes to see him at the beginning of his syphilis, a course of proto-iodide of mercury, in daily doses of six centigrams, to be taken for at least two months. Then this treatment is suspended for a month to six weeks, after which, no matter what has happened, whether the patient has or has not shown new developments, he has him take up the treatment by the proto-iodide again for about six weeks. Then there is a new period of repose for two or three months, renewed administration of the proto-iodide, new repose, and thus on until the third year of the disease. At this time he gives iodide of potassium in daily mean dose of three grams, during periods of from one month to six weeks, separated by intervals of rest, growing gradually longer as the time from the commencement of the disease increases. His treatment is thus a systematic one, very prolonged and intermittent. On the other hand, there are syphilographers in France, and Dr. Diday, of Lyons, is their venerated chief and dean, who maintain that we must never treat a syphilitic excepting when visible manifestations are present; that we must cease the impregnation with mercury as soon as there are no longer manifestations of the disease, for, according to their view, mercury has no anti-syphilitic action in a preventive sense. This is the method called *opportuniste*.

You can understand how this debate is vigorously contested, and how important a thing it is that the question should once and for all be definitely settled. The appearance of Professor Fournier's book immediately called out the publi-

cation of an answer, in which Dr. Diday refutes the arguments of his adversary, and in which he shows, in the most spiritual manner, how, with a little dexterity, one can take the opposite side of any question and make statistics serve the purpose of proving any opinion. After reading most of the documents which have appeared on this point, one arrives at the conclusion, truly deplorable, that one cannot form a firm conviction, and that the two opinions are defensible, although, according to our views, that professed by Fournier seems to repose upon a more scientific base. However, in reasoning from another point of view, it seems to us that, when in doubt, one should not abstain from treatment, since the doses of medicine that are given at the present day are, in the immense majority of cases, in no wise injurious, and they should be continued with; for, if they are omitted, severe accidents may occur, and there will be no excuse.—L. Brocq, in *Jour. Cutaneous Dis.*

THE VARIETIES OF VERTIGO.—Dr. Miller, in the *Philadelphia Polyclinic*, speaks of five kinds of vertigo.

1. Vertigo dependent upon intracranial disease, chiefly tumor and pachymeningitis, but not including under this general head the disturbances of equilibrium arising from disease of the cerebellum or corpora quadrigemina. The three most frequent general symptoms of intracranial tumor are headache, nausea or vomiting, and vertigo; and these are commonly dependent upon the same mechanism. Most cases of brain tumor originate in the membranes of this viscus; the trigeminal nerve has a wide distribution in the dura, and intense localized irritation of its branches gives rise directly to pain and indirectly to nausea, vomiting and vertigo. The deep nucleus of this nerve is closely related in position to the nuclei of the pneumogastric and the auditory nerves, and the reflection or irradiation of powerful impressions from the former to the latter will cause vomiting and vertigo.

2. Ocular vertigo, which may spring from several conditions, but is most commonly due to serious disorders of refraction, to paresis or spasm of the ocular muscles, or to excessive retinal irritation. In any case the cause of which is obscure, the eye should be carefully considered and its defects corrected. Partial tenotomies and exact corrections, or re-corrections with glasses have been found efficient, particularly in some of the milder but none the less annoying vertigos.

3. Vertigo due to disease of blood vessels, as anterior sclerosis, from alcohol, syphilis, gout, old age, etc. The diagnosis of these cases is to be made by excluding carefully ear, brain, eye, severe local disease anywhere, toxemias, etc., but chiefly by a careful examination for arterial or arterio-capillary fibrosis and the accompanying conditions

of the heart, kidneys, liver and other organs. Reedy, resisting arteries, excessive arcus senilis, changes in the pulse rate, reduplicated or clanging cardiac sounds, and other well-known phenomena, will be present.

4. Vertigo which has its source in the state of the blood, under which general head are included those forms of the affection arising from anemia or hyperemia, lithemia, and a large variety of toxemias, and from the direct action of drugs and poisons.

5. Vertigo dependent upon intense irritation reflected to the labyrinth or brain from more or less distant regions of the body—commonly classed as nasal, pharyngeal, laryngeal, gastric, intestinal hepatic, uterine, ovarian, etc. The reflex origin of these vertigos is often doubtful; they are more probably due to a toxic state of the blood, which is produced in various ways.—*Med. Rev.*

ANGINA PECTORIS.—Burney Yeo, *Practitioner*, thus summarizes the therapeutic indications:

1. Maintain nutrition, avoid strain.
2. Relieve dyspepsia, flatulence and constipation.
3. Forbid cardiac toxines, as tea, coffee, tobacco, alcohol, and all substances developing toxines in the bowels.
4. Remove gouty and other dyscrasias.
5. Increase cardiac tone and lessen tendencies to degeneration.
6. Relieve paroxysms by sedatives and (or?) stimulants.

For the fifth indication, iron, digitalis, arsenic or strychnine may be given in appropriate cases. Gout and vascular degeneration require iodides; malaria calls for quinine; while cocaine has been recommended to prevent the attacks.

For the paroxysms, the nitrite group is useful, even when no vaso-motor spasm can be demonstrated. Diffusible stimulants, the ethers, ammonia or brandy should also be given at the onset. Cold feet should be put in hot water. Balfour, if the nitrites fail, resorts to chloroform inhalations, pouring the drug upon a sponge in a smelling-bottle. In severe and protracted cases morphine hypodermics in moderate doses. Ethyl bromide has been inhaled. Flying blisters are of value for chronic aortitis, involving the cardiac plexus. Galvanism to the vagus and to the intercosto-humeral, if there is an aura in the hand, is useful in preventing attacks. Leeches to the sternum and repeated small venesections have also been found useful.

NOTE.—As Anstie claimed quite positively that chloroform inhalations would result in death, this remedy should be given with extreme caution, and only when the other anesthetics are not available. Counter-irritation to the vagus in the neck, with some quickly acting rubefacient, has proved

quite useful in several cases. Those who have obtained relief from these applications will find the "crystallized liniment" cones made by Wyeth simply invaluable, as they can be carried in the pocket and applied instantly.—*Times and Reg.*

THE BINDER IN CHILDBED.—Windmüller, *Centralbl. f. Gynäk*, recently opened a long and instructive discussion on the management of normal labor and childbed. He had conducted over a thousand labors in private practice alone in the course of thirty years. He wraps flannel round the body, but objects to the abdominal binder, which he finds interferes with the functions of the intestines, checks involution of the uterus, and is in the way during ablation. For the first three days he limits diet to milk, bread and butter, rice, spinach, potatoes and fish. He forbids wine and coffee, and believes, with Zweifel, that errors in diet are amongst the chief causes of prominent abdomen. The patient is kept on her back for three days, but Windmüller holds that ten days' rest in bed is sufficient. He has had no cases of prominent abdomen in any of his patients, even in multiparæ, with the exception of those who had grown fat. In the discussion, several experienced obstetricians differed as to whether prominent abdomen was due to deposit of fat in the parietes after labor, or to distension of the intestines which could be controlled by the binder. Many surgeons applied no bandage after abdominal section; but the physiological conditions were then not the same as in the puerperium. Schrader and others believed that the binder did more good than harm; he laid great stress on diet in childbed as influencing the future form of the abdomen. All food liable to cause flatulence must be avoided; spinach and potatoes were particularly bad in this respect. When the pelvis was narrow, or its angle too acute, the chances of the abdomen becoming pendulous after labor were great. To counteract the evil, a good abdominal binder should be worn during the last months of pregnancy. In Japan it was customary for women to wear a binder during the entire second half of gestation. The binder in pregnancy supported the anterior walls, and greatly diminished the chances of parting of the recti.—*British Medical Journal*.

THERAPEUTIC USES OF THE NITRITES AND NITRATES.—Dr. D. J. Leech remarks, that in considering the bearing of the pharmacological action of the nitrites on their therapeutic application, there are three points worthy of note: *First*, the minute quantities which may influence the vascular system and, as a consequence, certain functions of the body. An eighth of a grain of sodium nitrite, a small but uncertain fraction of a minim of ethyl nitrite, or the sixteen hundredth of a grain

of nitro-glycerine will, in many, distinctly affect the circulation. *Second*, notwithstanding their potency, even large quantities of the nitrites and nitro-glycerine do not readily cause death. Although unpleasant, and even alarming results have been known to follow the administration of comparatively small doses, there has been, as far as I know, only one case recorded in which a fatal result has been attributed to their medicinal use. This is the more worthy of notice, since these drugs have been commonly given in serious cases. I do not know of an instance in which ethyl nitrite or sodium nitrite has proved fatal, though very large doses of the latter have been administered. Amyl nitrite has been taken by the dessertspoonful, yet recovery has, I believe, always occurred; and severe though the symptoms are which follow its inhalation, no harm has ever accrued from its employment, save in one instance, a case of phthisis, where death followed the inhalation of seven drachms. Considerable quantities of nitro-glycerine have been taken with impunity, so far at least as concerns a fatal result; only in a few instances have very large amounts, taken accidentally or for suicidal purposes, caused death. *Third*, it is important to bear in mind the evanescence of nitrite action. When nitrites advantageously alter functions, their direct influence for good usually soon ceases; on the other hand, their evil effects are also short-lived; there is no cumulative influence. The pharmacology of the nitrites and nitro-glycerine indicates the class of cases in which these drugs will be of the most utility—namely, those in which the heart is embarrassed in its work owing to a want of due relationship between its power and the calibre of the vessels through which it transmits blood.—*Lancet*.

**THE WEIGHT OF THE TWO SIDES OF THE BRAIN.**  
—Prof. Braune, of Leipzig, has recently published the results of weighing the halves of 100 human brains. These were divided in the median line, and the cerebellum, with the medulla and pons, were cut off and bisected. The weight of the two sides of the whole encephalon were compared, as well as that of the cerebral hemispheres, and the halves of the cerebellum with the medulla and pons. It has generally been taught that the left half of the brain is heavier than the right, and that this is a physical cause of right-handedness. The results of Prof. Braune's investigations do not seem to bear this out. He found the left side of the entire brain heavier in 52 cases, and the right in 47 cases, the two sides being equal in 1 case. And he also found that if the excess of weights of the two sides be added up, the right side showed a preponderance, the difference between the two sides being in most cases so slight as not to deserve any consideration. In five cases

in which the right side considerably outweighed the left, the bodies were examined for signs of left-handedness, but none were found. The left cerebral hemisphere was the heavier in 54, the right in 37 cases; while the left side of the cerebellum was the heavier in 54, and the right in 33 cases. Thus he found that the cerebral hemisphere of one side is the larger about as often as the cerebellum of the other; but the larger halves are on the same side about twice as often as on different sides.—*Boston Med. and Surg. Jour.*

**STRYCHNINE INJECTIONS IN PARALYSIS.**—Boltenstern, *Therap. Monatsh.*, relates the case of a patient who, as the result of alcoholism, was suffering from well-marked paralysis of the lower extremities, accompanied by loss of power in the upper limbs. When first seen the condition was complicated by severe rheumatoid pains, œdema, enlarged liver, albuminuria, and diminution of urine. After a few weeks' treatment directed to these latter symptoms, the paralysis alone remained, and the author therefore resorted to strychnine injections. The nitrate was used in a 1 per cent. solution, and injected by means of a Pravaz syringe, the daily dose at first being 1 milligramme, and towards the end 10 milligrammes, or  $\frac{3}{8}$  of a grain. In addition the patient was subjected to warm baths with cold irrigations and faradization once in two days. Four weeks of treatment enabled the patient to feed himself and to raise himself in bed without aid, and with no discomfort. After another month slight attempts at walking could be made, and after two further weeks the patient was able to raise himself and walk without aid or support. Four months after the commencement of this treatment the patient was able to return to his occupation. During the early treatment slight collapse occurred twice slightly, but improved with citrate of caffeine. Injections were made on thirty-two days, and the total quantity of strychnine used was  $2\frac{1}{4}$  grains. The author feels confident that the merit of curing this paralysis of two months' standing is to be attributed to the strychnine, and he recommends its further application.—*Br. Med. Jour.*

**IS INEBRIETY A DISEASE?**—"A negative answer to this question," says Dr. T. D. Crothers, "is an evolutionary growth coming into prominence, uninfluenced by legal rulings or personal opinions." The modern scientific view of this question affirms inebriety to be a physical condition of disease, inherited or acquired, and at all times a modified form of insanity. The use of alcohol is, in many cases, only a symptom of degeneration, and in all cases it produces not only changes in structure and circulation in the brain, but kindles into activity latent degenerate tendencies, of which the result is an incapacity to reason, with imperfect

control of the damaged senses. The inebriate cannot be a normal sane man. In England a century ago, when executions for thieving were common, thieves and pickpockets committed the same crimes in crowds about the foot of the gallows. To-day the execution of an inebriated murderer, where all the details of the crime are made public, becomes an object lesson closely followed by other inebriates, who commit similar crimes under precisely similar circumstances. The natural history of such cases is continuous punishment for inebriety, assault, theft, burglary, petty crime, and, finally, murder. Each period of punishment is followed by the same or a more aggravated crime. The purpose of the law is defeated.—*Med. Age.*

**THE ANTISEPTIC VIRTUE OF IODOFORM.** Iodoform holds a unique position in its relation to antiseptic surgery. Although it has been demonstrated that the drug possesses no direct germicidal property, there is a general consensus of opinion that used in one form or another, as a powder, in emulsion, by inunction, it exerts an influence that may be considered antiseptic. An adequate explanation of this action is wanting, abundantly confirmed by observation though it is. In his recent address upon "The Antiseptic Management of Wounds," Sir Joseph Lister adopts the view that iodoform acts by inducing chemical changes in the toxic products of bacterial activity, a plausible explanation, inasmuch as we know that the constitutional manifestations of infective processes in general are not so much dependent upon the mere presence of micro-organisms as upon the development of toxins. Treves, *Lancet*, offers a contribution to this interesting subject, in which he reports the generous application of iodoform in powder within the peritoneal cavity in the course of abdominal operations, with results that appear not entirely unrelated to the use of the drug. The special utility of iodoform applied to tuberculous tissues is well known. In our appreciation of the utility of iodoform we must, however, not ignore its toxicity, but should always exercise the greatest care in its employment.—*Med. News*

**FATAL ASPHYXIA FOLLOWING THE ADMINISTRATION OF NITROUS OXIDE GAS.**—Reports of two cases are given in the *Jour. Br. Dental Assoc.* One of these was a case of self-administration, reported to the Clinical Society of London, 26th May. The patient was found seated on a chair, his head had fallen forward on his knees, and the face piece was still in contact with his face. He was an apparently healthy man, aged 40. Artificial respiration was employed. At the *post-mortem* examination, the venous system was found engorged with dark fluid blood. No blood clots were found. The right heart was engorged, the

left empty. The organs were all healthy. It seemed that only a small quantity of gas had been used, and that the fatal asphyxia was due to the face piece remaining in contact with the face (Dr. Gage Brown). In the other case, which is quoted from the *Erie Morning Despatch*, the patient, a lady, seemed to have recovered from the anæsthetic, had left the operating chair, and crossed the room twice to rinse her mouth. She then cried, "Oh, my head," and would seem to have become comatose. The diagnosis of apoplexy was made. She would seem to have died forthwith. No *post mortem* is recorded. She was considered to be in good health, and had taken the gas without any bad effects on two or three occasions previously.—*Glas. Med Jour.*

**QUININE IN CHOREA.**—Dorland and Potts report seventeen cases of chorea successfully treated with quinine. Hitherto the treatment of chorea has been by drugs which control the action of the motor nerves, or act as strong spinal depressants—in other words, blocking the manifestation of the disease rather than removing its cause. If chorea is due, as seems probable, to a greater or less diminution of the inhibitory power of a higher nervous centre, then the rational treatment is by drugs which stimulate and restore the function of that centre. Quinine appears to have this power to a marked degree, and the results of seventeen cases treated with large doses are very promising. The children were from seven to fourteen years of age and were given four grains of quinine, four, five or six times a day until cinchonism occurred. The dose was then somewhat lessened and continued t. i. d. In most of the cases an immediate improvement took place and continued for some time. If the drug was used alone a relapse usually followed, but when combined with active treatment toward building up the general health gave permanent results. The large doses which most of the children took without cinchonism were remarkable.—*Univ. Med. Mag.*

**SUBNITRATE OF BISMUTH IN EXTENSIVE BURNS.**—Dr. Spigearny, *La Semaine Médicale*, 1893, observed a case of extensive burn, involving four-fifths of the body and of the first degree. The case in question was a man who, while intoxicated in a Russian bath-house, had a jet of superheated steam turned into the room where he was. Only his feet, legs, and the lower portions of his thighs were unaffected, all the rest of the body and the face presented one single scald, covered with numerous bullæ and vesicles. Spigearny was called the sixth day, after another physician had applied an iodoform dressing, which was completely soaked with the pus and serum from the lesions. His temperature was 40° C., and the urine contained no albumen. After having care-

fully washed the surface of the body by means of a boric acid solution and absorbent cotton, he dusted all the scalded surface over with the subnitrate of bismuth and applied over this a dressing of absorbent cotton filled with the same antiseptic and fixed the whole with tarletan bandage. His face was simply dusted with the subnitrate. He prescribed besides this quinine and stimulants. The patient soon improved, his temperature fell, and at the end of a few days became normal. Complete recovery took place in three weeks, during which the dressing was renewed three times. He had no pain, neither did he present any signs of bismuth poisoning.—*Lancet-Clinic.*

**SOME RESULTS OF FAITH CURE.**—The reports from a recent faith-cure convention have some curious and interesting statistics. Out of two hundred cures reported thirty patients had made a diagnosis of organic disease; and there were the usual number of fractures which had been marvellously reunited by faith. There was no record made, however, as to the subsequent position and deformity. The time of this method of cure appears to be much shorter than that required by surgical means—as one case of a broken ankle was said to have been cured in five minutes.

The greatest curative effect of faith seemed to be upon erysipelas, for one hundred cases of speedy cure were reported. In what way the streptococcus is affected by a profession of faith was not clearly explained.

The only case not curable by this means appeared to be the rupture of the heart; for one person testified that by faith his child had been cured of colic, and a daughter of pneumonia. Their little one had been taken from them, but not by sickness; he died of a broken heart.

The further gathering of figures and the compilation of mortality statistics should not be neglected; for their results are curious and of some psychological interest.—*Boston Med. and Surg. Jour.*

**VARICOSE ULCERS.**—Dr. Reboul, *La Semaine Médicale*, treats varicose ulcers by cleansing, antiseptics and occlusion of the ulcer. He first applies gauze moistened with Van Swieten's solution, or a solution of the biniodide or cyanide of mercury, and covered with oiled silk. After four or five days of this treatment he finds the surface of the ulcer sufficiently modified and covered with granulations to proceed to the use of dry antiseptics. The ulcer is then filled with powdered salol and iodoform, and over this salolized or iodoformized gauze is placed, then oiled silk and a tarletan bandage, reaching from the ankle to the knee. This dressing is not changed for fifteen to twenty days, when the ulcer is found to have healed over

completely. If not, a second, or possibly a third, dressing may be requisite to complete the treatment. In cases where the infection is so ancient that mercurial solutions are insufficient to clean the ulcer, camphorated salol or camphorated naphthol may be necessary. He fills the cavity with gauze saturated with these drugs and applies then an occlusive dressing.—*Med. and Surg. Reporter.*

**THE LOCAL APPLICATION OF PETROLEUM IN DIPHTHERIA.**—Flahaut, in *Normandie Médicale*, reports an epidemic of diphtheria affecting seventy person, which prevailed in his town in 1891-92. Between April 15th, 1891, and May 5th, 1892, thirty cases were treated in the usual method, with nine deaths. From May 5th to June 15th, 1892, forty cases were successfully treated by local applications of petroleum. This treatment, which is so effective, is easy of application and devoid of danger and pain. At intervals of one or two hours, petroleum is painted over the false membranes, which quickly dissolve. Precautions are taken, of course, to prevent the fluid from falling into the trachea. These applications are painless, even when made on the ulcerated and bloody mucous membrane, and the liquid causes the pseudo-membrane to be dissolved. Fifteen days after this treatment was applied to all the cases of diphtheria, the epidemic disappeared.—*Therapeutic Review.*

**NOCTURNAL ENURESIS.**—The cause of nocturnal enuresis in nearly all cases is want of power in the muscles that close the neck of the bladder, which want of power is caused by inflammation, or lack of strength, or tone; belladonna and strychnine in small doses are nearly specific for this condition. Some cases require a little tincture of apis with the other remedies, but belladonna alone usually cures these cases. We find many good things in the *Brief*; we also find that some of our brethren rush into print and expose a want of knowledge that they should have acquired at medical college, or from books that are easily obtained.—Dr. Clendenen, in *Med. Brief*.

**VISITOR** (picking up the baby): So this is the baby, is it? Bless his little tootsie-wootsies! Kchee-e-e! Watch me poke um's ribs!

The Boston baby: Mother, will you kindly inform me whether the deplorable condition of this person is due to permanent dementia or spasmodic and intermittent insanity?—*Nat. Med. Review.*

**TWO GIRLS**—Please, sir, do you keep excursion pills?

Chemist (equal to the occasion)—Yes, we have some very fast ones.—*Ex.*

## PROF. J. M. CHARCOT.—1825-1893.\*

OBITUARY BY BOURNEVILLE.

TRANSLATED FROM THE ORIGINAL, BY D. CAMPBELL MEYERS, M.D., TORONTO.

[The sudden and unexpected death of the illustrious master, to whom we were so entirely devoted, whom we loved so deeply, has caused us such great pain, and we have so much difficulty in facing the dreadful reality, that we fear we are not equal to the sad duty which devolves upon us of paying, at this moment, a fitting tribute to his memory.]

Charcot (Jean Martin) was born at Paris, the 29th November, 1825, of a family of honorable artisans, of modest means. M. Charcot, who did not conceal his origin, related to us that on account of the inability of his father to give each of his sons a liberal profession, he one day said to them: "I am not able to have you all complete your studies, he who will have succeeded best at the end of the year will continue his profession; another will be a soldier, and the third a coach-maker, like myself." And this was done. Our master won, and in consequence was sent to the Lyceum Saint Louis. His secondary studies finished, he was registered at the faculty of medicine. He was received as hospital interne in 1848, passed his thesis of doctor in 1853, and filled the duties of chief of the medical clinic from 1853 to 1855. He was fond of recalling the fact, that during his studies he gave private lessons in order to attenuate the sacrifices which his family had imposed upon itself to educate him. The following year he was appointed doctor of the *Bureau Central*. Four years later, at his second completion, he became a Professor. In spite of the ardour of his work, of his knowledge, which was as positive as it was extensive, he almost failed, and owed his success only to the last test: the reasoning of his thesis. Hence he expressed his regret to see, in these latter years, this test become almost illusory.

In 1862 M. Charcot returned as *chef de service* to the Salpêtrière where he had been interne.

\* Wednesday the 16th of August, a telegram announced that M. Charcot, then on a holiday excursion for a few days to the shores of the Lake of Settons, in the Nièvre, had just succumbed to an attack of angina pectoris. After a few minutes of suffering, M. Charcot expired in the arms of his two travelling companions, MM. Debove, and Strauss. In a most cheerful letter to Mme. Charcot, that he had written shortly before the attack, he announced to her his intention of returning to Paris on Saturday.

He was to leave it no more. Immediately he set himself to work. With M. Vulpian, his friend, he undertook to collect the histories of all the inmates, and of all who entered the hospital. The collection of these histories formed the *Medical Archives* of the Salpêtrière, and when an inter-current affection brought an inmate to the general infirmary, he was already acquainted with the case, and was able to follow with much advantage its pathological history. And that continued to the very end. Every autopsy was made with the greatest care, and he himself dictated the results of it. Except during the vacations, his assiduity in his service was exemplary. The duty which he had imposed on himself occupied the entire morning and often more. The abundance of excellent material constituted an inexhaustible mine which increased from year to year. From it came the works which he communicated to the *Société de Biologie*, of which he was Secretary, then the Vice-President, or that he inserted in the *Gazette hebdomadaire*, of which he was an energetic contributor from 1857 to 1859, and in which he published, besides his original work, some historical and critical articles which are true models of their kind.

His name was already very honorably known when he inaugurated, in 1866, his lectures at the Salpêtrière, not in the fine amphitheatre which now exists, but simply in a ward, cleared for the occasion. His course was followed with eagerness especially by the former internes, who were certain to find there the subjects discussed, pneumonia in the aged, chronic rheumatism and gout, treated with incontestable ability.

In 1867, for motives which we do not remember, M. Charcot gave his free course at the *Ecole pratique*. He devoted it to hæmorrhage and to softening of the brain, after a first lesson entitled, "Parallel between Empirical and Scientific Medicine." He resumed, the following year, his course at the Salpêtrière, described, among other diseases, paralysis agitans and disseminated scleroses, until then confounded, which he has, so to speak, discovered, and of which he traced so exact and so complete a picture that nothing really important has since been added.

In his course in 1869 he again discussed hæmorrhage and softening of the brain. Unfortunately only a portion of his excellent lectures has been

preserved, a fact the more to be regretted since they were filled with new material in regard to pathogenesis, diagnosis and prognosis. Besides the lectures of which we have just spoken, let us further mention those he made on "The Importance of the Thermometer in the Clinic of Diseases of the Aged," and let us here remark that it is principally to M. Charcot that we owe the general use of the thermometer in France, and that he owed to it some interesting revelations by which he has many times profited in his teachings.

That same year he discovered the "Arthropathies of Ataxics," to which the English have given the name of "Charcot's joint disease," and founded the *Archives de Physiologie* with Vulpian and Brown-Séquard. His course of 1870 opened under the most favorable auspices. The ward where it had previously been given had become too small. Among his hearers the number of foreign doctors, notably from Germany, had never been so large. It was at this time that he gave his remarkable lectures on "The Trophic Troubles Consecutive to Diseases of the Brain and Spinal Cord." The unhappy war of 1870 came to suspend them. During the two sieges, M. Charcot, simply did his duty, as he had already done it at the time of the cholera epidemics. Besides his ordinary wards he had charge of a small-pox service and a temporary military hospital. In the course of this same year (1870) an unforeseen event occurred, insignificant in appearance, which had a considerable influence on the scientific destiny of the master. The building known as Sainte Laure, where the service of M. Delasiauve was installed, comprising the epileptics, the hysterics, and the adult idiots, was menaced with ruin and the Administration was obliged to evacuate it. They placed the adult idiots in three of the sections of the ahenist's quarter; they placed the epileptics and hysterics reputed *insane* in the section of M. Baillargen, and they separated the epileptics and hysterics reputed *not insane*, building for them a special quarter. M. Charcot being the senior of the two physicians of the hospital, they offered it to him and he accepted it. Fortune favored him; science profited by it. All know, in fact, how he utilized this new field of investigation, placed at his disposition.

After the war M. Charcot resumed his teaching. He entrusted to us the publication of the first

volume of his "Lectures on the Diseases of the Nervous System." Several lectures since 1868, had appeared in the *Gazette des Hospitaux*, the "Lectures on Trophic Troubles," had just appeared in the *Mouvement Médical*. Hence we expected to proceed rapidly. We did not consider, however, the severity, sometimes extreme, of the master for his own works. He resumed the composition of the lectures on trophic troubles, published in this last mentioned journal and revised them from end to end, hence it was with a new impression that it was necessary to proceed. And this latter composition was again submitted to modifications that we almost despaired of ever reaching the end. After the lectures on trophic troubles, came the lessons on paralysis agitans and disseminated sclerosis. He did not alter them and we took fresh confidence.

We were not, however, at the end of our troubles. It was only by tormenting him with a persistence which would finally have been misplaced but for the support of Madame Charcot, that we at last obtained the lectures on "Hysteria and Hystero-Epilepsy," which terminate this volume. Often, in the years which followed, the same trouble arose, and without the incessant intervention of Madame Charcot, without her encouragement, the greater part of the lectures would have met the same fate as those of 1867 and 1869. If we have insisted on these details, it is in order to show the beneficent rôle that an intelligent and devoted wife can exercise in the life of a learned man, and also to destroy the assertion of certain journalists who have accused the master of an immoderate love of publicity. Why had he not been so? we would have, to the advantage of all, a multitude of lectures which have remained buried among his papers.

Appointed in 1872 Professor of Pathological Anatomy at the Faculty of Medicine of Paris, replacing his friend Vulpian, to whom he himself had given place some years previously (1867), he occupied that chair until 1881. It was during this period that he gave his "Lectures on the Diseases of the Lungs, Liver, and Kidneys"; on the "Pathogenic Conditions of Albuminuria"; on "Localizations in Diseases of the Brain and Spinal Cord," etc.

Although this was a branch of the medical sciences which has not the attraction of the clinic,

for instance, he knew how to attract and retain at his course a large audience. To render it attractive and comprehensible, even to the students the least *au courant* with pathological anatomy, he made himself, or had made, descriptive plates representing the lesions of the diseases on which he lectured, a method which he had employed at his courses at the Salpêtrière since 1866, and which he did not cease to perfect. He used for this purpose, sometimes the sketches of an author, sometimes, and especially, the anatomo-pathological specimens collected in his rich service of the Salpêtrière or collected at the Anatomical Society. In fact, wishing to give to his teaching an absolutely practical character, M. Charcot understood, that if the anatomo-pathological riches of his service of the Salpêtrière was sufficient for teaching a certain number of diseases, it was not so for a many others. In order to overcome this difficulty, he had the happy idea of accepting the presidency of the Anatomical Society (1872-1882), where, at the time, the majority of the hospital internes brought all the most interesting specimens. And as it was known that he never missed a single meeting, that his presidency was really effective, that he profited by the presentations to make useful remarks, the meetings of that Society were much frequented. Everyone hastened to put at his disposition whatever they judged might be useful at his course.

During the ten years that he taught pathological anatomy at the Faculty, he still continued his free course at the Salpêtrière, supplying in this way a quantity of labor which few men have equalled, accomplishing an immense amount of work known to the entire world. This it was possible for him to do, because his devoted and affectionate wife, "of an exalted mind, an intellect open to all that is beautiful in science and in art, gave him a cheerful and happy home," because his children surrounded him with the deepest respect and the greatest affection. Everyone about him hastened to facilitate his task. Hence he never experienced the need of becoming a man of the world. All that he wished was good, and his most intense desire being a liberty to work, he was able to accomplish, in a life prematurely interrupted, the work that all those admire, who themselves work, and who seek to keep themselves *au courant* with the latest developments of science.

It was during this period that he published his lectures on "The Anomalies of Locomotor Ataxia," on "The Slow Compression of the Spinal Cord," "The Spinal Amyotrophies," "The Urinary Paraplegias," "Post-hemiplegic Chorea," "Partial Epilepsy of Syphilitic Origin," "Spasmodic Tabes Dorsalis," "Athetosis," etc. It was then that he aided us to found *Le Progres Médical* (1873), that he created the *Revue Mensuelle de Médecine et de Chirurgie* (1877), and that we published together the *Archives de Neurologie* (1880). During this time, also, his researches on Metalloscopy and Hypnotism took place.

It was during the summer of 1876 that M. Charcot revised the works of Burq, on "Metalloscopy and Metallotherapy." Several interesting discoveries followed: modifications which acromatopsy undergoes under the influence of metallic applications, transfer, anæsthesia produced by metals, etc. These discoveries in their turn were the starting-point for curious experiments on the action of magnetic bars, of electro-magnets, of solenoids, of static electricity, of the vibrations of a sounding body, etc.

The researches undertaken by our master at the Salpêtrière, and, under his direction, by several of his pupils, upon hypnotism, date from the year 1878. From the beginning, as he himself stated, he sought to give to these researches a prudent and reserved opinion. Little pre-occupied with scepticism, moreover purely arbitrary, acquainted with those who under the pretext of a "scientific mind" conceal a resolution both to see and to hear nothing in these matters, M. Charcot kept himself as far as possible removed from the attraction of the singular, of the extraordinary, a reef, which, in this domain as yet little explored scientifically, is met with at each step. He has stated himself, very simply, the method it is necessary to employ in these difficult studies of physiology and nervous pathology. Instead, he says, in searching for the unexpected and the novel, it is necessary to observe the clinical signs, the physiological conditions, which are easily noticed, of the several states and nervous phenomena produced; to limit one's self at first to the examination of the most simple and most constant facts, to those whose objective reality can be most easily proved, considering only at a later date and always with great care the more

complex or uncertain manifestations, to systematically set aside, at least temporarily, those of a much more delicate nature, which for the moment do not seem to be related in any way to known physiological facts. It is chiefly, according to M. Charcot, because these simple precautions have been too often neglected, that the researches on hypnotism, considered as an experimental neurosis, researches one day destined to give light to a multitude of questions not only of a pathological order, but also of a physiological and psychological order, otherwise almost inaccessible, have not, up to the present, borne all the fruit which can be expected from them, and have not everywhere met with the favorable reception which they merit.

The researches in hypnotism made at the Salpêtrière were all studied from the subjects of hysteria major (hystero-epilepsy). It is, besides, on the subjects of this class above all others, that the various nervous conditions, artificially produced, seem to attain their greatest development, and to appear endowed with their most characteristic attributes. It was considered wiser to limit the researches at first to the regular types, classical in a degree, before seeking to explain those forms which were perplexing, rudimentary or but slightly accentuated.

It seems well to recall here the prudent and entirely scientific method which the master employed in the study of facts, abandoned by physicians or regarded by them in a very unfavorable light, which he at first even hesitated to undertake. The important discoveries, which have resulted from it, have contributed to extend the reputation of the school of the Salpêtrière. They are derived from the medical world and have attracted such an amount of attention from public opinion, that many suppose that the works of M. Charcot were limited to hypnotism while in reality they form only a small portion of the work due to his genius. They made his name famous to the public, but his scientific reputation was already made and was founded on an immovable basis.

His lectures on hypnotism have been the source of a host of experiments and publications. Certain authors have avoided this purely scientific method, and have allowed themselves to be carried to a point at which the imagination and the desire for the marvellous overcame the judgment of a sound

and just observation. M. Charcot noticed it with pain. He feared that this new addition to science might again fall into the disrepute from which he extricated it. Some persons, quite recently, have said this feeling was due to jealousy; that he did not wish anyone to touch questions which he himself had taken up. These latter individuals little knew the man, whose scientific generosity was without an equal. They forgot that, in venturing upon the study of a discredited subject, he would, in case of failure, compromise a well-earned reputation, and furnish arguments to ill-disposed persons who saw with reluctance the ever-growing success of the free course of the Salpêtrière.

(To be concluded in our next.)

THE USE OF REPEATED FRACTIONAL DOSES OF CALOMEL.—P. Gardiner, M.B., (*Lancet*) says, I read with pleasure in the *Lancet* of July 1st, Dr. Chapman's article on the "Use of Repeated Fractional Doses of Calomel" in gastro-intestinal catarrh. For the last few years I have exhibited calomel in a similar manner with gratifying results; but lately I have substituted liquor hydrargyri perchloridi in three minim doses, with, I think, equally favorable results in children, especially when combined with half-minim doses of ipecacuanha wine. As a rule this combination acts admirably, the vomiting ceasing and the stools rapidly assuming a more normal color and smell. I find children much prefer the mixture to powders, and where medical men do their own dispensing the saving in time is obvious.

TREATMENT OF SUNSTROKE.—For cases with temperature above 104° F. Waugh, (*Times and Reg.*), Ice and ice-water to head, body, rectum; continued until temperature comes down to 100°, and repeated if it rises again. Antipyrine hypodermically, ten to thirty grains; or acetanilide, by rectum. For cases with low temperature, feeble pulse, cold extremities and profuse sweating: Strichnine, gr.  $\frac{1}{40}$  to  $\frac{1}{20}$ , hypodermically, or tincture digitalis, gtt. xx., warmth to feet, lower head, loosen clothes, alcohol, camphor or ammonia in small and frequent doses.

For medium or doubtful cases: Atropine, gr.  $\frac{1}{100}$  hypodermically; acid phosphate; cold or heat to head, as feeble or exhaustive symptoms predominate.

# THE CANADA LANCET.

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## NEW HYPNOTICS.

An interesting and instructive paper was read at a recent meeting of the New York Neurological Association, by Dr. W. D. Granger, upon the subject of New Hypnotics. He said that an ideal hypnotic would give sleep at regularly recurring intervals, and for a definite period of time; this sleep would be natural, strengthening and restorative; it would not be injurious to health or harmful to life, and it would not produce a habit, but would restore a patient to the condition of obtaining sleep without the use of drugs. Such a drug was not known, and there was none that closely approached this definition.

He considered that little need be said of the bromide group, which are principally valued for the treatment of epilepsy. It was in the group represented by chloral, and called the alcohol and chloroform group, that the great crop of new remedies was found. In their hypnotic effect the higher portions of the brain were first involved; first the cortex, lastly the respiratory and cardiac centres. The best hypnotics were those acting most strongly upon the cortex, dulling the sensibilities both from within and without, lessening voluntary muscular activity, and influencing but slightly the vascular system.

Among this group of hypnotics might be mentioned bromal hydrate, which was said to be more dangerous than chloral, and had but little value; and chloralamide, which was less depressing than chloral, although serious collapse had followed its use. It produced quiet and refreshing sleep, with

no unfavorable after-effects. It was not so certain in its effects as chloral, and it did not act so promptly. The dose was from 30 to 45 grains. It was useful as an alternative to the other hypnotics. Chloral ammonium, in doses of 15 to 30 grains, was said to be non-depressive and was a good hypnotic. Hypnol was said to unite the analgesic effects of antipyrine and the hypnotic effect of chloral. It was useful when sleeplessness and pain were combined, and the employment of opium was contradicted. The dose of the drug from 15 to 30 grains.

Urethane belonged to the ethyl group; it was useful in the milder forms of insomnia, and for purposes of change; the dose was from 20 to 30 grains. Somnal was an alcoholic solution of chloral and urethane, and was of little value. The dose was half a drachm. Paraldehyde could not be classed among the newer drugs; with chloral-mide it was the only drug comparable with chloral in hypnotic power, they would win their way in the most obstinate cases, and were valuable in all cases of insomnia. Sulphate of duboisine was being used as a substitute for hyoscine. It had been asserted that it gave more natural sleep and was less depressing. Sulphonal tetranal and trional were so closely related that they could be considered together. Almost everyone had a place for the first-named. It had marked hypnotic power. In ordinary doses it seemed safe. Its long continued use was to be avoided, not so much that it quickly lost its power, for it did not, but that it was dangerous to health. Its action was often slow, for, even if taken in the hottest water, it sometimes seemed to be precipitate in the stomach, unless quickly absorbed. Its effects were frequently long-continued, and the second dose often acted better than the first. It was a pure hypnotic, but was less powerful than chloral. It was of little value where pain was associated with sleeplessness.

In concluding, Dr. Granger stated that we must remember that sedatives were not to be found in the pharmacopœia alone, and he who relied upon drugs alone for the production of sleep, was in advance doomed to failure. The treatment of insomnia went far beyond the mere giving of drugs; and all hypnotic remedies—new and old—were made doubly valuable by studying the individual and using such adjuncts in the treatment of the condition as were indicated.

## ASTHMA AND ITS ANALOGUES.

To the Editor of the CANADA LANCET.

DEAR SIR,—Permit me to submit a new view of asthma to your readers. There is narrowing of the caliber of the bronchial tubes, and also a dilated condition of the air cells, as evidenced by the hyper-resonant percussion note. The explanation generally given for the narrowed caliber is that there is spasmodic contraction of the muscular tissue of the tubes, and that this is due to some, as yet, obscure operation of the nervous system. My view is that, from the symptoms presented, and from analogy, the condition is one of venous congestion of the bronchial tract, with consequent excessive accumulation of the gases of the blood in the air cells, and tumefaction of the bronchial mucous membrane by the distention of the venous radicles—sometimes even to the effusion of non-coagulable, because non-inflammatory, plasma. The effect of these pathological states is interference with, and partial suspension of, the necessary diffusion between the expired blood gases—chiefly  $\text{CO}_2$ —and the inspired air; and fully explains the distension of the chest walls, the short and ineffectual inspiratory and prolonged expiratory efforts, and the loud wheezing heard during the respiratory process.

The analogy thus borne by asthma to flatulent colic, angina pectoris, epilepsy and migraine, to the painful limb-pains of persons suffering from threatened syncope, is complete. These disorders form a hitherto undescribed group—the anginal group—due to venous congestion. In all, there are the same objective and subjective symptoms, modified, of course, according to the particular seat of the disorder, yet clearly indicating the operation of a common exciting cause in a predisposed area. Thus, there is collapse with low temperature; a feeble and frequently a fluttering pulse, and pain of a heavy, leaden, stunning character, and the extremities and body surface are cold. The group of venous diseases thus become as well defined as that connected with the arterial set of capillaries and known as acute inflammatory, with the terminal *itis*; and the treatment is as radically different. In arterial congestions cardiac depressants are indicated, to reduce the pulsations and lower the temperature. In venous congestive disorders, the remedies which answer best are

belladonna, alcohol, ether, and the nitrites, to throw off the blood from the heart, and stimulate that organ to greater circulatory activity.

I am, sir, your obedient servant,

C. R. ILLINGWORTH, M.D.

Oct. 2nd, 1893.

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 MEDICAL FEES.

While the cost of living has enormously increased since our grandfathers' days, there has not been a corresponding increase in the money-earning power of the medical man. Ours is perhaps the only profession in which the increase in pay for services rendered has not kept pace with the increased necessary cost of living, and decreased purchasing power of money. In what other walk of life can there be found men working for the same amount they did 40 or 50 years ago? We venture to say, in none. Our remembrance cannot go back even for 30 years, but we can distinctly call to mind ministers living on \$300 per year, rather, we should say, existing on that and charity in the way of "socials," "tea-meetings," etc., where now they likewise exist on \$700 or \$800, plus the same machinery in the way of charity. Their stipends have been more than doubled in the past 25 years, and so through the various walks of life—except the physicians'.

As illustrative of this fact, we give the scale of fees adopted by twenty of the leading practitioners of Toronto, and signed by them, in July, 1855, nearly 40 years ago:—

For every ordinary visit, if the usual medical attendant of the patient, from 9 a.m., to sunset, \$2 maximum, \$1 minimum.

If not the usual medical attendant of the patient, for each visit during the above-named hours, \$4 max., \$2 min.

Night visits, or from sunset to 9 a.m., \$8 max., \$2 min.

Consultation visits, \$5 max., \$2 min.

Letter of advice or certificate, \$10 max., \$4 min.

Detention, in addition to the regular fee, per hour, \$5 max., \$1 min.

## FOR SURGICAL OPERATIONS

For capital operations, \$200 max., \$40 min.

For minor operations, \$40 max., \$2 min.

For operations which may be ranked between capital and minor operations, \$100 max., \$10 min.

For setting fractures, \$40 max., \$10 min.

For reducing dislocations, \$40 max., \$10 min.

#### MIDWIFERY.

For attendance in all ordinary cases, \$40 max., \$6 min.

For attendance in complicated cases, \$60 max., \$12 min.

In addition to the above fees for Operations and for Midwifery Cases, the subsequent attendance is to be charged; and it is understood that the foregoing fees are intended to be charged from the minimum to the maximum amount, according to the circumstances of the patient, the importance of the case, and in an inverse proportion to the length of attendance on the case, as may seem right to the medical attendant.

The above prices if charged to-day would make some of Toronto's wealthy men stare. Among the signatures we notice the names Widmer, Beaumont, Bovell, Hodder, Russell, Grant, Philbrick, Small, Bethune, Nicol and others whose names will long be remembered as foremost in the rank of medical and surgical science of the day.

A NEW ILLUSTRATED DICTIONARY OF MEDICINE, BIOLOGY, AND COLLATERAL SCIENCES.—Dr. George M. Gould, already well-known as the editor of two small medical dictionaries, has now about ready an unabridged, exhaustive work of the same class, upon which he and a *corps* of able assistants have been uninterruptedly engaged for several years. The feature that will attract immediate attention is the large number of fine illustrations that have been included, many of which—as, for instance, the series of over fifty of the bacteria—have been drawn and engraved especially for the work. Every scientific-minded physician will also be glad to have defined several thousand commonly used terms in biology, chemistry, etc.

The chief point, however, upon which the editor relies for the success of his book is the unique epitomization of old and new knowledge. It contains a far larger number of words than any other one-volume medical lexicon. It is a new book, not a revision of the older volume. The pronunciation, etymology, definition, illustration, and

logical groupings of each word are given. There has never been such a gathering of new words from the living literature of the day. It is especially rich in tabular matter, a method of presentation that focuses, as it were, a whole subject so as to be understood at a glance. The latest method of spelling certain terms, as adopted by various scientific bodies and authorities, have all been included, as well as those words classed as obsolete by some editors, but still used largely in the literature of to-day, and the omission of which in any work aiming to be complete would make it unreliable as an exhaustive work of reference. The publishers, P. Blakiston, Son & Co., announce that, notwithstanding the large outlay necessary to its production on such an elaborate plan, the price will be no higher than that of the usual medical text-book.

INJECTIONS OF IODOFORM IN GOITRE.—Kapper, *Gaz. de Hôp., Br. Med. Jour.*, uses a solution containing 1 part of iodoform and 7 parts each of ether and olive oil, which is injected into the goitre after previous disinfection of the skin. The trocar of the syringe is disinfected, and is then plunged to the depth of 2 to 3 centimetres into the tumor, and the patient is told to swallow in order to ascertain whether the cannula takes part in the movements of deglutition, or whether it has not been inserted deeply enough. Immediately the solution is injected the trocar is rapidly withdrawn and the orifice of the puncture closed by means of a piece of diachylon plaster. When the goitre is very large, he injects as much as 6 grammes of the solution at one sitting, in four different parts. The injections were repeated at intervals of four to six days, sometimes on several consecutive days. Local reaction was always feeble. Eight men and six women have undergone the treatment. After ten injections in the course of two months, the circumference of the neck was diminished by 6 centimetres at least, and after another interval of two months there was a diminution of 8 or 10 centimetres. Besides this the discomforts felt by the patients were sensibly attenuated. Six months after cessation of the treatment the improvement was maintained.

VAGINISMUS OBSTRUCTING LABOR.—On February 11, 1893, I was called to see a black girl,

aged nineteen, Dr. Cargill, *Br. Med. Jour.* This was her first labor, and pains had been going on for fourteen hours; the liquor amnii had escaped early. The nurse told me that there was "no passage." I found a tight constriction of the sphincter vaginae, the tenesmic condition being intensified during the pains, which were strong and frequent. The finger was tightly grasped by the spasm, and the presentation could not be made out. The bladder was full, the urethra being flattened by the vaginal constriction. I at once placed the patient under chloroform, and emptied the bladder; the spasm relaxed, the head descended, and the child was expelled in half an hour. Had not chloroform come to the rescue, rupture of the uterus would probably have taken place. Spasm of the vagina during labor is undoubtedly a very rare complication. I see no mention of it in the many books in my library. I have occasionally met with it in cases not connected with child-birth. My last case of vaginal spasm occurred in a maiden lady who had been recently operated on for hæmatocolpos.

ARSENIC IN EPITHELIOMA.—Lassar, *Berl. klin. Woch., Br. Med. Jour.*, reports his success with arsenic administered internally in four cases of epithelioma affecting various parts of the face. Case 1 was a man, aged fifty, with three large swellings occupying one orbit, the nose and the chin respectively. Microscopic evidence showed epithelial cells, spindle cells, and alveolar structure. Immediately after the administration of arsenic, the three growths gradually diminished by drying up, involution, and cicatrisation, until the youngest growth had disappeared, and the second one cicatrised. The largest and oldest growth occupying nearly the whole of the orbit, showed little change, and owing to the suggested excision of the eyeball, the patient withdrew from treatment, and is believed to have died subsequently. In a second case, that of a woman of advanced age with a smaller growth on the nose, a great reduction in size took place, and the patient, being satisfied, also ceased to attend.

The author now resolved to adopt the same measure with recent growths instead of at once resorting to the knife. The first patient had on one cheek a growth equal to half a walnut, which had taken six or eight months in developing.

Only a slight erosion of the surface was present. The diagnosis was confirmed microscopically, and arseniate of potash was administered three times daily for two months, when the growth had shrunk and cicatrised. The next patient was a man with a similar growth of three months' standing on the left ala nasi, the condition and proofs being the same. Fowler's solution was given internally, accompanied at first by subcutaneous injections. These being painful were discontinued, and in two months complete disappearance with cicatrisation followed. The author admits the small number of cases experimented on, but lays stress on the striking and indisputable results. Illustrations of the patients at various times and of the microscopic sections are given.

THE FORCEPS IN LABOR, WITH SPECIAL REFERENCE TO A RESISTANT CERVIX.—Before the circular muscular fibres of the cervix are exhausted by intra-uterine pressure as well as by contraction directly of the longitudinal fibres of the body, *D. Hardie, Epitome*, the latter will possibly have little residual force left, the pains will be unable to expel by themselves the contents of the uterus, and in the end the forceps will require to be resorted to. Under these circumstances it is our obvious duty to interfere in time, and thus prevent a protracted labor. If, now, the forceps be used, as directed, during the pains in a case where the cervix seems to be the chief cause of delay, what should we expect to happen, and what does actually happen in some, perhaps in many, cases? The point of resistance must give way, and we have as a result a lacerated cervix. It is needless to say that we should not apply the forceps until the cervix is sufficiently dilatible during the pains as to eliminate all source of danger in this respect, for we are dealing with a case of some duration, that has practically entered the second stage of labor: (1) where the cervix is fully relaxed and dilated between the pains; (2) where, however, the contractile power of the cervix during the pains is not exhausted, but seems for the time equal to the intra-uterine pressure; and (3) where the labor, if left to nature, will be unnecessarily prolonged, and ultimately demand, for reasons already given, the use of the forceps.

KNOTS IN THE UMBILICAL CORD.—Lefour, of Bordeaux, *Br. Med. Jour., Progrès Médical*, has

made researches in this subject. A knot in the cord is very likely to kill the fœtus by offering a simple mechanical obstacle to the circulation; the umbilical vessels become plugged, owing to changes in their coats. In one case, where the fœtal movements and heart sounds ceased twelve days before delivery, there was a tight knot in the middle of the cord. Arteritis and complete obstruction by organized clots were detected on examining the vessels at the affected point. Lefour experimented by injecting water at constant pressure into the umbilical vessels, and found that the knot does not markedly impede circulation, unless there be compression as well. An amount of pressure which would hardly be dangerous in a cord free from knots, is perilous when a knot exists. In the absence of compression a knot, even if tight, probably loosens itself under the increased pressure of the contractions of the fœtal heart.

#### PATERNAL TRANSMISSIBILITY OF TUBERCULOSIS.

—Dr. John M. Keating, in an excellent paper before the American Pediatric Society in May, 1893, on "Plausibility of the direct transmission of tuberculosis to the fœtus from either parent" concludes as follows:

1. Unrecognized genital tuberculosis in women without pulmonary disease is not uncommon.
2. A tuberculous mother can transmit the disease to her offspring in utero.
3. Tuberculosis is apparently at times confined to the generative organs of women, probably with greater frequency than we now recognize.
4. Bacilli or their spores can be conveyed by means of seminal secretion to women when no apparent tubercular lesion is present in the male generative organs.
5. Women may, and often do, escape tuberculosis when transmitted in this way, and even when evidence exists of tuberculosis of the male generative organs.
6. Is it not possible for the father to transmit his disease directly to the fetus, the mother not proving a fertile soil, and, if so, is it not possible for this inheritance to become latent in the child, only to manifest itself when accident or environment tends to bring it into activity? And can we not go still further and assert that the bacillus or its spores, inherited from either parent, may be carried into another generation and either be-

come manifest in glandular affections, joint troubles or even finally in pulmonary disease?

THE ULTIMATE PROGNOSIS IN NEGLECTED ADENOID HYPERTROPHY was the title of a paper by Dr. D. Bryson Delawan, of New York City, *Med. Rec.* The question was asked, Does adenoid hypertrophy, if left to itself, disappear, leaving the vault in a normal healthy condition? Generally speaking, it does not, but remains under some pathological state, which may continue throughout the life of the patient. 1. The enlargement may not subside, and a degree of hypertrophy sufficient to cause serious injury and annoyance may continue to exist for many years. 2. The so-called "Thornwaldt's Disease" appears to be nothing more than neglected adenoid hypertrophy. 3. Disappearance of the hypertrophy may be attended with an atrophic condition of the vault of the pharynx the result of which is a pathological state detrimental to the patient and difficult to cure. The above conditions may influence not only the locality in which they arise, but may have far reaching and disastrous effects upon other organs. The ultimate prognosis as to the local condition, therefore, in cases of neglected adenoid hypertrophy, is unfavorable.

COCAINE IN SMALLPOX.—Dr. Saymoa, of Guatemala, after using this alkaloid in several cases of smallpox, states his results as follows:—*La Esc. de Med.: Med. Age.* Cocaine given continuously from the beginning can completely abort the disease. If given after the eruption has appeared, it will transform confluent or hæmorrhagic into discrete forms. Sometimes when the cocaine is given from the beginning of the disease, the eruption assumes a *corneal aspect* and the pustules fall very soon. Cocaine prevents suppuration, hence there is no secondary fever, and no marks remain on the skin. To obtain these results it is necessary to give cocaine as soon as the initial symptoms appear, and it must be continued without interruption. The best preparation is the hydrochlorate, and should be continued five or six days or even nine if necessary.

WHEN a child develops acute otitis media (*Trois-Etoiles Emergency Hos. Rep.*), it is necessary that active treatment be undertaken promptly, else the

disease is likely to go on to suppuration and may readily extend to the membranes of the brain and result fatally. Not a few children die from this cause. The early recognition of the disease is not always easy, but it is safe to assume that any child attacked with earache and fever, exhibiting restlessness, rapidity of pulse and the anxious expression of countenance indicative of the existence of fever in children, with or without tenderness over the mastoid, has this disease. The use of ten per cent. iodoform gauze in the form of pledgets inserted loosely into the external auditory meatus, with the ear and the side of the head covered with cotton freshly sterilized by heat, held in place by a little hood, often gives relief from these symptoms, and may cut short what would otherwise become a suppurative inflammation of the middle ear.

SINGER (*Centralblatt für Chirurgie, Therap. Gaz.*) describes a method of curing, in a short time, wounds of the cranial bones, accompanied by stripping off the periosteum. After the wound has been treated antiseptically for several days by moist sublimate or carbolyzed dressings, the external table, or a portion of it, is chipped away by means of a chisel. A moist bandage is then applied. In two or three days healthy granulations appear, and in a very short time the whole wound is converted into a surface of granulation, which promptly cicatrizes. Even in suppurating wounds this method may be carried out. Of course in phlegmonous and progressive inflammatory processes such procedure is not to be recommended, the bones being treated upon general surgical principles. By this treatment wounds of the skull, which would require weeks, or even months, to heal, are completely cicatrized within a few days.

BORIC ACID.—There seems to be a tendency to use borax more and more internally, *Southern Clinic*. In all bladder troubles ten grains of the powder is given several times a day. In cystitis it certainly produces good results. Torchinsky has tried it in 240 cases of typhoid fever during an epidemic, and reports 231 cases of success; 10 to 15 grains were given, and in the first three to five days the fever and diarrhea diminished, tympanitis almost disappeared, and the stools became normal in character. As soon as this

effect was produced the boric acid was discontinued and tonics given. In the later stages of the disease quinine was added to the boric acid, when there were any cerebral symptoms.

A HEAVY, DULL HEADACHE, *Alienist and Neurol.*, situated over the brow and accompanied by languor, chilliness, and a feeling of general discomfort, with distaste for food, which sometime approaches to nausea, can generally be completely removed by a two-grain dose of the iodide of potassium dissolved in half a wine-glass of water, and this quietly sipped, the whole quantity being taken in about ten minutes. In many cases the effect of these small doses has been simply wonderful. A person, who a quarter of an hour before was feeling most miserable and refused all food, wishing only for quietness, would now take a good meal and resume his wonted cheerfulness. The rapidity with which the iodide acts in these cases constitutes its great advantage.

"THE CANADIAN MAGAZINE" FOR OCTOBER.—The October number of *The Canadian Magazine* is excellent. It is full of variety; the topics are timely, and the illustrations abundant and creditable. Wm. Ogilvie, F.R.G.S., the famous Canadian traveller, continues his trip down the Yukon, illustrating it with excellent views of the scenery, and goes into winter quarters near the Arctic Circle. "With a Fishing Tug on Lake Superior," by Henry J. Woodside, is very interesting, well written and attractively illustrated. Dr. John Ferguson furnishes a very readable article on Consumption, taking a hopeful view of its preventibility, and making valuable suggestions on the subject. W. A. Sherwood's view of the recent influence of the French School on Art is striking. Other articles are: "Technical Schools for Women," by Helen Cameron Parker; "Origin of the Social Crisis in the United States," by Viscount de Fronsac; "Emerson's Choice of Representative Men," by Jean McIlwraith; "A Canadian Ghost Story," by Rev. Herbert H. Gowe, and "An Old Flame," by Charles Gordon Rogers, furnish excellent fiction. Published by the Ontario Publishing Co., Ltd., Toronto; \$2.50 per annum.

EARLY NOCTURNAL PAIN IN SYPHILITIC SPINAL DISEASE.—Charcot calls attention to a symptom of syphilitic disease of the spinal cord which is of

value in localizing the seat of the lesion in its early stage. The occurrence of nocturnal pains in the cervico-dorsal or dorso-lumbar regions of the spine at a regular hour, usually in the latter part of the night, is a marked symptom of early syphilitic spinal meningitis. The duration is usually a few weeks, and the pain is a precursor of the paralytic phenomena by several weeks. Careful observation of this symptom may be of great importance in treatment of the patient.

**CREOLIN IN SUMMER DIARRHŒA OF CHILDREN.**—In the antiseptic treatment of cholera infantum and summer diarrhœa, Norin reports successful use of rectal injections of warm creolin solutions. He lays the child on its abdomen and flushes the bowel with an alkaline solution, and then injects a solution of creoline of the strength of one-half to one drachm to the pint of boiled water. This is repeated several times in the twenty-four hours, if necessary; but in most cases the vomiting stops, and the diarrhœa is much lessened.

A WRITER in the *Lancet* (*Maryland Med. Jour.*) claims to have relieved cases of obstinate tympanitis instantly by placing the patient in the knee-chest position.

Dr. Sarah Post recommends that vaginal douches be not employed in the treatment of unmarried women, as they are likely to excite sexual orgasm.

Half a teaspoonful of the ammonium chloride in a goblet of water is said to restore a drunken man to his mind and physical powers.

**QUININE IN CHOREA.**—The result of clinical studies, H. C. Wood in *Brit. Med. and Surg. Jour.*, seemed highly favorable to the use of large doses of quinine in the treatment of chorea. A remarkable fact in the cases most carefully watched, was the complete absence of apparent physiological action. A child of ten years of age took 1,200 grains of quinine in the course of seven weeks, having part of the time taken day after day twenty-four grains a day with no physiological symptoms, only a steady growth in the general nutrition.

**WILLIAM R. WARNER & CO. GIVEN THE HIGHEST COLUMBIAN AWARD.**—W. R. Warner & Co., of Philadelphia, have obtained, *Phila. Inquirer*, the highest prize for the purity and perfection of their

medicinal and officinal standard pharmaceutical and chemical products. This extensive firm have obtained hitherto twelve grand World's Fair prizes, and they must feel deservedly proud of the Columbian award.

Dr. W. A. JONES, of Malvern, Ark., under date of October 3, 1893, writes: "I have given Papine a thorough test, and like it much better than any other preparation that I have ever used of all the opiates. It never nauseates, either primarily or secondarily, and has given relief where all the other preparations of opium have failed. It acts well as a febrifuge.

**DIED.**—In Neustadt, on the 10th October, Geo. Niemeier, M.D., in his 70th year.

### Books and Pamphlets.

**THE DISEASES OF THE NERVOUS SYSTEM**, a Text-book for Physicians and Students. By Dr. Ludwig Hirt, Professor at the University of Breslau. Translated by Drs. Hoet and Smith, Assistant Physicians to the Johns Hopkins Hospital. 178 illustrations; 683 pages. New York: D. Appleton & Co. 1893.

The introduction to this admirable work is by Prof. Wm. Osler, of Johns Hopkins, to whom the profession are once again under an obligation. In his introduction, he not only gives without reserve his praise to the author's work, but couples Dr. S. Weir-Mitchell's name with his own as sponsor for the book. He points out the originality and manifest advantage of the author's division of his subject, diseases being classified into: 1. Those of the brain and its meninges, including those of the cranial nerves. 2. Those of the spinal cord, including, *a*, meninges; *b*, spinal nerves; *c*, substance of the cord. And 3. Diseases of the general nervous system, subdivided into those with no recognizable anatomical basis (functional neuroses), and those with known anatomical basis. Osler notes, as a "distinct advance in classification," that he "places tabes dorsalis and dementia paralytica among diseases of the general nervous system, instead of in the sections on diseases of the cord and diseases of the brain respectively."

One point of excellence which must be noted, is the anatomical and physiological review which

prefaces each chapter, and introduces the pathology of the region to be discussed. Another good feature is the bibliography, full enough, but referring mainly to recent works only, and placed at the end of the discussion of each disease, not massed in the closing pages of the book. It is particularly refreshing to note the candour and evident fairness and scientific discrimination of the chapter on hypnotism. He places treatment by suggestion in the domain of legitimate therapeutics, and yet seems to show a safe conservatism in his recommendation of it.

The illustrations are numerous, and new, not borrowed. The work of the translators is excellent, the English idiomatic and clear.

**PHYSIOLOGY**, a Manual for Students and Practitioners. By Frederick A. Manning, M.D., Surgeon to Manhattan Hospital, New York. Philadelphia: Lea Bros. & Co. Toronto: Carveth & Co.

One of the Quiz series. It takes the place of the student's note-book, briefly supplying facts which may and should be first learned by reading more extended works, or attendance on lectures. It is founded on Dalton, Foster and Kirk. Woodcuts are numerous. It will be found useful in its place.

**A TEXT BOOK OF MEDICINE** for Students and Practitioners. By Dr. Adolf Strümpell, Professor and Director of the Medical Clinique, at Erlanger. Second American Edition, translated and revised from the Sixth German Edition, by Herman F. Vickery, A.B., M.D., and Philip Coombs Knapp, A.M., M.D., with editorial notes by Frederick C. Shattuck, A.M., M.D., Professor of Clinical Medicine, Howard Univ., etc. With 119 illustrations, pp. 1043. New York: D. Appleton & Co. Toronto: Carveth & Co. 1893.

The new edition of Strümpell's well-known work, brought out within a year's time of the issue of the 5th edition speaks well for the popularity of the work, and indeed the popularity of the work with the profession, is more than ordinarily well deserved. We know of no work in medicine more valuable to the practitioner and student. The chapters on Diseases of the Nervous System, that *bête noir* to both student and doctor, are wonderfully well arranged and clearly written. There is an entirely new chapter on Influenza, a disease

which had almost been forgotten, when the last great epidemic brought it prominently to medical attention. Quite important changes and additions have been made in the chapters on cholera, malaria, disease of the nose and larynx, syringo-myelia, and diabetes. The appendix on poisons has also been considerably enlarged.

**A HANDBOOK OF INVALID COOKING**; for the use of Nurses in Training Schools, Nurses in Private Practice, and others who care for the Sick, containing explanatory lessons on the properties and value of different kinds of food, and recipes for the making of various dishes. By Mary A. Boland, Instructor in Cooking in the Johns Hopkins Hospital Training-School for Nurses; Member of the American Public Health Association. New York: The Century Co. Toronto: Carveth & Co. 1893.

An interesting and useful book for all who have charge of sick people.

**DISEASES OF THE SKIN**; a Manual for Students and Practitioners. By Charles C. Ransom, M.D., Asst. Dermatologist Vanderbilt Clinic, New York. Philadelphia: Lea Bros. & Co. Toronto: Carveth & Co. 1893.

This is another of the Quiz series, and will be very useful to students and others beginning the study of skin diseases.

**THE MODERN ANTIPYRETICS**; Their Action in Health and Disease. By Isaac Ott, M.D. Second Edition, revised and enlarged. Easton, Pa.

An interesting dissertation on that important subject, fever, with a discussion on the best means of combating it.

**NOTES ON THE NEWER REMEDIES**; Their Therapeutic Applications and Modes of Administration. By David Cerner, M.D., Ph.D., Demonstrator of Physiology in the Univ. of Texas, Galveston, etc. Philadelphia: W. B. Saunders. Toronto: Carveth & Co. 1893.

A work containing real information, free from padding. Useful to everyone who reads modern medical literature, containing, as it does, the chemical composition, physical and therapeutic properties and dose, mode of administration, etc., of all the important new remedies. No general reader can possibly keep abreast of the new remedies of the day without some such aid.