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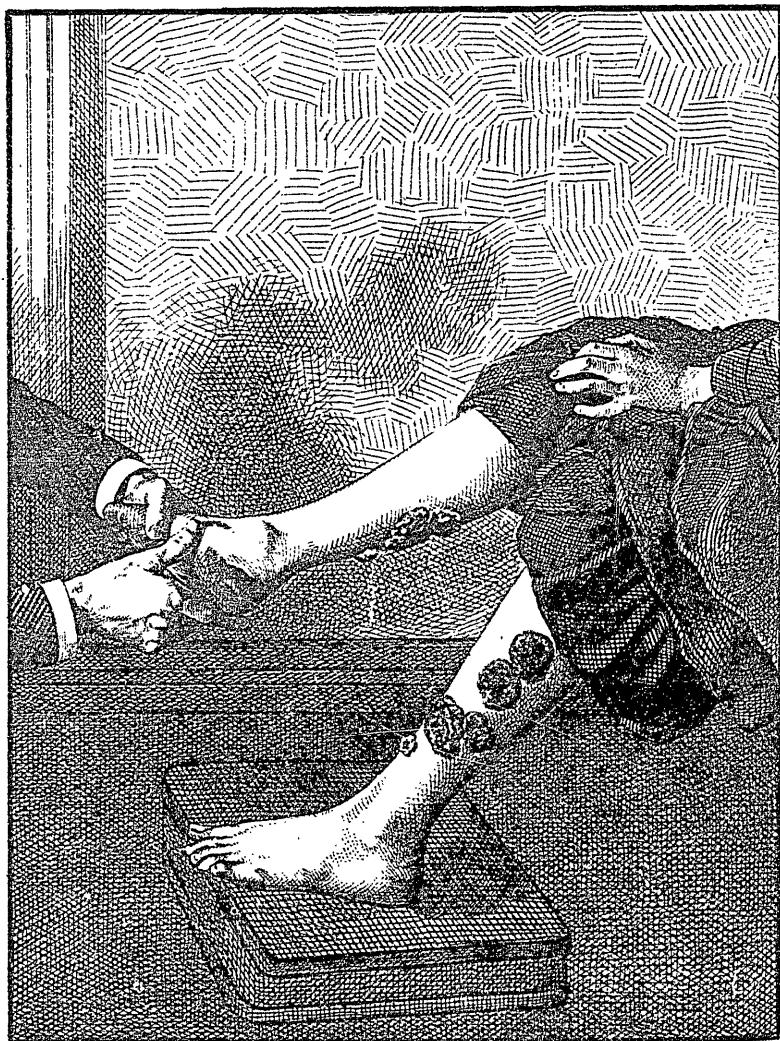
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PHOTO. BY MR. HEWITT.

CASE OF BROMIDE ERUPTION.

(See page 515.)

CANADA MEDICAL & SURGICAL JOURNAL

APRIL, 1887.

Original Communications.

CASE OF DERMOID OVARIAN CYST WITH TWISTED PEDICLE—OPERATION—RECOVERY.

BY WILLIAM GARDNER, M.D.,

Professor of Gynæcology, McGill University; Gynæcologist to the Montreal
General Hospital.

Mrs. S., aged 31, was admitted to the Montreal General Hospital under the care of my friend Dr. Molson, with symptoms of acute pelvic inflammation, and after a few days by him referred to me. In brief, her sexual and menstrual history is as follows: The catamenia appeared first at the age of 19. She has been married eight years; five pregnancies, four times to full term; one miscarriage. The last pregnancy proceeded to full term, terminating fourteen months previous to her present illness. The child was suckled ten months; menstruation returned in due time after weaning. Ever since the last birth she has suffered from pain in the left iliac region, where, four months ago, she first noticed a tumor. Three weeks previous to my first seeing her, after a walk she was seized with severe pelvic pain, vomiting, fever and retention of urine. These symptoms continued, latterly, however, with some abatement, till the time I first saw her. The tumor had meanwhile increased decidedly in size.

On examination, a thin-walled, distinctly fluctuating, intensely tender cyst of the size of a child's head was noticed projecting the lower part of the belly. Per vaginam, the uterus was enlarged, retroverted and fixed, with a tender swelling behind it.

There was still retention of urine, fever and vomiting, full doses of morphia being necessary to relieve pain. The diagnosis was probable ovarian cyst, with peritoneal inflammation.

Operation on the 4th February, 1887, Dr. Alloway assisting and Dr. Gurd giving the ether, the Hon. Senator McMillan of Alexandria, Ont., being present, as also four medical students. Median incision three inches long. Universal, but not intimate parietal, omental and pelvic adhesions. The cyst wall, on being exposed, presented a greyish-black appearance. On tapping it a creamy thick fluid, at first supposed to be pus, flowed out, but on cooling it became solid, while the escape of hairs promptly revealed the dermoid character of the tumor. On delivering it the pedicle was found to be very long and thin, and rotated three times from left to right. After ligature and removal of the cyst, the right ovary was found to be enlarged to the size of a pullet's egg and cystic. It was also removed. The cavity was thoroughly washed out with warm water, and drained. Recovery was easy and uninterrupted, save for a mild attack of phlegmasia of the left lower limb. The temperature reached 100° only once, and that was when the phlegmasia was at its worst. The patient left for home on the twenty-second day after the operation. The cyst contained a bunch of long hair and three teeth, one a perfectly-formed molar. There were also thick bony plates in the cyst wall.

The interest of the case here recorded lies in the axial rotation of the tumor, which led to obstructed circulation, with the sudden and alarming symptoms narrated. Such an accident is well known to all ovariologists of much experience, but there is much reason to believe that the members of the general profession who are first consulted by the majority of such cases are not as keenly alive as is desirable to the possibility of such an occurrence, or to the necessity of prompt operative interference to save the life of the patient. All authorities agree that the dermoid cyst is especially liable to this accident, which, however, may occur to any ovarian cyst with sufficiently long pedicle. It would be unprofitable here to discuss the various theories as to the causes of this dangerous accident. There is still much

difference of opinion on the point among those best able to form one. A prompt recognition or at least suspicion of the cause of the symptoms is much more important. These are sudden abdominal or pelvic pain, vomiting, increase of pulse, but not always of temperature, and rapid development of a tumor, or great increase in size of one previously recognized. In any case with such alarming symptoms, abdominal section must be promptly done to clear up the diagnosis and save the life of the woman, who in the great majority of the cases will die if left to nature. A good many such cases, verified by autopsy, are on record, while the records of modern abdominal surgery show that almost always the life of the woman may be saved by prompt surgical interference.

ON SOME AFFECTIONS OF THE SKIN DUE TO THE BROMIDE SALTS, WITH NOTES OF A PECULIAR CASE.

BY A. D. BLACKADER, B.A., M.D.,

Lecturer on Diseases of Children, McGill University.

The following is the clinical history of a somewhat remarkable eruption produced by the administration of bromide of potassium :

Lizzie N, aged 15, stout and well built, of florid complexion has been for the past two and a half years under treatment for epileptic fits. The first seizure occurred during school hours, in June, 1884, and was followed by a second in October of the same year. Shortly after this second attack she commenced taking a prescription containing the mixed bromides of ammonium and potassium—in all, thirty grains a day. This was taken steadily for a period of eight months, during which she had four additional seizures. The dose was now altered to twenty grains of the potassium salt alone twice a day. This quantity was continued uninterruptedly with marked benefit; for fifteen months there was no return of the epilepsy. In September 1886, when I left for Europe, a slight acneform rash, scarcely more than a dozen papules on the forehead, was the only untoward symptom due to the constitutional effects of the remedy, and this I told the mother she might disregard. Two months afterwards,

according to the mother's statement, while only a few papules were to be seen elsewhere, a cluster appeared on the back of each leg, the papules in which in a week or so began to coalesce and become inflamed, and the whole mass gradually became more raised above the surrounding skin. The mother declined to show it to any other doctor in my absence, and continued to give the medicine according to directions. On my return to Montreal in the beginning of January, I found my patient in the following condition: There was marked pallor of the face; the pupils were dilated, and complaint was made of frontal headache. When the patient was quite at rest, the pulse was weak and 68 in the minute. The mother complained that the child moped all the day, and had no inclination to work; her breath lately had acquired a decidedly unpleasant odor, her appetite was poor, and the bowels somewhat relaxed. Only a few acne papules were to be seen over the face and shoulders, but towards the back of both legs raised crustitious patches were to be seen. On the right side, about the middle third of the extensor surface, was a large patch, 12 cm. ($4\frac{3}{4}$ inches) long, 8.5 cm. ($3\frac{1}{2}$ inches) broad, with an abrupt edge raised nearly a centimeter above the surrounding skin. Below, and coalescing with it at its upper margin, was a smaller one, nearly circular, 3 cm. ($1\frac{1}{4}$ inches) in diameter, and raised similarly. On the left, four smaller patches nearly circular, 4.5 to 6 cm. ($1\frac{3}{4}$ to $2\frac{1}{3}$ inches) in diameter, and scarcely as much raised as on the other leg, occupy the posterior aspect of the limb about its middle third, while two smaller, but otherwise similar ones, adjoin a little lower down, and approach more the inner aspect. The patches had somewhat the appearance of a tubercular syphilitide; their surface was covered with a thick irregular scab, on raising which a moist red surface was exposed, very sensitive, and not unlike in appearance that of exuberant granulations. For nearly half an inch surrounding these patches the skin was red and painful; otherwise general sensibility appeared to be slightly lessened. The bromide was now omitted and a mixture of iron and nux vomica administered, while lead lotion was used as a local dressing. At time of writing (two months afterwards) the patches are still

slightly raised towards their lower edge, and the skin over them has a cicatricial appearance. The general condition of the girl is much improved. An epileptic attack occurred within three weeks of the discontinuance of the bromide, and was followed by a second a fortnight later. The drug was therefore recommenced in the same doses as she had been taking, with the addition of five minims of Fowler's solution to each dose. Up to date improvement continues.

The frequent occurrence of cutaneous eruptions after the prolonged administration of the bromides is well known. The exact manner in which this action is produced has been disputed, but latterly Guttman* has confirmed the fact that elimination of the drug takes place in part through the skin, by demonstrating the presence of bromine in the secretion of the pustules in a case of pustular acne occurring during the administration of potassium bromide. There can be little doubt, therefore, that in this elimination morbid changes are set up in the sebaceous glands, and that to this rather than to any trophic neurosis the majority of the eruptions are due.

Veiel, † in an interesting paper on these eruptions, states that in his experience it is impossible to foretell what size of dose may give rise to a rash. In some cases it is produced by very small doses, in others only with very large ones, while the skin of a few appear quite unsusceptible to the action. The two sexes appear to be equally predisposed, and age and the general health of the patient has little influence; the eruption appearing as often in the infant as in those advanced in years; in the robust and florid as in the weak and anæmic. Discontinuance of the drug is in general followed by a rapid diminution of the rash. Very rarely has it been noticed to make its appearance only some days after the drug has been stopped, and then to persist for weeks.

By far the most common eruption is the *acneform*, which is observed more or less in about fifty per cent. of all cases treated by the bromides. A thickened skin, greasy from excessive

* Virchow's Archiv, Bd. 74, p. 540.

† Viertel Jahreschrift f. Dermatol. und Syphilis. Vol. I. 1874.

secretion of sebum, or an integument on which there are comedones or pre-existing acne, are said to predispose to its occurrence. The locality selected is more extensive than in acne vulgaris. In addition to appearing on the face, chest and shoulders, the bromide acne shows a decided preference for parts where hairs abound. It is frequently observed in the hairy scalp, the eyebrows, and the hairy parts of the thighs and legs. It may occur even over the whole body. Sometimes it seems first to affect tissue which has been the seat of recent inflammatory action, as in the case of an infant reported by Dr. Crocker,* where the eruption appeared first on the site of a recent vaccination mark, and a similar case referred to by Dr. Barlow,† where it was first observed on the site of a recent blister, but in both cases it spread afterwards over the body. The *papular* form is the most common, but the *pustular* is of frequent occurrence. In development it resembles acne proper, but its distinguishing feature is its increase or diminution when the dose is raised or decreased.

Closely allied to the above are those cases referred to by Duhring as *confluent and molluscoid acne*. Voisin‡ describes some as occurring in the form of oval-shaped tumors or elevations from 2 to 5 cms. in diameter, of a rose or cherry color, with indurated base, occurring exclusively on the lower extremities, and particularly on the calves of the legs. They are covered with small acneform pustules, from which cream-like contents exude, and are very painful when touched. Should the drug not be discontinued, they may become converted into foul indolent ulcers. Dr. Cholmeley has described a somewhat similar case where the eruption occurred on the face, and on the front and side of each leg.§ Veiel states that he has seen some cases of eruption in the form of wheal-like elevations on an erythematous base, very sensitive, and varying from the size of a shilling to a florin, which changed by degrees into a wart-like excrescence, and after-

* Lancet, Vol. I, 1878, p. 52.

† Lancet, Vol. I, 1878, p. 52.

‡ Bulletin Général de Thérapeutique, Vol. LXXXIII, p. 241, 1867. Quoted by Lewin "Untoward Effects of Drugs," translated by J. J. Mulhern, M.D., Detroit, '83.

§ Lancet, Vol. II, p. 772, 1869.

wards went on to ulceration. Neumann has also described a similar affection.

In addition to these, Veiel describes an *erythematous* form attended by fever and great local pain. It was absolutely limited to the lower extremities, but was very diffuse over them. Bedford Brown has also described some cases of rubeola in children apparently due to the action of the bromide of potassium. Instances resembling *erythema nodosum* have also been noted. Voisin and Veiel have described slightly elevated patches of different forms, from 4 mm. to 6 cm. in diameter, of a dark-red color in the centre and lighter towards the periphery. They arise and disappear very quickly. As regards form, color and induration of base they resemble *erythema nodosum*, while in their reappearance after being rubbed they resemble *urticaria*.* The *furuncular* form of eruption is much more common than the last, and has been noted by many authors. Boils and carbuncles may form in any part of the body. Occasionally spots of *acne* have been observed to become true boils, and later on, should the drug not be discontinued, are converted into large ulcers with conical scabs like *rupia*.

In a single case the *eczematous* form has been noted. Voisin observed a weeping eczema appear on the thighs after the bromide of potassium had been administered for over a year.

Large warts, resembling those met with on the hands of the young, were observed in one instance by Veiel to appear on the face and legs of a boy of sixteen shortly after he commenced taking the bromide.

The leading indication in the treatment of all these rashes is the suspension of the drug. Where that is not deemed advisable, Gowers† recommends the addition of Fowler's solution, which appears to be of service at least in the prevention of the eruption. Prowse‡ strongly recommends a solution of salicylic acid in water (gr. i- $\bar{3}$ i), and states that by this means he was

* Lewin, "Untoward Effects of Drugs," Trans. Detroit, G. S. Davis, 1883, p. 121.

† Lancet, Vol. I, p. 866, 1878.

‡ British Medical Journal, Vol. II, p. 127, 1880.

enabled to heal a severe bromide rash while continuing the administration of the drug.

The question has been asked whether any relation can be traced between the appearance of these rashes and the cessation or less frequent return of the epileptic attacks. Veiel states that there is none. Dr. Buzzard* believes that the presence of the eruption indicated beneficial effects of the remedy with respect to the original malady.

COMPARATIVE MEDICINE IN EUROPE.

A paper read before the Students' Medical Society of McGill University, February 25th, 1887.

BY MR. A. W. CLEMENT, V.S.

Now that so many students find it necessary to continue their studies in some of the older countries, where from the experience of years and the munificent aid of governments the facilities are unsurpassed, I thought it might be of interest to you to hear something of the manner in which work is carried on, and of the character of the people.

My time was chiefly taken up with the veterinary school and in the pathological and bacteriological departments of the University in Berlin. The pathological institute of the University is at the Charité, the oldest and probably the largest hospital in the city. This hospital is on the opposite side of the street from the Veterinary School, so that no time need be lost in going from one to the other. Ample ground is given to these institutions in Germany, so that the surroundings are really beautiful, and those able to be about can enjoy loitering beneath the shady trees in pleasant weather in summer. The Veterinary School grounds cover about fifteen acres, with entrances from three different streets. The buildings are arranged in two quadrangles, those devoted to theoretical teaching forming the larger, while the clinical buildings form the smaller, quadrangle. The main building, facing on Louisen Strasse, is occupied as residences by the teaching staff. The physiological institute is in charge of Prof. Munk, and he certainly conducts it in a very able manner.

* Lancet, Vol. II, p. 772, 1869.

It is here that some of the first experiments were made in removing parts of the brain in dogs, on the theory that all of the functions of the body were under control of certain centres in the brain; he is a firm believer in the theory, and our president will remember some demonstrations in support thereof which we were allowed to witness. One dog operated upon was blind in the right eye, another in the left eye, and a third in both eyes. It certainly seems to one who is not thoroughly conversant with the matter that he has a good many facts in his favor. In the same building is the department of veterinary anatomy, while directly opposite is a fine new building devoted to human anatomy and histology, under the teaching of Waldeyer, one of the best, if not the best histologist living. This department belongs to the University, but is open to veterinary students on payment of a small fee. A splendid new building at the end of the quadrangle, opposite the main entrance, is the pathological institute for the Veterinary School; it is considerably larger than the Peter Redpath museum, and is most thoroughly equipped. A part of the raised basement is devoted to the preparation of specimens for the museum, and at one end a large room for making autopsies extends from the ground to the floor of the second story. This room has every possible convenience, and is even luxuriously fitted up; the floor is tiled and well drained. There is plenty of water, light and ventilation. The walls are tinted and the ceiling nicely frescoed. Adjoining this room, and connected with it by folding-doors, is the demonstrating room; the larger animals are mounted on trucks and wheeled into this room for demonstrations in making post-mortems three times a week. Seats are arranged in this room so that all of the students not engaged in making the autopsy can see perfectly all that is going on. The remainder of the first floor is devoted to private laboratories for the professor and his assistants, a bacteriological laboratory, and a large hall for microscopical demonstrations. Nearly the whole of the second story is devoted to a pathological museum. Some of the specimens are fifty years old, and many are rare and very interesting and instructive. Some very good work has been done at this insti-

tute, and Prof. Schutz, who is in charge at present, is keeping up its good reputation: he has just finished some original work on infectious pneumonia in horses; he claims to have isolated and cultivated a micro-organism which, when inoculated into the tissues of healthy horses, produces a disease corresponding in symptoms and post-mortem lesions with that seen in the clinics. Three horses inoculated subcutaneously developed the disease after a stage of incubation of from three to four days. Inhalations in a fourth horse failed to have any effect. Professor Schutz was one of the first to recognize the glanders bacillus, and in company with Löfler, originated the present method of staining them.

There is a large amount of material available at this institute. During the six months that I was there we had one hundred and fifty post-mortems on horses; and I would not pretend to say how many on the smaller animals. Probably ten or twelve small animals are sent there every day, but they are not all utilized. In addition to this, the organs of many animals dying from contagious diseases are sent for diagnosis.

The clinics are very large, and are divided into four sections: the medical, surgical and polyclinic for the larger animals, and the smaller animals clinic. There are on an average about two hundred and fifty horses as resident patients, and from thirty to fifty daily in the polyclinic. All sorts of operations are performed, and the material is well utilized for teaching. A feature of the medical clinic is the fine laboratories connected with it for microscopical and chemical analysis of urine, etc. In the smaller animals clinic are about seventy-five resident patients, mostly dogs, and from thirty to forty out-patients daily.

The pathological institute at the Charité, under Prof. Virchow, is so well known that very little need be said of it. The building itself does not compare with the veterinary pathological institute either in appearance externally or in arrangements internally. There is a large amount of material, however, and the teaching is good. Prof. Virchow is a very unpretending gentleman, and is so full of enthusiasm in his work that he at once wins the respect and admiration of his pupils. He never

seems to exhaust his subject, and perhaps his demonstrations are so long as to make them a little tiresome, lasting, as they often do, from half-past seven until nearly noon! They are very interesting, however, and, it is needless to say, instructive.

Bacteriology does not form any considerable part of the work done at the Charité. They do not object to it, but, on the other hand, they do not enthuse much over it. Koch's laboratory is supposed to be the place of places to study this branch of medicine, and in many respects it is the best place; if, however, they would look after the interest of their students a little more it would be better. Last August, for example, during Prof. Koch's absence from the city, the assistant in charge admitted twenty-six men to work in a laboratory intended to accommodate fourteen, and in which a larger number could not work with comfort; the consequence was that very many of the cultures were impure, and there was general dissatisfaction. It is a good place to study methods, however, and that is probably what most of us are after if we are to remain in the country but a short time.

Another most interesting and instructive place to one who has any taste for pathological work is the "viehof," or central slaughter-house. Nearly all of the meat eaten in Berlin is slaughtered at this place, and the inspection service is so well organized that nothing escapes detection. There are altogether about 152 persons connected with this department. There are 26 qualified veterinary surgeons and about the same number of assistants. Then there are 100 trained microscopists, mostly women, who examine the tissues brought to them. In addition to these, there is a comparative pathologist, to whom all doubtful points are referred, and the veterinary superintendent, who has charge of the whole department.

Any quantity of material is to be found here, and in the pathological laboratory some excellent work is done. Inoculations with tuberculous matter and with animal parasites are carried on here. *Acitnonyces* in hogs were first found by Dunker, the pathologist to this establishment. Probably there is no place in the world better adapted for studying parasites, and all animals harboring the larvæ of parasites, which in their adult stage may

develop in man, are consigned to the vat. The flesh of all animals suffering from any disease communicable or supposed to be communicable to man is confiscated. It is needless to say that the other departments are conducted equally well. Perfect cleanliness is required, and there is no confusion. The butchers have separate stalls of their own, and do their own killing, subject only to the general regulations.

I do not know very much about the hospital advantages for students of human medicine, but from what I could learn from my medical friends who were there at the time, and from the manner in which things are generally done in Berlin, I should say that they were unsurpassed.

So far as the cost of living in Berlin is concerned, if we can live as the German students live, it cannot be much. Few of us, however, would be willing to make our breakfast off cold sausage, dry bread and stale coffee; a dinner of mixed food, supplemented by a quart of beer; and a supper the same as breakfast. This, however, is the way in which all the students lived with whom I was acquainted, and they did good work on it, too. English-speaking people often try it, but they generally give it up in a short time, and to live as we are in the habit of living costs money there. I should say that from \$35 to \$40 per month was little enough to pay for comfortable lodgings and board in Berlin. Fees are low.

London, so far as veterinary education, and as near as I can learn with regard to human medicine, is not to be compared with Berlin, except from the important fact that one's native language is spoken.

On arriving in Paris it happened to be my good fortune to meet M. Pasteur in his laboratory. He is a very pleasant gentleman, of medium stature, and looking older than I believe he really is. This is probably due, to a great extent, to his hemiplegic condition. His laboratory is a very unpretentious affair, consisting of a long one-story building with numerous small, dark rooms, while in the cellar he keeps his menagerie of wild animals, or if not wild, at least mad. Rabbits and guineapigs form the bulk of his stock-in-trade. There are no dogs. His method of

inoculation is very simple, consisting, as you are probably aware, of the injection of a small piece of medulla of a rabbit, macerated in beef broth, into the sub-meningeal space of a healthy animal. As soon as the inoculated animal dies, the medulla and about two inches of the cord are suspended in a glass vessel which has been previously sterilized, and in the bottom of which, to the height of about one inch, broken pieces of caustic potash have been placed. This cord is allowed to stand a certain length of time, varying according to the virulency which it is wished to obtain, those one day old being considered twelve times as virulent as those twelve days old. Human patients are treated by injections made in precisely the same manner as that used for inoculating rabbits, in which check inoculation experiments are carried out. Human beings are inoculated hypodermically, alternately in the right and left umbilical regions. A great many people present themselves for treatment, and, without doubt, very many of them have never been exposed to the virus of rabies; but, on the other hand, some have been bitten by dogs which, so far as could be judged from symptoms and post-mortem appearances, were rabid. I remember one case in particular, where a policeman was bitten in the hand by a dog supposed to be mad. The dog was sent to the veterinary school at Alfort, and a post-mortem examination was made by Professor Nocard, an authority on the subject, who unhesitatingly pronounced the dog rabid. The policeman went to Pasteur's laboratory, where he was treated, and when I left he had developed no symptoms of hydrophobia.

They do not pretend in Paris that the treatment is curative when once the symptoms of hydrophobia have developed. It is simply preventive. That it is preventive they most conscientiously believe in Pasteur's laboratory. Many, however, do not believe it is even preventive, and that those who have escaped the evil results of the bite would have escaped had they never seen nor heard of Pasteur or his treatment. Perhaps one of the strongest opponents of the system is M. Colin, of the Alfort Veterinary School. He says in plain terms that Pasteur has killed more than he had cured; that the great majority of the

human race are insusceptible to the action of the virus, and that ordinary precaution renders the action of the virus nil on most of those who are susceptible. He has proved, he says, "that the poison is very slightly soluble in water, blood or serum, and that, consequently, the application of the cautery even two or three hours after the bite has been inflicted acts as a specific by destroying the virus."

I had an opportunity of studying the disease clinically at the Alfort Veterinary School in seven or eight cases. The symptoms vary so much, and the post-mortem appearances are so little characteristic that I do not believe a veterinary surgeon would be warranted in giving a certificate that an animal died of rabies unless he could produce the disease in another animal by inoculation. It may here be said that the law in England is such that he must have a license to inoculate, and before he could get that the patient might die of hydrophobia. It is high time the anti-vivisection laws in that country were repealed or at least modified.

Rabies in the dog may occur in two forms, known as furious rabies and as dumb rabies. The one form often merges into the other, however. That there is a specific disease called rabies is beyond all doubt, though it is often very difficult to diagnose. The first symptoms are dullness, bad temper, loss of appetite, etc. There is generally a peculiar expression about the eye very difficult to describe, but never to be forgotten when once seen. It is a wild stare, the eye-balls are very prominent, and the animal seems frightened. Clonic spasms soon come on and they are accompanied by a peculiar high-pitched howl. The mucous membranes highly injected. There is seldom any frothing at the mouth, but sometimes shreds of mucus may be seen hanging from the jaw. Soon the lower jaw becomes paralyzed, and drops. Paraplegia comes on gradually, and the animal dies. They will not eat food, as a rule, but will swallow all sorts of indigestible substances, such as bits of rags, leather, etc. After voiding their urine they will invariably turn about and lick it up, and they will often eat their fæces. It is a mistake to think that dogs are always inclined to bite when rabid; very often

they will snap at everything in their way, but I have seen them when furious refuse to bite at a stick even though it was thrust into their mouths.

As I said before, the post-mortem changes are neither prominent nor constant. There is generally intense hyperæmia of the mucous membrane of the stomach and sometimes of the whole intestinal tract. The pia and dura maters are generally engorged. Oftentimes the stomach is filled with foreign matter, while there is no food present. The presence of this foreign matter in the stomach, together with the absence of food, the hyperæmia of the stomach and of the meninges, taken in connection with the clinical history, is considered sufficient evidence upon which to form a diagnosis. Of course if the disease can be reproduced, there can be no doubt as to its nature.

M. Pasteur's rabbits do not have rabies in its furious form. Progressive paralysis, beginning after a definite stage of incubation and ending fatally, is the only diagnostic symptom; hence it is that many have denied that these animals had rabies at all. One thing is sure, however. These animals suffer from a disease accompanied by constant symptoms, and inoculable from one animal to another; and that inoculations from a rabid dog produces a disease the symptoms of which are identical with those presented by M. Pasteur's experimental animals. Moreover, if statistics can be relied upon, the number of deaths from hydrophobia in the Paris hospitals have greatly decreased in the past three years, or since preventive inoculation has been practised. We are led to believe, therefore, that however far from perfection his methods may be, he is on the right track, and we most certainly hope that success may crown his efforts, and that his remedy may be made not only preventive, but curative.

NON-HEREDITY OF ACQUIRED PECULIARITIES.

BY W. G. JOHNSTON, M.D.,

Demonstrator of Pathology, McGill University.

(Read before the Medico-Chirurgical Society of Montreal.)

My excuse for bringing before the Society a paper in which I have nothing original to offer lies in the great interest attaching to the question of heredity and in the hope of starting an interesting discussion.

Most physicians think it probable that peculiarities acquired during the lifetime of an individual can be transmitted by him to his descendants. Indeed this view is so generally held, that a great deal of surprise was caused by Prof. Weismann of Jena when in 1885* he stated that in his opinion it was no longer tenable. Excluding those cases where an infectious disease of the parent is directly transmitted to the foetus in utero, as happens in the case of smallpox and perhaps in syphilis, there are a number of facts recorded which seem to show an apparent heredity of acquired peculiarities. On closer examination, however, these observations are anything but convincing, the majority depend to some extent upon hearsay evidence, while no single one is absolutely conclusive in itself. The mass of facts really seems more confusing than useful. I will merely mention the most marked instance I have seen recorded. Prof. Bouchut mentions the case of a man who was through accident, at the age of 25, crippled in both hands and feet; his son, born some years afterwards, had only one finger on each hand and two toes on each foot. This son had five children, of whom four showed the deformity. A daughter of the original patient marrying a healthy man had four children, three of whom showed the deformity. The objection to this case is that the history of preceding generations could not be obtained.

In another series of cases, the acquired power of transmitting peculiarities is supposed to arise, not suddenly, but gradually in the course of many generations, as seen in the case of European families becoming acclimatized in tropical countries. This seems

* Naturforscher Versammlung, Strassburg.

more probable, but the difficulty of criticizing the evidence becomes insurmountable, and the question remains open whether the persons become acclimatized because an acquired power of resisting the ill effects of the climate is transmitted to them, or whether a spontaneously inherited power in the survivors enables them better to resist the climate.

Heredity of Polydactylism is, of course, outside the question, as this is not an acquired peculiarity.

With reference to one instance adduced by Blumenbach, and quoted by Darwin, namely, that the practice of circumcision through many generations is responsible for the fact that many Jewish infants are born in Germany with defective foreskins, Virchow, though himself a strong opponent of Weismann's views, feels constrained to remark* that many little Christians "are also born in Germany with defective foreskins, but in the cases examined by him this abnormality was always found in combination with some defect in the urethra—a part not involved in circumcision—and yet circumcision has now been practised several thousand years."

In J. B. Sutton's recent papers upon "Pathology in Evolution,"† the conclusion that permanent peculiarities arise out of conditions which were pathological in some remote ancestor do not seem, although plausible, to be impartially drawn, and the possible objections thereto are not considered at all.

Prof. Weismann, in advancing his views, has endeavored to put the whole matter upon a different basis. He considers it now established through the recent researches upon the nature of nuclei that the nucleus is the only part of a cell which is concerned in reproduction, and therefore in questions of heredity. The protoplasm, on the other hand, regulates all relations of the cell with its external surroundings, and that these external conditions can in no way so influence the nucleus so as to cause their effects to be transmitted to succeeding generations.

Embryological studies on echinoderms show that the spermatozoa and germinal area are modified cells, the male and female

* *Decendenz u Pathologie*, Virchow's Archiv, B. CIII, s. 213.

† Erasmus Wilson, *Lectures on Pathology*, 1885.

pro-nuclei corresponding in all respects to nuclear substance, and showing on impregnation typical nuclear (karyokinetic) figures. Weismann argues that if what is true of cells be true of individuals, then no external influences can so modify those parts which are concerned in heredity as to cause any acquired changes of the body-*protoplasm* to be transmitted by the pro-nuclei-*nucleus*. After the moment of impregnation the cycle of heredity is complete.

Whether his contention be sustained or not, he certainly presents the question in a simple and comprehensible light. It is certainly easier to grasp the idea of heredity or non-heredity, as depending upon whether nucleus or merely protoplasm be involved by the peculiarity under consideration.

The views previously advanced as to the physical basis of heredity were far less clear. Darwin's theory of pangenesis assumed that infinitely small particles throughout the body entering, or even becoming, cells regulated heredity.

Haeckel held views somewhat similar, but considered the essential element to be a peculiarity of molecular *motion* rather than of substance. Either view is, to put it mildly, rather difficult for an ordinary mind to grasp.

The theory of W. K. Brooks of Johns-Hopkins differs from that of Weismann in that he considers that any cell of an organism may possibly affect any other cell in modifying heredity.

Weismann's views necessitates a different interpretation of the influences at work in natural selection, adaptation assuming a very secondary place, and sexual selection being correspondingly exalted.

It must be acknowledged that this non-transmission theory is in accordance with the experiments of Knight and others who have endeavored, by altering the external surroundings, to produce a permanent species, these experiments having signally failed. Probably few will be prepared to accept so sweeping a hypothesis to the full extent of its significance; still it may lead to a more careful recording of cases with a view to settling this point.

Prof. Ziegler, who is a convert to, and moderate supporter of,

Weismann's views, has recently written an able article on the whole question. He still considers it possible that in the course of a long series of generations a continuously acting cause may produce permanence of some of its effects.

Correspondence.

BERLIN, March 7th, 1887.

The attractions of Berlin for the study of gynæcology, pathology and other special departments are probably pretty well known in Canada, but the advantages for general study are, perhaps, less known and appreciated. It may, perhaps, prove of some interest to send a few lines describing in general terms some of the medical work here.

The different clinics are spread over the day from eight A.M. till evening, and are so arranged as to suit the convenience of the students, who derive their instruction almost entirely in this practical method.

The Charité, with its 1200 patients, is the chief hospital, and here many of the university professors can be heard daily. The leading medical clinics are given by Leyden and Gerhardt, and are usually largely attended. Henoeh, also, has a very interesting clinic on children's diseases, a subject on which he is a recognized authority, and on which the third edition of his book has just appeared. The general plan adopted by these teachers is to take up one or two cases in the hour or hour and a half which they occupy, and discuss each point of interest in it. Gerhardt seems a particularly painstaking and careful teacher, and the careful way in which he examines all the different organs, marking out the various percussion areas, etc., is well calculated to impress his listeners with the necessity of using the greatest caution before coming to a conclusion. Some of the smaller clinics are, perhaps, more instructive, inasmuch as there is in these a better chance for personally examining patients, and any one staying some time in Berlin would do well to attend these.

At the Augusta Hospital there are some excellent clinics, although a much smaller amount of material.

In addition to the before-mentioned, all the subjects embraced in a student's curriculum are taught in a similar manner, so that in a few months any one having a fair knowledge of the language can readily become acquainted with the various methods employed in the diagnosis and treatment of disease.

By Schröder's death the Berlin faculty has lost one of its best known members. Beyond the closing of the Frauen Klinik for a week, little or no notice was taken of the event in the other clinics, and the funeral, which was largely attended by the students in the dress worn at some of their gatherings, consisting largely of bright colors modified by a dash of crape, gave the whole affair a very holiday look.

Some of the new antipyretics, especially antipyrine, are pretty largely used in high temperatures in typhoid and other fevers, provided the pulse be good, also as a substitute for salicylates in acute rheumatism. The treatment of fever by cold baths has now been abandoned by Senator, Leyden and others, although Brand, in a recent paper in *Deut. Med. Woch.*, advocates them as strongly as ever. He complains that the opponents of the cold bath system have not carried them out thoroughly—*i.e.*, "remove or prevent any exacerbation of fever, during the whole course of the disease, by a bath at 60°F. every three hours if the temperature rise over 102°." He claims that the mortality is in this way greatly diminished, that complications are seldom met with, and that the danger of collapse is far less than by any other method. In a table comparing a number of cases treated, under similar conditions, by cold-water baths and by an inefficient cold-water system combined with antipyretics, the latter method is shown to have at least a double mortality. It would seem as if the whole question is to be opened up again, and the discussion which will doubtless be provoked will prove of interest.

Hospital Reports.

MEDICAL AND SURGICAL CASES OCCURRING IN THE PRACTICE OF THE
MONTREAL GENERAL HOSPITAL.

TWO CASES OF TETANUS.

UNDER DR. SHEPHERD.

CASE I.—Reported by DR. H. S. BIRKETT, House Surgeon.

W. M., aged 21, was admitted July 23rd, 1886, with severe injury of thumb and forefinger of left hand, received a week previous whilst coupling cars.

Condition on entrance.—Patient strong, healthy young man. Thumb much swollen; soft parts about phalanges bruised and lacerated, very painful, and tender; no fracture. The wounds of soft parts lead down to the bone. From tip of index finger to middle of first phalanx the tissues are in a gangrenous condition, dark-colored, cold, insensitive and emphysematous; smell from finger very foetid. Line of demarkation seen at middle of first phalanx.

July 24th.—Patient etherized; index finger amputated by the house surgeon at the metacarpo-phalangeal joint. Thumb well incised. Dressed with iodoform gauze, jute and splint.

July 25th.—Slept fairly well. Pain in hand; no discharge. Dressed; considerable pain, redness, tenderness and swelling over stump. Took out suture and expressed 5iv bloody pus; syringed; dry dressing. Temperature 100°. To be dressed daily.

July 26th.—Wound looks fairly well, but there is an inflammatory blush; pain, tenderness and discharge lessened. Syringed. Dry dressing. Temperature 99°. Complains very much of stiffness about lower jaw; inability to open mouth; pain in throat whilst swallowing. Slight "risus sardonicus."

July 27th.—Stiffness about jaw very marked, so that patient unable to open mouth at all. Risus sardonicus more marked. Dysphagia more apparent. Pain and stiffness in muscles of back of neck. Eyes natural in appearance. Has profuse sweating; no abdominal pains; muscles of abdomen very hard and rigid; no muscular twitchings. Temperature 100°; pulse 40, full and

regular; respiration is regular and unembarrassed. Ordered enema, which acted well. Removed to room by himself; perfect rest and quietness to be obtained. \mathcal{R} ʒss chloral hydr. potass. bromidi gr. xx, 4 q.h. No difficulty in micturating.

July 28th.—Stiffness about jaw lessened; swallows more freely. Abdominal muscles less rigid. Wound dressed; small amount of pus · less pain. Temperature 101° ; pulse 90; respirations 20. Urine 42 ounces; specific gravity 1030.

July 29th.—General conditions much the same as yesterday. Temperature 98° to 99° .

July 30th.—Patient very restless, tossing about; draws legs up; throws arms about and cries out occasionally. Wound dressed; very small amount of pus; looks healthy. Thumb much less swollen, and looks very well. Temperature $98-99^{\circ}$. Urine 42 ounces; specific gravity 1030, very alkaline; heavy deposit of phosphates, no sugar or albumen. Sweats profusely. Pulse 80-90, and of full volume. Tetanic condition unchanged. Takes food pretty well.

July 31st.—Still very restless. Rigidity of muscles of neck and abdomen very marked. Sweats still continue. Incontinence of urine. When sleeping, muscular rigidity not well marked. Does not swallow so well. Pulse 120; temperature $103\frac{1}{2}^{\circ}$.

Aug. 1st.—Patient continues to sink gradually. Spasmodic contractions not so well marked. Mouth dry. Unable to swallow. Unconscious. Pulse 160; respirations 34. Temperature rose gradually, reaching 106.5° just at death, which took place at 6 p.m.

CASE II.—Reported by DR. D. CORSAN, HOUSE SURGEON.

R. G., aged 16, stable-boy, admitted Sept. 18th, 1886, being brought to hospital in a tetanic condition. On the 13th of September a rusty nail penetrated his shoe and merely scraped the skin. In a short time his foot became very painful and considerably swollen. Had it poulticed for a few hours, with relief to both pain and swelling. On the evening of the 17th, the night previous to admission, first noticed a stiffness about the muscles of back of neck and in muscles of the jaw.

On admission (11 a.m.), the risus sardonicus was plainly seen;

head slightly drawn back, muscular twitchings, and abdomen rigid. Complained of pain in back of neck and abdomen. Swallowed liquid nourishment with some difficulty. Dorsal decubitus with considerable arching from occiput to the hips. At 1 p.m. all previous symptoms were intensified; swallowed with much greater difficulty and pain; the left foot was slightly swollen, and about two inches behind web of large toe was a small black mark, the spot where the injury was received; did not appear to penetrate beyond the epidermis. Nothing else noticeable about the foot.

Dr. Shepherd decided to cut down and excise parts about the point of injury. Patient was etherized and an elliptical incision made around the wound. A small abscess was found in deep skin layer, which had no apparent connection with the external wound. Going deeper, another small abscess about the size of a pea was found, just over the tendon of the flexor longus hallucis. Still deeper, found an abscess under the tendon of the flexor brevis, directly over the metatarso-phalangeal joint. No connection could be found between any of these abscesses. There was considerable inflammatory thickening in all the tissues, and the tendons had a greenish hue. The operation wound was stuffed with iodotorm gauze and bandaged. At 4 p.m., patient recovered from the effects of the anæsthetic; breathing labored and chiefly abdominal; risus sardonicus very marked; tetanic spasms more severe than before; temperature 99° ; pulse 100. At 5 p.m., patient became much worse; spasms very severe, and came on with greater frequency than before; opisthotonos marked; could not swallow at all; ordered morphia sulph. gr. $\frac{1}{4}$ hypodermically. Temperature 100° ; pulse 120. At 6 p.m., temperature 103° ; pulse 150. At 7 p.m., temperature 105° ; pulse 160; morph. sulph. gr. $\frac{3}{8}$ hypodermically. At 8 p.m., temperature 106° . Patient died shortly after eight o'clock; temperature half an hour after death, 107.5° .

Remarks.—Tetanus is a disease which has not been at all influenced by the introduction of antiseptics. In the first case the wound was in a very foetid condition, and it has been noticed that tetanus not uncommonly exists in those cases of crushing

injuries where decomposition has taken place in the wound. The first case illustrates this cause of tetanus. According to M. Gauthier, certain chemical changes, the result of decomposition, take place and the products are certain animal alkaloids or leucomaines which produce such irritation upon the peripheral nerves that the condition we call tetanus is produced. The second case is an example of how slight an injury may be followed by tetanus. In this case no doubt the affection was produced by irritation of the terminal nerve filaments. Although the excision was performed at a comparatively early stage of the disease, no good result followed.

MONTREAL DISPENSARY—DEPARTMENT OF GYNÆCOLOGY.

CASES UNDER THE CARE OF DR. ALLOWAY.

CASE I.—*Stenosis of Cervix Uteri treated by divulsion and division of posterior segment.*

M. S., aged 29, married two years, no pregnancy. Menstruation occurs every fourth week, but is accompanied with such severe pelvic pain that she is compelled to remain in bed during the whole period. During the intermenstrual period she is tolerably well and free from pain; there is, however, some leucorrhœal discharge.

Examination.—External parts normal; vagina small; cervix elongated and hypertrophied; the anterior segment of cervix abnormally short; os uteri small and its lips eroded and cicatricial, discharging a glairy mucus; cervix looks down the vagina and somewhat backwards; fundus anteflexed, resting over on the bladder; there is extreme tenderness in the fornices; uterus moveable. By the use of the glycerine tamponade for two months the tenderness gradually disappeared. She was now put to bed for three weeks on hot-water injections, at end of which time the following operation was performed:

The patient, under ether, was placed in the dorsal position, the vagina irrigated with sublimate solution, uterus drawn forward with volsella, and Sims' glove-stick dilator introduced. With this instrument the cervix was gradually stretched to a

certain point, a stream of sublimate solution being kept playing into the uterus between the bars of the dilator. The heavy Goodell's instrument was then introduced and the cervix gradually dilated to the full extent of one inch. The knife (*Fig. 1*)

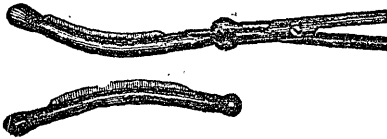
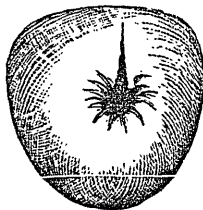
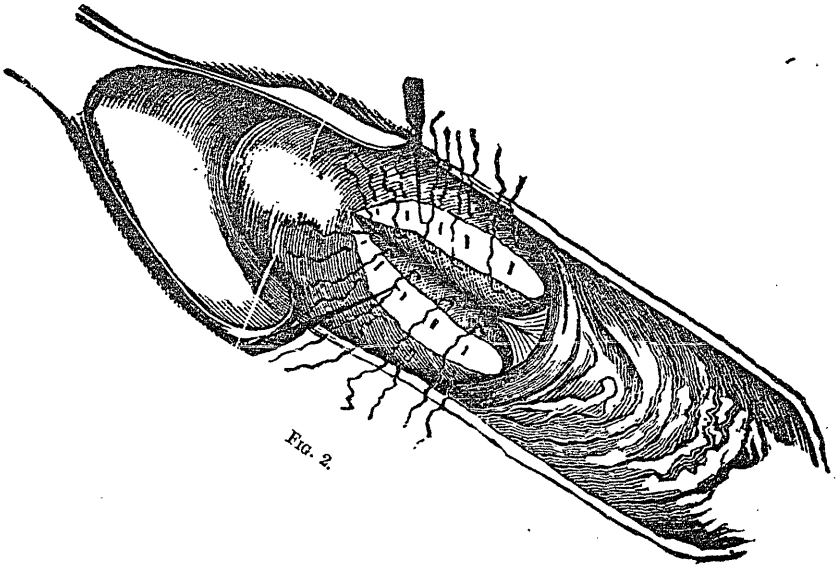


FIG. 1.

was then introduced and the anterior tense wall incised until the tension was relieved on the dilator. The instruments were now withdrawn, the patient turned on her left side, and the posterior segment of cervix slit up in the median line with a straight scissors as far as the vaginal junction. A triangular piece is completely excised from each flap, the base being at the os, the apex ending at the apex of the median incision. The mucous membrane of the cervical canal is now stitched to that covering the portio-vaginalis, as shown in Figure 2. By this method it is impossible for the incision to granulate downwards, which was the great difficulty Sims had to deal with in his method of dividing the posterior cervix and allowing it to heal by granulation.

It would appear at first thought that this procedure was simply creating a laceration of the posterior cervical segment, and that it would remain so as a deformity. This, however, is not the case, and it is due to the different states of the tissues involved in the

puerpera and non-puerpera. The change which takes place within the first month following the operation consists in a shrinking of the anterior segment and a general atrophy of the whole intra-vaginal cervix until it appears as represented in Figure 3. The



sound now passes directly forwards into the cavity of the uterus, and the os opens directly into the posterior vaginal pouch and seminal pool.

The knife represented is one made for me by Mr. Ford of New York. It has the exact curve of the blades of the Goodell dilator, and being a small blade set in a steel probe, can cut only to the depth of the blade, which is, I think, an advantage over Sims' original metrotome knife.

CASE II.—*Stenosis of Cervix Uteri treated by divulsion and division of posterior segment.*

M. C., aged 30, married seven years; never been pregnant. Menstruation every fourth week, but suffers very severe pain just before and during the flow in utero-ovarian region and back. Has leucorrhœal discharge and irritability of bladder.

Examination.—Perineum extremely rigid, causing difficulty in making satisfactory examination. Vagina small. Much tenderness and rigidity of pelvic floor. Cicatricial contraction of base of right broad ligament, drawing cervix to that side and backwards and fundus forwards on bladder. Intra-vaginal cervix elongated and hypertrophied as in *Case I*, but the lips around os were not eroded. Uterus in depth $+\frac{1}{2}$ inch.

This patient was also placed under the glycerine tamponade treatment for ten weeks, which completely relieved the tenderness and tension of pelvic floor. And after two weeks confinement to bed on hot-water douches, rapid dilatation with incision was practised.

The material for sutures best adapted for these cases is, I think, Chinese silk. An antiseptic vaginal irrigation night and morning is used and the sutures removed on the eighth or tenth day. The best time to do the operation is midway between the menstrual periods, and the patient should be confined to bed until the following period has passed over. For the two months following the operation there is in some cases rather profuse menstruation, but should be positively without pain in the pelvic region. After this the periods gradually become less profuse until a normal condition is established. In my experience I have not seen the slightest disturbance of pulse or temperature, nor complaint of pain follow this operation.

CASE III.—*Impending death from Uterine Hemorrhage following abortion at ninth week ; curette and forceps used ; recovery.*

The following case is the second I have seen where life seemed almost extinct from hemorrhage following death of the ovum and partial separation of decidua. I found the patient—a miserably delicate and emaciated chronic invalid from uterine disease—lying in a bed saturated with blood, her friends about her expecting death soon to close the scene. She was 27 years of age, had had two children at full term, and several miscarriages at two and a half months gestation. Two days before I saw her she began to flow, which continued irregularly up to that morning. She had been losing very freely all day until she had reached the exhausted state I now found her in. There was no pulse at either wrist. Heart-sounds feeble and slow; impulse in carotids faintly evident to touch. Special senses almost obliterated. Corneal reflex slow to respond. She could just answer “Yes” or “No” in a faint whisper. Extremities were becoming cold, and, in fact, she had all the appearance of a woman dying. I began administering hypodermics of brandy as rapidly as possible until she had received about half an ounce. This did not seem to improve her condition very much, so I placed her on her side and began removing with the forceps masses of decidua from the uterus as rapidly as possible. This part completed, I irrigated the uterus with a very hot sublimate solution, after which I began administering hypodermics of brandy until she had received nearly an ounce. She was then placed on her back, with her head lowered, and hot bottles placed all round her. In an hour’s time I left her quite pulseless and in much the same condition as I found her, the heart-beat still having the same slow rhythm. Her friends had orders to feed her by the rectum, and when she could swallow, to give her a teaspoonful at a time of beef-tea.

As this woman lived some six miles from town, I did not see her again until the fifth day following, though I had had communication with her husband by telephone each day, which simply told me she was alive and slightly improving, and that

practically she had not lost but a few drops of blood since the operation. Five days after the operation I found her much improved. She had a radial pulse, could converse with me, and was able to take nourishment: She gradually improved, but even now (two months since the operation) she is scarcely able to sit up for any length of time. I may say that this patient had a badly retroflexed uterus, which was in all probability the cause of the abortion.

The other almost fatal case, of a similar nature from hemorrhage, which has been alluded to is taken from the Proceedings of the Montreal Medico-Chirurgical Society, 1883, page 36, and is as follows:—

“Dr. Alloway exhibited a small piece of decidua, about one inch square. The history of the case from which he had removed the specimen with the dull curette was as follows: Patient, about 40 years of age, mother of twelve children, had been losing blood from the vagina for several days; had been taking medicine from a physician, and had had her vaginal passage plugged daily to arrest hemorrhage. She was found by Dr. A. in a dying condition; no pulse at wrist, surface completely blanched, and extremities cold. Could not obtain an answer to questions. Heart's action could be heard very faintly through chest walls. She had received the last rites of the church, and was, in fact, dying. Removed all the cloths and packing in vagina; felt a fringe-like substance high up above the internal os, but could not reach further with finger. Passed up curette and detached the piece of decidua, and withdrew it with forceps. Washed out uterus with antiseptic solution. Patient could not swallow. Administered hypodermic of ether. Ordered beef-tea egg and brandy by rectal injection every two hours; heat to extremities and body generally. Patient improved by the morning, and gradually recovered life, but remains bloodless as when first seen, three weeks ago. Dr. Alloway said he adduced the case to show the great danger of following out rigidly the expectant plan of treatment in such cases. Efforts had evidently been made to remove the secundines with the finger, leaving behind the small portion exhibited which was causing the hemorrhage.

Those who opposed the curette were physicians who had never used the instrument, and had not convinced themselves of its perfect harmlessness and great value.”

CASE IV.—*Curetting the Uterine cavity in a case of Puerperal Septicæmia occurring fourth day after delivery; rapid recovery.*

This was an interesting case in view of recent researches being carried out in Germany in the treatment of puerperal sepsis.

The patient was a young French-Canadian, aged 24, her second confinement. On the fourth day following labor she complained of not feeling well. She had a headache; her left breast was inflamed, tender, and contained indurations close to the axilla. Her temperature was 101° ; pulse 116. No tenderness whatever in pelvic region. Uterus small and firmly contracted, resting down in the well of the pelvis. Discharge scanty and not foetid. This was the condition in which I found her. She was attended by a nurse on the end of whose second finger of the right hand I noticed a large, ugly-looking, inflammatory, bulbous swelling. On examining this finger I found it was an onychia in the stage of recovery, with the nail dropping off. She was a feeble old woman, and assured me the patient's slight deviation from health was due to the inflamed breast, which with some rubbing would set everything right. I had nothing with me to make an examination at this time, so left instructions that if she became worse to inform me of it. Next morning I found she had had several severe rigors after I had seen her the previous day, which were attributed to cold in the breast by the attendants. Her temperature was now 102.5° ; pulse 120. No pain nor tenderness over uterus or broad ligaments. On placing her across the bed in Sims' position, I found the rima vulvæ filled with a plug of foetid, greyish, mucoid mass. This removed, the speculum revealed a badly lacerated cervix bilaterally, bathed in the same greyish mucoid matter. I passed Jannison's irrigating tube to the fundus, and used a gallon of hot sublimate solution (1-4000), which at first brought away a return fluid

of a purulent character, but eventually became quite clear. After irrigating the uterine cavity in this manner, I thought I would investigate the matter further with the curette and forceps. I passed the long polypus forceps carefully to the fundus and began a series of nipping and drawing with the instrument upon the walls of the uterus until I had covered what I judged would be the whole intra-uterine surface. Suddenly on withdrawing the forceps it was accompanied with the expulsion of a large mass of this peculiar-looking, stringy, greyish matter. This proved to be on examination as having the appearance of broken down membrane mixed with mucous. I now introduced the small dull curette and thoroughly, but very gently, scraped the entire cavity-walls of the uterus, but obtained very little more of this detritus. The uterus was again irrigated with another gallon of very hot sublimate solution, and forty grains each of iodoform and boric acid introduced in the form of suppositories. Next morning, temperature 99°F., pulse 100, and all evidence of febrile disturbance and breast trouble absent. Uterus again irrigated with sublimate solution as before, and forty grains of iodoform and boric acid introduced. On the third day she felt quite well. Uterus again irrigated, but with carbolic acid solution 1-40; iodoform suppositories as before. Patient left her bed on the tenth day after labor, and did not look any the worse for what she had gone through.

In this case I used the same instruments as in curetting the aborting uterus, introduced for that purpose some eight years ago. It is difficult, however, to say what the future of this method will be, as it is a difficult operation to perform, much more so than the one on the aborting uterus. The procedure, however, is sound in principle. The uterus in every case of rise of temperature such as I have described should be explored and a correct diagnosis arrived at; it is the only way in which we can expect to obtain success. It seemed to me, during the operation, that the placental site, or what appeared to be that part of the uterine wall, was one mass of pulpy coating, which if not treated with great delicacy of touch and judgment, large vessels would be opened and irretrievable damage

done. In the case of curetting the aborting uterus at, say, the ninth or tenth week, comparatively speaking the procedure is plain-sailing; harm can only come from leaving portions of the decidua behind through want of a thoroughness in the use of the instruments. I think in these puerperal cases the iodoform and boric acid suppositories are most excellent and necessary accessory aids in the treatment. The occurrence of the breast trouble in this case strongly substantiates the views of Ogston* regarding the bacterial origin of acute puerperal mastitis. The glandular affection of the left mamma began with the absorption of septic matter from the uterus, and subsided simultaneously with the defervescence of the septic fever on the uterine cavity being rendered aseptic.†

Society Proceedings.

MEDICO-CHIRURGICAL SOCIETY OF MONTREAL.

Stated Meeting, Jan. 14th, 1887.

J. C. CAMERON, M.D., PRESIDENT, IN THE CHAIR.

Bromide Rash.—DR. BLACKADER exhibited a typical case of bromide acne, and gave the history of the case. (*See page 515.*)

DR. STEWART asked if bromide of potassium had been administered alone, and suggested the practice of combining Fowler's solution to prevent bromide or iodide acne.

DR. BLACKADER replied that he usually administered a combination of the bromides of potassium with sodium or potassium and ammonium, but had forgotten the exact prescription. The dose was about 40 grains daily.

Wound of the Internal Jugular.—DR. BELL exhibited a patient who had recently met with an accident resulting in severance of the internal jugular vein. The patient was convalescent. (A full report of the case appeared in the March issue of the JOURNAL.)

* Ogston, Micrococcus Poisoning—*Journal of Anatomy and Physiology.*

† While reading the proofs of the above report I was asked to see this patient on account of her breast. I found that the intensity of the inflammation had to a certain degree abated, but had gradually again progressed. Slight evidence of deep fluctuation could now be obtained, the skin on axillary side was reddened. I forced a long-curved bistoury to the centre of the gland, and found pus in considerable quantity. Convalescence very little interfered with.

DR. SHEPHERD thought that the laryngeal trouble might be due to division of the superior laryngeal nerve, with, perhaps, some fibres of the inferior laryngeal, and suggested that instead of permanent ligature of the carotid artery a temporary ligature might have been passed about the artery and its effect on the hemorrhage noted.

Dupuytren's Contraction.—DR. R. J. B. HOWARD read a short paper on a case of Dupuytren's contraction, which he illustrated by a carefully made dissection.

DR. SHEPHERD said he had always connected this affection with a gouty diathesis. It was very rare in this country, but rather common in England. It occurs frequently in old men, especially in the right hand, probably from the use of a stick. Authorities agree that it is rare in women, but during four years in the General Hospital he had seen only one case, and that was in a woman.

Puerperal Eclampsia.—DR. LAPTHORNE SMITH then read the following paper on this subject:—

As the elements of doubt as to the ætiology of this disease are being gradually eliminated, and as the mechanical nature of its origin, which was not long ago scarcely entertained, is being more generally adopted, I propose to make the following case the text for a brief discussion on the *nature* of the phenomenon with a view to laying down, somewhat dogmatically, a certain principle of treatment. This I think I am able to show, even within the limits of a very short paper, we are fully warranted in doing; and if such a thing can be done, it will materially help many of us younger men who have often to be guided by the experience of others who have not always very distinctly told us what their experience was:

Mrs. M., aged 28, married at 24, had her first child a year afterwards. Two years after marriage she became a widow, and remained in that condition until nine months before I saw her, when she was married again. She became pregnant the next month, and when she had reached the seventh month, or a little later, I was engaged to attend her in her confinement. As I was informed that her feet were beginning to swell, I asked for

a sample of her urine, which on examination appeared clear when warmed, but was very muddy on cooling, and was found to contain no sugar, but was loaded with albumen. On examining her next day I saw that her legs were full of dropsical effusion; the labia were so swollen with liquid that she was unable to sit down; her bowels were confined and urine very scanty; she had occasional slight headaches; no disorder of vision nor of intellectual faculties. She had had no trouble whatever with her previous confinement, and felt quite well during the first six months of this pregnancy, but her abdomen was so large that I suspected twins, especially as another case of eclampsia which I attended also occurred in a twin pregnancy. I gave her cathartics and a mixture of squills and digitalis, and placed her on a strict milk diet. As this failed to ameliorate her condition after a week's trial, I changed it to digitalis and iron, with no better result. As she was rapidly getting worse, and toxic symptoms began to manifest themselves, I began to consider whether it would not be better to induce labor and empty the uterus. For I believe, as I shall show later, that the albuminuria and uræmia are due to the passive congestion or inflammation of the kidneys caused by mechanical pressure on the renal veins by the enlarged uterus. Before taking what I then thought was a very important step I availed myself of the experience of my friend and colleague, Dr. Kennedy, who agreed with me as to the necessity of taking action, but who thought it better, on account of the enormous distension of the genitals and the occlusion of the passage, to make one final effort to reduce the amount of enudation in the skin. We accordingly gave her forty grains of compound jalap powder night and morning, which produced about a quart of watery evacuations daily, and a quarter of a grain of pilocarpine every four hours, which, however, produced no effect whatever on the skin. As I feared that convulsions would come on before long, the amount of urine passed not exceeding a gill daily, I left a bottle of the A.C.E. mixture with the nurse, with instructions to use it if they came on. She gradually grew worse until about two weeks from the time I first saw her, when the accumulation of the toxic agent caused an explosion of convulsive move-

ments of the most violent description, which were, however, easily controlled by the aid of the anæsthetic. Dr. Kennedy again met me in consultation that afternoon, and we decided that prompt action was imperative; so we rendered her completely unconscious, dilated the os with the finger, and without much difficulty delivered her of a living and dead foetus—the former by the forceps, the latter by the feet. There must have been nearly three gallons of amniotic fluid. She rallied well and felt much relieved, but an hour later the convulsions returned with increased severity. She remained quite unconscious all evening until eleven o'clock, when she was induced to swallow twenty grains of chloral, which was repeated three times during the night, with the result that the convulsions ceased at three o'clock next morning and did not since return. But she did not remember anything of what occurred during the time commencing two days before the convulsions began and ending a week after delivery. Her vision especially remained very disordered, not being able to see *distinctly* the things which she did see, and believing that she saw many objects which did not exist. For instance, she was quite sure that she saw a little boy standing on the bureau breaking dishes. Three days after the delivery symptoms of puerperal mania became very marked. She asked for a knife with which to kill a man whom she supposed to be in an adjoining room, and it required the united efforts of three people to keep her in bed. During all this time the kidneys continued to act very freely, as, indeed, they began to do an hour or two after the uterus had been emptied. On the seventh day she became so violent that it was no longer safe to keep her in the house, as neither chloral, morphia or atropia had any effect. On the eighth day I gave her a large dose of bromide of sodium, after which she began to talk in a rational manner, saying that the medicine had done her good, and inquiring as to the nature of her illness and how long she had been ill. Unhappily this improvement only lasted a few days, and shortly afterwards she again became so violent that I was constrained to order her removal to Longue Pointe Asylum, where she now is, after a year's detention, a lunatic. Her features have com-

pletely changed, and^f although quiet and docile, she evinces many of the characteristics of puerperal mania. She cannot bear to see her husband or any of her former dearest friends, although she does evince pleasure at the presence of her little boy. What is being done for her cure I am unable to say, but I fear that her recovery is at least doubtful, at any rate remote.

Sir James T. Simpson was of the opinion that puerperal mania was the direct result of the temporary disease of the kidneys, and although many able authorities differ from him in this view, I am inclined to believe that the mania is an evidence of the co-ordinating cells of the nerve centres having been bathed for a considerable time in very poisonous blood, and that the relation of albuminuria, uræmia, puerperal convulsions and puerperal mania may be stated as follows :

A moderate amount of renal congestion causes albumen to appear in the urine.

A greater amount of renal congestion causes the albumen in the urine to increase and the normal quantity of urea in the urine to diminish, and at the same time the urea being retained in the blood and bathing the nerve centres causes headache, disordered vision, etc.

A still greater amount of urea in the blood and of albumen in the urine causes poisoning and at the same time starvation of the nerve centres and dropsy of the brain to such an extent that irritation is set up and convulsions ensue.

And if this condition continues for a considerable time the nerve cells are seriously altered in nature, so that even when the cause is removed they can with difficulty or not at all recover their normal functional activity. But as no one can tell just how a certain poison produces a certain effect, I am willing to leave that still in the realms of theory in order to return to certain definite facts which now seem to me to be beyond any possible doubt. And the first conclusion I have come to after a close study of some twenty authors' observations is, that puerperal convulsions are not different from uræmic convulsions, and that they depend entirely upon uræmia and its concomitant albuminuria and accompanying œdema and uræmia of the brain. That

the uræmia of the puerpera, unlike ordinary uræmia, depends on a removable cause, namely, pressure on the renal veins, or on the veins into which they empty. This is the opinion of many eminent authorities, and the one which is best supported by facts, notwithstanding some slight exceptional evidence to the contrary. One of the most significant of these facts is that the convulsions come on always during the latter half of pregnancy, and are more frequent and more severe the larger the uterus becomes. Also, that they are more frequent in twin pregnancies, as seen in my second reported case, and also in the subsequent history of my first reported case, who narrowly escaped having them in her next pregnancy, which was a twin one.

Another strong proof of their mechanical origin is that they are much more frequent in first pregnancies, when the abdominal walls are most resisting, and where, consequently, the pressure on the veins is greatest. That we get many of the same symptoms in men or in non-pregnant women if from any cause the current of blood out of the kidneys is retarded, as, for instance, in mitral regurgitation. Only, in these cases the patient dies before the uræmia becomes sufficiently marked to cause convulsions. The fact that the urine begins to be secreted generally immediately after delivery; the only exceptions being when the kidneys have been damaged beyond repair.

The guiding principle of treatment which I wish to lay down dogmatically is this: That unless for grave reasons to the contrary we should induce premature labor at any time after the seventh month, at which we find the urine of the pregnant woman loaded with albumen or considerably deficient in urea. By freely accepting this course it removes all doubt and hesitation in our treatment of these most anxious cases. The induction of premature labor at the seventh month, or even earlier, is a procedure totally devoid of extra danger to the mother, and it gives to the child quite as good a chance of surviving as to allow it to run the gauntlet of a much more tedious labor at full time, when its own system is in a state of uræmic convulsions as well, and when, perhaps, it must be borne under conditions and surroundings the most unfavorable. That the child in utero

suffers from uræmia just as much as the mother is amply proved by cases reported by Cazeaux and others, and our experience is that few children borne during puerperal eclampsia ever survive their birth very long. In my first case the child died during the convulsions, and although I controlled them and saved the mother, it is probable that her life was purchased only at the price of the child's, for if it had not died, and she had gone on increasing in size, as I then (and I now think, mistakenly,) intended to let her do, nothing I believe could have saved her. If I had followed this course in my second case, which I now report, I do not think that the mother would now be in the asylum, and perhaps one or both of her children would be alive.

Heretefore we have been left to interfere in these cases, and the rule has been to try to carry them on to the ninth month by medicinal and other treatment. But we should remember that every day that the uterus increases in size the disorder of the kidneys becomes greater; and the longer we delay in interfering, the danger of interference becomes more serious; for the reflex irritability of the nerves becomes such that the slightest irritation of the periphery causes convulsive impulses to emanate from the centres. We should also remember that owing to the mechanical nature of the malady we cannot count upon the cooperation of diuretics, for even digitalis, the king of diuretics, often fails us in these cases. And no wonder, for how can a medicine which only increases the secretion of urine, because it contracts the capillaries of the kidneys and increases the flow of blood through them, have any effect when the current of blood is dammed back by the constriction on the veins.

Puerperal uræmia, if left alone, is a very serious disease, as instanced by a mortality of 12 cases out of 36 reported by Braun, although that mortality is higher than we are accustomed to here. Wieger also reports a mortality of 25 out of 65 cases. In urging interference, I may be advocating something that many practitioners are already in favor of doing, but when such eminent names as Gooch, Schröder and Playfair are on the side of letting them alone, I think that if the policy of prompt inter-

ference is the right one, as I believe it is, it is quite time that some definite law on the subject should be laid down for our guidance.

Discussion.—DR. ARMSTRONG could not entirely agree with Dr. Smith in his method of treatment. He had seen many cases of severe albuminuria accompanied with oedema where convulsions did not follow. After quoting cases where even convulsions supervened and yet mother and child were carried through, he held that only in the very worst cases should premature labor be induced.

DR. GURD said he had, within the past couple of weeks, treated two cases of puerperal albuminuria accompanied with uræmic symptoms. The first was a lady who sent for him at the end of the eighth month of her sixth pregnancy, supposing herself to be in labor. The os was found not at all dilated. Twelve hours later, finding the os not dilating, her condition was gone into more fully. The pains were spurious, set up each time she micturated, which was about every fifteen or thirty minutes, giving her great agony. She complained of severe headache, thirst, inability to sleep, drowsiness, twitchings, and had vomited several times. Temperature 102° . Her feet and ankles had been slightly swollen for about three or four weeks. She was given brisk purgatives and digitalis infusion and iron with good results. The pains ceased and all the uræmic symptoms abated. The urine was next day passed voluntarily, and in much larger quantities. It contained about eight per cent. of albumen. The following day uræmic symptoms returned. In the afternoon of this day she had what the nurse called a chill, lasting twenty minutes, all her symptoms appearing worse toward evening. She was given a bath after the manner practised in Vienna, and recommended by the Braun, which is as follows: The patient is to be put into a bath of 99° temperature, the bath to be covered with a heavy blanket, leaving the face free. The temperature of the water is to be gradually increased to 110° or 112° . She is to remain in the bath for thirty minutes. A towel wrung out of cold water placed on the head relieves any distressing head sensations. Whilst in the bath the patient is

to drink large quantities of water. After coming out of the bath she is to be covered with a warm sheet and then enveloped in blankets, when almost immediately free perspiration follows. The sweating is allowed to go on for two or three hours. This bath treatment is known often to bring on genuine labor; it did so in this case. Shortly after getting into bed she was taken with good labor pains, and in three hours was delivered of a healthy boy, evidently three or four weeks before time. Patient made a good recovery. Urine, examined three days after delivery, was free from albumen.

The second case was that of an undersized primipara, whom he had accidentally heard was much swollen about the feet, legs and face. On visiting her, she was found very œdematous and suffering from headache, loss of sleep, thirst, very frequent painful micturition, etc. Her urine contained about 30 per cent. of albumen. She had yet two weeks to go. Under purgative and diuretic treatment, with almost exclusive milk diet, all the symptoms passed away. She was now comfortable in every respect. Albumen gradually lessened, till now, ten days after treatment, it was only 12 per cent.*

DR. TRENHOLME thought that the condition of the circulatory system had much to do with the prognosis and mode of treatment. In mitral difficulty, or whenever the circulation was otherwise affected, the cases were much more serious. He had frequently seen marked œdema and albuminuria in patients otherwise sound, and no serious trouble followed. He thought that operative measures should not be resorted to if the circulatory organs were sound and the patient otherwise healthy.

Pathological Specimens.—DR. WM. GARDNER exhibited the following specimens and related the cases:—

1. *A bottle of fluid removed from a retro-peritoneal cyst of the left loin.* The patient, female, aged 28, unmarried, asserted, and her mother confirmed the statement, that from childhood she had been large in the belly, but that in recent years she

* On the 17th she was delivered of twins. At the end of a day's hard labor she had two convulsions, when the forceps were applied for the first child; the second was extracted by the feet. On the 22nd all were doing well.

had been growing larger and had been suspected to be pregnant. Always well and able to work till a week previous, when she suddenly took ill with rigors, high fever, perspirations, vomiting and severe pain and tenderness in the left loin. On examination, a rounded smooth tumor occupied the left loin, enlarging the abdomen considerably on that side and extending beyond the median line to the left; upwards it reached the edges of the ribs; downwards it reached the margin of the pelvis, but did not dip into that cavity. There was absolutely nothing further to be had in the way of a history. Urine normal. The nature of the case being doubtful, and the symptoms urgent, it was decided to explore by abdominal section. An incision two inches long was made in the median from the umbilicus downwards. On opening the cavity the cyst was found to lie behind the peritoneum and intestines. The colon lay in front and in such a position as to render the management of the case too difficult. This opening was closed and another made over the most prominent part of the tumor, about three inches to the left of the median line, on a level of the umbilicus. On reaching the tumor it was tapped and 70 ounces of a dark-brown turbid fluid, containing numerous iridescent crystals of cholesterine, was removed. The opening was enlarged, its edges stitched to the edges of the abdominal incision, and a glass drainage-tube left. From the moment of the operation the girl ceased to have pain, fever or any other symptom. The discharge was slight. The cavity shrank rapidly, and when patient was discharged, twenty-six days after the operation, wearing a short piece of rubber drainage-tube, it was almost obliterated. The fluid contained a large quantity of pus. The cyst was evidently an old one, possibly congenital, springing from near the kidney and had suddenly taken on inflammatory action. Dr. Gardner said that of course the treatment was open to criticism, inasmuch as the fluid could have been reached from the loin posteriorly without opening the peritoneal cavity, but he felt more at home in opening the abdomen than the loin, and the result seemed to justify the course pursued.

Dr. Ross related a similar case that occurred in the practice

of Dr. Roddick four years ago. A cyst in the neighborhood of the kidney was tapped, and found to contain a brown fluid filled with crystals of cholesterine.

2. *A cysto-sarcomatous tumor of the ovaries and uterus*, removed six days ago from a young married woman of 21, the mother of one child a year and a half old. The tumor had been noticed first in October, '86, and had grown rapidly, causing much pain, emaciation and interference with functions of both bladder and bowel. It was uneven, hard in parts and elastic in others, predominating on right side. The whole vaginal roof was a hard mass, the vaginal portion obliterated, and the os felt only with great difficulty. There were adhesions to omentum, extensively to colon and rectum, and to the whole floor of the pelvis. The fundus uteri was smelted into the mass, and the operation was finished by encircling the cervix with Koeberle's clamp and, after amputating, securing it with pins externally at the lower angle of the wound. The hemorrhage was free; some of the cysts burst during removal. The cavity was well washed out with plain warm water and drained. Pulse ran high, 160 and over during the operation, and hypodermics of brandy were freely given. Every symptom had been favorable till the sixth day. The day after the operation the pulse was under 100, and the temperature had been normal for five days. The temperature then rose and remained high with fluctuations for six days. She is now, on the nineteenth day, quite convalescent. The wire was cut and the clamp removed on the third day.

Hydrocephalus.—DR. W. G. JOHNSTON exhibited a case of chronic hydrocephalus observed in making an autopsy upon a patient who died of secondary cancer in lungs and liver. The primary growth, a scirrhus, was removed from the left mammæ by Dr. Roddick sixteen months before. Patient had been under observation off and on during this entire period without any cerebral or mental symptoms having been noted. Convulsions flattened. Lateral ventricles distended, containing over eighteen ounces clear fluid; the venæ galeni involved in dense mass of fibrous tissue apparently of inflammatory origin. They were not obliterated. No other abnormality beyond small mass of

secondary cancer external to dura in course of anterior meningeal artery. Fontanelles closed by bony union. Skull cap flattened and bones very thin, maximum being 1-6" and minimum 1-10" over convexity. Cranial cavity capacious.

Tumor of the Prostate.—DR. BELL exhibited specimens from a case of tumor of the prostate, and read the following history of the case:—

J. H., aged 60, a farmer, was admitted to hospital Oct. 9th, 1866. He was suffering from general cystitis, acute prostatitis and right epididymitis, and retention of urine. He had always been a regular and temperate liver, and had enjoyed the best of health until three years ago, when he had some hemorrhoids removed. He had never had any venereal disease of any kind. From that time he suffered from frequent micturition, inability to empty his bladder at times, and his urine always contained a whitish deposit when passed. He had been taught to use a gum elastic catheter, and for two months before coming to hospital he had been obliged to use it every day, and seldom made water without it. On admission, his prostate gland was very much swollen, tender, hot and painful. He passed about sixty ounces of urine daily, which was neutral or faintly acid in reaction, and deposited on standing from 20 to 25 per cent. by volume of muco-pus. There was apparently no albumen in the urine beyond that produced by the pus. He had a subfebrile temperature, but his general condition was good. He was ordered to be kept in bed on milk diet, with linseed tea and water *ad lib.*, hot hip baths and opium suppositories when necessary, and his bladder was emptied three times daily with a soft rubber catheter. The acute inflammatory symptoms soon subsided, the pus in the urine diminished very considerably, his temperature became normal, and he was very much better in every respect, but could not empty his bladder. From the 12th of November the bladder was washed out daily with plain warm water. He improved steadily until the 29th of November, when he had a severe chill and great pain in the right loin. The urine became scantier, and was loaded with pus for a few days, but soon became more abundant and less purulent again. The patient became dull

and somnolent, with dry, brown tongue, moderate fever and obstinate anorexia, and gradually sank and died on the 18th of December.

At the autopsy, Dr. Johnston reported the middle lobe of prostate enlarged, and containing a small abscess. Bladder mucosa somewhat congested. Ureters normal. Both kidneys enlarged slightly and hyperæmic; a little mucus secretion in pelves, which were otherwise normal. Throughout cortices a few small suppurating points corresponding with and apparently originating in pyæmic infarcts. Spleen enlarged and soft. No further examination was allowed.

CHATHAM MEDICAL AND SURGICAL SOCIETY.

Stated Meeting, Feb. 4th, 1887.

THE PRESIDENT, DR. RUTHERFORD, IN THE CHAIR.

Cases in Practice.—DR. BRAY reported a case of double synchronous amputation of the upper extremities in a boy seven years old, with good result. The injury necessitating this operation was a crush of both arms by a shunting railway-car. One arm was taken off two inches from the shoulder-joint, the bone not being shattered into it, and the other about the middle of the forearm. Dr. Bray wished to know if his treatment was correct, or should he have disarticulated at the shoulder.

Most of the members present thought he pursued the proper course.

DR. RUTHERFORD related the case of a boy shot in the palm of the hand, the bullet lodging about two inches above the wrist. The bullet was removed and both wounds closed with lint soaked in compound tincture of benzoin, with compresses of wadding over this. Both wounds were perfectly healed and the boy able to return to his work in four days.

DR. HOLMES narrated a case of suppression of urine.

Treatment of Pneumonia.—DR. BRAY read a paper on this subject, dividing his cases into children, adults, and those over forty-five years old.

Children.—First clean out the bowels with oil or rhubarb and

soda, with a little grey powder, then give a mixture of spirits mindererus, æther nitrosi, and in some cases tincture aconite, with small doses of quinine. At the same time he envelops the chest and back with hot linseed poultices, applying a leech or two over the chest if there be much dyspnœa. After the acute symptoms have subsided, substitute a cloth soaked in chloroform liniment (B.P.) and covered with oiled silk for the poultices. If cough be troublesome, a stimulating expectorant of carbonate and muriate of ammonia with squills and senega is given. Diet on milk, adding lime-water and pepsine when necessary. He rarely gives anodynes to children, except when acute pleurisy is present. If the latter be subacute, with much effusion present, he applies iodine or cantharidal collodion.

Adults.—Much the same treatment will suffice. Pain must be controlled by opium. If the heart be weak, leave out the aconite and add digitalis to the mixture given in the acute stage in children, also give stimulants in the form of brandy or whiskey. The great danger in these cases is from heart failure, and this must be guarded against by every possible means, medicinal and dietary.

In the last class of cases stimulants must be given from the first, unless the pyrexia be very high, and even then they often act well, slowing the pulse and lowering the temperature. In these cases especially, avoid blisters and all depressing measures. The reader of the paper has seen nothing to convince him that pneumonia is contagious, but believes that climatic and atmospheric influences produce endemics or epidemics of it. When this latter is the case, the prognosis must be guarded and stimulants given early.

All present joined in the discussion following this paper, and in general agreed with the reader of it.

Stated Meeting, March 11, 1887.

J. P. RUTHERFORD, M.D., PRESIDENT, IN THE CHAIR.

Fracture of the Trachea.—DR. FLEMMING reported a case of this nature, with laceration of the adjacent soft parts. This injury is one that a surgeon is rarely called upon to attend from

the protection afforded these parts by the chin and beard, and the resiliency and mobility of the parts themselves. So seldom does it occur that some of the late bloody wars do not give the history of a single case. The French contingent in the Crimean war gives but one reported case of 460 wounds implicating the neck, whilst the English contingent furnishes eight cases out of 147 injuries to the neck. The chief sources of this injury in ordinary practice are kicks from men and horses, falls on hard blunt points, various projectiles propelled from machinery, as well as from the machinery itself. When a case does occur, it is fraught with much perplexity from the implication of both respiration and circulation. The following case Dr. Flemming was called to see March 6th, 1884:—

J. B., aged 46, was found much exhausted from loss of blood and a feeling of impending suffocation from large quantities of blood flowing into the lungs. With each forced expiration quantities of fluid blood and clots were expelled through the lacerated opening. An examination showed the fourth, fifth and sixth rings of the trachea cut completely off and the ends separated half an inch. The missile that caused the mischief was a piece of white ash $3\frac{1}{2}$ feet long and about an inch thick, and though good timber, was broken in two by the power of the resistance to the blow. It was hurled from a driving-wheel making 1400 revolutions per minute endwise, like an arrow, and struck the trachea immediately above the sternum. The patient was immediately turned upon his side, and as far over on his face as possible, with the view of preventing the blood entering the windpipe, and ice applied to the injury to check hemorrhage, which, fortunately, had the desired effect. He was subsequently placed in a room the temperature of which was maintained at about 80° , and kept somewhat moist with steam. The patient's head was drawn down towards his chest and kept there. A piece of oiled silk and an ice-bag covered the wound. His pulse a few hours after the accident was 120 and temperature 180° F. The patient felt comfortable, but exhausted. Ergot and Bro. Pot. was administered, with milk and beef tea for diet. The patient progressed favorably for five days, when a violent hemor-

rhage occurred, not ceasing until the patient was apparently almost moribund. The following day another hemorrhage took place, but not so profuse as the previous ones. The greatest difficulty was found in endeavoring to check this hemorrhage, which came not only from the veins in this neighborhood, but also from an artery, probably the inferior thyroid, which was beyond reach, the injury being in the intra-clavicular notch, and even if accessible, the patient was almost beyond control from coughing and expiratory efforts to expel blood from the lungs. Hot water and ice was of no use. Pressure or any attempt at packing the wound could not be borne, as it interfered with respiration and prevented the escape of the returning clots from the lungs. After these hemorrhages his recovery was uninterrupted. His temperature ranged from 100° to 102° for a week after the accident; afterwards it was always normal. The wound was perfectly healed in six weeks. Before the accident the patient possessed a good singing voice, but since has suffered from diplophonia, both in singing and talking, but this is disappearing gradually. One year ago he suffered from a severe attack of pneumonia, and experienced much trouble in expectoration, a difficulty that has existed since the accident.

Lithotrity; Typhoid Fever.—DR. HOLMES reported a case in which he had performed lithotrity, the first case of vesical calculi that had come under his observation during a practice of twenty years in this county. The patient had suffered for two years with symptoms of calculi, and when he came under notice was greatly emaciated, and was suffering from hæmaturia and great vesical irritation. He crushed twice, using Bigelow's lithotrite and evacuator. There was an interval of two weeks between the operations. After the first crushing the symptoms greatly ameliorated, but a small portion of stone was detected by the sound. The amount of stone removed by the first crushing weighed four drachms; that by the second, one drachm. About ten days after the second operation typhoid fever developed and ran a typical course; during the course of the fever there was no vesical symptoms whatever. The man is now perfectly well.

TORONTO MEDICAL SOCIETY.

Stated Meeting, Jan. 20th, 1887.

THE PRESIDENT, DR. MCPHEDRAN, IN THE CHAIR.

PATHOLOGICAL SPECIMENS.

DR. TEMPLE presented a *Uterus*, in the anterior wall of which was a large fibroma-myoma. The specimen had been removed from a patient aged 28 years, unmarried. The growth commenced more than two years ago, and latterly had increased rapidly in size. The patient had also failed greatly in flesh and strength, having decreased in weight 32 lbs. within a few months. The operation performed was supra-vaginal hysterectomy. An incision as short as practicable was made in the median line. The broad ligaments were transfixed at either side and tied in two sections, one of which contained the ovarian and the other, the uterine artery. The uterus was then eventrated and amputated about half an inch above the external os, the stump being held in Lawson Tait's uterine clamp. The edges of peritoneum were then stitched over the cut margins of the broad ligaments, and the abdominal wound closed with deep and superficial stitches. The tumor was a sub-peritoneal fibro-myoma situated upon the anterior wall of the uterus. In this variety of tumor there is not much enlargement of the uterine cavity, and consequently metrorrhagia is not a marked symptom. Patient is now in her fifth day and doing well. Highest temperature 102° ; highest pulse, 104.

DR. ROSS exhibited a specimen of *hæmato-salpinx* occupying one tube without producing occlusion of its lumen. The patient is the mother of seven children. She suffered from menstrual irregularity, having, perhaps, no discharge for about six weeks, and then an almost continuous flow for an equal length of time. The discharge had an extremely bad odor, a circumstance strongly diagnostic of hæmato-salpinx. The patient had been in ill health for three years, dating from a miscarriage with a bad result which occurred at that time. The tubal cyst was ruptured during the first vaginal examination, and acute peritonitis developed within twenty-four hours. Operation was advised. A

short incision was made in the median line, a mass of clotted blood which was found in Douglas' *cul-de-sac* was removed, as were also the ovary and tube of the affected side. The abdominal cavity was then carefully washed out and the wound closed. The recovery was uninterrupted, the temperature never rising above 100°. This case illustrates a condition even the existence of which was, until recently, denied by Emmet.

DR. CAMERON showed a *cystic tumor of the ovary* which had been removed from a young married woman. The patient had suffered for four years with attacks of intense pelvic pain, evidently due to circumscribed peritonitis. During the first of these attacks obstruction of the bowels occurred, and an abscess formed and ruptured into the bowel. She had been pregnant twice, and both gestations were accompanied by a great deal of pain, especially on the right side. Of late the attacks of pain had increased in frequency and severity, and operation was advised. The right ovary was found to be cystic and was removed. The case was uncomplicated and recovery uninterrupted.

Dr. Cameron also showed the *right ovary and tube* from a case with the following history: The patient had suffered from stenosis of the cervix, and Goodell's operation was performed. Inflammation followed, resulting in occlusion of the tubes. As no improvement took place after several months of treatment, Tait's operation was performed. The right ovary was found to contain three or four hæmatic cysts (Savage). It was removed with its tubes with difficulty, being firmly bound down by adhesions. The left ovary was so imbedded in inflammatory deposits that it could not be removed. A good recovery followed.

DR. POWELL exhibited a *tumor about the size of an orange* which had been removed from the left forearm. It proved, on microscopical examination, to be a spindle-celled sarcoma, which had undergone myxomatous degeneration. As permission to amputate at the elbow-joint could not be obtained, the tumor was dissected out as thoroughly as possible and the wound closed with sutures. In about three months the tumor reappeared, and the surgeon under whose care the patient then was amputated about the middle of the arm. The axillary glands and lungs

became affected, however, and the patient ultimately died of the lung affection. It seems fair to assume that had amputation been performed as advised in the early stage, the disease might have been eradicated.

DR. CANE exhibited the *brain from a patient dying of general paralysis of the insane*. The patient was a male, aged only 36. His character previous to his cerebral trouble had been good. He was a temperate man, and had always enjoyed moderately good health. On 11th May last he was brought to the Toronto Asylum with all the evidences of general paresis. He steadily grew worse and died January 19th. The specimen showed great thickening of the dura mater and also of the calvarium, which was markedly indurated. A large amount of serous fluid was found beneath the membranes. The arachnoid and pia mater were thickened and milky-looking. The adhesions between the brain and membranes were marked over the convolutions, but in the sulci no such adhesions were found. On forcibly stripping the membranes from the convolutions, the convexities of the latter showed a roughened appearance which has been compared to mouse-nibbled cheese, and is somewhat characteristic. Contrary to the generally received opinion, this disease is not one of old age, but generally attacks those in the prime of life, the majority of its victims being between 35 and 40 years of age.

DR. GEO. WRIGHT presented the *kidneys* of a man who had died of Bright's disease complicated with bronchitis of the smaller tubes. The urine contained albumen and casts. Epistaxis was a marked symptom, and pericarditis developed towards the last. The kidneys were markedly cirrhotic.

DR. W. H. B. AIKINS showed a *Larynx*, the vocal cords and arytenoid cartilages of which were covered with tuberculous ulcers, in which the microscope revealed the bacilli of tuberculosis in abundance. The interesting point in connection with this case is that no tuberculous deposits were found in the lungs.

—Dr. C. W. Earle has been appointed President of the Chicago Gynæcological Society.

CANADA

Medical and Surgical Journal.

MONTREAL, APRIL, 1887.

IMPROVED METHODS FOR RECOGNIZING TUBERCLE BACILLI.

Now that the detection of tubercle bacilli forms such an important means of diagnosing positively obscure cases of tuberculosis, any method by which its detection is facilitated is of great practical importance. The staining methods are now so accurate that even a single bacillus need not be overlooked, and can be readily picked out from material containing thousands of putrefactive bacteria. Recently attention has been directed to render the discovery of a relatively small number of the bacilli in sputum more easy. Reidert's method consists of mixing about an ounce of sputum with a like amount of water, adding six or eight drops of caustic potash, and boiling, subsequently adding more water, and boiling till a thin fluid is obtained. This is allowed to settle in a conical vessel, and in the sediment the bacilli are found in large numbers. The same result may be obtained in a more simple manner by allowing a large amount of sputum (six to ten ounces) to stand in an incubator or other warm spot several days, when the sputum will liquify from simple putrefaction and the sediment can be examined for bacilli. Any elastic tissue present will also be found abundantly in the sediment. A further advance is the discovery by Mons. Nocard and Roux of Paris that the troublesome serum method of culture can now be dispensed with, since the addition of about five per cent. of glycerine to gelatine or Agar-agar jelly makes an admirable medium for the growth of the bacillus. These results have since been confirmed by others. A further advantage of this method is that fractional culture can be practised and the bacilli

ultimately obtained pure even when previously mixed with putrefactive organisms. By the serum method it was impossible to obtain pure cultures unless the material was originally in a pure state, consequently preliminary inoculations of animals had to be resorted to, a method never free from possible fallacy, as susceptible animals develop the disease spontaneously.

THE HÆMATOZOA OF MALARIA.

A report of an address before the Philadelphia Pathological Society just published by Dr. Osler in the *British Medical Journal* contains much interesting and practical information. It is based on the careful study of seventy cases, both of acute and chronic malaria. He considers that subsequent researches have revealed no new facts of importance with regard to the nature and appearances of the parasite since Laveran's work in 1881, and agrees that it is allied to the family of monads. It occurs under the following different conditions: 1, Amœboid bodies free or within the red or white cells; 2, Crescent-shaped bodies found chiefly within the red cells usually containing dark pigment granules (melanin), but sometimes hyaline. These latter, as well as a peculiar rosetted form, probably due to segmentation, are noticed by him during the attacks and in acute cases. The others were seen in about equal abundance both during the attacks and in the intervals, and seen in all forms of ague. Another form more rarely met with was a free body with two to four ciliæ showing rapid movement. All forms rapidly disappeared when patients were fully cinchonized. This fact, together with the obvious action of the parasite in altering and absorbing the hæmoglobin of the blood, he regards as positive proofs of a causal relation between the parasite and the disease.

The *technique* is a very simple examination of fresh blood without the use of reagents, or else drying and staining with fuchsin or violet. High powers are necessary, a homogenous immersion lens being preferable.

The chief interest of the paper, however, is in discussing the practical value of these bodies with regard to diagnosis. In

eight cases of apparently true malaria it was not found ; one of these was an acute case in which it was detected at subsequent examinations ; in the others, the case was either only seen once or had taken quinine. Of still greater interest were some cases of supposed malaria where the parasite could not be found ; four proving to be cases of undetected phthisis, one of septic pneumonia, and two of suppurative renal disease. On the other hand, in certain cases a positive diagnosis of malaria could only be made by examining the blood.

PSYCHICAL EPILEPSY.

Psychical disturbances frequently precede a regular epileptic paroxysm. This may be nothing more than undefined restless feeling; or it may take the form of irritability of temper, or terror with a sense of great impending danger. Again, great exhilaration of spirits may be present for hours or days before the regular paroxysm sets in. After the fit is over, the form and variety of mental disturbance is as great as that which preceded it.

The psychical symptoms in the above cases form only a part of the complete disease. There are cases, on the other hand, where mental disturbance alone takes the place of the usual epileptic paroxysm. It is not at all rare to find epileptics who have several complete fits in the year, and during the intervals attacks of great mental restlessness lasting hours, or it may be even days, the patient having as little knowledge of what took place during this period as he has of what happened during the ordinary paroxysms.

The following case reported by Prof. Max Leidesdorf of Vienna illustrates this form of epilepsy: A man aged 36, with a markedly neurotic family history, was admitted to his clinic in the year 1884. From childhood to his 24th year this patient suffered from frequently recurring attacks of ordinary epilepsy. After this period these attacks ceased and were replaced by suddenly occurring attacks of great restlessness lasting from one to two days. After recovering his usual state, he has no remembrance of anything that happened during his restless period.

There are numerous cases on record of a similar character. There is another class of cases where periodical recurring attacks of mental disturbance forms the sole symptom of what is a true epilepsy. The paroxysm in these cases takes the form of an acute mania, lasting a few hours or days. There is neither convulsions or apparent loss of consciousness during the period, but after it passes away the patient has no remembrance of what happened. It will be at once apparent how all-important it is to separate these cases from ordinary acute mania,—important not only in prognosis, but especially in directing the treatment of the case. It is to these paroxysms that Liedesdorf proposes to give the name of psychical epilepsy. In coming to a conclusion as to the nature of an acute maniacal disturbance, he considers the following as the most important points :

1. A history of epilepsy or alcoholism in the parents, or of "concussion" of the brain from traumatism or fright, etc.
2. When the psychical disturbance is always preceded by a definite aura.
3. When this aura is always of the same nature.
4. When the attack is sudden, and does not at most exceed a few weeks in duration.
5. When it is followed by loss of memory of events during the period.
6. When the attacks recur with a certain regularity.

When all the above conditions are present, then, and then only, does Leidesdorf consider that we are fully warranted in saying that we have a case of psychical epilepsy to deal with.

CHRONIC GLANDERS.

A unique case of glanders is recently reported (*Zeitschrift f. Klin. Med.*) which lasted twenty months. It occurred in a Russian physician, being contracted during an autopsy. The only constant symptom was moderate fever, lasting a few days at a time, with intervening periods of normal temperature. The nares were unaffected throughout. Some temporary broncho-pneumonia, thought at the time to be due to glanders, proved at the autopsy to have been, in reality, syphilitic in character,

gummata occurring in all the internal organs, as well as amyloid disease. The diagnosis could not be made till after ten months. Subcutaneous abscesses and subsequently supuration occurred in the tarsus, fibula and elbow joint. This pus, inoculated into guinea-pigs, produced undoubted glanders. At the autopsy, death was found to be due to intercurrent acute nephritis, apparently septic in nature; and though glanders bacilli were found in great numbers throughout all the organs, they were not regarded as the cause of death. An unsolved problem suggested by this case is, whether, in a healthy man, recovery would ultimately have been complete, or whether the mild and protracted course of the glanders were due to its occurring in a syphilitic subject.

A PLEA FOR THE MORE EFFICIENT INSPECTION OF MEAT.

The amount of preventible disease in the world is very great. Slowly, but surely however, as science advances it is becoming less and less. Montreal has had a truly sad experience of the ravages of smallpox, a disease which we include in the lists of those that can be prevented, if only those means are used which science has shown to be of avail. The great and irreparable injuries caused by smallpox in this city are evident to the most superficial. It is different, however, with the poison of another disease which claims its thousands. We refer to tuberculosis. It is only within a very brief period that the truly infectious nature of consumption has been established. The poison here is more subtle and slower in its operation than in the case of the poison of smallpox. But while smallpox claims its thousands, consumption claims its tens of thousands. If ever this dire scourge of humanity is to be removed, it will be through the progress of preventive medicine and not through any possible directly curative means. If once this statement could be recognized as true and acted on by the public, the first important step would have been taken in its removal.

Our object in drawing attention to this subject at present is to show how, at least in one direction, this may be accomplished.

It is a well-established fact that tuberculosis is communicable from the lower animals to man. There can be no doubt that many cases of consumption are directly due to the eating of tuberculous meat. In any given case it is extremely difficult to trace this mode of origin, but of the general fact there can be no question. Tuberculosis is a very common disease in cattle. How all-important is it then, that there should be an efficient inspection of meat before it is allowed to be sold? In Montreal there are a few men whose duty it is to see that no diseased meat is sold. Unfortunately, however, for the public health, these men are quite incapable of performing those duties. They may be able to recognize meat which is in a decomposed condition from that which is not, but here their knowledge ends. If the matter were not so terribly serious, it would be laughable to appoint butchers to detect the presence or absence of tubercle in meat, but such really is the state of matters in this great city.

Consumption is not the only disease that is communicable from animals to man. Tapeworm is another of those diseases that is propagated in this way. As the result of investigations made by Dr. Osler and Mr. Clements in 1883, it was found that of 1000 hogs examined 76 were found to have tapeworm in its larval stage, and as the result of enquiry among the medical men of the city it was ascertained that there were fully two hundred people at that time suffering from tapeworm, due to the eating of infected pork. Now this disease could be practically prevented by an efficient system of inspection. Montreal pays now \$2,400 annually for an inspection that in many cases is worse than useless; for less than three times that amount the system could be made thoroughly efficient. We believe that we have only to point out the crying need there is for the employment of competent men to do this work to see it quickly fulfilled. We know that our able Health Officer, Dr. Laberge, is fully alive to the urgent necessity there is for action in this grave state of affairs.

PRESENTATION TO DR. WORKMAN.—It affords us great pleasure to record an instance of the paying of a well-deserved tribute to genuine merit and honest worth. Dr. Joseph Workman, the oldest living graduate of McGill University, was a few days ago made the recipient of a handsome present by the directors and superintendent of the Homewood Retreat in Guelph.

GYNÆCOLOGISTS *VERSUS* GENERAL SURGEONS.

To the Editors of THE CANADA MEDICAL & SURGICAL JOURNAL.

DEAR SIRS,—I notice in the March number of your valuable JOURNAL an editorial note headed “Gynæcologists vs. General Surgeons,” in which you show a great lack of knowledge of the present and past position of abdominal surgery; you most unfairly state that we owe the “great advances of abdominal surgery generally” to the gynæcologists, and hint that the future progress in this department of surgery will be due to them. Again, towards the end of your rash and indiscreet note you boldly say that “every competent and unprejudiced onlooker must feel that the general surgeon of the present day has not proven himself equal to the gynæcologist in abdominal surgery.”

It seems to me that the merest tyro in the profession knows that the triumphs of abdominal surgery were coincident with the introduction of antiseptic methods by Sir Joseph Lister, a general surgeon. What, may I ask, did the gynæcologist do before the advent of antiseptic surgery and its accompanying principles of cleanliness and drainage? Nothing. I freely admit that the gynæcologists, aided always by antiseptic surgery in the perfecting of which they took but little part, have made vast strides in the surgery of the pelvic organs, and have also assisted in the general advance of abdominal surgery, but has the general surgeon in the meanwhile done nothing? To whom do we owe the present state of the surgery of the stomach and intestines, if not to the general surgeon. Have you never heard of Billroth, Milkulicz, Czerny, Woelfler, Loreta, Bull, Dennis, Bryant, Bergmann, Treves, Verneuil, Nussbaum, Ransohoff, Kocher, and hosts of other men who are well known in connection with this department of surgery? With what names is the initiation of kidney surgery identified, if not with those of general surgeons? The early (and many recent) operations performed on the kidney by gynæcologists were the results of mistakes in diagnosis or the accidental wounding of the ureter. Who first extracted a stone from the kidney after careful and accurate diagnosis? Mr. Henry Morris of London, a general surgeon. Who first designedly removed the kidney in 1880 but a general surgeon, Gustav Simon of Heidelberg? By whom have the greater number of kidney operations been performed, if not by general surgeons? I merely mention such names as Bergmann, Le Dentu, Lucas, Beck, Godlee, Marsh, Park, Lange, Polaillon, Treves, Czerny, Bardenheuer, etc.

* Marchetti (a general surgeon) in the 17th century successfully removed a calculus from the English Consul Hobson.

In regard to the surgery of the spleen, the same may be said. General surgeons removed the spleen as far back as 1549, when this operation was successfully performed at Naples by Zaccharelli and Fioravanti. Latterly the general surgeons have performed splenectomy quite frequently. I might mention in connection with the surgery of the spleen the names of such general surgeons as Chiarleoni of Milan, Ceci of Genoa, Franzolini of Undine (Italy), Credé of Dresden, Billroth of Vienna, Haward and Bryant of London, and many others.

In the surgery of the pancreas but little has yet been done, and that little by general surgeons.

Excluding the pelvic organs,† the liver only now remains, and in this field of surgery one gynæcologist (or as he now prefers to be called "abdominal surgeon") has distinguished himself more perhaps than the general surgeon. I refer to Mr. Lawson Tait, under whose ægis most gynæcologists now shelter themselves, and who, perhaps, more than any other man has performed wonders in connection with intra-peritoneal surgery. But this does not prove that all the advances in abdominal surgery are due to the gynæcologist any more than one swallow makes a summer. In the surgery of the liver, Langenbuch, a general surgeon, has also distinguished himself; so have Lindemann, Lihotzky, Trendelenburg, Schede, Cripps, Lange, and many others.

The first ovariomists were not gynæcologists, and even Spencer Wells commenced to perform ovariectomy as a general surgeon, and never became a gynæcologist.

I think I have shown that while the general surgeon has been occupied with advancing the condition of the surgery of the whole body, he has not neglected the abdomen, and need not fear comparison with the gynæcologist. The surgery of the thorax, head, neck and extremities has advanced *pari passu* with that of the abdomen, but perchance these regions, when the abdomen has been exhausted, will also be invaded by the omniverous gynæcologist. I see a vision in the future of the special organs belonging to the male in the ruthless and sacrilegious hands of the ubiquitous gynæcologist, who is continually, like Alexander, seeking new worlds to conquer. Then, alas! will come the deluge, for testicles will be much easier to remove than ovaries. But while waiting for the coming millenium (?), when the gynæcologist shall possess all things, what is the poor male, who also possesses an abdomen, to do? Is he to trust himself in the hands of the general surgeon and die the death?

† The recent great advances in the surgery of the bladder have been entirely due to general surgeons—*e. g.*, Sir H. Thompson, Volkmann, Harrison, etc.

Nay, had we not better start a new specialty of surgical anthropology; with trained anthropologists in our midst the ever advancing tide of gynæcology may, perhaps, be stemmed for a time at least.

Now, Mr. Editor, do you not think it high time* for the gynæcologists either to confine themselves strictly to their specialty or else don a new name and not follow in the track of the homœopaths, for soon gynæcology, like homœopathy, will become a mere shibboleth to juggle with and to entrap unsuspecting womankind into submitting to intra-peritoneal examination of its organs.

I fear I have already taken up too much of your space, and must subscribe myself, without shame, in spite of the sneers of your "competent and unprejudiced onlooker,"

A GENERAL SURGEON.

[We are glad that our few gentle words on "Gynæcologists vs. General Surgeons" in our last number has called forth the above interesting communication from "A General Surgeon." We are not at all surprised that the general surgeons should be alarmed and even indignant at the invasion of a territory which they fondly believed to be theirs and theirs only, especially when they see it invaded by a band of remarkably able men. All specializations of work in all fields of human progress meet with opposition in the beginning. Is it then to be wondered at that the general surgeon should take alarm when he looks into the near future and finds himself practically excluded from work in abdominal surgery? It must be apparent to every thinking medical man that we will soon have a distinct class of the profession whose work and energies will be devoted to the surgery of the abdomen, pure and simple. It makes little difference whether this class will evolve out of the general surgeons or out of the gynæcologists. At the present time gynæcology appears to supply the elements for the more perfect fruition. It is not half a century since the general surgeon occupied the entire field. What would be the state of ophthalmology at the present time if it were still in the hands of the general surgeons? What would be the condition of otology if there had never evolved out of chaos a Politzer or a Gruber? Would laryngology be in its present advanced state if none but the general surgeon practised it? Before another decade passes away the general surgeon

will have relinquished all claim on the territory of the abdomen. Our prophetic eye does not carry us so far into the future as the time predicted by "A General Surgeon," when the male special organs will be given over to any distinct class. Seeing "that the testicles are much easier to remove than the ovaries," it will be safe to leave their extirpation to the general surgeons. Our correspondent reminds us that the first ovariologists were general surgeons. We would remind him that all great men were babies once.—ED.]

NOTES AND COMMENTS.

More and more, as the years go by, the surgeon invades regions regarded as the special province of the physician, and with remarkable success. This is particularly the case with diseases of the liver. Mr. Tait's report to the last meeting of the British Medical Association of his operations performed in cases of abscess, hydatids and gall-stones shows the success which may attend a bold and at the same time skillful surgery. In recent numbers (Feb. 19th and 26th) of the *Medical News* Dr. Ohage of St. Paul reports two interesting cases, one of cholecystotomy (incision) and the other cholecystectomy (removal), and gives a very useful practical account of these operations. It is to be hoped that these reports will stimulate surgeons on this side of the Atlantic to greater activity in this department. Recently Langenbeck of Berlin, who devised the operation, has published additional cases of removal of the gall-bladder, and urges this operation in preference to cholecystotomy.

A few weeks ago I saw a case with Dr. Bolling of Chestnut Hill which illustrates some of the difficulties in the way of successful hepatic surgery. A woman, aged about 50, well nourished and previously healthy, had had jaundice since Christmas, with great pain, often paroxysmal, in region of liver. She had had two attacks of hepatic colic, and gall-stones had been found in the stools. She had lost flesh and had had for about two weeks well-marked attacks of hepatic intermittent fever—rigors, hot stage, and sweats. The liver was not enlarged; gall-bladder not to be felt, though the abdominal walls were too thick for satisfactory palpation. The condition was becoming serious; tongue dry, pulse rapid, and there was abdominal tenderness, with slight swelling. Dr. Agnew opened the abdomen and found a stone in the common duct, with great dilation of the gall-bladder, from which 18 ozs. of bile was aspirated. The distension was entirely below the edge of the liver, and only the tip of the enormous sac

projected for three-fourths of an inch beyond the margin. On examination, the head of the pancreas seemed unusually firm and hard, and was probably the seat of a small new growth. The patient sank and died the day after the operation. No examination was made. The previous attacks of jaundice, with the passage of gall-stones, and the occurrence of the intermittent hepatic fever, which rarely occurs except with calculi, left very little room for doubt as to the diagnosis. The possibility of cancer was discussed, as the association of gall-stones with malignant disease is so common, particularly in women. An interesting clinical point is the existence of an enormously distended gall-bladder without the appearance of a tumor below the margin of the liver.

The days have come when nothing can be hidden, everything must be revealed, and what is done in the closet is soon proclaimed from the house-top. Right or wrong, true or false,—what matter? so that it makes the newspaper sell and tickles the itching ears of a fatuous and gossip-loving generation. I mentioned last month that Bergeon's treatment of phthisis by rectal injections of gas was receiving a trial at the Philadelphia Hospital. On Sunday, the 20th ult., one of the leading daily papers came out with a flaring account, headed **A DOCTOR'S VICTORY!!** **NO MORE CONSUMPTION!!** and gave a highly-colored description of the marvellous results which had followed the experiments. Other papers have taken up the subject, and even the Philadelphia *Ledger*—model of a family newspaper—has had a leading article on the virtues of the gas method. The whole thing is so comical, that one might make a joke of it, did the subject not present serious aspects. The method does seem to be useful in certain cases, lessening the expectoration and cough, and reducing the fever. Some of the patients, too, have gained in weight; but, so far, it has had here only six weeks' trial, and the publication of these sensational reports of the wonderful curative effects will exercise a most injurious influence, and will seriously interfere with a careful scientific study of the question. Already hundreds of letters have reached Dr. McLaughlin, the chief resident physician at the Philadelphia Hospital, asking for details, and it is evident that reports have been telegraphed all over the country and even to Europe. As an illustration, I may mention that I had a cable from a grief-stricken mother in London, whose daughter had phthisis, asking what the results of the new treatment had been. She had heard of it, and at her physician's suggestion had telegraphed. It is safe to say that within a month there will be a demand for rubber bags and Wolff's bottles such as has not been before in this country. All sorts of cases will

receive the treatment, and while there may be great benefit in suitable subjects, there will be much bitter disappointment. Meanwhile a fortune awaits the clever charlatan who will open a Gas Institute, lay pipes to each bed, and advertise to cure consumption with one hundred injections. I would have distributed with each rubber bag a copy of Bishop Berkeley's "Siris" or "Philosophical Reflections and Inquiries concerning the virtues of Tar-water," which, as John Stuart Mill remarks, illustrates how great and seemingly conclusive a mass of positive evidence can be produced in support of a medical opinion, not borne out, except to a limited extent, by experience. Had there been a daily press to "boom" the great philosopher's *universal medicine*, he would have been able to found the college in Bermuda and carry out his schemes of civilization in the West.

A few weeks ago I spent a morning in Dr. Prudden's laboratory at the College of Physicians and Surgeons of New York, and was much interested in his studies on the bacteria of ice. He has collected samples from the various localities on the Hudson River and adjacent ponds from which the chief supply of New York is obtained, and by the culture method has isolated various forms of bacteria to the number of at least thirty. In three hundred analyses of ice taken at different times from the Hudson and its ponds, he found the average number of living bacteria for one cubic centimetre was 2033. In one sample of ice which was being distributed in a suburban district there were from 20,000 to 30,000 living bacteria to the cubic centimetre! It is quite possible that some of the forms found may be pathogenic; fortunately, however, he did not, in the numerous experiments, meet with the typhoid bacillus, which resists freezing for many days, and may retain its vitality in ice. These researches will prove most useful in causing greater care to be exercised in the collection of ice, and in checking, to some extent, the indiscriminate use of ice in drinking water.

Every one interested in heart disease should read Sir Andrew Clark's remarkable report in the *British Medical Journal* of Feb. 5th, 12th and 19th, on "Cases of valvular disease of the heart known to have existed for over five years without causing serious symptoms." He has tabulated 683 cases (from his private note-books), in which there were signs of valvular disease, the presence of which was not indicated by symptoms, and did not interfere with the general health of the individual. This extraordinary number he met with between 1873 and 1886 during the morning consultation hours, and he distinctly states that all

doubtful murmurs and those in the pulmonary and tricuspid areas were rigidly excluded from the list. Insurance physicians will read these papers with interest and profit; and his conclusions should have widespread publicity, and, it is to be hoped, will lead to more correct views on the significance of cardiac murmurs. The following conditions, Sir Andrew holds, would justify a physician in permitting a patient, say, for example, with mitral regurgitation, to marry, to continue at his ordinary work, or to pass for life insurance: Good general health; just habits of living; no special liability to catarrhal or rheumatic affections; the origin of the valve lesion independently of degeneration; the existence of the valve lesion without change for three years; sound ventricles of regular action; sound arteries, free course of blood through the cervical veins, and freedom from pulmonary, hepatic and renal congestion. Here is comfort, indeed, for the poor victims of the stringent life insurance rules, which compel the rejection of every applicant with a heart murmur. The truth is, that the stethoscope in the hands of an imperfectly trained man is a most dangerous instrument, leading to all sorts of false conclusions. I fully believe that in the examination of any heart case a more correct judgment can be made by taking into account the general condition of the circulation and the evidence obtained by palpation and percussion than by relying exclusively on the auscultatory phenomena, as is so often done.

There is a lively row at Washington between Secretary Endicott and Surgeon-General Moore. On the retirement of Dr. Murray, a few months ago, Dr. Baxter was a prominent candidate for the position of Surgeon-General, and had the active support of the Secretary of War, Mr. Endicott. It is said that the President sent for Dr. Huntingdon, who is on duty at the Army Medical Museum, and on his representations Dr. Moore was appointed, although only fourth or fifth on the army list, in order of seniority. Shortly after this the Secretary of War relieved Dr. Huntingdon from duty at the Army Museum and detailed him to Los Angeles, appointing in his place a Dr. Greenleaf, who is stated to have been an earnest advocate of Dr. Baxter's claims. Surgeon-General Moore has protested against the carrying out of this order, as Dr. Huntingdon, from his long experience, has become almost indispensable in the work of the Museum. He has appealed to the President, whose decision the profession await with a good deal of anxiety. The feeling is very strong here that Dr. Huntingdon should not be removed, and those who know the good work which he has done in the Museum, and have experienced his kindness on their visits to it,

are very indignant that he should be sacrificed for having expressed to the President his honest convictions.

Naphthalin is a remedy which does not seem to have the general use which its merits deserve. In certain forms of diarrhoea it seems particularly serviceable. In the case of a young man at the University Hospital who had had for many months a troublesome diarrhoea, except when upon a most restricted diet, naphthalin, gr. v, in capsule, five or six times a day, relieved the condition in a couple of weeks. It seems specially adapted to cases with flatulent dyspepsia and intestinal indigestion. In two cases of large bowel trouble it did no good. In the diarrhoea of phthisis it is useful, and Dr. Peabody of New York tells me that he has found it very advantageous in typhoid fever. A case of painful dyspepsia which had resisted the usual remedies, yielded in a short time to the capsules. It may be administered also in from 5 to 15-grain doses with charcoal and glycerine.

We have been sadly disappointed in Strophanthus, the new heart tonic. In cases of various forms of heart disease it has been practically without influence. We have used the tincture, of Burroughs & Wellcome and of Parke, Davis & Co. The dose, placed at from two to six minims, was increased to 25, and in one instance to 30 minims, without appreciable effect. In one pneumonia case it did seem to strengthen the pulse and lower the fever, but the patient was taking large doses of alcohol at the same time.

Antifebrin continues to prove a prompt and reliable antipyretic, and I see by the reports that it has been very satisfactory in the hands of those who have used it in London and Edinburgh. It seems to have some power also in controlling epilepsy. Dr. Weir Mitchell tells me that he has been using it with advantage, and I see that Lepine has recommended it in the lightning pains of tabes. In one of Dr. Mitchell's cases, taking grs. x, t.i.d., there was slight cyanosis.

The Philadelphia Orthopædic Hospital and Infirmary for Nervous Diseases opened a new building on the 19th ultimo—probably the most completely equipped special hospital in the country. The institution has always been well managed, and the Department for Nervous Diseases, under the fostering care of Dr. Weir Mitchell, has rapidly developed. To his kindness we are indebted for a complete outfit of apparatus necessary for the study of the morbid physiology of the nervous system. The accommodation is about 110 beds, including a number of private rooms.

WILLIAM OSLER.