

Technical and Bibliographic Notes / Notes techniques et bibliographiques

The Institute has attempted to obtain the best original copy available for scanning. Features of this copy which may be bibliographically unique, which may alter any of the images in the reproduction, or which may significantly change the usual method of scanning are checked below.

L'Institut a numérisé le meilleur exemplaire qu'il lui a été possible de se procurer. Les détails de cet exemplaire qui sont peut-être uniques du point de vue bibliographique, qui peuvent modifier une image reproduite, ou qui peuvent exiger une modification dans la méthode normale de numérisation sont indiqués ci-dessous.

- Coloured covers /
Couverture de couleur
- Covers damaged /
Couverture endommagée
- Covers restored and/or laminated /
Couverture restaurée et/ou pelliculée
- Cover title missing /
Le titre de couverture manque
- Coloured maps /
Cartes géographiques en couleur
- Coloured ink (i.e. other than blue or black) /
Encre de couleur (i.e. autre que bleue ou noire)
- Coloured plates and/or illustrations /
Planches et/ou illustrations en couleur
- Bound with other material /
Relié avec d'autres documents
- Only edition available /
Seule édition disponible
- Tight binding may cause shadows or distortion
along interior margin / La reliure serrée peut
causer de l'ombre ou de la distorsion le long de la
marge intérieure.
- Additional comments /
Commentaires supplémentaires:

Continuous pagination.

- Coloured pages / Pages de couleur
- Pages damaged / Pages endommagées
- Pages restored and/or laminated /
Pages restaurées et/ou pelliculées
- Pages discoloured, stained or foxed/
Pages décolorées, tachetées ou piquées
- Pages detached / Pages détachées
- Showthrough / Transparence
- Quality of print varies /
Qualité inégale de l'impression
- Includes supplementary materials /
Comprend du matériel supplémentaire
- Blank leaves added during restorations may
appear within the text. Whenever possible, these
have been omitted from scanning / Il se peut que
certaines pages blanches ajoutées lors d'une
restauration apparaissent dans le texte, mais,
lorsque cela était possible, ces pages n'ont pas
été numérisées.

CANADA

MEDICAL & SURGICAL JOURNAL

APRIL, 1886.

Original Communications.

CASES OF CEREBELLAR DISEASE.

By GEORGE WILKINS, M.D.,

Professor of Medical Jurisprudence and Lecturer on Histology,
McGill University.

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

CASE I.—On the 20th Nov., '82, about breakfast time, I was called to see a young lady, aged 19, who, I was told, had just had a fainting fit of some kind, which she had not come out of up to that time. On arriving at the house, within a few minutes, I found her lying dead on the sofa. It appears she had arisen at the usual hour and expressed herself as being quite well, in reply to her mother, who awakened her with her customary morning salutation. She came down stairs to breakfast, perfectly well, and went to the front window to look out at the passers-by whilst her parents went in to their breakfast. After waiting a few minutes, and not finding her coming to the table, her mother came into the room and found her lying on the sofa. In reply to the question what was wrong, she said "I have such a frightful pain in my head, I cannot stand it." Then she said she was going to vomit, which she did, and after that she expressed herself as being easier. Her mother returned to the breakfast-table, and coming back in a few minutes to inquire how she felt, found her as I saw her on my visit—dead.

I asked for a post-mortem examination, but did not like to press it then. A fortnight after interment, however, the parents consented. The autopsy was made by Dr. Osler, with the assist-

ance of Dr. Wyatt Johnston and myself. The brain was the only organ examined. On removing it, nothing abnormal was observed on the upper surface of the hemispheres. On turning it with its base upwards, the under and lateral surfaces of the right temporal lobe were seen to be covered with an extensive, but thin clot; so also were the pons and medulla. On looking at the cerebellum, the right lobe was observed to be considerably larger than the left. On cutting into it, a large clot, the size of a plum, was discovered close to the central lobe. On examining more closely, a pinhole aperture was seen on the superior surface of this lobe of the cerebellum, and was here continuous with the clot covering the temporal lobe. A blood-vessel had burst in this lobe of the cerebellum, the blood escaping into the subarachnoid space covering it and along this space, forwards, on to the cerebrum, and downwards into the fourth ventricle. The blood pressing on the respiratory and circulatory centres, which are situated in the floor of this ventricle, arresting its function, caused immediate death.

CASE II.—On the 23rd of December, 1884, I was called to see a young lady, aged 16 years, who had been complaining of headache, suffering, as her mother thought, from a bilious attack. Her history was that she had awakened on the night of the second day previous to my visit complaining of intense pain in the back of her head and vomiting. Both lasted four or five hours, and then gradually ceased. She kept in bed the following day, during which time she suffered very little. During that evening, however, the pain came on as violent as before, and with it the vomiting. The next day I saw her for the first time. She then complained of pain in the left occipital region. The pain was constant and very acute. Tongue slightly coated, with red tip. Temperature normal; pulse 72. At the time I thought the pain was possibly neuralgic, and advised hot hop poultices over the painful part; also administered bromide of potassium. About midnight her brother called on me and stated that there was no relief whatever to the symptoms, and that the retching was very troublesome. The constant character of the pain and vomiting caused me then to doubt my diagnosis and

suspect cerebral mischief. I advised stopping the hot poultices, but to give the bromide mixture more frequently, and if still no relief within three or four hours, to apply ice to the head. The next morning, at 8 o'clock, I saw her again, when her parents told me she had been in agony all night. She was very quiet during my visit, and it was remarked to me that it was the first time that she had a moment's rest since the previous evening. Her temperature was normal, pulse 70, and skin moist. I felt quite puzzled to account for the symptoms. I suspected the possibility of tubercular disease of the brain, but I felt I could not reconcile that theory with the absence of febrile and other confirmatory symptoms. I left, intending to call again about noon the same day, but being unavoidably detained, arrived there again at 2.30 the same afternoon. I found that she had died most unexpectedly about five minutes previously. They told me that the pain in the head had kept up until the last two hours, when it ceased, but that she complained of numbness all over her body. She asked to have all her limbs rubbed—at one time her legs, then her arms, at another moment her shoulders. This condition kept up for nearly the entire two hours. They say she was quite bewildered, crying out "What is the matter?" "What can it be?" Her sensations were most peculiar. She said she felt as if she were paralyzed. At no time that I saw her was there any loss of power. Up to the last moment they say she was able to move her limbs, and her intellect was perfectly normal. At the time of her death she was sitting up in bed, her sisters rubbing her arms and she crying out about the peculiar sensations, when she fell back dead. I immediately thought of the preceding case, and considered this one of cerebellar apoplexy. I made several attempts to get permission for an autopsy, but could not succeed, consequently can draw my conclusions only from the symptoms and their result. From these I think I am justified in enumerating this case amongst those of cerebellar disease.

CASE III.—The following case was admitted into the Montreal General Hospital under my care. It has been reported for me by Dr. Gustin, one of the resident medical officers:—

J. F., aged 17, admitted under Dr. Wilkins on June 10, '85, complaining of headache and pains (which appeared to be muscular) all over the body, also dizziness, and general weakness; vomiting also was present. He dates the present attack to two weeks previously, up to which time he was perfectly well. At that time he fell from a cart, striking his shoulders and then his head. He was removed home; vomiting set in immediately and lasted several days, and then gradually subsided. At the expiration of about ten days, feeling better, he endeavored to start work again, but having a return of all his symptoms, he was obliged to desist. He had pains in back and over the body generally, dizziness, vomiting, loss of appetite, and elevation of temperature. These symptoms increasing in intensity, he was brought into hospital. On admission, he had a prematurely old appearance—looked quite 25 years of age. He had a stupid and lethargic expression, with dilated pupils. His tongue was coated, and red at both tip and borders. Bowels constipated. Complains very much of headache, backache and insomnia. Since admission, he had been vomiting constantly a thin, grumous fluid. Pulse 70, full and strong; temperature 100° ; respiration 20. His mental condition was irritable and dull; not inclined to answer questions; did not want to be disturbed in any way—taking medicine or otherwise. His urine was examined and found to be normal. There appeared to be marked iliac tenderness of both fossæ. The temperature became normal on the second day in hospital, and remained so during the progress of the disease. On the third day after admission, some slight retraction of head was observed: he could be elevated by the contracted neck muscles. Movements were performed in a rapid and jerky manner. He made several attempts to leave the bed and walk about. He was able to walk a few steps, but was very unsteady and weak. Up to this time he had perfect control over bladder and bowels. On the following day, whilst the resident medical officer, Dr. Gustin, was making his morning rounds of the ward, he observed him become suddenly cyanotic and almost asphyxiated. Pulse 120; pupils contracted; no paralysis nor spasmodic contraction; unable to open mouth;

1-120 grain of atropia sulph. was administered hypodermically and artificial respiration commenced. Under this treatment the pulse came down to 100; patient opened his eyes and attempted to yawn. As soon as artificial respiration was stopped, he relapsed into former cyanotic condition. By means of this treatment patient was kept alive until the arrival of the attending physician in fifty minutes. He then diagnosed pressure of a fluid character occurring suddenly on the respiratory centre, and thought it useless to continue artificial respiration. Patient died within two or three minutes after its cessation.

A post-mortem examination was made next day by Dr. R. J. B. Howard. All the organs were carefully examined and noted, and nothing abnormal observed, except where it was expected to be present—viz., in the vicinity of the medulla oblongata. The membranes of the brain were found to be perfectly normal, except a small portion overlying the cerebellum between the flocculus and the medulla oblongata. On a superficial examination, pus was discovered in the arachnoid space formed by these membranes, between the medulla oblongata and the right lobe of the cerebellum. On carefully removing the membranes and raising the medulla, several drops of thick, creamy pus were observed between the cerebellum and the floor of the fourth ventricle. On compressing the right lobe of the cerebellum, pus was noticed escaping from its under surface, close to the inferior vermiformis process. On cutting into this lobe, an abscess cavity of the size of a large filbert was found filled with pus. Here an inflammatory focus had developed into an abscess, which, gradually distending, found its way into the surrounding parts; amongst others, into that which tolerates the least interference with its normal condition—the fourth ventricle.

Remarks.—To me, these three cases have been most instructive. I will refer first to the second case. I think I am quite justified in placing it amongst those of cerebellar disease, notwithstanding the absence of an autopsy. The extremely sudden nature of the death, the immediate arrest of functions of both heart and lungs, without any warning or without any convulsive symptoms, without the slightest interference with conscious sen-

sation—all taken together point at once to some equally sudden interference with the great centres of circulation and respiration. The disordered sensation, the tingling and formication which was present for about two hours preceding death, can be explained only by assuming that extravasated blood was creeping stealthily and insidiously around, or, it may be, along the medulla on its road to the floor of the fourth ventricle, compressing the motor and sensory tract without obliterating its functions. The mode of death with these last symptoms solved for me what previously perplexed me considerably. I read the symptoms somewhat in this way: A blood-vessel burst in the cerebellum, causing the obstinate vomiting; it easily worked its way amongst the delicate leaflets of this organ, tearing asunder the sensitive membranes covering it. This caused the pain. The quiet enforced by the pain checked the extravasation until some effort or other accidental circumstance started it afresh, with a renewal of all the symptoms: blood continued to be poured out spreading in all directions, ultimately reaching the medulla and producing there the symptoms and result just described.

The third case being one of abscess; in the absence of disease elsewhere, and also in presence of the fact that up to the time of his fall he was perfectly well, there is little doubt that this abscess is due to the inflammatory process resulting from the fall in which he must have injured his head. Here a very interesting point is brought out, showing the bearing of the anatomical relations of the part to the presence of disease or injury. We must remember that the brain is almost completely surrounded by a layer of fluid, upon which, as Hilton puts it, it rests as on a water-bed. This fluid exerts the usual physical properties of all fluids, in acting as a barrier to the transmission of vibrations from a solid substance covered with fluid to any other substance in its vicinity. There can be no doubt, were it not for this, few of us would reach manhood without impaired intellect, in consequence of pugilistic encounters of our school-boy days. The brain, however, must have some solid support, where it will come in contact with the bony skeleton. On the orbital plates of the frontal bone the frontal lobes of the cerebrum fit closely and accurately. Behind, the cerebellum rests

on the occipital bone, only a small portion of which it actually comes in contact with. Possibly it is a knowledge of this fact, although it may not be an exact scientific knowledge, that causes would-be so-called scientific pugilists to strike behind the ear, if they can get a chance, and thus stun their opponent.

The results of an injury to the skull transmitted directly to those portions of the brain in such close contact with its bony supports was well shewn in a case which I had the honor of bringing before the notice of this Society about five years ago. One or two points in connection with the case will bear repetition now. The case was that of a man who, whilst under the influence of liquor, fell down stairs on the 10th August, 1880, his head striking the steps several times. He was brought into hospital, under my care, the same day. He complained of pain very little indeed. He died within ten days. I show you now, for the second time, his brain, hardened according to the usual modern methods. You will observe that on the under surface of the frontal lobes are several small extravasations. In the central portion of the white substance of the right frontal lobe is an extravasation the size of a walnut. On the left lobe of the cerebellum is a patch about an inch in length, in which there has been some loss of substance, the result of softening from recent inflammation. This part was adherent to the dura mater. It is this portion of the cerebellum that rests on the occipital bone. With the exception of a patch on the tip of right temporal lobe, all these hemorrhages are parts that rested directly on the bone, or parts in their immediate vicinity to which the vibrations which caused the rupture have been directly transmitted. A remarkable point is the very slight pain, notwithstanding the pressure of this large patch in the centre of the brain, confirming the well known fact of the insensitive nature of the brain itself: the slight pain that was present would be due to those extravasations which are external and pressing on the membranes.

The intense pain felt in my first case, during her short illness (less than ten minutes), is readily explained by the blood working its way between the membranes, these latter possessing sensitive fibres. Some such analogous condition, no doubt, was present in the intense agony of the second case.

In my first case, death was so fearfully sudden that but few practical conclusions can be drawn from it, further than what is self-evident.

In the other two cases, the continuance of the vomiting is worthy of attention. In both cases it was kept up long after the stomach had been completely emptied. The constant pain in the head, the intense restlessness, with this persistent vomiting, have been referred to by several writers as being invariably present in cerebellar disease. It was especially the *persistence* of the vomiting that caused me first to suspect cerebral disease in my second case. I think this same persistence would have been sufficient reason for my suspecting cerebral irritation of some kind in the third case sooner than I did, seeing that that symptom—that is, its persistence—is such a frequent accompaniment of cerebral mischief.

THE RELATION OF MICRO-ORGANISMS TO THE PUERPERA AND THE WAY TO MANAGE THEM.

BY T. JOHNSON ALLOWAY, M.D.,
Gynæcologist to the Montreal Dispensary.

(Read by title before the Canadian Medical Association, at Chatham, September, 1885.)

In speaking of the relation which micro-organisms bear to the morbid conditions which the human puerpera is in danger of, it is exceedingly difficult to avoid being to a certain extent prolix. The vital importance of the subject becomes impressed upon us more and more as we continue to devote our thoughts to it, and as we become aware of deaths occurring in our midst frequently, which we have every reason to believe should be preventable. And it is this latter fact which is weightiest of all in urging us on to investigate and add new ways of conducting the puerperium towards attaining a low fractional mortality.

One of the great questions of the day is *how to obtain this low mortality*, and another—probably the more difficult of the two—is *how to make the growing-up members of the profession convinced of facts tending toward toward this end?*

Up to a period of the world's history approaching the middle of the present century, it was not an uncommon occurrence for men to have had allotted to them during their individual lives a

number of wives varying from two to four. And we are told that the wives of these men for the most part died in childbed or from "some obscure internal disease" presumably connected with the organs of reproduction. On the other hand, it was well established that "old maids" never died. They became extinct as individuals through a process of gradual desiccation experienced in no other phase of nature. And I hold that until we can reduce the mortality of "wives" down to that of "maids" we will be wanting in our duty as faithful and determined investigators. Let us turn our backs upon expectancy, redolent as it is with the tenets of dark ages. I say this in much earnestness, because infectious puerperal disease has still its friends at court who are constantly disclaiming against such a wolf. They will tell us in open council they have never, in many hundreds of cases, seen one of septic fever; that they do not believe in antiseptic precautions; that the lochia is a healthy-healing medium (*sic*), and should not be interfered with; that it is meddling midwifery, and that the female genitals form a temple only for the gods to behold. I have before me a copy of the *Medical Age* (April 25th, 1884), in which there is an article on "Common Sense in Obstetrics," by "An Old Practitioner." The author says, "I never could muster courage enough to subject a modest woman to the indignity of making an ocular examination for a rupture, and I have never found it necessary so to do, Dr. Thomas to the contrary notwithstanding." The whole of this article, from beginning to end, is a good sample of many such as we see in medical journals of the present time. They are simply harangues of vicious invective against modern advance in gynæcic medicine, and are directed particularly against such men as Gaillard Thomas and his followers in antiseptics. They truly remind one of Bacon's definition of Fame—"A gilded butt to be pierced by arrows of malignancy."

If these gentlemen of the pre-liberal age would only consider that there are many circumstances connected with their individual careers which would *seem* to justify them in leaving everything to nature, and that there are possibly circumstances connected with the lives of others not similarly situated which a like procedure would be most fatal to their patients and their own

reputation, medical editors would be spared the publishing of much matter which they cannot conscientiously endorse, and Thomas, in his endeavor to save life and benefit our race, would not sometimes feel with chagrin that he had been throwing pearls to "inappreciative mortals."

Between the years 1847 and 1880 no less than 164,446 deaths have been registered in England as the result of septic puerperal disease. This number does not represent the true facts of the case, as there must have been many such deaths not registered under this term. It has been said by physicians who lived at the beginning of the present century that they would as soon be called to attend a case of hydrophobia as one of puerperal fever. And, more recently, Dr. Stokes assured the Dublin Obstetric Society that in his experience of over forty years he had never seen a single instance of recovery from puerperal fever.

Fischel tells us that at Breisky's second clinic at Prague during the three years from 1879 to 1882 the mortality varied from 3.1 to .0 per cent. under various forms of prophylactic precautions. And Fischel concludes that the prevention and treatment of septic puerperal affections must be *local* and *surgical* in character.

Paul Bar, in his late work, tells us that prior to the year 1870 the percentage of deaths varied between 3.5 and 20.3 per cent., the rates being nearer the latter figure. After 1870, when Tarnier began to practice and teach antiseptics, the mortality began to decrease from 2.8 in 1871 to 1.1 in 1883. In Tarnier's pavilion, established in 1876, there was but one death in 88 cases. In 1877 and 1878, out of 204 and 237 deliveries respectively, only two deaths; in 1879, out of 189 deliveries, only one death; and since then up to middle of June, 1883, out of a total number of 785 deliveries *not a single death*.

In the year 1875, Battlehner of Karlsruhe reports 530 puerperal deaths from all causes in the Grand Duchy of Baden. After the introduction of antiseptic prophylaxis, the mortality sank in 1880 to 450; in 1881 to 380; in 1882 to 225; and an average of 56,000 parturitions, from 0.95 per cent. to 0.4 ent., or more than one-half.

In Dr. Macan's report of the Rotunda Hospital for 1883 there appears a most remarkably low mortality under strict antiseptic precautions. The pupils and nurses are required to wash their hands thoroughly in a solution of carbolic acid and then dip them in a solution of corrosive sublimate (1 to 1,000) before making a vaginal examination. The vagina is irrigated with an antiseptic solution before any post-partum operation is performed, and the uterus is irrigated afterwards with a solution of corrosive sublimate (1 to 2,000). The report states that under this practice, of 1,090 women confined during the year, 6 died, a mortality of 0.55 per cent. And the most noticeable fact is that *none* of these deaths were from septicæmia.

During the discussion on puerperal fever at the New York Academy of Medicine (1884), very startling facts were brought out by Dr. H. T. Hanks. He stated that he had obtained statistics from the Board of Health of New York City showing that during the past four years, out of 120,418 puerperal women, 1,005 deaths occurred from puerperal fever, or 1 death in 120 cases. And he expressed the opinion that, under such a state of things, the profession should be ready to accept any judicious change in the care of the puerpera which would promise better results for the future.

From these few statistical quotations, it will be seen that the mortality in childbed-fever has been gradually decreasing of late years; and as there must be a substantial cause for this improvement, it is fairly attributed to the gradually increased shedding of light upon the pathology of the puerperal state. From this it became evident that child-bed fever, in its fatal forms, was due to bacterial agency, and that a traumatic infective disease was the imprint of its nature. It is true that there are eminent writers, as Mundé and some others, who maintain that *all* forms of puerperal fever are not septic in nature. What this other form or forms are, is not stated; nor are we led to understand that such forms of the disease have received any reasonable proof which would militate against the fact that they are septic all the same. When a rise of temperature occurs during engorgement of the mammary glands, accompanied with some headache and increase of pulse, and controlled by a little aconite and a

purgative, the condition should not be spoken of as "puerperal fever," although its identity with blood infection is more than probable. I will but refer here, in a passing way, to the fruitless endeavors of the unhappy Semmelweiss to turn the stubborn heads of his colleagues on this point. The history of the subject in this respect is familiar to all. To Semmelweiss, the obstetrician, is due the credit of having first shown that patients dead of surgical blood-poisoning, died with the same symptoms as patients dead of puerperal fever, and that the post-mortem examination yielded similar morbid conditions in each. His strong conviction of the truth of these facts led him to adopt antiseptic measures with the well-known wonderful results. Some twenty years ago it was established by Rindfleisch, Birch-Hirschfeld and others that wounds, on becoming unhealthy, contained numbers of spherical bacteria, and that the unhealthiness thereof stood in direct relation to the number of these bacteria. The more abundant these appeared, the worse became the state of the wound and the general condition of the patient. The blood of patients dead of puerperal fever was examined and found to contain bacteria in large numbers. In some of these cases it was also noted that small metastatic deposits occurred in the organs and tissues generally, and that these deposits were largely composed of minute organisms. These were cases of true pyæmia, and in no way differed from those dead of that disease under the care of the surgeon. In these pyæmic deposits bacteria generally appear in colonies or zooglæa. The channel by which these passed from the original source to form metastatic foci was shown by Klebs to be through the interspaces of the cellular tissues, and that this takes place either with or without the aid of wandering lymph corpuscles. They also travelled by means of emboli from thrombi situated in veins. Often in this manner septic organisms will pass along the blood-current unharmed as regards their vitality and power of settling in some distant organ or organs which have suffered injury sufficient to weaken their power of bacterial resistance. We know that micro-organisms cannot live in healthy living blood. They may enter it by escaping from the original wound-infection seat, but so long as the vitality of the blood is high, and there is no diminished resistance, these organisms

become enfeebled and ultimately die outright. If, however, on the other hand, the vitality of the individual is of a low grade, and the resistance to bacterial life is diminished, these organisms will gradually accumulate in the blood and tissues. They will increase rapidly now, where they found no footing before, and the more prosperous and luxurious they became, the more will the failing vital powers of the patient become evident. The organisms will continue to multiply and form small groups that increase in size until they are too large to pass through the capillary network. In this way they are caught and detained in the lungs, liver and other parts; and, still continuing to grow, form duplicates of the original wound-infection and supply the blood with their ptomäine poison. These metastatic foci of infection find the soil in which they become located suitable for their continued existence and growth, and form a stage of the disease known by the term *pyæmia*.

Micro-organisms, however, do not always act in this way. We know that much depends upon the dose, virulence of the organism, susceptibility of the patient, structure of the organ invaded, and other circumstances. Koch has experimentally proved that a very large dose of putrid blood will cause rapid death, with symptoms like those accompanying death from a narcotic poison. In these cases no organism whatever is found in the blood, and very little alteration of tissues is found at the seat of injection. The animal, in fact, dies from the effects of an overdose of a chemical poison before the infected micro-organisms had time to enter the blood in any appreciable numbers. Moreover, the blood from this animal so killed did not have any effect whatever on another animal when injected under its skin. Here we have a profound poisoning by ptomäines generated by the micro-organisms injected, and the animal dies showing no post-mortem evidence of secondary metastatic deposits. If, however, a smaller quantity of putrid blood be injected, the animal, say a mouse, shows much less marked symptoms of poisoning, and, in fact, they are quite absent when a very small quantity is used. If, from those animals, however, which die after this small dose, a small quantity of blood or subcutaneous fluid from seat of inoculation be taken and injected into another animal, it will die of

precisely the same symptoms. This can be continued through a series of any number of like animals, with the same results. The post-mortem examination of these animals shows the blood to contain large numbers of very small bacilli. Koch, Davaine and others called this disease *septicæmia*.

By this statement it is not meant that because the mice septicæmia of Koch is due to the presence in the blood of very minute *bacilli*, that these are also present in the blood of human beings dead of that disease. In fact, the contrary will be found to exist, in so far that bacilli are not by any means the predominating bacteria in man septicæmia, but that micrococci are the pathogenic organisms here, as in the septicæmia of rabbits. The question now comes before us—In what relation stand microorganisms to the septic process going on in the infected animal? Is the damage caused by their mechanical irritation, or by the irritation and lethal effect of a material generated by their reproduction and growth? Bearing upon this point, I remember seeing, in consultation, a young woman, in the hot summer weather of 1883, at the village of St. Henri. I found her lying upon her back in an insensible condition. Narcosis was as profound as if she was under chloroform. Temperature 105°; pulse 130. Her special senses were obliterated. She could not be aroused. The stench of putrefying blood was simply horrible. The windows were thrown open, and she was ordered to be sponged with a carbolic solution until clean, and then removed to another room for examination. During this operation I obtained the history from her medical attendant as follows: She was confined three weeks previous to my visit. On the tenth day she left the house and walked to the next street corner and back. She shortly afterwards felt considerable pain in the pelvis and abdomen, which was followed by a very profuse discharge of blood. The pain ceased in a few days, but the discharge continued free, and was not allowed to be interfered with lest the patient should *catch cold*. The result was that days of accumulated blood under the patient was allowed to remain and decompose, and form a beautiful culture medium for the various microorganism deposited there. These followed the vaginal canal to the cervix, which was extensively lacerated, and thence upwards

to the still unrepaired placental site. Here we had a terrible state of things. I found the whole pelvic cellular tissue set in one mass of inflammatory exudate. And it occurred to me that here in this human subject was a case which bore a strange relationship to Koch's experiments with chain-like micrococci upon the field mouse. The lacerated cervix and unhealed placental site were inoculated with decomposing blood containing masses of micrococci. They invaded the blood and lymphatic vessels of the parts, generated ptomaines, which set up an extensive phlegmon of the whole cellular tissue of the pelvis. Constant absorption of this poison was being carried on until the nervous centres became so saturated, and their function interfered with to such a degree, that impending death became apparent. The only existing difference between the case of this woman and that of Koch's field-mouse was, that in the woman's case the influence of the organism was not sufficiently powerful to utterly destroy the cellular elements of the tissues invaded; in the case of the mouse it was, and gangrene ensued. The organisms had, however, the effect of forming a barrier to further extension of the disease beyond the pelvic tissue. And although these micro-organisms exert so baneful an effect upon animal life when they get a footing in injured tissues of a fitting soil, they also form a limiting barrier to the spreading of inflammatory and suppurative disease, which would otherwise become general and rapidly fatal. In the case just related we had the inflammation set up by ptomaines generated by the micrococci in the decomposing blood. The organisms, in their turn, walled in the field of inflammation; but absorption of septic poison into the general circulation was being rapidly pushed on to almost complete extinction of the vital powers. This woman underwent treatment of which I shall speak further on, and recovered. And I firmly believe if Koch's animals had been experimentally treated on similar principles shortly after their inoculation, death would not in these cases have ensued.

In regard, then, to the *rôle* which micro-organisms play in the septic phenomena, it would appear that they stand as the first link in the chain of causation—in fact, it would be more correct to say that that chain had but one link, and that the phenomena

arising therefrom were but expressions of malign influences coming from this focus. Take away this focus and the septic phenomena cease to exist. Ogston has pointed out to us that there is no such condition as septicæmia or pyæmia *per se*. *We must have a traumatism*, whether that be in the form of an inflamed wound or an inflammation of seeming spontaneity, it matters little. And it has always appeared to me that, next to the mangled parts in a bad railway accident, there can be no more fitting traumatism as a culture-ground for micro-organisms than the mutilated passages of the puerpera.

Let us now take, in illustration, a puerperal patient with the usual wounds in her parturient passages, and that it is understood that there is a possibility of her becoming a subject of infective disease; that her wounds are the same as other traumatisms, and liable to the same dangers. *What, now, are the conditions leading to the infection of the wounds in question? What are the most rational means, according to our present knowledge of these dangers, to be adopted in prophylaxis?* It is universally acknowledged that certain septic and pathogenic micro-organisms surround our patient, and, if left undisturbed, are capable of setting up putrefactive changes in wounds exposed to their influence. It is also well known that when albuminous fluids, such as blood, meat infusion, and such like products, are exposed to the air for a certain time they become putrid, and that on microscopic examination they are found to contain every variety of micro-organism. That amongst the legion of different species of micrococci and bacilli occurring in these fluids, the great majority of them are quite harmless. When they are introduced into the body of a healthy animal they are unable to grow or multiply, and therefore are unable to produce any disturbance whatsoever. But some few species there are which, although growing and thriving in ordinary putrid substances, possess the power, when introduced into the body of a suitable animal, to set up a specific disease. Our best examples are the bacillus of anthrax, the micrococcus of erysipelas (so much studied in this respect by Fehleison), the tubercle bacillus of Koch, also the bacillus of swine plague. Davaine's septicæmia of rabbits, Koch's septicæmia of mice, and so on, cannot be produced by

every putrid blood or putrid organic fluid, only by some, only now and then—*i.e.*, when the particular micro-organism capable of inducing the disease is present in those substances, and then only when it finds access to a suitable animal. Davaine's septicæmia of rabbits and Koch's of mice cannot be induced in guineapigs. Anthrax cannot be induced in dogs, and so on with other pathogenic organisms. These pathogenic or specific organisms have the power of growing and thriving in the animal tissues *ab initio*. Those which do not possess this power—the non-pathogenic—cannot acquire it by any means whatever. Many are familiar with Koch's and Klein's criticisms of Buchner's experiments in endeavoring to prove the change of the non-pathogenic hay bacillus into the pathogenic anthrax bacillus, and how Buchner's error occurred through accidental air contamination. That Klein proved it was as impossible as to convert the bulb of the harmless onion into the bulb of the poisonous colchicum. There is also instanced the case of the so-called jequirity bacillus, as proving the conversion of a common septic into a pathogenic organism. This was proved to be more absurd than the hay and anthrax bacillus story, as it was shewn that the morbid condition set up in the eye by the introduction of an infusion of jequirity bean was due to the fact that in this infusion certain active principles existed, closely allied in nature to albumen, in which the common septic organisms in the surrounding air formed a special nurture medium to grow and multiply in. It is, however, with the common septic organism we have to do chiefly in connection with the febrile condition met with in the puerpera; and it is to these I will draw attention.

Many observers have shown that by putrefaction of animal substances a substance can be obtained—sepsin—which can be isolated by a chemical process destructive of every living organism, and which, on injection into the vascular system of animals in sufficient quantities, produce marked febrile rise of temperature, and is capable of causing death with the symptoms of acute poisoning. Lister has shown that under careful antiseptic dressing of wounds, putrid intoxication, as well as septicæmic infection, does not at all occur. From experiments of this nature on

lower animals, we can easily find analogy in those rapidly fatal cases of intense septicæmia occurring occasionally in the much-neglected puerpera, and in some cases of death after abdominal section. These septic organisms differ from pathogenic organisms in some important respects. They require for their support and thrift much less complex substances to live in—almost any animal or vegetable fluid. They also differ from pathogenic organisms in the very essential respect that they absolutely refuse to grow in the *living tissues of the living animal*. During the life of the patient should any part, such as the parturient tract, become necrotic from severe injury, or so severely changed, by inflammation or otherwise, that the part involved becomes practically dead, then that part becomes packed with masses of micrococci, and here these organisms find a suitable nidus for growth and multiplication. They may, in extreme cases, also be found in other organs distant from the original seat of injury, but it will be found that death has been so rapidly approaching, and the general disorder has been so severe, that these tissues have begun to lose their vitality, and therefore their power of resistance to the invasion of these septic organisms. The question may now be asked—Where do these organisms come from which are thus capable of settling in remote tissue even during the ebbing life of the patient? In the case of the intestinal wall and abdominal organs generally, there can be little doubt but that they immigrate from the cavity of the bowel, where they are normally present; nor do I think there can be a doubt in the case of a secondary pneumonia or inflammation of serous membranes during a neglected case of septic metritis. It is not difficult to understand that when products which form a nidus for these organisms become taken up by the general circulation, they act as emboli, and thus set up secondary inflammations in distant organs. These organisms, although unable to travel through the living blood unprotected, can, under the protection and cover of these emboli, be carried carefully to distant regions and there deposited, retaining their full vigor and vitality. But when found in these organs, it does not follow that they originated there, but are simply the result of transportation from parts which

have direct access to the outer world. We have this fact exemplified in the puerpera; the lochial discharge is charged with micrococci from the very first day after delivery. This fact I have demonstrated many times myself by examining the lochia microscopically at various periods during the puerperium, and have never failed to find the specimen well filled with micrococci. These organisms must, to some extent, find their way into the blood, but being unable to resist the living healthy blood they die at once and are no more heard of. But let these very organisms reach, under protection, an organ in which the balance between health and disease has been disturbed by excessive functional activity or otherwise, and the result will be different. It has been pointed out by Ogston that acute suppurative mastitis occurring in neglected puerperal patients was due to immigration of micrococci, and that the reason they settle in the breasts was on account of those organs being in a state of high functional activity approaching congestion. This I have noticed myself, and it has been evidenced to me by the fact that I have never seen an acute suppurative mastitis since I began the practice of proper vaginal irrigation; whereas prior to this, mammary abscess was by no means an uncommon occurrence. As an offset to these teachings, it may be said that the healthy blood has been found to contain minute organisms normally, and that under conditions they can be deposited in certain organs to set up mischief. This theory has now been admitted to be utterly unfounded, and it has been distinctly proved that the living blood contains no organisms whatever; and that the error in this respect arose from accidental contamination. As we have now seen somewhat of the relation of micro-organisms to the puerpera, we will turn our attention to the means of managing them.

(To be continued.)

THE "MEDICINE-MAN,"
OR INDIAN AND ESKIMO NOTIONS OF MEDICINE.

*A paper read before the Bathurst and Rideau Medical Association, Ottawa,
20th January, 1886.*

By ROBERT BELL, B.A.Sc., M.D., LL.D.,
Assistant Director of the Geological Survey of Canada.

(Continued from p. 462.)

The great majority of their medicines are vegetable, but some are derived from animals, as the beaver, the musk-rat, the skunk, the deer, toads, snakes, insects, etc., while others are mineral, as iron pyrites, gypsum, salt, ochres, clays, ashes, etc. Parts of rare animals, impossible to obtain at the time, may be prescribed as the only means of saving a patient, who appears sure to die in any case. One of the most curious preparations in use amongst them is the "black poison," the effects of which are well known around the lakes of the Winnipeg basin and in the Swan River district. Some time after administration, it changes the color of an Indian's skin from brownish-yellow or copper-color to a sooty black, at the same time causing hair to grow on unusual parts, especially in an Indian, as on the cheek bones, etc. Its first effects are sickness, headache, and pains in the back and limbs. Afterwards, ulcerative sores break out in various parts of the body, chiefly over the joints, more particularly the knuckles. I have tried in vain to ascertain the composition of the "black poison," or to obtain a specimen of it. I have been told by a person who professed to have seen it, that it is a brown snuff-like powder, with a slight and rather sickening smell. A small quantity administered in food appears to be sufficient to produce the above effects. One victim, Peter Brass of Fort Pelly, informed me that it was given to him, unperceived, mixed with a dish of berries. I have heard it stated that it manifests its properties if smoked with tobacco, but this seems doubtful. It is said to be derived partly from a plant which does not grow north or east of Lake Winnipeg, possibly the poison ivy, *Rhus toxicodendron*. It is also said to contain the dried acrid matter from glands in the skin of the toad.

Although the medicine-man may have a considerable knowledge of the properties of many medicinal agencies within his reach, he depends, for the removal of disease, more on sorcery, beating the tom-tom, singing, etc., than on the efficiency of drugs. I have seen a miserable sick Indian, fresh from the hands of the medicine-man, with his poor body all painted with figures of tortoises, fishes and other creatures, in order to cure him of some internal trouble. A great medicine-man will not condescend to diagnose a case by the tedious process of examining the patient and asking questions. He is supposed to know all about it without going into these details. An English doctor told me that once when he was examining a sick Indian, to his surprise, neither the man himself nor his friends took much interest in the process. After answering a few questions in a sullen manner, they exclaimed, "We thought you were a doctor."

When an Indian becomes really sick he yields to his weakness, gives himself up to die, and is the most abject of creatures. The drumming on the tom-tom seems to rouse him a little, and to keep up his courage. An Indian canoe-man once fell sick on my hands, and obliged me to stop my journey and stay in camp for two or three days in order to nurse him. He secretly sent word by some friend to bring a reputed medicine-man who was then camped at a considerable distance away. I was treating him as well as circumstances would permit with the aid of a small assortment of medicines which I had along with me. He was about well, and able to resume work the following day, when the medicine-man arrived late in the evening, after I had turned into my blankets. He and the friends who had come with him made the night hideous with their tom-toms and the monotonous "hi-ya, hai-ya; hai-ya, hi-ya"! But as they had great faith in it, I did not interfere. Going over to my patient at daylight, I enquired how he had stood it. He replied that he was now quite well, that the medicine-man (who, by the way, was sleeping triumphantly close by) had driven off the spirit of his sickness, that it was now far away, and he was ready for work again. He did not recognize that he had to thank either myself or nature for the cure.

The Indian doctors do not understand the nature of delirium.

When a patient becomes delirious, as in fevers, etc., they say he is about to "turn windigo"—that is, to become possessed of an irresistible desire for cannibalism. It was then the doctor's duty to knock the patient on the head. Many a life has been sacrificed in this way.

Midwifery is completely ignored by the great medicine-man, as beneath his dignity, and it is left entirely to the female doctors. A profound knowledge of obstetrics is seldom called for, as parturition is generally extremely easy, owing, principally, to the comparatively small size of the infant's head. Delivery is effected by placing the patient on her hands and knees on the ground, and supporting the abdomen by the hands of the accoucheuse.

In surgery, the medicine-men confine themselves to setting bones, dressing wounds and ulcers, and alleviating pain by any means in their power. They never attempt any grave operation, although their general knowledge of anatomy is not to be despised. They resort to cupping by means of sucking-tubes. They sometimes bleed by opening a vein in the arm with a sharp chip of flint. I have some evidence, in the shape of relics discovered in mounds, which leads me to think that certain of the ancient Indians had a better knowledge of surgery than those of the present day.

The sweat-bath is in universal use. In preparing for a race, or any other great muscular effort, they sometimes anoint the body and have the muscles kneaded by a friend after taking one of these baths.

The wild Eskimo appear to suffer from fewer diseases than Indians or whites. Among those of Hudson's Straits, notions of medicine are, as far as can be learned or observed, more crude and primitive than among the Indians. They also have a class of medicine-men whose pretensions to perform all kinds of miracles are of the most extravagant character. They appear to deal almost entirely in the supernatural, and to make little use of medicines. They have no hesitation in declaring to their own people that they can cure all kinds of disease and prolong life indefinitely, if they only choose to do so. They account for their own death by saying

they wish to die, or that they are overcome by a still greater, but unseen, medicine-man. They say they can and do make themselves larger or smaller at will, or change themselves into some other animal, or enter into a piece of wood or stone; that they can walk on the water or fly in the air; but there is one indispensable condition,—no one must see them. They find themselves powerless to perform these miracles if anyone is looking on. I was once called to prescribe for a noted medicine-man on the Eastmain coast of Hudson's Bay, who had accidentally shot himself through the abdomen, and was suffering from peritonitis. All his pretensions had vanished, and he was most anxious to live. When one of these doctors visits a patient, after ascertaining the seat of the disease, he will rub and blow on the part and then withdraw his hand slowly and as if with difficulty, in order to show that he is hauling out a heavy weight of pain; at the same time he looks upward, rolls his eyes, and groans. Having pulled the disease out of his patient's body, he throws it away with a great effort, muttering some imprecation, after which he breathes more freely and looks for his fee, immediate payment being required by their rules of etiquette. Some of the Eskimo women profess to be doctors. They have a few minor surgical appliances, and they alleviate the pains of rheumatism, scurvy, sprains, etc., by rubbing or manipulating the parts affected. But their chief mode of cure is by stroking the body with an air of mystery while repeating charms. The doctor is generally accompanied by other women, who join in the choruses of the charms.

The following are some of the plants used medicinally by the Outchipwai Indians:—

Acorus calamus, sweet flag or "fire-root," as infusion or in powder, or it may be chewed whole, for colds and flatulence.

Nuphar advena, yellow pond-lily, as a tonic and for poultices.

Abies alba and *A. nigra*, spruce. The fresh inner bark is beaten to a fine homogeneous pulp to form astringent poultices for healing obstinate sores. Dr. Mathews of York Factory states that a decoction of the leaves or spray is used internally for scurvy and externally for rheumatism.

Abies balsamea, the balsam tree. The clear liquid "gum" from the blisters is applied freely to fresh wounds, and a decoction made from the bark is taken in large doses for diseases of the chest.

Salix and *Populus*. Decoctions of the bark of both willows and poplars are taken as bitter tonics and in fevers. Dr. Mathews informs me that the Indians of York Factory find a powerful astringent in one of the dwarf or creeping willows; also, that they drink an infusion of the bark of the grey willow, a small tree of that region, for rheumatism.

Lonicera ciliata, honeysuckle, and *Ribes rubrum*, wild red currant. The stems and twigs of these two shrubs are tied into bundles and boiled together in a comparatively small quantity of water; the strong decoction is taken in large doses for diseases of the bladder.

Juniperus communis, juniper. The Indians, generally, know the diuretic properties of the berries. In some parts of the country the stems are boiled and the inner bark beaten to a pulp to form poultices for foul sores.

Ledum latifolium, Labrador tea. A decoction of leaves and flowers is used for diarrhoea. A weak infusion is sometimes taken as a poor substitute for tea. The chewed leaves are applied to wounds and skin affections. Dr. Haydon, who resided six years at Moose Factory, says a decoction of the leaves or flowers is used in which to boil clean rotten wood of the white birch, which is afterwards dried, pounded and sifted. The powder is used as a remedy for chafing and to dust new-born infants. He considers it a useful application.

Cornus circinata, *C. sericea* and *C. stolonifera*. An infusion of the bark of any of these dogwoods is taken in moderate doses for diarrhoea. A decoction of any of them in large doses is reported to be emetic. In small doses, the decoction is taken for fevers, colds and coughs. The bark dried quickly at the fire is used to smoke, either alone or mixed with tobacco.

Iris versicolor, blue-flag. The dried root in powder is used as a cathartic.

Prunus Pennsylvanica, pigeon cherry. A decoction of the

bark is employed as an invigorating tonic in debilitated states of the system.

Pyrus Americana, mountain ash. A decoction of the young shoots is used as a tonic, and also, according to Dr. Haydon, for pleurisy, or what appears to be this disease from the symptoms they describe.

Mentha Canadensis, wild mint. The infusion as a carminative.

Prunella vulgaris, self-heal. Said by Dr. Haydon to be chewed for sore throat.

Polygala senega, snake root. The word senega is one of the varieties of the Outchipwai name for this plant, and means yellow-root. It grows principally in very calcareous soils, and is not found beyond latitude 52° in the region north of the great lakes. It is highly prized by the Indians, and is used by them in inflammation of the lungs, colds, coughs and sore throats.

A knowledge of the medicinal properties of the plants of the region I have referred to might often prove valuable. In distant travels in this northern wilderness the stock of medicines which one can take with him is necessarily very limited, or one may chance to have none at all. In case of emergency, it is therefore desirable to know the virtues of the native plants, always at hand, in order that one may make the most of them in the absence of more powerful remedies.

The Eskimo, who live entirely on raw animal food, appear to regard any edible vegetable substance as medicine. They eat with great relish the northern blueberries and cranberries, and where they cannot get these, they take the leaves of the dwarf willows, a plant of the parsley family, called "scurvy-grass" (*Ligusticum*), and almost any kind of sea-weed. On the shores of Hudson's Straits they collect and eat the starchy roots of *Polygonum viviparum*, which grows there in considerable abundance. It is a singular circumstance that, notwithstanding the sameness of their food, and the fact that they never wash either their bodies or their clothing, the Eskimo appear never to be afflicted with scurvy, whereas white men, under a similar régime, would be almost certain to be attacked.

REPORT ON PHARMACOLOGY AND THERAPEUTICS.

By JAMES STEWART, M.D.,

Professor of Materia Medica and Therapeutics, McGill University.

THE ACTION OF ERGOT.

Prof. Kobert of Dorp has discovered the following substances in ergot of rye: Two acids, ergotinic and sphacelinic, and a glucoside to which he gives the name of cornutine.

Ergotinic acid administered to pregnant bitches, rabbits, cats and sheep even in the largest doses, do not give rise to any uterine contractions. After very large doses, the blood-pressure falls very low, and as a consequence, the young die, but are not expelled. From these experiments, it is concluded that the ebolic power of ergot is not owing to ergotinic acid.

He found that cornutine produced uterine contractions in both pregnant and non-pregnant animals, but with this difference, that in the latter the contractions are accompanied by vomiting, diarrhoea, salivation and irregularity of the pulse. In pregnant animals, uterine contractions are induced by doses insufficient to produce the latter symptoms. The doses necessary to induce stimulation of the uterine muscular fibres in the non-pregnant bring about such a serious general state as is apt to be fatal. This is not the case in pregnant animals.

Dr. Kobert found sphacelinic acid to act very powerfully on the pregnant uterus of the lower animals, without giving rise to any dangerous symptoms. The contractions that it produces are tonic, while those of cornutine are clonic. Cornutine acts by directly influencing the centre in the spinal cord for uterine contractions, while sphacelinic acid acts directly upon the uterus itself.

To obtain the full uterine effects of ergot, it is necessary to use a preparation containing sphacelinic acid and cornutine, but no ergotinic acid, for the latter has a very injurious action on the stomach and circulation, and no effect on the uterus. This can be done by bruising the fresh ergot and extracting with strong alcohol. The active uterine principles are soluble in this menstruum, while ergotinic acid is not. This alcoholic extract

does not, however, retain its active therapeutic properties for a longer period than twelve months. It should, therefore, be prepared from fresh ergot every twelve months. This extract, according to Kobert, is just as efficient in contracting the arterioles and thus arresting hemorrhage, as it is in stimulating the pregnant uterus.

ON THE USE OF COCAINE IN THE OPIUM HABIT.

From numerous physicians we have had favorable reports lately of the beneficial influence of cocaine in the opium habit. All who have had to do with these patients will gladly welcome any means that will aid them in their treatment. The attempt to cure the opium habit very frequently fails, unless compulsory confinement is resorted to. It is often a question of great delicacy to decide whether it is best to suddenly remove the opium or to allow the patient to continue it in diminished quantities until such time as the damaged nerve centres regain their normal condition. The sudden removal of the accustomed stimulus is apt to be followed by great depression of the circulation, which may be very serious. On the other hand, success is seldom obtained unless this measure is resorted to. In cocaine we have an agent that, in small doses, acts as a cerebral stimulant, this action closely corresponding to the primary effect of opium on the higher nerve centres. If we can make use of cocaine to bring about only its cerebral stimulant action, we obtain effects which will tide the patient for a short time over his most trying period; that is, for the few days succeeding the withdrawal of the opium.

Obersteiner of Vienna has had very gratifying results with cocaine when used in the method above noted in a number of cases of morphiaism. The cocaine treatment in these cases requires to be carried out with the greatest possible care, otherwise we may bring about a cocaine habit which, if all reports be true, is even worse than that of opium. In large doses, cocaine causes marked cerebral depression, a veritable cerebral neurasthenia. Even cases of insanity have been reported from its too frequent and long-continued use. It should not be continued for a longer period than a week without an intermission. The dose necessary to bring about the stimulating, without any of

the subsequent depressant effects, cannot be determined exactly beforehand. Each case must be carefully tested to ascertain the appropriate dose. Ten minims of a four per cent. solution of the hydrochlorate of cocaine may be considered a fair dose for an average adult.

HYPNONE AND URETHAN—TWO NEW HYPNOTICS.

We owe to the researches of modern chemistry two agents which promise to fill important places in the lists of the hypnotics. These are *hypnone* and *urethan*.

Hypnone has received this designation on account of the inconvenience there would be in using its proper chemical name (phenyl-methyl-acetone). Hypnone is a liquid at 20°C., and boils at 198°C. Its specific gravity is about 1.020. It is insoluble in water, and has an odor resembling cherry-laurel water. In doses of from three to five drops it generally causes a deep sleep, closely resembling the deep and dreamless sleep usually following chloral hydrate. It has been administered by Dujardin-Beaumetz and Bardet to a number of patients with satisfactory results. They did not notice any dangerous or even disagreeable effects in any of their cases, with the exception that the acetone, into which it is partly decomposed, gives rise to a peculiar odor of the breath. Administered to the lower animals, it acts as a powerful hypnotic in very small quantities, while larger doses produce death, the animal dying comatose. In guineapigs, the dose necessary to produce sleep is very frequently also a fatal one, death being due generally to paralysis of the respiratory centre. It brings about its hypnotic action when inhaled more readily than when given by the stomach. It is recommended to be administered in capsules mixed with a little glycerine. It is too soon to decide how it will compare with chloral and paraldehyde.

URETHAN.

Chemically, this substance is an æthylic ether of carbonic acid, and consists of white crystals freely soluble in water. It has a peculiar, but not unpleasant taste, and is free from odor. The action of this agent has been experimentally investigated in the lower animals by Prof. Schmiedeberg of Strasburg, and

in man by Prof. Jolly and Dr. V. Jaksch of Vienna. In doses of 16 grains (1.00) it nearly always produces a sound and deep sleep. As its action is almost entirely on the cerebral centres, it has no effect in allaying peripheral irritations. It consequently can exert no influence in allaying the pains of neuralgia or troublesome coughs. The sleep induced by it closely resembles physiological sleep in its character and duration. The patient, on awakening, does not experience any unpleasant effects.

Schmiedeberg recommends it to be given in small doses, frequently repeated, rather than in one single large dose, as he has found that it is apt at times to give rise to vomiting. Urethan has no injurious action either on the circulation or respiration. On the respiration it acts rather as a stimulant. It possesses advantages here over paraldehyde, which, in other respects, it closely resembles in its physiological action, paraldehyde having a depressing effect on the respiration.

Dr. Myrtle of Harrogate, in the *British Medical Journal* for February 20, 1886, gives the result of his experience of urethan in fifty cases. These cases were those of everyday practice, where a hypnotic is commonly given, as general restlessness, sleeplessness, neuralgia, and certain forms of skin affections with great irritation. He instances the case of a gentleman who had suffered from insomnia for weeks, and who could not take either opium or chloral. Fifteen grains of urethan produced a most pleasant and refreshing sleep. The patient awoke without headache or any other disagreeable symptom; no nausea, flatulence or constipation. Given in gout and rheumatism, Dr. Myrtle found it to act very efficiently, presenting the advantage over morphine of not interfering with the action of the bowels or kidneys.

In a future report it is the intention to deal more exhaustively with the whole class of hypnotics—a class of agents which, in their proper sphere, are certainly valuable, but which very frequently are simply prescribed at random. The whole subject of sleeplessness is one requiring the closest investigation before deciding on any medication. Not unfrequently the origin of it is so obscure that it is extremely difficult to institute a scientific treatment. That hypnotics may do much harm is an almost

daily experience. It will be the aim, in the forthcoming article, to give the latest information on the different agents possessing hypnotic properties, and at the same time to indicate where and how they are to be used.

Correspondence.

NEW YORK, March 19th, 1886.

It would seem as if events of great moment always go in company. In this city, within the past few weeks, two great lights in the medical profession have been extinguished forever. The death of Dr. Alfred C. Post was followed shortly by that of Dr. Austin Flint and Dr. Vanderpool, ex-President of the Medical Society of the County of New York. Dr. Vanderpool had reached a good old age, and was held in high respect and esteem by the members of the profession in this city, as well as by a large and influential *clientèle*. On the night of the 13th inst. Dr. Flint was stricken with apoplexy, and lingered unconscious until seven o'clock next morning. The deceased was born in Petersham, Mass., on the 20th of October, 1812, and belonged to a family of physicians, his father, grandfather and great-grandfather being members of the profession. He received his collegiate education at Amherst and Cambridge, and was graduated as M.D. at Harvard in 1833. For the first three years after graduation, Dr. Flint practised in Boston and Northampton, and then established himself in Buffalo. In 1844 he was appointed to the chair of the Institutes and Practice of Medicine in the Rush Medical College, Chicago, but this position he relinquished at the end of a year. The *Buffalo Medical Journal* was founded in 1846, and during the ensuing years he conducted it with marked ability and success. In 1847 he was associated with Professors White and Hamilton in the founding of the Buffalo Medical College, an institution in which, until 1852, he was Professor of the Principles and Practice of Medicine. In the latter year he was appointed to the chair of Theory and Practice of Medicine in the University of Louisville, a professorship that he retained until 1856, when he resumed his connection with the college at Buffalo as Professor of Pathology and Clinical Medicine. The

winters 1858-59, 1859-60, 1860-61 he passed in New Orleans, holding the positions of Professor of Clinical Medicine in the Medical School and Visiting Physician to Charity Hospital. In 1859 he removed from Buffalo, establishing himself in this city, where he afterward remained. He was appointed in 1861 one of the physicians to the Bellevue Hospital, and Professor of the Principles and Practice of Medicine in the Bellevue Hospital and Medical College, having previously been appointed Professor of Pathology and the Practice of Medicine in the Long Island College Hospital. He resigned the latter position in 1868. In 1872 he was elected President of the New York Academy of Medicine. He was elected President of the American Medical Association in 1883, and presided at the meeting held in Washington, D.C., in 1884. He was also selected as President of the International Medical Congress to be held in Washington, D.C., next year. His productions are too well known to require enumeration here.

There have been few men in the profession who have been held in so high esteem and reverence by his *confrères* as Dr. Flint. In him were combined all the qualities of a good and great man. He never grew old in his ideas, always keeping abreast of the progress in medical science, and was among the first on this continent to accept the signification of Koch's great discovery—the tubercle bacillus. He had been attending to his many duties up to the day of his death. The writer of this letter had occasion to meet him in consultation a few weeks ago. The consultation was to take place in Dr. Flint's office at an appointed hour. Having had a patient in his office who was detaining him a few minutes, the old doctor came out into the waiting-room punctually at the appointed hour, excusing himself and saying that he would be disengaged in a few minutes. The patient, on having her chest examined, said, "Doctor, I feel very nervous." "Well, we will try not to make you more so," was the quiet and reassuring reply. During the consultation that followed, the attending physician was made to feel that he was the consultant and his advice solicited rather than that advice was imparted to him. This faculty which is so difficult to describe, and which is equally difficult to cultivate, may, in part, explain why Dr. Flint

was so admired and loved by all who came into contact with him. At the meeting of the Academy of Medicine last night the death was formally announced, and it was a point appreciated by all present when the President, Dr. A. Jacobi, said that he would do himself the honor to serve as memorialist of Dr. Flint. This came with the better grace, as it was well known that there had been many passages of arms between the two leading champions of the "old code" and the "no code" systems, which, as stated in my last, was probably the cause of Dr. Flint tendering his resignation to the Academy of Medicine.

An important paper entitled "*Limitations in the value of glasses for the improvement of vision*" was read by Dr. D. B. St. John Roosa before the New York Academy of Medicine on the 4th inst. After giving a short historical sketch of the introduction of the ophthalmoscope into ophthalmology, the reader of the paper said that a large proportion of eye cases coming into the hands of the specialist were those of error in refraction. Of 39,837 ophthalmic cases treated in the Brooklyn Eye and Ear Hospital in seven years, 4,570 or 10 per cent. were diseases of refraction and accommodation. Of 18,598 of the same class of cases treated in the Manhattan Eye and Ear Hospital, 1,991 or 11 per cent. were of the same kind. Donder's famous work was largely quoted from to show that the correction of hypermetropia by convex glasses will not always cure the attending asthenopia. The author did not undervalue the benefits to be derived from the correction of sight by suitable glasses in certain nervous symptoms, but he thought that this idea was driven too far at the present day. The clinical records of 15 cases were related to illustrate the class of cases that were benefited by glasses and those that experienced no improvement by such treatment. "Uterine asthenopia, or the asthenopia so often found in women suffering from serious uterine disease, I have never been able to materially alleviate. Neither have I seen any benefit, other than very temporary, in the correction of trifling errors of refraction in neurotic hysterical subjects, nor in the weakness of ocular muscles, so often one of the early symptoms of locomotor ataxia." The reader of the paper, himself a specialist of great renown, in his closing remarks, sounded a note much

unheeded in the present period of fashionable specialism. The eye was not to be looked upon as an organ apart from the body, or the point of departure of the most varied forms of disease. The remarks are well worth quoting: "A narrow specialism will never find any comfort in the study of the woes of the human body. The various causes of disease are too complex and concealed in very many, if not in the majority of cases to be found in the abnormal condition or action of one organ, while the correction of errors of refraction and accommodation, and the unburdening of overloaded ocular muscles, will do much to alleviate the asperities of human existence, these things are not as yet a panacea even for neuroses, much less for inflammatory diseases. In our hopes for cure in employing these methods, we will still require to avoid skepticism on the one hand and excessive confidence on the other."

The hydrophobia scare to which I referred to in my last letter has been transformed into a *fiasco* by recent developments. The origin of the scare, which the local press took every means for spreading, arose in Newark City, New Jersey. A supposed rabid dog had bitten several children and dogs on the 2nd of last December. The mad dog was shot, and of the bitten dogs six were discovered and kept in close confinement under veterinary supervision by order of the Newark Board of Health. Four of the children that were bitten by the dog were sent, through the generosity of Dr. Gorham and several Newark citizens, to Paris to be treated by Pasteur. The two other children that were bitten by the same dog remained at home. A very readable article on Pasteur's method of treating the children in Paris is to be found in the *Philadelphia Medical News* of 25th January, by Dr. F. S. Billings, who accompanied the little patients on their voyage. A copious diary of the sayings and doings of the interesting youngsters during their entire absence is recorded in the columns of the *New York Herald*. It is now known that the ferocious dog did not suffer from rabies, as none of the bitten dogs have manifested, in the slightest degree, any of the symptoms of that disease. All the children, the inoculated and non-inoculated, are enjoying good health.

H. N. V.

Reviews and Notices of Books.

A Doctor's Experiences in Three Continents.—By EDWARD WARREN, M.D., LL.D. Bey by Khedival firman. Baltimore, Md.: Cushings & Bailey.

A personal narrative extending over very stirring times and related by one who was taking a very active part. Dr. Warren began his professional career just as the war of secession broke out. After having served with distinction in the Confederate army, where he saw much service, and aided in the work of organization and hospital establishment, circumstances led to his accepting a post of some importance under the Egyptian Government. At Cairo his professional work proved very acceptable, and he was the recipient of high honors from the Khedive. Repeated attacks of ophthalmia obliged him to leave Egypt. He then practised for a time in Paris with considerable success, and received the coveted ribbon of the Legion of Honor. The incidents connected with such an eventful life are portrayed with vigor, and contain much of interest to the medical reader. There is, perhaps, here and there betrayed a fiery spirit and a somewhat censorious bearing towards confrères, whilst the self-laudation is not entirely in good taste. These very faults may possibly account for the bitter enmities and opposition he certainly excited in various quarters.

The Principles and Practice of Medicine.—By the late CHARLES HILTON FAGGE, M.D., F.R.C.P., Physician to and Lecturer on Pathology at Guy's Hospital; Examiner in Medicine, Univ. London. Vol. I. Philadelphia: Lea's Sons & Co.

In the preface to this work we are told that it ends the principal labor of its distinguished author for the last twelve years of his life. It will always remain a monument of his skill and great industry—a monument that will be even “more enduring than brass.” The work is much more than an ordinary textbook on the Practice of Medicine. It is, in addition, an able resumé of what the past and present physicians of Guy's Hos-

pital have contributed to the domain of general pathology and clinical medicine, as well as an epitome of the experience gained in the wards and dead-house of this great London hospital.

The work is one that has evidently been prepared with the greatest care. The reading of even a few pages will convince the reader that it was not prepared for students only. The aim of the author to give to the world something above the ordinary text-book is very evident, and we have no doubt but that every reader of its pages will allow that the author has been eminently successful in his aim. At the time of his death, Dr. Fagge had, with the exception of the diseases of the heart and skin, completed his great work. Diseases of the valves of the heart are contributed by Dr. Wilks, and those on the skin by Dr. Pye-Smith.

After an introductory chapter which deals with the general causes of diseases and modes of death, the author deals with general morbid processes, in which he includes contagion, fever, inflammation, tubercle, tumors and syphilis. In the treatment of the latter disease, great stress is laid on the importance of the administration of mercury during the existence of the primary sore. It is contended that by following this method, very frequently the development of the secondary symptoms are altogether prevented. On this point there is great discrepancy of opinion even among those who have had large experience in the treatment of this disease. We believe that too much stress is laid on this alleged power of mercury. It should be remembered that not infrequently secondary symptoms never appear when no mercurial or iodine treatment has been adopted. Sigmund treated 1,000 cases of primary syphilis without either drug, and in 40 per cent. the secondary manifestations were either entirely absent or so trivial as not to be noticed by the patients. The custom of English physicians in treating the primary disease with mercury internally is so universal that its natural history is not practically known to them.

Following the general morbid processes, we have two hundred pages devoted to a description of the specific diseases. In speaking of the possibility of our ever being able to cut short typhoid fever, the author remarks that at times the disease spon-

taneously abates at the end of the second week, and that he sees no reason why the number of cases in which this occurs should not be increased by the administration of some medicine or other. He has no sympathy with the views of those who look upon the antipyretic treatment of fever as useless or injurious. He is convinced of the great damage the tissues receive from the effects of a high temperature, especially when it is long-continued, as we find it in typhoid.

The account of the diseases of the nervous system, which follows, is very full and elaborate, and rich in the experiences of the wards of Guy's Hospital.

The concluding portion of the first volume deals with the diseases of the respiratory system, organic and functional. The same thoroughness characterizes the account given of these diseases as those we have just noticed. A notice of the second and concluding volume of Dr. Fagge's altogether admirable work will appear in a future number of this JOURNAL.

Books and Pamphlets Received.

DRAINAGE FOR HEALTH; or Easy Lessons in Sanitary Science. By Joseph Wilson, M.D. Second edition. Philadelphia, P. Blakiston & Co.

THE METHODS OF BACTERIOLOGICAL INVESTIGATION. By Dr. Ferdinand Hnepe. Translated by Hermann M. Briggs, M.D. Illustrated. New York, D. Appleton & Co.

ON THE FŒTUS IN UTERO, as Inoculating the Maternal with the peculiarities of the Paternal Organism. By Alexander Harvey, M.A., M.D. London, H. K. Lewis.

LEWIS'S POCKET MEDICAL VOCABULARY. London, H. K. Lewis.

A GUIDE TO THE EXAMINATION OF THE NOSE, with Remarks on the Diagnosis of Diseases of the Nasal Cavities. By E. Cresswell Baber, M.B., Lond. With illustrations. London, H. K. Lewis.

ON THE SUPRAPUBIC OPERATION OF OPENING THE BLADDER FOR THE STONE AND FOR TUMORS. By Sir Henry Thompson, F.R.C.S. London, J. & A. Churchill.

THE YEAR-BOOK OF TREATMENT FOR 1885. A Critical Review for Practitioners of Medicine and Surgery. Philadelphia, Lea Bros. & Co.

A SYSTEM OF PRACTICAL MEDICINE BY AMERICAN AUTHORS. Edited by William Pepper, M.D., LL.D., assisted by Louis Starr, M.D. Vol. IV. Philadelphia, Lea Brothers & Co.

Society Proceedings.

MEDICO-CHIRURGICAL SOCIETY OF MONTREAL.

Stated Meeting, January 22nd, 1886.

T. G. RODDICK, M.D., PRESIDENT, IN THE CHAIR.

Pathological Specimens.—DR. WM. GARDNER exhibited the following specimens:—1. *A Fibrous Polypus of the size of an orange*, removed from a woman aged 48. The growth hung in the vagina, and was attached along the whole length of the posterior wall of the uterus. The patient was blanched to translucency by hemorrhage, which had lasted almost constantly for five years. She made a good recovery. 2. *Two diseased Ovaries*, slightly enlarged and cystic, being the second ovaries respectively from two cases of ovariectomy—the tumor in one case being a unilocular ovarian cyst; the other the ordinary multilocular cystoma. In each case the uterus was enlarged and retroverted. Menorrhagia had in both been a prominent symptom. In such cases where the second ovary is diseased, the question arises as to what should be the proper treatment when a part of the ovary seems healthy. Schröder has recently published reports of a number of cases in which, instead of complete removal, he has excised the diseased tissue by a wedge-shaped incision and brought together the cut surfaces by sutures. The object in such cases is to permit, if possible, subsequent conception. Dr. Gardner was not aware, however, of conception having occurred under such circumstances. Doubtless, however, after ovariectomy, the second ovary has often been unnecessarily removed, as slight enlargement and a cystic condition do not necessarily imply a condition which shall develop into an ovarian tumor requiring the ordinary operation. The responsibility on the part of the surgeon in dealing with such conditions appears to assume a new aspect in the light of Schröder's experience.

The PRESIDENT said that one objection to a woman becoming pregnant after this operation was that sometimes the abdominal walls give where the incision had been. He had seen this occur once, and produce hernia of the pregnant uterus.

DR. ALLOWAY said he had attended this woman in her confinement, and had great difficulty in keeping the womb in proper position; it came through the abdominal walls and stretched the integument greatly. She has to wear a pad constantly to keep the abdominal organs from coming through.

DR. GEO. ROSS said that the first woman upon whom he had performed ovariectomy (she being unmarried) was told by some of her friends that she could not conceive. In twelve months time she became pregnant, and although the case was one of breech presentation, and although the wound had not healed by primary union, a clamp having been used, still she had no trouble during labor.

DR. SHEPHERD said that if the wound healed by granulations, it ought to be all the better.

Cerebellar Disease.—DR. WILKINS read a paper on “Cases of Cerebellar Disease.” (See page 513.)

DR. STEWART asked Dr. Wilkins what were his reasons for considering the second case to be cerebellar and not cerebral; and why hemorrhage?

DR. WILKINS, in reply, stated that the sudden nature of the death and the symptoms immediately preceding it pointed conclusively, he thought, to interference with the respiratory centre in the medulla. The state of perfect health up to, at the most, three days preceding death, and the sudden onset of the symptoms, pointed to hemorrhage. Had this hemorrhage been into the cerebrum, there would have been other symptoms present, according to the region affected; if into the anterior portion, there would most likely be some psychological symptoms; if into the motor area, some motor phenomena would be expected to be present; if into the posterior portion, there would probably be some sensory symptoms. Further, persistent vomiting is more frequently present in cerebellar lesions, or lesions in its immediate vicinity.

DR. GODFREY asked if any of the members had bled for cerebral hemorrhage. He had once done so, with favorable results. The diagnosis was verified by an autopsy made a few months later, the man having been killed by falling off the roof of a house.

DR. HY. HOWARD said he had bled for everything. Years ago he had bled as many as forty persons in a morning. The last time he had used his lancet was seventeen years ago, on a man who had an attack of apoplexy. He got well, but had right-sided paralysis for the rest of his days—ten years.

Stated Meeting, Feb. 5, 1886.

T. G. RODDICK, M.D., PRESIDENT, IN THE CHAIR.

PATHOLOGICAL SPECIMENS.

Two Cases of Tait's Operation.—DR. TRENHOLME exhibited two pairs of ovaries and tubes. The ovaries were all enlarged and diseased. In the first case, one pair were removed from a woman, aged 23 years, who, since she began to menstruate, had dysmenorrhœa. Some years ago her menses were stopped by a cold bath, and each month since then she has suffered from epileptic attacks at this period. In spite of bromide of potassium, etc., these attacks were getting worse. An examination revealed enlarged ovaries. The operation for their removal was the most difficult he had had. There was an enormous amount of adipose tissue in the abdominal walls, and the rectimuscles were very tense. The right tube was free, and disposed of. The left tube looked at first like a multiple or lobulated ovary from old inflammatory constrictions. This tube and ovary were bound down by adhesions all round, and covered over by the adherent omentum. After the operation, the patient had a severe attack of peritonitis. This was treated by hot fomentations, large doses of opium, and injections of linseed tea. She complained of intense thirst, and as she appeared to be almost dying, she was allowed cold water *ad libitum*. The wound, which was nicely closed, was torn open on the third day to allow vent to some exudation. No drainage was used. The patient recovered, and has had no convulsions since. The ovaries were about the size of bantam's eggs, and cystic.

In the other case, the appendages were removed from a woman who had suffered ever since she began to menstruate, 14 years ago. Was married ten years, and had one child. She has suffered from almost continual pain, aggravated each month.

Pain began one week before her period, and continued for a week after, leaving her only five days free. On examination, the uterus was found four inches deep and the ovaries enlarged. The right ovary had a projection like a teat on it. The operation was performed a week ago, and the patient is doing well.

Intrauterine Myoma.—DR. WILLIAM GARDNER exhibited the specimen and related the case. Patient, aged 32, was sent to him by Dr. R. T. E. McDonald of Sutton, October 15th, 1885. She had been married 13 years, and had had one child eight years after marriage. She suffered from profuse and painful menstruation at intervals of three weeks. An examination revealed the cause. Removal of the appendages was thought of, but ergot in the intervals and astringents at the period were tried. She returned three months later with a history of increased hemorrhage. She now was extruding shreds of the fœtid tumor, probably from the action of the ergot. She had also had chills. It was decided to at once remove the myoma. The cervix was first incised with the thermo-cautery, and by means of a pair of scissors and the serrated scoop the whole was removed. A double drainage-tube was then inserted, and sutured to the cervix. Irrigation of weak carbolic solution was used every two hours. Twenty-four hours after the operation the temperature rose to 102° ; irrigation was now constantly used till the temperature fell. Some days after, the suture sloughed away and the tubes came out, causing the temperature to again rise. After this, a single tube with a cross piece at the end was used, thus making it self-retaining. Patient made a good recovery. Dr. Gardner laid great stress upon the necessity of frequent irrigation in these cases. Mr. Tait used to lose 50 per cent. of these cases, and now his rule is to remove the appendages. He once had to operate hurriedly at night to relieve alarming symptoms caused by the os being plugged with an extruding and sloughing myoma. The patient did well.

DR. STEWART asked what caused the tumor to slough.

DR. GARDNER said that no doubt it was due to its being rapidly starved by the effect of the ergot on the uterus.

The PRESIDENT said he could testify to the necessity of free irrigation in these cases. He had charge, during a temporary

absence of Dr. Gardner from the city, of two of these cases of his, and noticed that if by any accident the tubes came out, the temperature went up.

DR. TRENHOLME related a case of post-partum hemorrhage occurring in a patient of his. On introducing his hand, he found a tumor about the size of an orange. By the aid of ergot and gallic acid the bleeding was arrested, but when three months pregnant, she lost about a cupful of pus. A week later she aborted, and now no tumor could be felt. She has had two or three children since. He had removed uterine myomata successfully without the use of drainage-tubes, but now believed they should always be used.

Salivary Calculus from Steno's Duct.—DR. A. L. SMITH exhibited the specimen removed by him from inside the cheek. After its removal, a thin impissated fold came away.

“*Weid*” or *Ephemeral Fever.*—DR. KENNEDY read a paper on this subject. He had met with several severe forms of weid whilst in charge of the obstetrical department of the Western Hospital. He looks upon weid as being more than an exaggerated milk fever, and something entirely apart from puerperal fever. Dr. Kennedy defines weid as a specific ephemeral fever occurring in women of nervous temperaments during the earlier periods of lactation, commencing by severe chill and ending in profuse diaphoresis, such attacks seldom exceeding 24 or 36 hours. As one diagnostic sign, the chill invariably commences in the back, between the shoulders—patients will often indicate the exact spot,—and from there it rapidly extends over the entire body. Older authorities gave this subject some importance, but modern authors consigned it to oblivion as a “legend no longer to be believed in.” Our improved treatment of lying-in patients gives fewer opportunities to observe such cases. The different views as to its causation were given. Dr. Kennedy did not believe in its being of septicæmic origin, nor of its being merely from distended breasts, but analagous to the rigor and fever occurring after an amputation or passage of a catheter. The after stages, especially the profuse diaphoresis, indicate also deep impressions made upon the vaso-motor centres. A report of a typical case was read.

DR. CAMPBELL said it was a long time since he had seen a case of weid, but had many cases years ago. He thought that women were better housed and nursed now-a-days. He believed it was usually induced by a sudden chilling of the body, and was easily diagnosed.

DR. SHEPHERD looked upon this condition as simply inflammation from retained secretion, similar to what is seen after amputation, if the secretion is pent up.

DR. SMITH said he did not like the names ephemeral fever or weid; he thought milk fever better. He tries to avoid this trouble by putting the infant to the breast soon after delivery.

DR. CAMPBELL insisted on the infant being kept from the mother till there were signs of milk in the breasts.

DR. GARDNER said that some German authors call the disease known as weid late puerperal fever. It is due to a variety of causes. Often it is seen from the 7th to the 14th day, from cold, gastric disturbance, or nervous influence, and frequently it is due to septic poison, auto-infection, caused by the breaking down of clot in a sinus or from abrasion of the genital tract. He said that putting the child to the breasts early powerfully favored involution of the uterus.

The PRESIDENT said that the septic poison might not come from the genital tract at all, but be from a minute quantity of pus retained in the breast gland. He had seen death follow septicæmia caused by a drop of pus under a corn on the foot.

Stated Meeting, February 19, 1886.

T. G. RODDICK, M.D., PRESIDENT, IN THE CHAIR.

Uterine Fibroid.—DR. TRENHOLME exhibited a large uterine fibroid which he had removed the previous week from a woman aged 33. Patient, who was married and had borne children, had suffered from symptoms of fibroid for some sixteen years, and as the hemorrhages were becoming more severe, had requested that an operation should be performed. Dr. Trenholme consented and performed the operation. The tumor was encircled by a wire écraseur one inch above the os uteri and removed;

there was considerable hemorrhage, which was difficult to control. The patient never rallied from the operation, but died seven hours after from shock.

Sarcoma of Spleen in a Dog.—DR. W. JOHNSTON exhibited a specimen of angio-sarcoma removed from a dog. The tumor weighed 4 lbs., and was continuous with the upper end of the spleen substance. The dog suffered from abdominal dropsy, for which he was tapped, and died of peritonitis a few days subsequently.

Large Urinary Calculus.—The PRESIDENT presented a large uric acid calculus which he had recently removed from a man aged 69, by the lateral operation. The stone weighed $3\frac{1}{4}$ ounces. The patient had suffered from symptoms of stone for five years, and had been frequently sounded without result. The man recovered from the operation without a bad symptom.

DR. HINGSTON said he took exception to Sir Henry Thompson's statement that if a stone be over 3 ozs. weight it must lacerate the neck of the bladder. The suprapubic operation, which appears to be much simpler than the lateral method, had not as yet been performed in Lower Canada. He preferred the lateral operation.

DR. SHEPHERD quoted a case where a German surgeon had attempted the suprapubic operation, but finding the peritoneum came down abnormally low, he sewed up the wound, performed the lateral operation, and the man did well. However, he believed that the suprapubic operation was the operation of the future for large hard stones. It had been practised with brilliant success by the leading surgeons of France, Germany and America, and now was being adopted by the most conservative of English surgeons.

Dermoid Cyst.—DR. WM. GARDNER presented two specimens, and briefly narrated the cases:—

CASE I. *Dermoid cyst containing a bunch of hair, two well-formed incisor teeth, and one bicuspid tooth attached to a piece of bone, also a fourth tooth in another part of the cyst wall.*—The fluid contents contained a large quantity of fat, and on cooling looked like drippings of meat. The other ovary was an

aggregation of cysts, and was also removed. The patient, an unmarried lady of 30, had noticed the tumor for only four months; she had had several attacks of pelvic pain in the side on which the tumor was. She made a rapid and easy recovery, leaving for home on the eighteenth day.

CASE II. *Tait's Operation*.—Uterine appendages removed for a case of uterine myoma. Both ovaries consisted of a mass of smooth cysts and were three times the normal size. The tubes were healthy. The myoma was as large as a child's head. The patient had been married three years and had never been pregnant. She was much blanched by hemorrhage and watery discharges which had lasted for five years. She had suffered from fever, abdominal distention, and profuse metrostaxis after the operation, but at the date of the meeting (eleventh day) was doing perfectly well.

Dr. Gardner said that since September last he had had nine successive successful cases of abdominal section; eight were ovariectomies and one removal of uterine appendages. Of the eight ovariectomies, two were for dermoid cysts. In four of the cases, the second ovary was also found diseased, and removed.

Malignant Stricture of the Œsophagus.—DR. GEO. ROSS showed a specimen of cancer of the œsophagus, the following being the principal facts in the clinical history: A man, aged 54, 6 feet 4 inches high, and who had been immensely powerful, was admitted into the hospital with intense dysphagia and in a state of great emaciation and weakness. There was an intense foetor of breath, and he had had a severe cough for some time with a copious similarly foetid purulent expectoration. He was intemperate, and was in the habit of drinking raw spirits. The difficulty of swallowing had gradually developed during more than a year, until of late even fluids were forced down with the greatest difficulty and straining. There had never been any vomiting or regurgitation of food. An œsophageal bougie of soft, flexible rubber and of almost the largest size was twice passed its full length without meeting with any special obstruction. It slid down with ease, and not the slightest force was used. The withdrawal of the bougie was followed by the escape of horribly

foul air from the patient's mouth, and the instrument itself was smeared with stinking pus. Physical examination of the chest gave signs of cavity in left apex and of softening deposit, with cavity, localized in right mammary region. He rapidly became enfeebled and died in about a month from asthenia, continuing to the end to swallow a large quantity of fluids every day, and there was never seen any regurgitation. The diagnosis had been epithelioma of the œsophagus, involving the tube in such a way as to produce all the phenomena of stenosis and yet permit of considerable patency of the lumen; secondary cancer of the lungs with gangrene. The autopsy showed an epithelioma of unusually firm texture situated just below the level of the cricoid cartilages and extending for about two inches. It encircled the œsophagus, and the stricture was almost impermeable. It was only after repeated efforts that a No. 2 flexible (urethral) catheter could be insinuated through it. In the apex of the left lung was a large cavity containing a considerable slough lying loose within it; the chamber was excessively foetid. The upper part of the lung was firmly adherent to the diseased portion of the œsophagus, but *no communication* could be shown between the pharynx and the apex-cavity. In the front of the right lung was a mass of cancer which had softened centrally.

Dr. Ross directed attention to some points of the case. He thought the disease might here have originated from the habit of drinking copiously of raw spirits. The absence of all regurgitation was a remarkable feature, considering the high situation of the growth and the tightness of the stricture. He also asked the question: "What course was taken by the bougie?" The tight, firmly organized stricture must have existed for a long time; such a large instrument could not possibly have passed through within two or three weeks of the man's death. The bougie was too large, the space too narrow, and the stricture too high for it to have bent upon itself. Could it have passed into the cavity in the apex of the lung? If so, there must have existed a direct and free communication with this part from the pharynx, which avenue had been subsequently shut off by adhesive inflammation. Except on the latter hypothesis, he was at a loss to explain the facts given above.

The PRESIDENT inclined to the belief that the bougie went down to the stomach, and that since it had been introduced, a few weeks, the growth had increased, producing the high stricture shown.

Malignant Disease of the Rectum treated by Excision and Colotomy.—DR. GEO. E. FENWICK read a paper on this subject, which will appear in our next issue.

DR. HINGSTON advocates operating if the disease be confined to the bowel; if it does, he prefers colotomy. He has noticed that malignant disease of the rectum does not return so soon as when in the mammæ.

DR. SHEPHERD said that Dr. Fenwick was to be congratulated upon the results of his operations. He remarked that many continental surgeons removed the coccyx so as to get more room; indeed some remove also the sacrum for this end.

The PRESIDENT said that as a rule colotomy was a much more satisfactory operation when performed for syphilitic stricture than for cancerous. The treatment for syphilis of the rectum progressed better when that bowel was given a rest.

CHATHAM MEDICAL AND SURGICAL SOCIETY.

Stated Meeting, March 9th, 1886.

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

(From our own Correspondent.)

Perforation of the Vermiform Appendix, with specimen.—DR. McKEOUGH, through the kindness of Dr. Shaver of Morpeth, exhibited an appendix vermiformis, showing perforative ulceration. The patient was first seen by Dr. Shaver about 5 a.m. on the 25th of January last, who found him suffering from pain and some tenderness in the region of the cæcum; pulse and temperature normal. Rest, opium and turpentine stupes were ordered. At 7.30 p.m. he felt very comfortable, pain and soreness being much less; pulse 68, temperature $99\frac{1}{4}^{\circ}$. His appetite was good; his nourishment, however, had been limited to milk all day. He was again seen about midnight, and found in a state of collapse, with symptoms of perforation. He lingered

until about 6 a.m. the following morning. The post-mortem revealed the condition shown in the specimen exhibited. A small body, thickly coated with mucus, was found in the appendix, which proved to be an orange seed. There was no hemorrhage or fæcal extravasation. The patient had suffered from several attacks of "colic" during the past fall and early part of the winter, but consulted no medical man. The day previous to his attack of illness he felt a slight pain in his abdomen, but was otherwise perfectly well. In this case, as the symptoms pointed to inevitable death, Dr. McKeough remarked that in the light of recent abdominal surgery, and considering the length of time the patient lived after symptoms of perforation set in, laparotomy might have been resorted to with reasonable hope of success.

Strumous Disease of the Elbow Joint.—DR. MURPHY exhibited the diseased bones of an elbow joint, presenting the characteristic features, in a marked degree, of scrofulous inflammation of the articular ends of the bones; also a photograph of the arm previous to amputation. The disease commenced a year previously in a colored lad aged 15, with a tuberculous family history. He was not seen by a surgeon until extensive suppuration and disintegration of the joint had occurred. The boy was failing in health rapidly from the pain and constant discharge from the joint, to rid him of which amputation was resorted to, excision of the joint being out of the question on account of the very poor health of the patient and the extensive character of the disease. The wound healed by first intention, and the lad was picking up nicely.

DR. HOLMES remarked upon the necessity of the early recognition and proper treatment of these cases in their first stage, and cited several instances in which this being neglected ended disastrously to the patient.

Two Cases of Vesico-Vaginal Fistula.—DR. MURPHY read the history of the two following cases:—

CASE I.—M. B., aged 19, unmarried, began to menstruate between her 16th and 17th years. Her mother being dead, and having no one to advise her, she sought to arrest the menstrual

flow by introducing into the vagina a wooden spool. After this event, she suffered severe abdominal pain during menstruation, for which she received medical treatment from time to time, anodynes being administered, which gave temporary relief: the real cause of the pain and distress being unsuspected, and the case supposed to be one of dysmenorrhœa. The patient continued in this condition for nearly two years, or until a new difficulty arose in consequence of the urine constantly trickling away from the vagina. A digital examination was now instituted, which revealed the fact that the anterior wall of the vagina, especially the whole upper part, was encroached upon by what appeared to be a large, solid, globular-shaped body projecting through the base of the bladder into the vagina. A foetid smell was also apparent. It was not until this juncture that the patient confessed to having introduced the foreign body, as above stated. This information was opportune. The parts being extremely irritable, the patient was enjoined to keep her bed for a few days, and soothing injections used. An occasional anodyne suppository, the use of a simple diet, demulcents, and the division of several cicatricial bands, constituted the treatment prior to the operation for removing the foreign body. This was accomplished by placing the patient in the usual position, exposing the fistula to view by a Sims' speculum, then introducing a Thompson's lithotrite up through the fistulous opening and crushing the phosphatic concretions which surrounded the foreign body on all sides to the extent of an inch or more. The substance removed, minus the spool, more than filled an ordinary ounce quinine bottle, and the fistulous orifice, which was left to be subsequently dealt with, was fully an inch and three-quarters in its long axis. Some six weeks was allowed to elapse before the operation for the closure of the fistula was undertaken, the interval being employed in treating the existing vaginitis and cystitis, and improving the general health of the patient. The operation was performed in the usual manner as described in the text-books, and was a perfect success. The breach of continuity was so great after passing the edges of the fistula, that it required eleven silver sutures to properly close it.

CASE II—Mrs. S.—The cause of the fistula in this case was a prolonged labor of several days' duration, after the foetal head had descended into the pelvis. The operation was performed similarly as in case No. 1, and was an entire success.

TORONTO MEDICAL SOCIETY.

Stated Meeting, March 4th, 1886.

THE PRESIDENT, DR. CASSIDY, IN THE CHAIR.

(From our own Correspondent.)

DR. MCPHEDRAN reported a case where, a few days after labor, the patient was taken with sudden dyspnoea, with croupy cough (thought to be due to oedema glottidis), which continued for some time. There was no laryngoscopic examination made of the parts. General anasarca of the body prevailed.

DR. G. B. SMITH exhibited a patient, a lad aged 18, with defective extensive power of the right great toe of some years' duration, and said to have come on—"after being over-heated and placing the foot in cold water."

Some of the members considered the defect was due to an obstruction to extension produced by a slight osteophitic prominence in connection with the anterior and upper aspect of the head of the first metatarsal bone. Others thought it due to an abnormal state of contraction of the flexor muscles.

DR. ALEX. DAVIDSON then related two cases in his practice, the outcome of the recent railway accident which occurred on the Northern Railway, near Thornhill. One was that of an injury to the clavicle at its sternal extremity. The condition (or lesion) present was a hardened thickening surrounding the bone at about an inch from its sterno-clavicular articulation. It might be supposed to have been an impacted fracture. The patient was removed to his home in Hamilton before a measurement of the clavicles was obtained, and thus lost from observation. The other case was that of a man who had received a severe laceration of the scalp, extending in an antero-posterior direction to the extent of about six inches, dividing all the soft parts down to the cranium, and denuding the bone of its periosteum in small spots.

A discussion ensued as to the likelihood of exfoliation of the denuded bone taking place.

DRS. CAMERON and MCPHEDRAN related several cases in their practices bearing upon the subject, and the weight of opinion bore negative testimony as to the probability of exfoliation taking place in injuries similar to this one.

The meeting of the 18th inst. was devoted to the hearing of a paper on *Hemiplegia* by Dr. Joseph Workman, which was the translation of an article by Prof. Bianke of Naples, and furnished a very interesting account of the history of the disease and the conditions produced by it. The conditions in the post-hemiplegic state and the various phenomena relating to the disease were very graphically described, showing how utterly changed in disposition the unfortunate victims of the disease become. The paper also pointed out fully the great value of the thermometric registering as a guide to the prognosis of the disease, and dealt freely with the sequelæ which may supervene upon an attack. The paper was listened to with much interest and appreciation.

HURON MEDICAL ASSOCIATION.

Annual Meeting, held at Seaforth, January 12th, 1886.

DR. ALEX. TAYLOR, PRESIDENT, IN THE CHAIR.

(From our own Correspondent.)

DR. CAMPBELL presented a case of progressive muscular atrophy of the muscles of the left shoulder, except the deltoid. Those most affected appeared to be the teretes and spinati muscles. Patient had presented himself for treatment two years before, which was commenced by first producing an eruption over the wasted muscles, then by electricity. Notwithstanding treatment, the wasting continued, and is extending to the other shoulder. Dr. Campbell also presented a fifteen year old case of locomotor ataxia. The sciatic nerve had been stretched about five years ago by Dr. James Stewart, which caused the lightning pains to disappear for about a year, when they returned as severely as before. Reflexes all absent. The case is gradually progressing.

DR. YOUNG (Londesboro') presented a case of necrosis of the inner condyle of the right femur. Patient first complained of pain in the leg. Aspirated for pus, but found none until six months after, when necrosis had taken place.

DR. MCKID presented a case of traumatic aneurism, of long standing, of left femoral artery, produced by a pistol shot near the popliteal space. The ball can be felt sacculated on the anterior aspect of the thigh. The aneurismal thrill is very distinctly felt all along the artery into the abdomen, giving the idea that it has become fusiform with atheroma and degeneration of the coats. Dr. McKid also presented a case of leucocythæmia in a boy of about six years. Spleen very much enlarged; abdomen also enlarged, but very little tympanitis, giving the appearance of ascites. Blood not examined.

DR. CAMPBELL presented a case of infantile paralysis of the right side. The attack came on suddenly when the child was in perfect health at the age of $2\frac{1}{2}$ years. It was ushered in by a chill in the morning, followed by fever and loss of power on right side at evening. Has been under treatment about $2\frac{1}{2}$ years with little or no improvement.

DR. GUNN (Brucefield) presented a case of epulis of superior maxillary of six years standing. Has been four times removed by dentists—the last time about two years ago.

DR. MCKID presented a case of compound comminuted fracture of left femur, treated at Montreal General Hospital 101 days. Three and a half inches of shortening. Was benefitted by plaster jacket. Also a case, age 85, which was twice aspirated above the pubis for retention of urine from enlarged prostate. Tapped after, and put in a drainage tube above pubis. Washed out the bladder with 40 per cent. carbolic solution, and the urine, from being very fetid, became normal on second day. The prostate was found to be very much enlarged and hard. Massage was practiced night and morning, as recommended by Dr. Shepherd, and the urine began to pass by the natural way at the end of the third week. Removed drainage tube at the proper time, the massage having been continued. A scrotal hernia which had existed for some time was reduced,

and a truss applied. The patient recovered, and is now quite well.

DR. CAMPBELL mentioned a case reported in the *Canada Lancet*, which had been aspirated 34 times.

DR. GRAHAM (Russell) reported having aspirated above the pubis from retention of urine 14 years ago.

DR. CAMPBELL reported a case of compound fracture of left leg successfully treated by iodoform without suppuration.

DR. SMITH (Seaforth) reported three cases of *nævi* of considerable size treated by the thermo-cautery, illustrating the operation by passing the red-hot iron into a fold of paper and moving it slowly around, to show that the anastomosing vessels were completely destroyed. The treatment was entirely successful, and the cicatrix in each case was trifling.

DR. GUNN mentioned a case cured by the galvanic current.

DR. GRAHAM reported two cases of asymmetry—one of Dr. Owens, London, England; the other his own.

DR. OWEN'S CASE.

Left arm.....	$\frac{1}{4}$ of an inch longer than the right.
Left foot.....	$\frac{5}{8}$ of an inch longer than the right.
Left ear.....	Large.
Left lower extremity....	$1\frac{1}{8}$ of an inch longer than the right.

DR. GRAHAM'S CASE.

	Left.	Right.	Difference.
Above elbow.....	6 inches.	7 inches.	1 inch.
Length of hand.....	4 "	$4\frac{1}{8}$ "	$0\frac{1}{8}$ "
Circumference of fore-arm	6 "	$6\frac{1}{2}$ "	$0\frac{1}{2}$ "
Length of arm.....	$16\frac{1}{4}$ "	$17\frac{1}{8}$ "	$0\frac{3}{4}$ "
Length of leg.....	$18\frac{1}{8}$ "	20 "	$1\frac{7}{8}$ "
Circumference of thigh....	$11\frac{3}{4}$ "	13 "	$1\frac{1}{4}$ "
Length of foot.....	$6\frac{1}{4}$ "	$6\frac{3}{4}$ "	$0\frac{1}{2}$ "

DR. GRAHAM also exhibited the stomach of a woman, aged 50, who committed suicide by taking four drachms of carbolic acid. The corrosive action of the poison was singular, throwing the mucous membrane into longitudinal folds similar to the tucks in a dress. Dr. Graham also showed the cholera comma bacillus of Koch.

DR. McDONAGH, formerly practicing in Goderich, now in Toronto, and recently returned from Vienna, reported a very

interesting case of hypertrophy of the vocal cords, producing complete aphonia. This was caused by the patient swallowing a small bone, followed by an abscess, which broke, but the hoarseness continued. The cure was completed by producing anasthæsia of the larynx with cocaine, from time to time, and applying chromic acid carefully to the diseased cords by the aid of the laryngoscope.

The election of officers was then proceeded with. Dr. Campbell was elected President; Dr. Young, Vice-President; Dr. Worthington, Secretary.

It was resolved to hold the meetings for the ensuing year alternately at Clinton and Seaforth. Votes of thanks were passed to the directors and caretakers of the Institute rooms.

There being a little time, DR. CAMPBELL reported an interesting case of puerperal eclampsia treated successfully by the use of pilocarpine hypodermically in connection with Morph. Sulph., in same way, at intervals, producing profuse sweating and controlling the convulsions. The amount used of each was one-quarter grain.

Extracts from British and Foreign Journals.

Unless otherwise stated the translations are made specially for this Journal.

Suspected Pregnancy.—In a clinical lecture published in *Med. & Surg. Reporter*, Dr. Goodell said: As a rule, we cannot *swear* to pregnancy until we can hear the foetal heart-sounds; but there is strong presumptive evidence if the os is soft like one's lips. When the os is as hard as your nose, you may be reasonably sure that there is no pregnancy. Once in a long time a fibroid tumor will give us a soft os and cervix, but this is very exceptional. This condition we will find as early as the end of the first month, though it becomes more marked as pregnancy is farther advanced. Here there is a little softening, but very little. Her abdomen is too fat to circumscribe the womb and discover whether it is enlarged, so that evidence is here lost. There is only a shade of darkness about the nipple, not so much as there ought to be in pregnancy. This woman may not be pregnant, and may be suffering only from amenorrhœa. We will

give her Bland's pill : Dried sulphate of iron ; carbonate of potassium, āā 5 ij ; glucose, q.s. M. ft. pil., No. xlviii. S.—Two thrice daily for one week and then increase one at each dose. If she is not pregnant, this will bring on her menses ; while, if she is pregnant, it will not cause a miscarriage. Remember, a *natural* abortion is not very dangerous ; for some reason the ovum has become detached from the womb, and it passes harmlessly away.

The Latent Anæmia of Typhoid Fever.

Dr. Frederick P. Henry of Philadelphia has made a number of microscopic examinations of the blood during and after typhoid fever, and finds that while the number of red corpuscles is fully up to or above the normal standard during the fever, during convalescence it often sinks considerably below the number found in health. This he explains as a latent anæmia, the loss of water from the blood during the disease causing a relative increase in the number of red corpuscles. This view leads him to the belief that typhoid fever patients should take water as a medicine as well as to relieve their thirst. He quotes the late Dr. John F. Meigs of Philadelphia, who expressed similar views in one of his lectures at Pennsylvania Hospital in 1880.—*Polyclinic*.

The Treatment of Carbuncle.—Dr. James Collins says in the *Philadelphia Med. News* : I have lately treated two cases of carbuncle on the back of the neck by a method which seems to have some advantages. The patient is put under the influence of an anæsthetic, and a linear incision made. I then take a scoop and remove all the necrosed tissue, and wash the parts thoroughly with an antiseptic solution of mercuric chloride. I then put in a drainage tube, and insert two stitches to bring the central part together. Each day the cavity is thoroughly washed out with the antiseptic solution. The patients have done well, and the cicatrix has been less than after any other method I have tried. The success depends upon the removal of the necrosed tissue and the use of the antiseptic solution.

CANADA

Medical and Surgical Journal.

MONTREAL, APRIL, 1886.

TRAUMATIC PHTHISIS.

Under this title Prof. Mendelsohn has recently discussed (*Deutsches Archiv f. Klinische Medicin*) the relations between phthisis and mechanical injury to the lungs. The first part of his paper deals with such forms as occur after inhalations of fine irritating particles—glass, steel, tobacco, dust, etc. Nothing specially novel is given here. The tubercle bacillus is regarded as the exciting cause of the tuberculosis, and its presence accounted for by assuming that it either enters at spots damaged by the foreign particles or else is directly carried in by them. The writer insists forcibly that the bacillus is, mechanically, only a passive agent in the matter, and is carried into the tissues by active cell processes. Against the assumed omnipresence of the bacillus, as contrasted with the comparative rarity of tubercle, he instances Prof. Leyden's researches, where, after careful and laborious examinations of air, dust, etc., in a phthisical ward of the Berlin Charité, not a single bacillus was ever found to be present.

The last and most important part of the article concerns the part played by thoracic contusions and other forms of traumatism in causing phthisis. Nine cases of his own are given in full where thoracic contusions and, in one case, wound of the apex were followed, after intervals ranging from two to eighteen months, by phthisis; the proof of these cases resting on symptoms, physical signs, examination of sputum, and inoculation of animals. No autopsies. The patients were all previously in robust health. In only one case was any scrofulous or phthisical

family tendency present. The ages ranged from 17 to 70 years. The symptoms immediately after the injury were chiefly dyspnoea, cough, and hæmoptysis; the external injuries were slight.

Prof. Mendelsohn assumes that these injuries act injuriously by producing what has been termed a bacillus atmosphere (*i.e.*, local conditions and surroundings favorable to the development of the tubercle bacillus). This he considers present when rupture of lung tissue has been produced by indirect violence, and especially accompanied by hemorrhage. On the other hand, injuries producing severe local inflammation, as in bullet wounds and injuries from broken ribs, etc., do not seem to afford these conditions, and if their immediate effects are recovered from, are not followed by phthisis.

With regard to local tubercloses in other organs than the lungs, in joint lupus, etc., he is far less explicit, his statements being vague and unsatisfactory.

The subject should form an excellent one for collective investigation, and such cases as here cited, if carefully looked for, would probably be found to occur far more commonly than has hitherto been supposed.

ELIMINATION OF ARSENIC WITH THE MILK.

That arsenic can be eliminated with the milk in sufficient quantity to cause fatal poisoning in the infant, is proven by a case which recently occurred in Paris. A wet-nurse, who narrowly escaped being poisoned by arsenic, nursed an infant who died in a few hours from choleraic symptoms, and in whose viscera were found five milligrammes (1-13th of a grain) of arsenious acid. M. Pouchet submitted the wet-nurses of the St. Louis Hospital to arsenical treatment; one of them took during a week eight milligrammes (one-eighth of a grain) a day of Fowler's solution. Chemical analysis of this woman's milk proved that every 100 grammes of it contained one milligramme of arsenic. We are not aware that there has ever been recorded a fatal case of arsenical poisoning in an infant where the mother has been taking arsenic in medicinal doses. The elimination of arsenic takes place principally through the kidneys, only a small

portion leaving the body with the sweat and bile. The various glands removing only a very fractional part. It is scarcely possible, then, that a sufficient quantity can be eliminated with the milk to produce symptoms of poisoning in the child, when the mother is taking it in medicinal doses.

THE ACTION OF THE LIVER ON ALKALOIDS.

It is several years since Schiff advanced the statement that the liver, in addition to its well-known biliary and glycogenic functions, had another in destroying alkaloids on their way to join the general circulation. At a recent meeting of the Biological Society of Paris, M. Rogers gave an account of a series of experiments he performed with the view of testing the truth or otherwise of Schiff's statements. He made experiments with caffeine, nicotine, etc., and observed that in order to kill the animals it was necessary to inject into the general circulatory system double the quantity injected into the portal system. In a normal condition he found that the portal vein carried to the liver a certain toxic alkaloid which did not reach the general circulation. M. Rogers' experiments confirm, therefore, the opinion of Schiff on this peculiar function possessed by the liver. It seems to have more influence in destroying curare than any other poisonous drug. At least, this is the most likely way of explaining the great disproportion there is between the quantities of this agent necessary to destroy life, when introduced into the stomach and when injected into the general circulation.

The liver, in addition to its power of destroying dangerous alkaloids, is also said to have the power of retaining some of them for an indefinite length of time, and thus entirely preventing their entrance into the general circulation.

THROMBOSIS.

Experimental studies upon this subject have been recently made by Prof. Eberth and C. Schimmelbusch with improved methods for observing mammalian circulation. They have established that there is an extreme degree of slowing of the blood-

current when the third corpuscular element (*Blutplättchen*) predominate in the peripheral zone of the vessel. This they explain on principles of specific gravity; these bodies having nearly as heavy specific weight as the red corpuscles, and under normal conditions are confined to the axial stream. Injury to the vessel wall, even when producing visible roughening of the intima, does not necessarily cause thrombosis, for if the velocity of the current be normal, the roughened spot is bathed simply in the plasma, and coagulation only commences when slowing of the circulation brings the blood-plates to the periphery. They point out the accuracy of Virchow's view that conditions affecting the velocity of the blood-current form the essential factor in producing thrombosis.

With regard to the nature of the change which the blood-plates undergo in thrombosis, they think that the change differs essentially from that in simple blood-clotting, but are not able to state definitely the precise nature of either, merely noting that in thrombosis there is an increased stickiness, with granular degeneration of these bodies, while in *blood-clotting*, the process more resembles crystallization.

Upon all points Bizzozero's views are confirmed and extended, but nowhere contradicted.

MCGILL UNIVERSITY CONVOCATION.—The annual convocation for the conferring of degrees in medicine was held on the 29th March. The number of candidates presented for the degree was larger than in any previous year—forty-six. A full account, with lists, will be published in our next issue.

CARDIAC CHANGES IN TYPHOID FEVER.—A very unusual lesion has recently been pointed out by Dégérine as occurring in the muscular structure of the heart during the course of typhoid fever. On examining the heart's of two patients who died suddenly during apparent convalescence from this disease, extensive microscopic changes were detected into the myocardium. In both cases, the lesion consisted in a separation of the intercellular cement of Eberth, which, in a normal condition, unites the cells of the cardiac fibres. There was neither fatty,

putrid or pigmentary degeneration. It is due to the solvent action of sarcolactic acid, which is formed in great abundance in the intercellular cement. No bacilli were found in the myocardium. Similar changes have been detected in the myocardium after pericarditis by Lundrouzy and Renant.

AUSTIN FLINT.

REMARKS TO THE CLASS IN CLINICAL MEDICINE, UNIVERSITY OF PENNSYLVANIA, BY WILLIAM OSLER, M.D.

Gentlemen,—Since we met together on Saturday, a veteran in the army of which you are recruits, has fallen. I allude to Dr. Austin Flint of New York, and I propose, before proceeding with the clinic, to tell you, in a few words, something of his labors.

Dr. Flint graduated from the University of Harvard in 1833 or 1834, so that for more than half a century he had been an energetic and active member of the profession. Think for a moment of the extraordinary changes which medicine has undergone in that period. When he entered the ranks there was no histology to speak of; the subject of physiology had scarcely reached a distinct and definite position: cellular pathology was unheard of, Virchow had not yet arisen. In medicine, the schools of Brown and of Broussais still hampered development. In almost every department, the strides which have made modern medicine what it is, have occurred since then. Men were just beginning to see that true progress could only come by observation and experiment.

In the first place, I would refer to his work in connection with the continued fevers of this country. As you are aware, extensive contributions to the pathology and clinical history of the continued fevers, more particularly of typhoid and relapsing, were made by Dr. Flint between 1844 and 1852 or 1853. Dr. Gerhard of this city had already worked out the clinical history and distinctions between typhus and typhoid fevers, and to him is due the credit of having been the first to distinctly lay down the differences. This was in 1836, nearly fourteen years before Jenner's work. Immediately following this were

the works of Jackson and of Hale at the Massachusetts General Hospital. These gentlemen, with whom, no doubt, Dr. Flint was, as a student, well acquainted, also worked out the differences between typhus and typhoid fevers as seen in the fevers of New England. When Dr. Flint proceeded to Buffalo, he had many opportunities of studying so-called autumnal fever or typhoid, and his clinical reports on this disease are among the most valuable made by any member of the profession in this country. His account of the epidemic in a small town known as North Boston was, I believe, the first accurate and full description of a local epidemic of typhoid fever. In it he demonstrated clearly the infection of the well water and the fact that from a single case of typhoid fever imported into a village the entire community might be infected. His work in this department, though not initial in the same sense as that of Gerhard, was of great value in emphasizing the distinctions between the continued fevers.

In the second place, the work of Dr. Flint will live in his studies of physical signs presented by diseases of the heart and of the lungs; here he was an original worker. No member of the profession in this country has contributed so much in this department. In his two prize essays of the American Medical Association, 1852, he presented a large amount of valuable experimental work which had been well and thoroughly done, and the truth of many of his conclusions subsequent observers have fully confirmed. Not one of you who takes a stethoscope into his hand but is a debtor to Dr. Flint for simplifying much that was complicated in the auscultation of heart and of lungs.

In the third place, Dr. Flint has done a great work in helping us to arrive at more satisfactory therapeutical laws. In this he no doubt followed the instruction of Jacob Bigelow of Harvard, to whose teaching he probably listened, who was the author of an essay, one of the most classical in American medical literature, "On the self-limitation of disease." He laid down there that a cardinal principle in the consideration of the therapeutics of a disease was a knowledge of its natural history; that we had to know the course of a malady left to nature before we

could appreciate the action of the medicines given for its cure. At the time that Dr. Flint graduated, who would have dared to treat a case of pneumonia from its beginning to its termination without a drop of medicine? No one. The man who would have attempted it would have been looked upon as in the highest degree worthy of blame and censure, and certainly in private practice would not have had the confidence of the family for twenty-four hours; but the study of cases in hospitals, more particularly of such diseases as typhoid fever and pneumonia, left to nature, with careful nursing and diet, demonstrated that many of these diseases are self-limited and terminate naturally in a certain time, without medicinal treatment. The work of Dr. Flint in this department is of the highest value. Throughout his long career he taught constantly the necessity of the study of the clinical facts in each disease, before we draw deductions as to the action of medicines given for its cure. Not only in typhoid fever and pneumonia, but in such a disease as phthisis, he has shown that many cases are self-limited, and that spontaneous cures may occur.

For you one of the most valuable of the lessons of Dr. Flint's life is the fact that the method of his work secured his success. When he went out into what was then considered the West (Buffalo would at that time have been thought so), he took with him a good education; but what was more important, he went out a student of Nature and a recorder of facts. In habits of the methodical study of disease he was early inoculated, probably by James Jackson, Sr., who was much influenced by the teachings of Louis of Paris, who, as you are aware, introduced what was known as the numerical system in the study of disease—noting all the facts in the different systems and organs, and drawing the conclusions from these. That system influenced Dr. Flint throughout his entire life. In his work on "Phthisis," in his work on "Continued Fevers," you will find a minute record of facts and the careful notation of every symptom connected with the disease, and when possible the post-mortem appearances. In those days there were not many advantages, even in the larger towns, for the scienti-

fic study of disease ; libraries were few and the literature was scattered, but the book of Nature was open, then as now, to the student,—and what I desire to impress upon you is, that each one of you can do in his own way what Dr. Flint did in his : by the careful study of cases of disease and by the accurate recording of your facts. Never would he have occupied the position in the profession which he did had he not gone about with his note-book in hand, carefully observing and putting down facts as they came under his notice. It was in that way that he gained his vast experience, and with it the confidence of the profession and ultimately the position which he occupied in this country.

As we grow older, we do one of two things : either we progress with the times, or we stand still. If the latter, the lines of progress go by us, and to any one looking at us, we appear to recede. Dr. Flint did not stand still. In the advance of medicine he was always in the van. As new matter came up, it was carefully tested and weighed, and, when found to be based upon proper observation, accepted. So it was that in the revolution that has taken place in pathological ideas in the past ten or fifteen years, more particularly when the bacterial pathology, as it is termed, has come so much into vogue, he was one of the first in this country to give in his full and absolute adhesion to the views. His mind was eminently receptive. He did not allow it to become warped, but he retained a mental youthfulness and elasticity which was not a little remarkable in a man who had gone beyond his three-score years and ten. This it was, in great measure, which kept Dr. Flint actively at work.

If his end was sudden, it was in all respects a desirable one, and just such as he had wished for. To die in harness was a fit conclusion for a life of ceaseless work ; and of this we may be certain, that so long as there are practitioners of medicine on this continent, the name of Austin Flint will be held in esteem and reverence.

Obituary.

ANGUS McDONALD, M.D., of Edinburgh, died in that city on the 10th of February from pulmonary phthisis. By his death the Edinburgh extra-mural school loses one of its most prominent and active workers. At the time of his death he held the appointments of Physician and Clinical Lecturer on Diseases of Women of the Royal Infirmary, Physician to the Royal Maternity, and Lecturer on Midwifery and Diseases of Women at the Surgeon's Hall.

DR. JAMES A. SIDNEY, a well-known and highly-respected physician of Edinburgh, died suddenly, at the age of 61, on the 21st of February. Dr. Sidney was a great collector of works of art having reference chiefly to old Edinburgh. He was the author of two privately-printed illustrated volumes of verses entitled *Mistura Curiosa* and *Alter Ejusdem*. He was for many years surgeon to the prison in Edinburgh.

MR. JOHN COOPER FORSTER.—We regret to announce the death of John Cooper Forster, F.R.C.S., the distinguished English surgeon, which took place on the 2nd of March. Mr. Forster, at the time of his death, was 61 years of age. Last summer he retired from the position of president of the Royal College of Surgeons, England, and took a trip to the Riviera, but increasing feebleness compelled him to return to England, and he reached home only a week before his death. He was for many years one of the surgeons of Guy's Hospital. He is the author of a well-known work on the "Surgical Diseases of Children."

Medical Items.

—A statue has been erected in honor of M. Claude Bernard, in Paris.

—Dr. J. H. Darey, who has been Resident Medical officer of the German Hospital, Philadelphia, has been appointed Medical Examiner of the Pennsylvania Railroad Relief Department. His residence is at Erie, Penn.

—The *Philadelphia Medical Times* suggests that Dr. J. M. DaCosta would be a most worthy successor to the late Dr. Flint as president of the International Medical Congress.

—Professor Stevenson has been unanimously elected Dean of the Medical Faculty of the University of Aberdeen, vice Professor Brazier, resigned.

—The Cartwright Lectures, under the auspices of the Alumni Association of the College of Physicians and Surgeons, were delivered on the 23rd, 27th and 30th ult. by Dr. William Osler of Philadelphia. Dr. Osler's subject was "Certain Problems in the Physiology of the Blood."

—Two new lectureships have recently been endowed in the University of Edinburgh. One, on Comparative Embryology, is held by Mr. G. Brook; the other, on the Philosophy of Natural History, endowed by Lord Roseberry, has, according to *Nature*, been accepted by Mr. G. J. Romanes, F.R.S.

THE MODERN CHILD'S NURSE.—Lady (to applicant): What wages will you expect as nurse? Applicant: How old is the baby, Mum? Lady: Seven months. Applicant: Without laudanum, Mum, \$2.50 a wake; with laudanum, \$2.—*Harper's Bazar*.

THE EXACT NAME OF COCAINE.—Cocaine, ecgonine, and isotropine are derived from ethyl-tetra-hydro-pyridine, just as tropine is derived from methyl-tetra-hydro-pyridine. Isotropine is the methol-ethyl-tetra-hydro-pyridine; ecgonine is the carbonic acid of methol-ethyl-tetra-hydro-pyridine; and cocaine, a di-ether of the former, is *methylic benzo-methol-ethyl-tetra-hydro-pyridine carbonate*. The sooner modern chemistry learns to give to the world their discoveries in a common-sense way, the better for themselves and the science of chemistry.

A NEW FEATURE IN WEBSTER'S UNABRIDGED DICTIONARY.—The publishers of Webster have recently added to the Unabridged a "Pronouncing Gazetteer of the World, containing over 25,000 titles, briefly describing the countries, cities, towns, and natural features of every part of the Globe." It covers a hundred pages.