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Original Communications.

CLINICAL LECTURE ON IDIOPATHIC OR PERNICIOUS ANÆMIA.*

BY WILLIAM OSLER, M.D., M.R.C.P., LOND.,
Professor of the Institutes of Medicine, McGill College.

(Delivered at the Montreal General Hospital in the Summer
Session Course, April 14th).

Gentlemen,—The patient before you offers an example of that interesting disease described by Addison, in 1855, as "Idiopathic" Anæmia. Biermer, in 1872, thought he had discovered a new affection, and gave it the title of "Progressive Pernicious Anæmia." Lebert gave to it the name of "Essential," and you will find it described under one of these three terms. Here, in Montreal, we have been made familiar with it by the labours of Dr. Howard, your Professor of Medicine, whose paper, before the International Medical Congress, held at Philadelphia in 1876, was one of the earliest and most important of the recent contributions to the subject. Owing to his kindness, and that of several of my colleagues, I have had opportunities of investigating certain points in connection with the pathology of the disease, particularly with reference to the state of the blood and the bone marrow.†

The history of the case is as follows:—

Thomas W —, aged 47, a well-built Englishman, was admitted under the care of Dr. Ross,

* Reported by Mr. T. W. Duncan, and revised by Dr. Osler.

† *Canada Medical and Surgical Journal*, March, 1877; *Transactions of the Canada Medical Association*, 1877; *Centralblatt, f. d. Medicin Wissenschaften*. Nos. 15 and 28, 1877, Berlin; *Centralblatt, f. d. Medicin Wissenschaften*. No. 26, 1878.

on January 19th, transferred to my charge on the 1st of April. He was a bricklayer by trade, but served for twelve years in the army, and was through the Crimean War. For the past two years he has been a baggage-man at the Railway station. He has always enjoyed good health, has never had ague, though he resided for some time in a malarial district. He is a married man, has four children; has not had any special domestic or mental trouble. Up to August, 1877, he enjoyed good health; but about this time he began to feel weak and lost colour. He fainted on several occasions, and had attacks of bleeding at the nose. In January, 1878, he entered the hospital, and remained three months—his symptoms being anæmia, without any recognizable cause, weakness, swelling of the ankles and retinal hæmorrhages. He improved very much, and in a couple of months after leaving the Hospital, was able to work, though pale and weak. Through the years 1879 and 80, he followed his occupation, but never regained his former strength or colour. There appear to have been slight digestive troubles as he has not been able to eat meat.

In August last his wife was confined and was very ill afterwards. Attendance upon her and anxiety brought on the old symptoms, and when he entered the hospital, on January 19th, he was exceedingly weak and pale; had headaches, bleeding at the nose and dizziness when standing. These symptoms have continued with occasional intermission up to the present date. On several occasions the bleedings were severe, lasting once for nearly twelve hours; the blood coming drop by drop from the right nostril. The temperature was usually normal,

but at times went up to 101° or 102°. For the past three weeks there has been no hæmorrhage, and his general health has improved, the headaches have disappeared and he takes nourishment better. His present condition is as follows:—You notice, in the first place, the extreme bloodlessness of the exposed regions, particularly marked in the face; but I would call your attention to a peculiarity in the colour of the skin, which is well marked in this case, and has been so in all of the cases which I have seen in this city. It is not blanched from simple bloodlessness as in the pallor of fear or hæmorrhage; but there is a peculiar sallow, dirty yellow or lemon tint, not the hue of jaundice, and, moreover, the conjunctivæ are not stained. It is also quite distinct from the greenish yellow tinge of the skin in chlorosis. The patient still has a fair amount of subcutaneous fat, though he has lost a good deal of flesh in the past three years. He is weak, easily tired, and it has been as much as he could do to get from the ward to the lecture room. His breath is short on exertion, and he feels faint and dizzy, when he stands for any time. The appetite is poor and the digestion weak, but he has never had vomiting. The bowels are regular, no diarrhœa. Pulse is 84 per minute, soft and weak. On listening to heart sounds, which are very distinct, there is a blowing systolic murmur at the base, evidently hæmic in character, and the venous hum is loud in the neck. There is no evidence of any pulmonary trouble. The examination of abdomen is negative; liver dulness, normal. Spleen dulness, about four inches in vertical diameter, edge cannot be felt under the ribs. Urine clear, reaction, acid, sp. gr. 1015. There are no cerebral symptoms; he has suffered from headaches, but not latterly. On examination of the eyes, retinal hæmorrhages are seen, and also pigmented spots, the result of old extravasations.

The examination of the blood yields the following results: With Gower's Hæmacytometer, red corpuscles per cubic millimetre, 970,000, 19·4 per hæmic unit, instead of about 5,000,000 in the c. m. The hæmoglobin, as estimated by Gower's Hæmachromometer, is only 20% of the normal, and about the same

percentage is obtained by Quincke's apparatus. The blood drop, when expressed, has not the full rich colour and consistency of normal blood, but is paler, thinner and watery. Under the microscope, the corpuscles show a great inequality in size, some are larger than normal, others very much smaller. Many are very irregular in outline. The colour of individual corpuscles is pretty good, a few nucleated red corpuscles exist. The white corpuscles are not materially increased, the proportion, when counted, 1 to 230 red. There is an entire absence of Schultze's granule masses, so common in the blood of debilitated individuals. I have put, for purposes of comparison, the blood of an anæmic girl under another microscope and you will be able to perceive a marked difference.

Summing up the chief symptoms, we have,—

1. Profound anæmia without any obvious cause.
2. Cardiac and vascular murmurs.
3. Repeated attacks of epistaxis, which began originally after the anæmia was established.
4. Retinal hæmorrhage.
5. Peculiar alterations in the histological character of the blood.

The clinical picture which Addison has left of the disease is unequalled, as you may gather from the following extract:—"It makes its approach in so slow and insidious a manner, that the patient can hardly fix a date to his earliest feeling of that languor which is soon to become so extreme. The countenance gets pale, the whites of the eyes become pearly, the general frame flabby rather than wasted; the pulse, perhaps, large but remarkably soft and compressible . . . ; there is an increasing indisposition to exertion with an uncomfortable feeling of faintness, or breathlessness on attempting it; the heart is readily made to palpitate; the whole surface of the body presents a blanched, smooth, and waxy appearance; the lips, gums and tongue, seem bloodless; the flabbiness of the solids increases; the appetite fails; extreme languor and faintness supervene, breathlessness and palpitations being produced by the most trifling exertion or emotion; some slight œdema is probably perceived about the ankles; the debility becomes extreme."*

* Addison's Works, New Sydenham Society, p. 212.

He says that these were "cases in which there had been no previous loss of blood, no exhausting diarrhoea, no chlorosis, no purpura, no renal, splenic, miasmatic, glandular, strumous, or malignant disease."

Of the individual symptoms of the affection, I shall not speak fully, as most of them are common to all forms of anæmia, but one or two demand special attention. I have already told you of the state of the blood in this patient, and of the remarkable diminution in the red corpuscles. Instead of 5,000,000 to the cubic millimetre, the number is reduced to 970,000. In over fifty cases of diseases, accompanied with wasting, in which I have carefully counted the corpuscles, pernicious anæmia is the only one in which I have met with a reduction in the red corpuscles below 1,000,000 to the cubic millimetre. Even in an instance of severe hæmorrhage—hæmoptysis extending over a week—and during which time the man lost nearly ten pounds (by measurement) of blood, the number of corpuscles was 1,390,000 per cubic millimetre. The reduction may be much more marked than in this case; the most striking instances which I have found recorded are given by Quincke,* in one, 330,000 per c. m.; and in another, 143,000 per c. m.! Strange to say, this patient recovered after transfusion, and the number of corpuscles rose from 143,000 on the 22nd of May, to 1,234,000 per c. m. on the 5th of August.

The colour of the blood is much altered; the drop, as expressed from the finger tip, has not the rich red tint of health, but is lake coloured or like claret and water. In some forms of anæmia, particularly chlorosis, the hæmoglobin is greatly reduced, even when the number of red corpuscles maintains a fair standard. Thus, in two cases of chlorosis, while the globular richness was 87.8 and 92 per hæmic unit,† respectively, the hæmoglobin, as estimated by the hæma-chromometers of Quincke and Gower

was 64, and 66 per cent.; that is to say, the individual corpuscles were poor in colouring ingredients. In pernicious anæmia, the loss in colour is usually proportional to the corpuscular poverty as in this case, in which the red corpuscles are only 19.4 per hæmic unit, and the hæmoglobin 20%.

The microscopical characters of the blood in this disease are worthy of your closest attention, as I know of no disease in which that remarkably constant histological element, the red blood corpuscle, undergoes such important modifications. I have studied carefully the blood in six instances of the disease, and in all there has been a striking uniformity in the microscopic features, which are as follows:—

1. Remarkable variations in the size of the red corpuscles, three sorts being distinguishable; (a) Giant forms; usually not very abundant. I have measured some of these as much as $\frac{1}{100}$ and $\frac{1}{80}$ of an inch in diameter. (b) Medium-sized cells, such as ordinarily met with; they constitute the larger proportion. (c) Very small corpuscles—microcytes—tolerably numerous; they are globular, and of a deep colour; they range in diameter from $\frac{1}{100}$ to $\frac{1}{200}$ of an inch.

Quincke has coined a term to express this great discrepancy in size, Poikilocytosis.* It is certainly a remarkable feature in the blood of this disease, and though not absolutely peculiar to it, yet, is much more marked, in my experience, than in leukæmia, splenic anæmia and Hodgkin's disease.

2. Great irregularity in the form of the corpuscle. The disc shape of the red blood cell is rarely departed from in health or disease, but in this affection, the margin of the corpuscles are indented and irregular, or there are various extensions of the stroma, giving to the corpuscles a balloon or hammer shape—alterations which cannot be mistaken for crenation.

3. The colourless corpuscles do not present any special characters, and are not actually, though they may be relatively, increased. The amœboid movements are active. In one or two instances they were reduced in size, and in a few cases in number.

* *Archiv. f. Klin. Medicin. Bd. xx., 1877.*

† "With normal blood the average number of corpuscles in two squares of the Hæmacytometer (containing .00002 cubic millimetres of blood is 100). I propose, therefore, to take this volume of blood, .00002 c. m., as the standard volume, and to term it "hæmic unit." Thus the number of red corpuscles per hæmic unit is the percentage proportion to health." (Gowers.)

* *ποικιλος*, variously formed.

4. Schultze's granules, so common in cachectic conditions, are absent.

5. In one case, nucleated red-blood corpuscles, such as occur normally in red marrow, were found.

In a large number of cases, hæmorrhages constitute an important symptom. Epistaxis is common, and this patient, as you heard, has had severe attacks. Retinal hæmorrhages frequently occur, and have been thought to be peculiar to the disease; but Litten* has shown that they develop in the anæmia of cancer, and after severe loss of blood. In several of the cases which have occurred in this city, there were small cutaneous extravasations.

The *etiology* of the disease is, in many cases, obscure; but in others, well recognized predisposing causes may be traced. Of the recorded cases, the large proportion appear to have been in women, particularly in Switzerland, where the disease appears to prevail extensively, owing, doubtless, to local conditions. Thus, of ninety-three cases reported from the clinics of Berne and Zurich,† sixty-seven were females and twenty-six males. In England, the majority of cases have been males. Of eleven cases which I know of as occurring in this city, eight were males.

Among the more important causes which have been assigned, are: 1. Pregnancy and Parturition. Many of the cases on record have developed during pregnancy or shortly after delivery. It may be doubted whether such cases can be classed under the heading Idiopathic or Essential. 2. Defective food. A considerable proportion of the Berne and Zurich cases resulted from this cause, and were more correctly examples of inanition anæmia.

It is quite striking, in reading over the records of continental cases, to note how frequently this circumstance is mentioned, and the majority of the patients appear to have been derived from the lower classes; while here, and in England, many of the cases have been among the well-to-do. 3. Gastro-intestinal troubles, atonic dyspepsia or diarrhœa,

have preceded the onset of the anæmia in a large group of cases. 4. Grief, mental shock or worry, have been mentioned by writers as probable causes. In one of the cases which occurred here (Dr. Gardner) the failure in health began after the death of two sons.

In the present case none of these causes can be assigned.

The *diagnosis* is arrived at only by the exclusion of all possible affections which might cause, or be accompanied by, great poverty of blood. You must carefully inquire into the history and mode of onset, interrogate the various systems and organs in a searching and methodical manner, when, if no definite disease can be detected, the diagnosis of idiopathic or pernicious anæmia will probably be correct. The affections with which it would be most liable to be confounded, are: 1. Cancer of the stomach, some instances of which run a very latent course. In the case you have here, the gastric symptoms have not been marked, there is no tumour, nor tenderness, nor marked emaciation, and the disease has lasted a much longer time than cancer would. 2. The appearance of the patient and the retinal hæmorrhages suggest Bright's disease—and would still more if the ankles were swollen, as formerly—but examination of the urine is negative. No casts, no albumen. 3. From certain other blood diseases the diagnosis might be difficult, but scarcely in this instance. In leukæmia there might be the same pallor, the poverty of red blood corpuscles, the vascular murmurs, and the irregular, slight pyrexia, but we would have in addition, splenic enlargement, and a great increase in the colourless elements. Hodgkin's disease and splenic anæmia, while presenting a blood condition, closely resembling that of pernicious anæmia, would be distinguishable by the glandular enlargements. It is not improbable, however, that there is a relationship between these affections, which resemble each other so closely in certain clinical features. Litten* gives a remarkable instance of anæmia following parturition, in which three days before death leukæmia of a high grade developed.

In the *morbid anatomy* of this affection there

* *Berliner Klin. Wochenschrift*, 1877.

† Müller *Die pro. per. Anämie, Zurich*, 1877; Quincke, *Volkmann's Sammlung*, no. 100; and *Ziemssens Archiv. Bds. xx. and xxv.*

* *Loc. cit.*

are three points of interest, the extreme bloodlessness of the organs and the small quantity of blood in the heart and vessels, the advanced fatty degeneration of the heart and other organs, and the condition of the bone marrow.

[In certain cases, having a close resemblance to pernicious anæmia, Dr. Fenwick, of the London Hospital, has described an atrophy of the gland structures of the stomach; but what connection that has with the anæmia—whether as cause or effect—appears doubtful. In future, the stomach should be carefully examined in these cases.]

The bloodlessness of the organs is extreme, and the heart and arteries almost empty; in one instance I could collect only ʒij of blood from the chambers of the heart and the aorta. The fatty degeneration is secondary to the anæmia, and is a very constant change. Formerly, cases of this disease were described by some writers as, “idiopathic fatty degeneration.” The alteration in the bone marrow has attracted considerable attention, and is believed by certain pathologists to have an important connection with the disease. The long bones have been found to contain a rich red marrow, which has replaced the normal fatty tissue of the medullary canals of bones of adults. This consists of granular marrow cells, small lymphoid corpuscles, myeloplques, red blood corpuscles, and large nucleated red corpuscles. The latter have been spoken of by many writers as if they were not a usual constituent of adult marrow; according to my observations they can always be found in the *red marrow* of the ribs and short bones, often in considerable number. [I am surprised that so good an observer as Prof. Rutherford, of Edinburgh, should state, in the little work on Practical Histology, which many of you use, that he has never been able to see these bodies in the marrow.]

This change in the medulla of the bones, in pernicious anæmia, was first studied by Pepper, Cohnheim and myself, and we were inclined to attribute to it a somewhat important rôle in the pathology of the disease. The position which I took in the matter may be gathered from the following remarks in a paper before the Canada Medical Association in 1877:

“Clinically, these cases present certain similarities to those of leukæmia and Hodgkin’s disease, or pseudo-leukæmia. Now these latter diseases differ chiefly in this, viz., that in leukæmia the colourless blood corpuscles are in excess; in pseudo-leukæmia they are not. Both present three varieties: 1st, the splenic, in which the chief lesion is the great enlargement of the spleen; 2nd, the lymphatic, in which the lymph glands throughout the body are mainly affected; and 3rd, the researches of Neumann, Mosler, and others have made us acquainted with a variety known as the myelogenous or medullary, in which the marrow of the bones is the seat of disease. This tissue is now generally regarded as sharing, in the young animal at any rate, with the spleen and lymph glands, in the formation of blood corpuscles. In the long bones of the adult it is in a state of atrophy, and its place, in great part, supplied by fat. In many cases of leukæmia and pseudo-leukæmia, it increases, becomes more vascular, its cellular elements multiply, nucleated red blood corpuscles, such as occur in the embryo, are formed, and the whole tissue passes into a condition of hyperplasia, strictly analogous to that affecting the spleen and lymphatic glands. This may be, as in a case recently reported by Mosler, the primary lesion in leukæmia, and the development of the marrow may produce definite symptoms, such as swelling and tenderness of certain parts of the bones; so that the myelogenous forms of these affections are now well recognized. Clinically, the myelogenous form of pseudo-leukæmia, though rarely uncomplicated, presents such a similarity to pernicious anæmia that Jaccoud and Immerman suggested the identity of the two affections, while Prof. Pepper, declared distinctly that pernicious anæmia was ‘merely the simple medullary form of pseudo-leukæmia.’

“In the present state of our knowledge it may, I think, be reasonably affirmed that certain cases of idiopathic anæmia may be placed in the category of myelogenous affections. To many it may appear far-fetched to seek, in the altered condition of the bone marrow, an explanation of the extreme anæmia of this disease, but the reports of numerous cases

leave no room for doubt that a serious alteration in its structure, and a return in adult life to its embryonic state, may profoundly influence the composition of the blood, producing anæmia and death. It must be borne in mind that the red marrow in the short bones of an adult probably equals in bulk the constituents of the spleen, and structurally is very similar to that organ and to the lymphatic glands. In the long bones it is largely replaced by fat, but traces of it still remain. Now, granting that the marrow is a tissue which shares in the blood-making functions, it is quite as reasonable to suppose that, if hyperplasia of the elements of the spleen can lead to serious disturbance in the composition of the blood, producing the splenic form of leukæmia or pseudo-leukæmia, according as the colourless corpuscles of the blood are increased or not, so a general increase of the constituents of the marrow may induce similar conditions. For it is to be remembered that, in a general hyperplasia of the marrow, the actual amount of lymphoid tissue in the osseous system equals or perhaps exceeds, that of an enlarged spleen. Why a simple hyperplasia of this tissue should interfere with the elaboration of the blood, altering in the one case the mutual proportion of the corpuscles, and in the other simply reducing the total number; we do not know, but we are just as ignorant why an enlarged spleen and lymphatic glands should produce in the one case leukæmia, and in the other not."

When the paper was published, from which I have read you these extracts, a systematic investigation into the condition of the bone marrow, in various diseases, had not been made; but since then a number of observers have found this hyperplasia of the medulla in many chronic diseases, particularly in phthisis and cancer. In a considerable number of examinations, I have also met instances of red marrow in the long bones in chronic wasting disease, but not so frequently as Litten and Orth,* or Blechmann.† In only two instances have I found such intense and universal hyperplasia of this tissue as in the three instances of pernicious anæmia, which I have had an opportunity of examining. On the other hand, in

eight cases of phthisis, and in two of cancer, (œsophageal and pyloric) I have found the marrow of the long bones fatty. I think that we have still a good deal to learn with reference to the bone marrow. I am not quite disposed to give up the view that some instances of pernicious anæmia may be of myelogenous origin. The similarity of the clinical features to leukæmia and pseudo-leukæmia, and the transition in Litten's case, from pernicious anæmia to leukæmia, suggest a close relationship.

Such a profound anæmia, as in the case before you, might result from one of two causes: 1st. A faulty formation of blood corpuscles—anhæmatisis, or loss of blood, either by hæmorrhage, chronic discharges or excessive destruction of the coloured cells—hæmophthisis.

Very many of the reported cases of this disease do not come strictly under the definition as given by Addison; but there have been various causes at work, productive of hæmophthisis. Dr. Howard holds that "all the various forms of anæmia, *i.e.*, forms, determined by the conditions, under which they occur, may occasionally take on progressive and pernicious characters." And this is the view taken by Quincke.

Dr. Howard further maintains that there is not a distinct variety of anæmia having an etiology and pathology peculiar to itself, and it is upon this point, particularly, that more light is wanted. The cases require sifting; and, for my own part, I would insist, with Immerman, "that no case should be accepted as belonging to this disease, unless, besides being an instance of extreme and fatal anæmia, it is also impossible to account, either rationally or empirically, for the progressive course of the anæmic symptoms."*

The *prognosis* is most unfavourable; all of our Montreal cases have died. Of the sixty-four Zurich cases, given in Müller's monograph, only seven recovered. Of Quincke's thirty-one cases, eleven are stated to have recovered; but you must remember, with reference to many of these Switzerland cases, that they come more properly under the head of inanition anæmia.

* Quoted by Hartshorne in his article on "Prog. Pernicious Anæmia," in the American edition of Reynolds's System, Vol. III.

* *Berliner Klin. Wochenschrift*, 1878. † *Archiv. der. Heilkunde*, 1878.

The duration of the disease is from three months to a year. This case is remarkable as lasting for over three years. One of Biermer's patients lived for five years after the first onset of the symptoms. The most rapid course in his cases was seven weeks.

The *treatment* is not very satisfactory. Special attention must be given to the weak digestion which almost invariably accompanies the disease. Iron, in some form, should be employed; this patient has been taking Blaud's pills for some weeks, but without any apparent benefit. Arsenic should be given, as several successful cases have been reported under its use; it may be given in combination with the iron. Our patient has not been taking it long enough for us to say whether it is doing any good. Transfusion of blood has been employed in many cases, but without very encouraging results. Quincke, however, has had several successful cases. He transfuses into the radial artery. The transfusion of milk, as first employed by my old preceptors, the late Drs. Hodder and Bovell, of Toronto, is stated to have cured, even after blood transfusion had failed.

TEACHING OF OBSTETRICS IN VIENNA.

BY J. F. W. ROSS, M.B., L.R.C.P., LOND.

Vienna has many great surgeons, great physicians and great obstetricians and gynecologists. It is a great centre from which emanate more new theories and more new features of practice than any other place. No such advantages are to be enjoyed by the student of medicine with its various branches out of the "Kaiserstadt" as within it. With fair faculties, diligence in his studies and that ruling god with the Viennese, money, he can here, in a few years, perfect any speciality he may wish to follow.

We will take, as an example, the clinic of Professor Carl Braun von Fernwald, who is said to have the largest obstetric and gynecological practice of the present day. He has his own wards set apart in the hospital—the Allgemeine Krankenhaus; residing in this section, are his two assistants, both thoroughly versed in this branch of our profession. Under their

guidance are the nurses—six of them midwives—and the students entered for the practice of the clinic. The nine to ten thousand annual deliveries are divided between the three clinics. From 8 a.m. to 8 p.m. on Monday, cases are received say in clinic No. 1. From 8 p.m. Monday to 8 a.m. Tuesday, in clinic No. 2. From 8 a.m. Tuesday to 8 p.m. of the same day, in clinic No. 3. Then from 8 p.m. of Tuesday to 8 a.m. on Wednesday, clinic No. 1 begins again to receive cases. This leaves twelve hours for purposes of disinfecting, ventilating and scrubbing, in every thirty-six. The protracted cases are put in a small room with four beds adjoining the large ward.

The patients on those days when the reception is from 8 a.m. to 8 p.m., assemble at 4 o'clock in the ward, and after having their temperature taken are in turn examined externally by the students present, to enable them to form their diagnosis from palpation and auscultation alone. Then the assistant comes and questions whomever happens to be examining at the time, "When had she her last period?" "How long has she been pregnant?" "When should labour set in?" "Is there much amniotic fluid?" "What is the position?" "Where is the head, where the breech, and where the back?" "Is the child living?" "Where is the foetal heart heard most plainly?" "Is there but one foetus?" "Is she a primipara or multipara, if multipara, is there any history of instrumental interference, of unavoidable, accidental, post-partum hæmorrhage, or has she ever miscarried?" "Is there anything in the bones of the arms or legs to lead you to suspect a deformed pelvis?" "What are the external measurements?" After going over some, if not all of these points he examines per vaginam. Should labour have begun or the temperature be above 30° C., only one student is allowed to examine her, and he must take the case to its termination. If below thirty, three or four examine her after the assistant. Taking a case simply means writing one's name on the board over the head of the patient's bed if none is already there. Since the puerperal epidemic, in November, 1879, new rules are being enforced. In November, after thirty fatal cases, the wards

were closed for two weeks. Before examining p.v., the hands must be thoroughly disinfected in 5% carbolic acid, and soap rinsed, and then dipped in sol. of permanganate of potash. If the student takes a case he must not take another until it is over. The effect of this rule has been to perfect his powers of diagnosis by external palpation. If he finds anything interesting, such as a face or breech presentation or twins, he at once takes the case. Should he find any deformity, or enlargement of the ends of the long bones, he would take it, hoping to find a contracted pelvis. If afraid of it being a normal case, he asks a nurse to examine internally for him; this they will generally do if he has shown them a little courtesy. New comers generally begin by supporting the perineum of primiparæ, and extracting the placenta.

In breech cases the assistant is present to assist, if necessary, or to take charge if he thinks the student incompetent. They are very particular about the exact position of the child to prevent the mistake of introducing the wrong hand when extracting the head. A napkin is rolled round the arm corresponding to the side on which is the child's mouth, the body of the child laid along it, the fingers put in the mouth one on each side of the lower jaw, the other hand applied to the nape of the neck, traction made downwards and forwards, and the child's body is carried up over the abdomen of the mother while the assistant presses firmly on the fundus uteri to supply its place if inert and of a tired vagina, thus bringing the danger of asphyxia to a minimum. Braun is against the use of forceps on the head in a breech case. He says that if they cannot be delivered by the above method, instrumental interference would be too late, in most cases, to save the child, and if delay be due to an undilated os, or an abnormal rotation and locking of the chin on the pubis, it would be productive of danger to the mother. If a breech present in a primipara or a contracted pelvis, they bring down the foot, or both feet, if possible. Diagnosing the sex in breech cases they teach that if you feel nothing it is a male, if two tumefactions feeling like two testicles, it is a female, because the labia became hard and swollen.

The forceps are not used so frequently as in

Dublin. They wait for two hours after the os is fully dilated and the head arrested in its descent. By adhering to this rule much unnecessary suffering is caused. Two cranial positions only are recognized, the first is our first and third, the second is our second and fourth. Simpson's medium-sized forceps are the ones used. Forceps are rarely applied at the brim. Braun never applies them. In preference he turns or performs craniotomy. Should turning result unsuccessfully, craniotomy can be performed without scruple on a dead child—averting the horror of killing a strong fœtus. If the heart-sounds are irregular, or if meconium is discharged, the os being dilated, forceps are applied at once. To apply them, the patient is bolstered on rubber covered pillows across the bed. She lies on her back. The blades are introduced in the usual way, a towel placed between the handles to prevent undue compression of the head. Traction is made and then the head is pushed back again, the instruments re-applied, and again traction is made. After each traction an examination is made to watch the rotation. The operation which puzzles most students is that for rectifying an abnormal rotation with the forceps. The rule they observe is to introduce the blades, so that the handles will point to the thigh nearest the occiput. One thing is carefully attended to, and that is to rotate so that the rectum and bladder incur no danger of being lacerated by the points of the instruments. The centre of the blades should be the pivot on which rotation is made and not the points.

Before turning, the exact position of the child is ascertained. That hand is introduced which corresponds to the side opposite to the head. It is passed over the abdomen to the feet. If possible, and the pelvis is not contracted, the shoulder is shoved up, the head brought to the brim, kept there by a pillow, and the woman kept on the side opposite to that on which the head was. Turning is performed in those cases in which rapid delivery is necessary, as placenta prævia, eclampsia, rupture of the uterus; also in cases of moderate pelvic contraction and transverse presentations, and some cases of prolapsus funis. After the feet have been brought down traction is

only made during the pains to prevent the arms slipping up over the head, abnormal rotation or constriction of the neck of the fœtus by an insufficiently dilated os. The fillet is always used. Turning is always performed with the patient in the dorsal position.

The perineum is supported in primiparæ, and for this purpose they are turned on the left side. The labia are gradually stripped back from the head, and often its progress is retarded by pressure during a pain to avoid rupture. If very tense and of a bluish colour, episiotomy is performed; *i.e.*, an incision is made on either side to direct a tear from the rectum and relieve the tension. If a rupture occurs, "serrefines" are applied, and the legs bound together thus avoiding much of the unpleasantness incident upon stitching.

The placenta is removed by Crede's method, and in normal cases, pressure on the fundus is kept up for about five minutes. If there is any tendency to flood from inertia the uterus is kept contracted by pressing and rubbing it with the hand until it can be brought under the influence of ergot. Full doses of ergot are given in all cases. A tin, holding about a quart of lukewarm 2% solution of acid carbol, is hung on the wall at the head of the bed. From the bottom of the tin runs a tube, fitted at the end with a gutta-percha shoulder, into which a nozzle fits. The nozzle is bent at about an angle of 120° to better adapt itself to the upward and forward course of the vagina. The nozzle is filled with the fluid, introduced into the vagina, and then fitted into the shoulder of the tube. The stop-cock is turned and a steady stream flows without much force into the canal. This gives a great sense of comfort to the patient.

The new-born babes are laid out on a table until the nurses are at liberty. Sometimes six or eight may be there at once, waiting to be washed, dressed, and returned to their mothers; or, perhaps, it may occasionally happen to some other baby's mother. With so few distinguishing marks, mistakes might occur in the hurry, when one thinks that as many as thirty-six were born in this one ward, with its twenty beds, between the hours of 8 a.m. and 8 p.m. One Friday morning, fifteen went down to be christened.

About an hour after delivery the mother and child are taken away on a litter to the convalescent wards, where, if all goes on well, they remain for nine days. If in good health, they are then transferred to the infants' home, where they nurse their own child and that of some mother whose case has not terminated so favourably. For two weeks they are bound to stay here, and if willing, can remain longer. For this they receive their board and a small wage beside. Then, returning home, they take or leave their offspring as they choose. If it be left, as is done by many, for 50% of these children are illegitimate, there are certain times at which they can reclaim it. This privilege is granted until the child is fifteen years old, when all trace of it is lost to the parents. The system, it is said, was instituted to benefit (?) the soldiery, discouraging marriage among them, and still allowing them to gratify their desires without inconvenience.

TWO CASES OF DROPSY FROM ANÆMIA FOLLOWING ACUTE PNEUMONIA IN THE AGED—RECOVERY.

BY R. WHITEMAN, M.B., SHAKESPEARE, ONT.

The following cases I consider worth reporting, not from anything special either in the cases themselves, or in the line of treatment adopted, but as showing the necessity of securing complete convalescence before treatment is abandoned; as it is frequently the case that a patient beginning to feel relief from the severest symptoms of an acute disease, and growing weary of restraint, though still weak and anæmic, will refuse any longer to submit to treatment.

Of course, in such cases it is the duty of the physician to point out the dangers of an incomplete cure, yet for various motives he may not feel disposed to press the matter too strongly lest on the one hand he should be suspected of a desire to prolong his bill, or the patient, being under favourable hygienic conditions, may continue to improve, though slowly, and thus in future discredit him with the family.

These cases of incomplete convalescence occur most frequently in families who have been so fortunate as never to require much medical

assistance, or amongst those who have been badly humbugged by quacks, until they are disposed to look with suspicion upon all medical men. We seldom find such cases in families who have learned to place confidence in the ability and honesty of their family physician; or if we do, the fault is his, not theirs; as where properly looked after they ought very rarely to occur.

Of course, aged people are more likely to suffer in this way than the young, as in them there is less of the (*vis medicatrix naturæ*) vital force which forms so important an element in every recovery.

Case I.—Mr. L—, aged 65, German. Visited March 25th, 1880; found him suffering from severe pneumonia of posterior portion of lower and middle and whole of upper lobe of right lung. The case, though severe, ran a favourable course under ordinary treatment, viz: mild counter irritation with saline cathartics, opium, ammonia, good nourishment, &c., internally. I saw him frequently up to April 10th, when he began to breathe easily and gain some strength, having a good appetite. He then thought he would not take any more medicine. I pointed out that he was not yet well but told him if he wished he might quit for awhile, and if he continued to improve, all right, if not, send me word. I heard nothing more from him for about ten days when I was sent for again, and informed that his disease had turned into dropsy, and, of course, nothing more could be done for him except to relieve his sufferings, as his legs and abdomen were considerably swollen. After satisfying myself that there was no organic disease of his heart, and no albumen in his urine, I gave a somewhat favourable prognosis and began with blue pill, followed by saline cathartic, also a mixture containing *Tr. Ferri Mur.*, *Tr. Nuc. Vom.*, and *Spts. Aeth. Nit.*, in pretty full doses, to be repeated every four hours. Had him kept in bed, and bandaged his legs, instructing the family to remove the bandages, wash the legs, and re-apply them whenever they got loose. In four or five days the dropsy had all disappeared, and continuing his iron mixture it did not return.

Case II.—Mr. W—, aged 78, German. I

was first called here Dec. 13th, 1880, and found him suffering from acute pneumonia, chiefly confined to posterior portions of right lung. His cough was very troublesome, for which I prescribed an opiate to be given as required to relieve cough and procure some sleep. The treatment was much as in the previous case. On my second visit I was informed that the only medicine he would take was that for the relief of his cough, as he found that it gave relief, and he did not expect to get well any way. Finding that his resolution was fixed, I told the family that there was no use of my visiting him if he did not follow my directions; and that unless he changed his mind, and notified me to that effect, I would not come back. He continued very poorly, sending occasionally for cough mixture; but I saw no more of him until March 22, 1881, when his son came to tell me that he was very bad with dropsy—feet, legs, and abdomen very much swollen.

After a careful examination of his heart, and finding his urine free from albumen, I gave a favourable prognosis. As he was in great distress I concluded to tap at once, and by means of a large aspirator needle I took from him one gallon and about a teacup full of fluid, which gave great relief. The rest of the treatment was similar to that of the previous case. I saw him again on March 24th, when the swelling was very much reduced. He now took his medicine very willingly, and when I inquired if he would take it if I made it more bitter, wishing to add *nux vomica* to the iron, he replied that he would take anything I gave him. In fact, I found that his faith in the profession had very much increased, as he obeyed orders willingly.

He continued steadily to improve, taking the iron and compound jalap powder when costive without any return of the swelling, until my last call, as I was passing his residence, April 11th, when I was surprised to find him so hearty, entirely free from dropsy, with good appetite, being up all day, and rapidly gaining strength.

Alexis St. Martin, the bearer of the Gastric Fistula, is dead.

CASES IN PRACTICE.

BY J. E. GRAHAM, M.D., L.R.C.P., LOND.

Lecturer on Dermatology in the Toronto School of Medicine.

PECULIAR PUSTULAR ERUPTION FROM EXPOSURE TO RAYS OF SUN.

Peculiar pustular eruption on the skin produced by the action of the sun's rays. Came to me July, '80, when the following notes were taken :

A. B., aged six., born in Canada. For the last $4\frac{1}{2}$ years has lived in a town in Western Ontario. Family history, good ; no trace of hereditary disease in any of her relatives.

Present illness : About two years ago last April some pimples appeared on the face and hands. About a week after their appearance she took diphtheria and during her confinement in the house from this disease, the spots faded away without leaving any scars. Similar spots appeared in June after she commenced to go out of doors. This time they grew larger, filled with matter, attaining their full size in two or three days, when a dark spot appeared in the centre of each, and gradually a scab formed, which in a short time fell off. During the summer of '78 several successive crops of these spots appeared which passed through the successive stages as above described, in about nine or ten days and then went away leaving slight cicatrices. They only appeared after the patient was exposed to the sun, and the severity of the attacks seemed to be in proportion to the amount of the previous exposure.

In the fall of '78 the eruption disappeared altogether and remained away until the latter part of the winter of '78-'79. It then re-appeared after the exposure on a bright sunny day when snow was on the ground. That portion of the face which was protected by the winter hood was not affected. While wearing gloves, the hands were not affected, but they became so when she ceased to wear the gloves. The wrists which were covered for a time in the spring were not affected. In the summer, however, they also became affected. The eruption was not accompanied by much itching. A slight irritation was noticed on its first appearance.

Patient had scarlatina in the summer of

1879. This disease had no effect on the eruption, except that it faded away on account of the confinement to the house. Patient has constantly worn a glove since the 1st of May last on her left hand. This hand has not been at all affected.

As a general rule the eruption has been much less during the winter season, owing to her being kept in the house. Her mother thinks that the rays of the sun in the winter have not quite the same effect as in summer. The eruption always appears after she has been out for a few hours when the sun is shining. It will also appear sometimes after she has been sitting at an open window with the warm breeze blowing on her. On a cloudy day when the sun is completely concealed, no effect is produced.

She had a slight attack of ague in the spring and some symptoms of that disease presented themselves during the summer. Her appetite is fairly good. She is fond of acids, vinegar, &c.

Present Condition, July 1880.—There is a copious eruption on the face, ears and right hand. On the face it is made up for the most part of ordinary sized pustules, some being umbilicated and resembling those of small-pox, others were covered by scabs, others presented cicatrices, the scabs having fallen off. The nose is swollen ; the lips are much swollen and covered with scabs. The ears also are covered with large pustules. Some of the pustules on the face were as large as a ten cent piece, some much larger. Patient was vaccinated when she was eight months old. Nothing unusual followed the vaccination.

Nearly all applications seemed to aggravate the disease, and all forms of internal treatment adopted were of no avail.

Remarks.—The patient was first seen by me in January '80, when notes of her case were taken. I saw her again in July, but having to leave town, I left her in charge of Dr. A. H. Wright, who saw her when one of the attacks of eruption was at its height and who wrote the history of the case as given above. The eruption appears to be solely the effect of exposure to the sun's rays, and is of a very severe character indeed. So far as I have been able

to study the literature of the subject I have not found a similar case. At first sight without going into the history of the case, one might take the case for one of small-pox, the pustular eruption was so similar. As a rule, the pustules remained discrete throughout the attack; in some places, however, they were confluent. The inflammation extended to the derma as evidenced by the scars which remained. These scars, however, were in many instances the result of scratching rather than of the disease itself. In places which had not been irritated the cicatrization was very slight.

SPASMODIC SPINAL PARALYSIS.

A. P., aged forty-two, born in Canada, resides in a small town in a northern part of Ontario. His family history is good. Some of his relatives both on his father and mother's side suffered from rheumatism. Patient was engaged in the lumbering business, leading a very active life until about eight years ago; since that time he has kept a hotel. About two years before he left the lumbering business, he was exposed to cold, working in the water. He was then seized with a violent pain in the left hip joint which appears to have been of a rheumatic character. It prevented him from working for some time. The present disease commenced two years and a half ago. He noticed first pain in the left hip, and afterwards numbness in the leg. In a short time he found that he had not the proper use of the limb, and contractures began to take place. In about six months after the commencement of the disease the right leg also became affected, but was not so bad as the left until a little over a year ago. Since that time the right has been worse than the left. Last summer there was some improvement in both legs, so much so that he could go around with the aid of crutches.

Present Condition.—Patient is a tall, well-developed man and from his appearance one would consider him to be in excellent health. There is no wasting of the limbs. He sits on a chair or lies on the bed; not being able to move about even on crutches.

There are present, numbness of the feet, paresis, more particularly of muscles connecting

the thighs with the trunk, diminution of sensibility, contractures of the limbs and tremors. The patellar tendon reflex is very much exaggerated. Patient is very sensitive to cold. He can pass water without great difficulty, but has lost control to some extent over the bowels.

The diminution of sensibility is quite easily made out by the æsthesiometer. The contractures are very marked and cause the patient more annoyance than any other symptom. They are sometimes brought on by attempts at movements, and sometimes when the foot touches the cold floor. He states that when he has an inclination to have the bowels move, he must get out of bed at once as he cannot control the sphincter. Very often at this critical moment he will be seized by the contractures, one leg going in one direction and the other in another. At such time he would lose entire control of the limbs. The contractures last for some seconds, after which he can gradually move the limbs to their proper position. He remained in the hospital for a few days and then returned home.

Remarks.—This would appear to be a case of spasmodic spinal paralysis with some symptoms of sclerosis of the posterior columns. The slight loss of sensibility and the partial loss of control over the sphincter are symptoms not met with in spasmodic spinal paralysis, at least not until later stages of the disease, as it is described by Erb in Ziemssen's Encyclopædia. It is probable that the sclerosis in this case affected not only the lateral columns but also to some extent the posterior root zones.

A RARE OCCURRENCE.—On the 16th of April last as Dr. Cameron, of this city, was engaged in applying a Sayre's jacket to a young lady, about twenty years of age, affected with rotary lateral curvature of the spine, the following incident occurred:—The patient, a tall, well developed young lady, had suffered from scoliosis for the last six years. Three years ago Sayre applied a plaster jacket and recommended daily self suspension, which has been regularly practised since, the jacket being renewed once every six or eight weeks. During the suspen-

sion by collar and axilla straps—patient's toes just touching floor—it was observed that the fingers and palm of the left hand became and remained of a dead white hue, and about the conclusion of the process, not unusually prolonged, she complained of being faint. The face was observed to be extremely pale but in a couple of moments the angio-tetany gave way to paralysis and the vessels of the face became turgid and distended, consciousness was lost, slight muscular contractions occurred with opisthotonos, a gurgle in the throat or low cry was uttered and the tongue bitten. The patient was immediately let down and laid upon a contiguous bed and in two or three minutes consciousness returned, and nothing remained to mark the occurrence save a little nausea and faintness lasting about an hour. The jacket was unbroken and the patient returned home after relating that twice before she had fainted during the application of a jacket, and once before during self-suspension.

Selections: Medicine.

THE CLINICAL FEATURES OF PLEURAL EFFUSIONS.

Dr. Broadbent read a paper upon "Some Points in the Clinical History of Effusion into the Pleural Cavity." He first enumerated and explained the relative importance of the physical signs of pleural effusion, and pointed out that the curved line of dulness was due to the manner in which the lung shrinks around its root, and as the fluid rises the vocal resonance and vibration become exaggerated over that part of the chest-wall where the lung is still in contact. When the cavity is full of fluid the respiratory murmur may be conducted for a short distance across the back from the unaffected lung. Sometimes, however, the lung was prevented from collapsing by adhesions, by consolidation, or congestion; and he believed the persistence of bronchial breathing in such cases was due to imperfect collapse of lung, although the fluid was in large amount. The chief point he wished to urge was that while the ordinary signs of effusion into the pleural cavity—dulness, extinction of vocal fremitus,

diminution of vocal resonance, the limitation of bronchial breathing to the region of the root of the lung—show that the lung retreats and shrinks before the fluid, loud tubular breath sounds at the base of the lung posteriorly and over the lateral and anterior aspect of the chest show that the lung has not entirely retreated, but that it retains a certain volume, and is more or less deeply immersed in the fluid. The patency of the bronchi and the partial condensation of the lung, favour the transmission of sonorous vibrations. It is in these circumstances that cegophony is heard most distinctly and widely—from the thin layer of fluid intercepting some vibrations and transmitting others—conditions which ordinarily exist only in the earlier stages of effusion. In some of these cases there may occur some degree of vocal vibration at a period when the amount of fluid is sufficient to give dulness on percussion over the entire lung. Paracentesis would be of comparatively little value in such conditions, for the quantity of fluid is small, and the consolidation of the lung would persist after its removal; and most cases of this sort get well without resort to paracentesis. In one such case only 30oz. of fluid could be withdrawn. The conditions are met with in the pleural effusion of renal disease, often accompanied by congestion, and partial consolidation of the lung preventing its collapse; also, in effusions which rapidly became purulent, as in empyema in children. Apart from these cases, the signs indicative of a large congested lung deeply immersed in the fluid are prognostic of rapid absorption, and Dr. Broadbent had seen this now in a sufficient number of instances to enable him to predict with considerable confidence the recovery of the patient without paracentesis and in a comparatively short time. One of the first steps towards recovery is a rather sudden disappearance of the tubular breathing and the substitution of the more ordinary signs of simple effusion; and it is probable that the congested lung has relieved itself by diffusion of serum into the pleural cavity, and that the amount of fluid there is actually increased. In conclusion, Dr. Broadbent stated the rules which guide him in recommending paracentesis. It should be resorted to at once when

there is serious continued or paroxysmal dyspnoea; but in the absence of urgent symptoms a week or ten days may be given after one side of the chest is full, on the chance that absorption may set in, and a longer period still when the lung has not greatly shrunk. Old age, phthisis, or a phthical tendency, are reasons for early tapping, as also is the existence of disease of the kidneys. The spot for puncture is the eighth space, in a line with the angle of the scapula, and he had come to prefer the common trocar and cannula, with antiseptic precautions to the aspirator. The whole of the fluid should never be removed, or attempted to be. Where the effusion has lasted some time frequent partial emptyings are to be preferred.

Dr. C. T. Williams referred to a case of pleural effusion with presence of marked bronchial breathing and vocal vibration, and alluded to the valuable aid in diagnosis rendered by the use of a hypodermic syringe.

Dr. De Haviland Hall mentioned a case of sarcomatous growth filling the pleural sac and collapse of lung, yet with presence of vocal fremitus. In one case he had withdrawn 107 ounces of fluid, and he asked the author as to the amount he would recommend to be withdrawn.

Dr. Muir asked for information as to other modes of treatment.

Dr. Habershon spoke of the various forms of pleural effusion—e. g., in renal and in cardiac disease, secondary to pneumonia or due to primary pleuritis. He recalled a case of Dr. Addison's where a small area of bronchial breathing existed, surrounded by complete dulness and absent breath-sounds. The autopsy revealed a portion of lung adherent to the chest-wall at that spot. He pointed out that many cases recover if left alone. If there were high temperature, hectic fever, and tendency to tubercular disease, and if dyspnoea were present, he would advise paracentesis, especially if empyema were suspected.

Dr. Hare said the physical signs were often misleading, especially in children; the presence of vocal fremitus and respiratory murmur on the affected side was only to be accounted for by conduction from the healthy side, through the compressed lung and fluid.

Dr. Wharry asked how far vocal fremitus and tubular breathing were indications of the existence of uncollapsed lung in the fluid. He had seen at least one such case where these signs were absent. What were the author's reasons for assuming that exudation took place from the lung into the pleura in certain cases.

Dr. Gilbert Smith agreed with Dr. Hare as to the difficulty of diagnosis in children. He instanced a case where the lung was wholly collapsed, notwithstanding presence of fremitus and tubular breathing, and asked whether a purulent effusion did not conduct vibrations better than a serous one. He also asked whether the disappearance of these signs would not be better explained by an increase in the effusion and pressure on the lung than by an exudation from the lung itself.

Dr. Broadbent, in reply, said he had not seen cases of vocal vibration and bronchial breathing with collapsed lung, nor could he explain such. The persistence of vesicular breathing implied the existence of a non-collapsed lung. He did not consider that increase of pressure explained the disappearance of bronchial breathing, for almost invariably improvement quickly followed—ushered in by returning apical resonance. He had not practised injections into the chest in serous effusions, but had frequently and with benefit employed solutions of iodine in cases of empyema. He now preferred to use the simple trocar inserted near the angle of the scapula; this allowed of the withdrawal of the right amount of fluid, while the entrance of air did no harm. If the aspirator were used it was his practice to stop as soon as the patient became distressed or attacked with cough. Eighty-four ounces was the largest amount he had ever drawn off.—*London Lancet*.

CHLOROFORM AND CHLORAL HYDRATE IN COD LIVER OIL.—Dr. Hager states that the addition of 10 drops of chloroform in 100 grammes of cod liver oil renders it perfectly agreeable and palatable to take, without the slightest degree impairing its therapeutical value; or 10 grammes crystallised pure chloral hydrate, dissolved by digestion in a sand bath in 200 grammes of cod liver oil, renders the oil more palatable. The latter is recommended in consumption; it diminishes night sweats, produces sound sleep, and improves the appetite. The dose is from four to six tablespoonfuls daily.

DELAYED PHYSICAL SIGNS IN PNEUMONIA.

Mr. Tyson (of Folkestone) read notes, at Clinical Society of London, of cases of Acute Pneumonia, in which the usual physical signs of the disease appeared late in the case.—

Case 1. A man, aged sixty-four, caught cold, whilst driving on April 4th, 1880, and next day was compelled to give up work. He was seen for the first time on the 8th, when he complained of pain in the chest, and expectorated some tenacious mucus. There were no abnormal physical signs. Temperature 103; pulse 88; respiration 30; urine albuminous. On the 11th slight dulness appeared at the base of the left lung; fever was high. On the 12th (eight days after the chill) there was well-marked dulness, bronchial breathing, and bronchophony. He was very feeble, and died on the 15th.—Case 2. A female, aged twenty-five, in Guy's Hospital under the care of Dr. Pye-Smith, taken ill three days before admission, when the temperature was 104°. Signs of pneumonic consolidation appeared on the sixth day, and death took place on the seventh. There was grey hepatisation of the right upper lobe.—Case 3. A male, aged fifty, in whom no dulness was discovered till the sixth day. Death occurred on the tenth day. In two other cases Mr. Tyson had marked the absence of physical signs until the fifth day. He referred to the statement made by Dr. Bowles, that in asthmatical subjects attacked with pneumonia dulness often did not develop till four or five days after the seizure. After quoting passages from Ziemssen's *Cyclopædia* and Trousseau's lectures to show that such a late development of physical signs was not generally acknowledged, he concluded by stating that this retardation of signs occurred more frequently than was generally supposed, and might be attributed to the central part of the lung being primarily affected. In such cases the onset of the attack, the pyrexia, and the altered pulse-respiration ratio should be relied on as diagnostic points.—Dr. F. Taylor confirmed the author's statement as to the relative frequency with which the physical signs appeared late in the disease, and quoted a case which came to

the out-patient department with a history pointing to pneumonia. The physical signs were not apparent, although it was about the fourth day; but the patient coughed up some rusty sputa and was admitted. Soon afterwards physical signs became developed. In another case the delayed signs appeared before the rusty expectoration.—Dr. Andrew Clark said the paper was an important contribution to the literature of the subject, for anomalous and capricious cases of pneumonia were imperfectly recorded; but he did not think it added much to the knowledge of experienced men. He was constantly meeting with cases in which constitutional evidence of pneumonia long preceded the appearance of local signs. He would mention three such cases. One was a case of a gentleman he saw in consultation with Dr. Stephen. After a slight rigor the temperature rose to 101°, and for seven days there was no evidence of the disease, except the general distress, rapid breathing, and altered pulse-respiration ratio. The physical signs of pneumonia appeared on the eighth day. Another case was that of a gentleman, aged eighty, at Southsea, seen with Mr. Potts and Sir W. Gull. After a chill there was a period of ten days marked by irregular pyrexia, malaise, and hurried breathing. On the eleventh and twelfth day slight friction was heard below the angle of the right scapula, followed by dulness and tubular breathing. The patient recovered. A third case was one he saw with Dr. Buzzard, when the patient had been ill for six days with pyrexia without any local signs. He did not think it necessary to have all the physical signs present to diagnose pneumonia; and that in case of central pneumonia the disease was too far removed from the surface to yield these signs. With a history of chill, with distress and prostration, with fever, and a disturbed relation between pulse and respiration, one may be absolutely certain that the case is one of pneumonia.—Dr. Habershon concurred that in some cases the general symptoms, with hurried breathing and rusty expectoration, without physical signs, may be taken as sufficient for diagnosis. No doubt such anomalies were explained by the disease being deep-seated, so that the physical

signs are obscured, just as a severe pleurisy may involve the surface of the diaphragm without any friction being audible. When the physical signs do become manifest the pneumonia has probably extended to the periphery.—Dr. Andrew Clark added that pneumonia might be diagnosed from the general conditions; because in a large number of cases there is neither cough, nor expectoration, nor pain in the side.—Dr. De H. Hall, some five or six years ago, had recorded two cases of apical pneumonia marked by severe head symptoms. One was a man, aged nineteen, who was comatose for six hours; the other a child, who had repeated convulsions; and it was only on the fifth or sixth day that distinct tubular breathing appeared. One reason for the severity of these cases, as compared with those which ran a more typical course, might be found in the greater amount of lung involved in central peripheral pneumonia.—Dr. Burney Yeo said that such cases suggested the question whether the lung condition was not secondary to a constitutional disorder.—Dr. Goodhart observed that the question was a complicated one, so many conditions concurring under which the physical signs varied. In old people the late appearance of these signs was attributable to the presence of emphysema. At the same time he agreed with Dr. Yeo that blood-poisoning might be the primary condition to which the pneumonia was secondary. Some years ago he examined the body of an old man, who died three or four days after taking a chill. There was only a slight amount of pneumonia, and the only interpretation he could put on the case was that the chill, arresting the function of the skin, had caused blood-poisoning and that sufficient time had not elapsed for true pneumonia to be fully developed.—Mr. Tyson replied, that all his cases ultimately developed the signs of ordinary pneumonia. The last case he had seen was in a child, five years of age, with high temperature for six days, without pneumonic symptoms. He had written the paper because all the authorities he had consulted did not mention the proportion of cases in which this delay in the development of physical signs occurs; although many state that they have seen such cases.—*The Lancet.*

ON THE ACTION OF DISINFECTANTS ON SEWAGE AND THE LIVING OR- GANISMS CONTAINED THEREIN.

BY JOHN TRIPE, M.D.

* * * * *

The experiments were made at different times, but each set carried out simultaneously, and therefore comparable. Carbolic acid No. 5: When mixed in the proportion of 2 per cent. all smell was removed and all living organisms destroyed. As long as twenty-one days afterwards there was no return of smell or bacterial life. When ten parts of carbolic acid were added to a mixture of sewage and beef, the infusoria but not the bacteria were destroyed and the smell removed. With Burnett's fluid, mixed in the proportion of 2 per cent., the same result followed as in carbolic acid. In the other proportion the effect was less marked. Euchlorine, when added to sewage in the proportion of 2 per cent., removed offensive smell and destroyed infusoria. In the second set of experiments with the sewage and beef solution a mixture of 10 parts to 4000 had but little effect. With sporokton, added in the proportion of 2 per cent., no living organism was detected. In the second experiment the smell was but little altered by a strength of 10 parts in 4000 of the sewage and beef mixture; but when the sporokton was increased in strength to one in 300 the infusoria died, but the bacteria were as active as ever. Solution of chlorine (P.B.) and solution of chlorinated lime (P.B.) did not appear to have much action. Chloralum, when added in the proportion of 10 to 4000, did not immediately affect the smell; but on the second day there were fewer living organisms than in any other solution, except in those of carbolic and hydro-chloric acid, and Burnett's fluid. Condy's fluid, when added in the proportion of twenty parts in 4000 completely failed to remove smell or destroy infusoria. In the proportion of one in 50 the offensive smell was removed, and the movement of the bacterium termo was stopped. Sanitas: The addition of 10 to 2000 of sewage and beef produced but little alteration in the smell. With one per cent. of sanitas the smell was much abated, but the living organisms were more abundant than even in the Condy's fluid of the same strength. Sanitas powder was more energetic in its action than sanitas fluid.—*London Lancet.*

TREATMENT OF MEMBRANOUS SORE THROAT.
 —At a recent meeting of the Academy of Medicine of Paris, Dr. Viard made a communication on this subject. He considers that membranous sore throat is primarily a local affection, which does not become general for five or six days; during the first period the diphtheria may be cured by cauterization (*Medical Press and Circular*). During the last eighteen months he had twenty-six cures out of twenty-eight cases. Wrapping his finger in a rough cloth he removes the false membrane, leaving in its place a bleeding surface; then he cauterizes with nitrate of silver; four or five such cauterizations neutralize the diphtheritic poison. General tonic treatment is employed at the same time.—*Chicago Medical Journal and Examiner*.

Surgery.

COPAIVA IN SCIATICA.—Dr. H. C. Marsh writes to the *London Medical Times and Gazette*, of copaiva:—I wish to speak of this drug as wonderfully efficacious in sciatica. (After describing a most obstinate case he stated) at last I prescribed

R. Bals. copaib.,	ʒiv
Tr. lavand.,	ʒiv
Tr. hyos.,	ʒiij
Pot. bicarb.,	ʒi
Mucilag.,	ʒj
Aqua,	ʒvj M.

A tablespoonful every four hours.—*Medical and Surgical Reporter*.

IMPROVED STYPTIC.—

Collodion.....	100 parts.
Carbolic acid	10 "
Tannin.....	5 "
Benzoic acid (from the gum)	5 "

Mix the ingredients in the order above written until perfect solution is effected. This preparation has a brown colour, and leaves, on evaporation, a strongly adherent pellicle. It instantly coagulates blood, forming a consistent clot, and a wound rapidly cicatrises under its protection.

SPINA BIFIDA TREATED WITH PLASTER OF PARIS.—Dr. Lewis A. Sayre, in a clinical lecture, says that the object of mechanical treatment is simply to protect the parts from all pressure and all possible injury until the process of ossification is completed throughout the entire length of the spinal column. This he accomplishes by first slipping over the trunk a tightly-fitting knit shirt, similar to that used in applying the plaster jacket in Pott's disease, or lateral curvature. Then, having the patient held in a firm position, but without being suspended, he passes a few turns of a plaster bandage around the trunk and pelvis in such a manner as to cover the spina bifida completely. After this he cuts off a piece from both the top and bottom of the shirt, and turns the remaining portions over the part covered with plaster. He then makes a few more turns of the plaster bandage outside of all, and finally, before the plaster has had time to set, presses in the plaster with the hands on both sides of the tumor, so as to make the covering more cup-shaped, and thus protect it the more completely from all pressure. He thus makes a hard, artificial roof for the spinal cord and nerves, which takes the place of the normal bony one until nature supplies the deficiency. If, on account of the child's growth, other similar plaster casings are required, they can be supplied in the same manner.—*Journal of Materia Medica.*—*Chicago Medical Journal and Examiner*.

Midwifery.

REMARKABLE CASE OF EARLY MATERNITY.—Mr. Henry Dodd, M.R.C.S. Eng., &c., of Rillington, York, writes to the *London Lancet*, that on the 8th of August, 1871, he delivered a joiner's wife of a female child. The babe began to menstruate when 12 months old, at first at intervals of a month or six weeks and subsequently every three weeks. According to the mother's statement she ceased menstruating on the 22nd of June, 1880, when she became pregnant. She is an active, hard-working girl, doing all her mother's washing. She has a profuse hirsute growth over pubes and in axilla, and the breasts are large and gorged with milk. In March Mr. Dodd delivered her of a female child weighing 7lbs. Chloroform was administered, and the labour lasted six hours. The child had only three toes on the left foot; and sometime after birth died of convulsions. The youthful mother is now nine years and eight months old.

Translations.

CAUSES OF HUMMING IN THE EARS.

M. Boudet, of Paris, concludes from his researches on this subject. 1st. Amongst the causes of humming of the ears it is suitable to take into account the increase of the muscular bruit by a resonant cavity. 2nd. The formation of this resonant cavity is obtained pathologically or experimentally by the occlusion of one of the natural cavities of the auditory apparatus, that is to say, by obstruction of the external conduit of the Eustachian tube.—*L'Union Médicale.*

VASELINE AND LEAD OINTMENT IN SQUAMOUS DERMATOSES.—(KAPOSI.)

Simple lead-plaster, 30 grammes, vaseline 30 grammes. Melt together at a gentle heat, remove while cooking, and perfume with one gramme of essence of bergamot or lavender or with balsam of Peru. The author recommends this ointment to detach the crusts and scales in certain dermatoses, and in particular in eczema squamosum, when the skin is dry and covered with epidermic lamellae. Even on excoriated surfaces it gives rise to no sensation of burning. It is preferable to Hebra's ointment as it is inodorous and does not change when applied to the skin.—*L'Union Médicale.*

TREATMENT OF TYPHOID BY SALICYLATE OF SODA AND QUININE.

Dr. Hallopeau, in a memoir read before the Medical Society of the Hospitals, upon the treatment of typhoid by salicylate of soda and quinine, concludes as follows :

Having arrived at the termination of this study we will gather the information which appears to us to arise from our own observations and from those that have been published elsewhere, in the following propositions :

1. The salicylate of soda and the sulphate of quinine ordinarily exercise a notable action on the temperature of typhoid.

2. The action of the salicylate of soda is not usually continuous ; at the end of two or three

days, even when new doses are administered, we see new ascensions of the thermometric curve, they now as a rule, attain only passingly the initial figures and the centre of the thermic oscillations remains generally lowered.

3. Two grammes of salicylate of soda suffice usually to produce an anti-pyretic action.

4. In the dose of four grammes and over, this medicine seems able to give rise by itself to accidents and particularly to exaggerate the dyspnoea, increase the pulmonary congestion, favour the tendency to hæmorrhages and sometimes to provoke delirium and agitation.

5. These accidents may be avoided if the salicylate of soda be given in the dose of two grammes only, and if we abstain from prescribing it more than three days consecutively, and if we have due regard to the contra-indications.

6. These contra-indications are above all thoracic complications, grave cerebral accidents and hæmorrhages.

7. In prescribing alternately sulphate of quinine and salicylate of soda, we succeed most often in maintaining the centre of the thermic oscillations at a relatively low figure ; we thus avoid the pernicious effects of the hyperthermy and it seems that we exercise at the same time a favourable action on the evolution of the disease, we act upon the temperature as powerfully as with the cold bath without exposing the patients to the same accidents.

8. The anti-pyretic action of the sulphate of quinine is produced at the very time that that of the salicylate of soda seems to be exhausted and reciprocally, their therapeutic effects are increased, but not their toxic effects.

9. At the same as the internal anti-pyretics we may advantageously employ, as accessory means, cold lotions, cold applications to the belly and cold clysters.

10. In cases in which the hyperpyrexia persists in spite of this medication we may carry the daily doses of sulphate of quinine to 1½ grammes, 2 grammes and even 3 grammes. We may equally give 4 grammes of salicylate of soda on condition of renewing this dose only every two or three days, and after having found by examination of the urine that the medicine has been eliminated.—*L'Union Médicale.*

Correspondence.

To the Editor of the CANADIAN JOURNAL OF MEDICAL SCIENCE.

SIR.—Will you be good enough to give me space in the Journal for the following, for which I shall be much obliged:

I am desirous of making some investigations into the causes of that most destructive disease, pulmonary phthisis; and any members of the profession in the Dominion who have now on hand well marked cases of this disease will confer a favour, and may possibly advance the interests of science, by sending me their address on a post card, when I will send them a list of questions which they can readily answer, with a view of obtaining a full history of the cases for study.

I trust your readers will see the importance of this work, and will kindly take a little trouble and aid me in this way in the investigations, and that we may all be benefitted thereby.

I am, sir, yours, &c.,

EDWARD PLAYLER.

Toronto, April 20th, 1881.

POTTED MEAT.—Dr. Fergus reports in the *London Lancet* some cases of poisoning from the use of potted meats, (salmon, lobster, etc.) The *Huddersfield* (England) *Examiner*, gives alarming reports concerning one of these manufacturing factories. Diseased meats of various kinds, mutton, beef, and even horse-flesh, were found in the course of preparation. Sausages were made from strange and very unwholesome materials, and coloured with red ochre. These facts should make us very cautious about the use of potted meats. Although we think the salmon, mackerel, etc., of this country, so prepared, are, as a rule, above any suspicion of such dangers. We must always look on the meats with dread, as, apart from the criminal procedure of using diseased materials, there is always a great temptation to use inferior qualities.

On the 9th of April there were 1,510 medical graduates for 1881 in the United States, with several colleges not heard from.

THE CANADIAN Journal of Medical Science,

A Monthly Journal of Medical Science, Criticism,
and News.

TO CORRESPONDENTS.—*We shall be glad to receive from our friends everywhere, current medical news of general interest. Secretaries of County or Territorial medical associations will oblige by forwarding reports of the proceedings of their Associations*

TORONTO, MAY, 1881.

THE PHYSICIAN AND THE DRUGGIST.

The following advertisement appeared in one of the Brantford newspapers:

"Dombey & Co's. New Drug Store. O'Reilly's Hair Restorer.

"This preparation is, compounded from the original formula of Dr. O'Reilly, Resident Physician of Toronto General Hospital, and is a decided promoter of the growth of the hair."

* * * * *

It was a source of considerable surprise to Dr. O'Reilly to find himself thus suddenly announced as the benefactor of the Brantford baldheads, and he at once put the matter in the hands of a lawyer, who telegraphed, and wrote to this *enterprising* firm, ordering them to withdraw all advertisements, and destroy all labels, &c., containing the name of Dr. O'Reilly, and at the same time to send an apology forthwith. In reply the following letter was received:

Brantford, Canada, April, 1881.

This is to certify that we, Pilkey & Co., Druggists of the City of Brantford, Canada, used the name of Dr. O'Reilly, Medical Superintendent of the Toronto General Hospital, in the advertisement annexed hereto, without his knowledge, privity, or consent, and we undertake to forthwith stop the publication of the said, or similar advertisements, and to at once discontinue the use of his name in connection with any such compounds, or otherwise, howsoever, and we hereby apologize for our unwarranted use of his name.

(Signed) A. E. DOMBEY & Co.

(Signed)

Witness—AUGUSTINE D. FARR.

Physicians in this, as well as in other countries, have often had occasion to complain of the actions of druggists in making use of their prescriptions for their own private gain, after they had made their legitimate profit on the medicine at the proper time. The above case is one of the most flagrant violations of trust on the part of the dispenser that we have heard of. A prescription of Dr. O'Rielly's was brought to a well known drug store in Toronto and properly dispensed. After a time the dispenser left Toronto, and his services were secured by the "Pilkey" firm, of Brantford. Being a brilliant genius, he conceived the happy idea of making use of some of his Toronto prescriptions, and the result of his first attempt was "O'Reilly's Hair Restorer." The Dr. by his prompt action put rather a sudden stop to this piece of extraordinary impertinence, to say the least of it, and we hope it will be a valuable lesson to druggists in general, as we fear, that in some localities especially, the physicians have just cause to complain of the acts of those who dispense their medicines.

THE MODEL HOSPITAL.

The following allegory has been sent us by a gentleman who has had a wide experience of "men and cities," but who, for special reasons, desires to remain *incog*. The exigencies of space have required us to abscind the seemingly less essential portion of the manuscript, and we have taken the liberty to suppress one or two expressions which might offend where no offence was meant. The remainder we commend to the thoughtful consideration of our Hospital authorities as containing suggestions calculated to promote an object which we know them to have very much at heart: the highest efficiency and the widest utility of the eleemosynary trust committed to them.

"Among the newest discoveries has been that of a city in the desert of Sahara. Here, beneath this waste of sand, in this most barren of all lands, have been found the ruins of the once flourishing city of Otnorot, destroyed, it is supposed, by the sudden rising of the waters of the lake Oiratno, on whose shores it was built. It

was famed for its 'Model Hospital,' an institution which had a small beginning, which was the incubator of many an acrimonious quarrel and party struggle, but which at length attained, through its dearly bought experience, a place in the foremost rank. Having obtained some scraps of its history, from papers recently disinterred from the ruins, I thought that they might prove of use and interest to some of your readers.

In the 'Model Hospital's' immediate neighbourhood flourished two medical schools, the Otnorot and Ytinirt, famed for their bitter hates and party jealousies. Neither took any interest in anything concerning the Hospital, and seemed (human nature to this day) chiefly interested, and were, perhaps, entirely interested, in the financial success of their individual undertakings. A rich man died, his will was disputed, and the property came into the government coffer. This body used part of it to found an eye and ear department in connection with the Hospital. A wealthy firm made a grant of funds to erect a building to be used specially for the treatment of fevers. A splendid laundry and a small morgue were also built. A new building was erected for a lying-in-hospital, and the building formerly used for that purpose was turned into a club. It was customary in those days, among the savage nations, to have, what we would call, a medical superintendent in their hospitals, who was well paid; but, under this all-supreme head were several poor assistants who did a large share of the work, and in payment received their board free. They did not mind this, because the experience they were gaining was invaluable; but when money seemed so plentiful, a little would have agreed with them admirably. The assistants took entire charge, while their superior visited the sister institutions at Tangiers, Algiers and Tunis; he went away to imbibe any new ideas and to enjoy life. As the matron and assistant matron were not supposed capable of imbibing new ideas they had a week or two for a holiday in the summer to recruit their health, injured by a year of toil; their toil was meanly paid with a miserly pittance, because it was the toil of women; what else could we expect among the heathen

where it is customary to make the women work while the men receive the pay? Then, too, the managers were too prone to look upon the Hospital as a place solely for the care of patients, and to forget the duty of teaching students to whom, as the medical practitioners of the future, the lives of their children and their grand-children must be entrusted.

At this Hospital, it was a rule that members of the visiting staff could not resign until they had served for at least thirty years; as a consequence, young men received no encouragement to work hard, and a sad lack of enthusiasm pervaded the clinics. The old 'fogies' were often unable to attend on their appointed days, owing to a severe attack of rheumatism, or, because they could not miss the chance of performing a certain operation, for which they were to be handsomely paid. These old men were so occupied with private practice that they had no time to read any new pamphlets, which were written in those days, not printed. If, in the hospital, a student, more eager than his fellows, wished, from personal observation, to learn what his teachers would not take the time to teach him, he was prevented from doing so by the rule that "no student is allowed in the wards unless accompanied by some member of the staff," for fear that he might disturb the homelike quiet of the ward, or the day dream of some nursing of charity.

But at last a change came. The young men did not try, for it was a sore trial, they did not try to study medicine at home, but went abroad where hospitals were conducted differently. They returned home with the new ideas, and, reasoning as they did, any one unprejudiced must have coincided with them in their arguments. Every one was convinced, and even the impressionable trustees saw their faults and began to remedy them. The result was the formation of the 'Model Hospital' and 'the Hospital Medical School.' The rule about the thirty years of service was changed and no one was allowed to remain on the acting staff for more than ten years. The old 'fogies' were shelved on the consulting staff, and deserving eligible young men were put in their places. These young men had been promised the posi-

tions and had gone abroad for several years to fit themselves for them. A physiological laboratory, a pathological laboratory and a chemical laboratory were built, and the university professors, in the several branches, conducted these institutions. All members of the hospital staff were nominally professors of the university of Otnorot. The staff of the General Hospital was composed as follows:—

DAYS OF CLINIC.

1st. Physician.....	} Mondays & Thursdays.
1st. Asst. Physician... }	
2nd. Physician.....	} Tuesdays & Fridays.
2nd. Asst. Physician.. }	
3rd. Physician.....	} Wednesdays & Saturdays.
3rd. Asst. Physician.. }	

The assistant physicians conducted the out-patient clinics, on their respective days, at 12.30; and any specially interesting or doubtful cases were sent up to the physician of the day, whose clinic began at 2 o'clock. Either before or after his clinic, the students accompanied the physician through the wards. His house physician and clinical clerks also accompanied him, and were constantly subjected to examination at the bedside. The history of each patient's illness hung at the head of his bed; it was the duty of the clinical clerk to write these, and they were filed when the patient succumbed or was discharged. No one was appointed physician without having been assistant physician, assistant physicians must have been house physician, house physicians must have served as clinical clerks for nine months, three terms of three months under three members of the staff. The number of clinical clerks was regulated according to the number of students. Each student, before being eligible for examination, had to serve for nine months as clinical clerk as in the case of house physicians. No salaries were paid to any of the medical assistants or house physicians.

Each house physician was master of his own department, and could only be reprimanded by the visiting trustee or by the board for any offence he committed. The matron, steward and secretary, were also guided by the trustees to whom they had to account for their actions; but each member of the working staff tried to carry out any feasible suggestion made by any

other member, and all tried to work harmoniously together.

In the lying-in-hospital two clinics were given weekly in the wards and two out-door gynaecological clinics. The staff of this institution consisted of two gynaecologists and a resident accoucheur.

1st. Gynaecologist..... } Monday, in-door at 11 a.m.
 Thursday, out-door at 10.
 2nd. " } Tuesday, out-door at 11 a.m.
 Friday, in-door at 10.

Two maternity assistants resided in the hospital; as soon as one had attended six cases another took his place. Outside obstetric work could also be had by applying to the resident accoucheur. The resident accoucheur was chosen

from the house physicians, and appointed for one year.

In the eye and ear department, the appointments were similar to those of the lying-in-hospital, viz., two oculists, with an in and out-door clinic per week, each, and one resident house oculist.

Each physician had a 'take in' week, beginning with physician No. 1. During this period, his clinical clerks and the clerk of his assistant physician lived, two at a time, in the hospital, beginning at 4 o'clock on Friday afternoon, and continuing until the following Friday at the same hour. They came in their regular rotation, as can be seen from the following plan:—

MEMBER OF STAFF.	HOUSE PHYSICIANS.	CLERK.	TAKES IN.
Dr. A., Physician. Dr. A. X., Assistant Physician.	Dr. ———.	1. Mr. ———. 2. Mr. ———. 3. Mr. ———.	January 1-7 { 1. Mr. ———. 2. Mr. ———. January 21-28 { 2. Mr. ———. 3. Mr. ———. February 11-18 { 3. Mr. ———. 1. Mr. ———. March 4-11 { 1. Mr. ———. 2. Mr. ———.
Dr. B., Physician. Dr. B. X., Assistant Physician.	Dr. ———.	1. Mr. ———. 2. Mr. ———. 3. Mr. ———.	January 7-14 { 1. Mr. ———. 2. Mr. ———. January 28-February 4 { 2. Mr. ———. 3. Mr. ———. February 18-25 { 3. Mr. ———. 1. Mr. ———. March 11-18 { 1. Mr. ———. 2. Mr. ———.
Dr. C., Physician. Dr. C. X., Assistant Physician.	Dr. ———.	1. Mr. ———. 2. Mr. ———. 3. Mr. ———.	January 14-21 { 1. Mr. ———. 2. Mr. ———. February 4-11 { 2. Mr. ———. 3. Mr. ———. February 25-March 4 { 3. Mr. ———. 1. Mr. ———. March 18-25 { 1. Mr. ———. 2. Mr. ———.

The above plan was for three months. The clerks were on duty in the receiving room where patients, wishing admission into the hospital or any 'accident cases,' were seen. Here a diagnosis was made by the clerks, confirmed or refuted by the house physician, and then the patient sent to the proper ward. If urgently requiring any major operation, the physician of the week was sent for, except between the

hours of 10 p.m. and 5 a.m., when the assistant was summoned. If requiring a minor operation, as amputation below the elbow or knee, the assistant physician of the week was sent for.

All *post-mortem* examinations were conducted by the professor of pathology and pathological anatomy, in his laboratory near by. Lessons in microscopy were here given, although this in-

strument seems to have entirely disappeared later on, but within the last (?) hundred years has been, so to speak, re-invented. A wealthy citizen presented the institution with twenty-five of these instruments for the use of the students, so that every facility for the practical teaching and study of this all-important branch was given. Long rows of tables were provided for the use of the class as well as mounting fluids. Each was furnished with a locked and numbered box for the instrument lent him; for all of these he was held responsible.

A dispenser for the hospital was appointed every six months, from among the students at the chemical laboratory. He received a small salary as the work was arduous.

The medical school in connection with the hospital was a great success. The rival institutions soon closed their doors, and freely acknowledged that there was in Otnorot only enough talent to conduct one good school. The young lecturers in the new school were all trained abroad, each for his special branch. Lectures on chemistry and physiology were given in their respective laboratories. Anatomical lectures, pathological lectures were given, and dissections were made in the pathological laboratory. If a vacancy from any cause seemed probable, a young man was led to believe that if he went abroad and prepared himself he might obtain it. Acting on this he started for some foreign university. Thus a good school was kept up, so much so that finally one could study better at Otnorot than in cultured and civilized Europe. None of the medical assistants received any salary, and none wished for any; yet, there was always a surplus of candidates for office. The matron's salary was increased, as was her assistant's. The hospital was considered perfect in every respect, and well deserved the world-wide reputation the 'Model Hospital' obtained."

ERRATUM.—In the formulæ for treatment of eczema on the last page of our last issue for "carmine" read "tannin."

CORRESPONDENCE.—X. Y. Z. has forgotten to enclose his card.

UNIVERSITY SENATE ELECTIONS.

We have to remind our readers that the Voting Papers must be delivered to the Registrar before noon on the 4th of May. If any, therefore, have neglected the matter, they should at once put in the names of Mr. Taylor, Dr. McFarlane, and Mr. Falconbridge, and forward their papers as directed by Mr. Baker.

We hear with grief of a "ring." A ring is a terrible thing—a round thing, that has no end; but a change is coming, however, as the anti-ringers intend to annihilate it. The intention, under the new regime, is to make one half the Graduates members of the Senate, and the other half University Examiners. Perhaps, it is only simple justice to give all "the boys" a chance.

MEDICAL EXAMINATIONS IN TORONTO UNIVERSITY.

It gives us great pleasure to note a new feature this year in the method of conducting these examinations. The candidates for the "third year" were examined practically in the General Hospital in medicine and surgery by the respective examiners, Drs. Eccles and Malloch. The results were very satisfactory, as they were sure to be under a physician and surgeon so well qualified to conduct a practical examination in these subjects. The Medical Superintendent, Dr. O'Reilly, with his usual courtesy, gave the examiners every assistance in his power, and placed all the material in the Hospital at their disposal.

THE ONTARIO MEDICAL ASSOCIATION.—We desire to direct the attention of our readers to the official announcement of the first meeting of this Association which appears on our last (cover) page. We are happy to say that the promoters of this organization have received the strongest encouragement from all sections of the Province, with one exception, and there is every prospect of a most successful meeting on the first of June.

The annual meeting of the Ontario Medical Council will take place on the second Tuesday in June, (the 14th).

UNIVERSITY OF MCGILL.—*Faculty of Medicine*.—The total number of students enregistered in this Faculty during the past year was 168, of whom there were, from Ontario, 79; Quebec, 48; Nova Scotia, 5; Manitoba, 1; New Brunswick, 9; P. E. Island, 5; Newfoundland, 1; West Indies, 1; and the United States, 19. The following gentlemen, 36 in number, have passed their Primary Examination on the following subjects: Anatomy, Practical Anatomy, Chemistry, Practical Chemistry, Materia Medica and Pharmacy, Institutes of Medicine and Botany or Zoology. Their names and residences are as follows:—Clarence E. Allen, East Farnham, Q; Edson C. Bangs, Faribault, Minn.; S. A. Bonesteel, Columbus, Neb.; James C. Bowser, Kingston, N. B.; C. O. Brown, Lawrenceville, Q.; C. E. Cameron, Montreal, Q.; J. W. Cameron, Montreal, Q.; Angus M. Cattenach, Dalhousie Mills, O.; H. J. Clarke, Pembina, Dakota; W. C. Cousins, Ottawa, O.; W. J. Derby, North Plantagenet, O.; George A. Deardan, Richmond, Q.; J. J. Gardner, Beauharnois, Q.; James A. Grant, B.A., Ottawa, O.; James Gray, Brucefield, O.; Chas. B. H. Harvey, Cleveland, Ohio; Joseph A. Hopkins, Cookshire, Q.; J. H. Harrison, Moulinette, O.; Robert J. B. Howard, B.A., Montreal, Q.; W. D. Brydone Jack, B.A., Fredericton, N. B.; P. N. Kelly, Rochester, Minn.; John S. Lathern, Yarmouth, N. S.; J. B. Loring, Sherbrooke, Q.; Robert K. McCorkill, Montreal, Q.; Wm. J. Musgrove, West Winchester, O.; Floyd S. Muckey, Medford, Minn.; T. Pierce O'Brien, Worcester, Mass.; T. A. Page, Brockville, O.; Allen P. Poaps, Osnabrock Centre, O.; And. J. Rutledge, Bayfield, O.; Clarendon Rutherford, M.A., Waddington, N.Y.; Walter McE. Scott, Winnipeg, Man.; George A. Sihler, Simcoe, O.; E. W. Smith, B.A., New Haven, Conn.; Andrew Stewart, Howick, Q.; and W. E. Thompson, Harbour Grace, Nfld. The following gentlemen, 38 in number, have fulfilled all the requirements to entitle them to a degree of M.D., C.M., from the University. These exercises consist in examinations, both written and oral, on the following subjects: Principles and Practice of Surgery, Theory and Practice of Medicine, Obstetrics and Diseases of Women

and Children, Medical Jurisprudence and Hygiene,—and also Clinical Examinations in Medicine and Surgery conducted at the bedside in the Hospital:—S. A. Bonesteel, Columbus, Neb.; T. L. Brown, Ottawa, O.; Paul Cameron, Lancaster, O.; J. H. Carson, Port Hope, O.; W. Cormack, Guelph, O.; H. C. Feader, Iroquois, O.; H. D. Fraser, Pembroke, O.; E. C. Fielde, Prescott, O.; W. L. Grey, Pembroke, O.; C. M. Gordon, Ottawa, O.; J. B. Harvie, Ottawa, O.; H. E. Heyd, Brantford, O.; H. A. Higginson, L'Orignal, O.; D. W. Houston, Belleville, O.; J. J. Hunt, London, O.; G. E. Josephs, Pembroke, O.; W. A. Lang, St. Mary's, O.; E. J. Laurin, Montreal, Q.; Henry Lunam, B.A., Wakefield, Q.; R. T. Macdonald, Montreal, Q.; E. A. McGannon, Prescott, O.; Kenneth McKenzie, Richmond, Q.; Frank H. Mewburn, Drummondville, O.; W. Moore, Owen Sound, O.; W. C. Perks, Port Hope, O.; T. W. Reynolds, Brockville, O.; E. J. Rogers, Peterboro', O.; James Ross, B.A., Dewittville, Q.; J. W. Ross, Winthrop, O.; T. W. Serviss, Iroquois, O.; J. C. Shanks, Huntingdon, Q.; W. A. Shufelt, Brome, Q.; E. H. Smith, Montreal, Q.; W. Stephen, Montreal, Q.; A. D. Struthers, Philipsburg, Q.; J. E. Trueman, B.A., Woodstock, N.B.; G. C. Wagner, Dickinson's Landing, O.; and J. Williams, London, O. Of the above named gentlemen, W. Cormack is under age. He has, however, passed all the examinations, and fulfilled all the requirements necessary for graduation, and only awaits his majority to receive his degree. Mr. H. A. Higginson, of L'Orignal, has been taken ill since the examination, and is consequently unable to present himself. Messrs. James Ross, E. J. Laurin, K. McKenzie, and A. D. Struthers, natives of the Province of Quebec, have fulfilled all the requirements for graduation, but await the completion of four years from the date of passing the matriculation before receiving the degree. *Medals, Prizes and Honours*.—The Holmes Gold Medal for the best Examination in the Primary and Final Branches was awarded to James Ross, B.A., Dewittville, Q. The Prizes for the best Final Examination was awarded to J. L. Ross, of Winthrop, Ont. The Gold Medallist is not permitted to compete for

this prize. The Prize for the best Primary Examination was awarded to R. J. B. Howard, B.A., of Montreal. The Sutherland Gold Medal was awarded to C. E. Cameron, of Montreal. The following gentlemen, arranged in the order of merit, deserve honourable mention:—In the Final Examination, Messrs. Perks, Heyd, Laurin, Josephs, Grey, Shufelt and Rogers. In the Primary Examination, C. E. Cameron, W. L. Lathern, W. McE. Scott, and J. J. Gardner. *Professors' Prizes*:—Botany.—First Prize, G. A. Graham, of Hamilton, Ont., and E. Gooding, of Barbadoes, W. I., equal. For the best Collection of Plants, J. C. McRae, of Port Colborne, O., and J. J. Meahan, of Bathurst, N.B. Practical Anatomy.—Demonstrator's Prize, awarded to C. E. Cameron, of Montreal.

SUMMER COURSE OF LECTURES.—Through the consideration of the indefatigable Secretary, Prof. Wm. Osler, M.D., we are in receipt of the programme of the Summer Course of Clinical and Didactic Lectures to be delivered between April and July in McGill College, Montreal. We very much regret that our Toronto Schools do not see their way clear to the establishment of such a course.

VICTORIA UNIVERSITY.—At a recent examination, the following gentlemen having passed successfully, were recommended for the M. D. viz., W. H. Aikins, W. C. Edmonson, F. Howett, A. C. Jones, M. Wallace, G. S. Bingham, R. R. Teller, M. A. Nicholson, L. M. Sweetnam, W. Gunn, J. G. Mennie, R. M. Fisher, H. W. Aikins, H. R. Elliott, S. A. Bosanko, A. G. Machell, G. Wilcock, W. J. Tracy, W. A. D. Montgomery, W. J. Charlton, G. W. Haker, A. Chapman, J. C. Burt, J. McBride, J. M. Cotton, J. Simpson, W. Gilpin, R. S. Frost, E. A. Nealon, H. Y. Baldwin. The following also passed the primary examination, viz., R. B. Coulter, W. H. Montague, W. Cuthbertson, H. P. Jackson, M. R. Collver, E. Laws, Geo. Wyld, J. Z. Wyld, W. J. Kellow, R. J. Burton, C. S. Grafton, J. W. Wilmott, J. B. Whitely, F. P. Drake, M. R. Elliott, G. W. Clendenning, A. D. Watson, E. M. Hewish, C. I. Wilson, J. F. Carroll.

OBITUARY.

Probably few physicians were better known in Ontario, than Dr. William Mostyn, of Almonte, whose sudden death by drowning on the 30th of March caused such a shock to his many friends. He graduated at Queen's College University, Kingston, in 1858, and since that time had been practising at Almonte. He always took a leading position in the district of the "Ottawa Valley" in matters political, medical, and otherwise. He, for a time sat as member in the Local Legislature, and at the time of his death, was President of the Agricultural Society in Lanark, and was also a member of the Ontario Medical Council.

Being a man of good ability, of high professional attainments, of a kind and genial disposition, liked by all who came in contact with him, beloved by his intimate friends, his memory will long be cherished with the fondest recollections.

The funeral took place on the 2nd of April, under the auspices of the Freemasons. According to the *Kingston Daily News*, there were between 4,000 and 5,000 present. Drs. Sweetland and Bentley, of Ottawa, Sullivan, of Kingston, Woodford, of Brockville, Lynch and Patterson, of Almonte, and Baird, of Pakenham, acted as pall-bearers. The remains were brought to Kingston, and buried in the Catarqui Cemetery.

A vacancy is created in the Ontario Medical Council in consequence of the resignation of Dr. Irwin, who represented the Quinte and Catarqui Division. The Dr. resigned on account of his appointment to the Chair of Medical Jurisprudence in the College of Physicians and Surgeons of Kingston.

We understand that Dr. Day, of Trenton, and Dr. Tracy, of Belleville, are candidates for election. Dr. Day was the representative of this division from '69 to '72, and as such was one of the most able and faithful members of the Council. He was a candidate at the last election, but was defeated by the casting vote of the Returning Officer. We hope there will be no doubt about his election.

The names of Dr. J. D. Killock, of Perth, and Dr. J. G. Craunston, of Arnprior, have been mentioned as candidates in the Rideau and Bathurst division, to fill the vacancy in the Medical Council, caused by the death of Dr. Mostyn.

The Election of Representatives for the Quinte and Catarqui, and the Rideau and Bathurst divisions, in the Ontario Medical Council, will take place on the 17th of May. The voting papers will be issued by the Registrar on the 2nd.

MEDICAL EXAMINATIONS—LIST OF THE SUCCESSFUL KINGSTON GRADUATES.—The following have graduated from the Royal College of Physicians and Surgeons:— Without an oral—W. J. Gibson, Kingston; J. L. McGuern, Lonsdale; D. Wallace, North Graves; E. Oldham, Kingston; James F. O'Shea, Norwood; M. Dupuis, Kingston; F. R. Alexander, Ottawa; A. W. Herrington, Mountain View; J. H. Betts, Portsmouth; D. Johnson, Conseccon. With an oral—R. Coughlan, Hastings; John Jamieson, Kars; B. J. McConnell, Pembroke; D. H. Snider, Niagara; T. J. Symington, Camlachie.

TRINITY MEDICAL SCHOOL.—The following are the Medallists and Honour men in this school for 1881:—Final, W. A. Mearns, Gold Medallist; A. H. Ferguson, First Silver Medallist; W. F. Peters, Second Silver Medallist. Primary, Second year, W. J. Macdonald, Scholarship. Certificates of Honour, Wm. Bonnar, Wm. Bathass, L. Backus, A. D. Smith. First Year, W. Jenner, Scholarship.

Dr. Sheard, of this city, has, we learn, been appointed Professor of Physiology in Trinity Medical School.

TORONTO SCHOOL OF MEDICINE.—*Prizemen*—4th year, W. C. Edmondson, Orillia; 3rd year, J. T. Duncan, Goderich; 2nd year, W. J. Robinson, Fergus; 1st year, R. Hearn, Ottawa.

Dr. Graham, of Toronto, left home on the 15th of April, for a two-week's holiday, which he spent in New York and Philadelphia.

It was announced in our issue of December last, in consequence of changes in the proprietorship and management of this Journal, Mr. Joseph Heys had received for collection all accounts for subscriptions up to the end of 1880. We are requested by Mr. Heys to state, that, those who have not yet paid him, must do so at once. At the same time, we may say, that we (the present managers) are quite willing and ready to receive subscriptions for 1881.

The death of the late Earl of Beaconsfield, appears to have been due to gouty bronchitis. The English Medical Journals, condemn in no measured terms, Dr. Quain's consent to meet in consultation, at the bedside of the noble Earl, the well-known fashionable Homœopath, Dr. Kidd. If such things can be done in high places, it is useless to expect the principles of rational therapeutics and the dignity of scientific medicine to be upheld by the lesser lights.

We are glad to learn that the charge of extortion in the capacity of coroner, lately brought against Dr. Riddel of this city, and investigated at the last session of the Court of Oyer and Terminer, fell through on the Plaintiff's own evidence.

There was a meeting of the Executive Committee on the 31st of March. The time was occupied in receiving petitions of candidates, and making the arrangements for the examinations.

There were 1,900 Medical Students in New York during the past winter.

APPOINTMENTS.

Dr. Hope, of Belleville, has been appointed Sheriff of the County of Hastings.

Dr. Murphy has been appointed Physician to the Deaf and Dumb Institution of Belleville, *vice* Dr. Hope.

Dr. G. A. Routledge, of Lambeth, has been appointed an associate coroner for the County of Middlesex.

Warner E. Cornell, Esq., M.D., of the vil-

lage of Thedford, to be an associate coroner in and for the County of Lambton.

Dr. Yates, on account of removal from Kingston, has resigned his position in the Royal College of Physicians and Surgeons, and the following appointments have been made:—Dr. F. Fowler, Professor of Practice of Medicine; Dr. A. S. Oliver, *Materia Medica*; Dr. K. N. Fenwick, *Institutes of Medicine*; Dr. C. Irwin, of Wolfe Island, *Medical Jurisprudence*; Dr. C. H. Lavell, *Ophthalmic and Aural Surgery*.

Book Notices.

Failure of Vaccination. By CARL SPINGER, M.D. (Reprint *St. Louis Clin. Record*.)

Report of the Medical Superintendent of the Asylum for the Insane, Toronto, for the year ending Sept. 30th, 1880.

Physiology in Thought, Conduct and Belief. By DANIEL CLARK, M.D., Medical Superintendent, Asylum for the Insane, Toronto. (Reprint from the *Canadian Monthly*.)

Constitution and By-Laws of the American Academy of Medicine, as amended and adopted, September 17th, 1879, with list of members, officers and council for 1880-81.

On Quebracho Bark (Aspidosperma Quebracho. Translated from the German. Illustrated by 25 Lithographic figures. Dr. ADOLPH HANSON of Erlangen. Geo. S. Davis, Publisher, Detroit. (Reprint from the *Therapeutic Gazette*.)

Strangulated Veins of the Uterus, and other papers Gynecological and Surgical. By THOS. H. BUCKLER, M.D., of Baltimore. (Reprint from *Boston Medical and Surgical Journal*.) Cambridge: Riverside Press. 1881.

A Statistical Report of 252 Cases of Inebriety treated at the Inebriates' Home, Fort Hamilton, L.I. By LEWIS D. MASON, M.D. A pamphlet of much interest to those engaged in the treatment and cure of dipsomaniacs.

Two Cases of Extra Uterine Foetation with Results. By CHAS. H. CARTER, B.A., M.D. Lond., M.R.C.P., Physician to the Hospital for Women, Soho Square. (Reprint from *Transactions of Obstetrical Society of London*.)

Absence of the Vagina; Uterus distended by retained Menstrual Fluid, Operation, Recovery. By CHAS. H. CARTER, B.A., M.D., Lond., M.R.C.P., Physician to the Hospital for Women (Reprint from *Obstetrical Society of London*.)

The Heart and its Function. New York: D. Appleton, & Co., 1, 3, and 5, Bond Street. 1881.

This is No. 8 of the English Series of Health Primers and comes, we assume, from the pen of Dr. Geo. W. Balfour; at all events it might have done so, and may be commended to the laity as a clear and intelligible account of the heart and its functions.

Neues Schnellgefrier—Microtom. Von Dr. MED. Charles S. Roy, Cambridge, England.

This book is a reprint (illustrated) from the *Archiv. f. Mikroskop Anatomie*, pp. 19, containing an account of a new freezing microtome invented by Dr. Charles S. Roy, of Cambridge, England, which seems to answer the purpose of preparing instantaneous sections at the *post mortem* table, more satisfactorily than any other before the profession. The instrument is manufactured by the Cambridge Scientific Instrument Co., 18, Panton Street, Cambridge.

Transactions of the American Medical Association. Vol. xxxi., 1881. Philadelphia: Collins, 705, Jayne Street.

The present volume, like many of its predecessors, while presenting an interesting account of the proceedings at its annual meeting, together with a number of very good and instructive papers, is remarkable for the absence of any really new and original contributions to the sum of scientific knowledge. Of course, no one can peruse the volume without experiencing much pleasure and no little profit; but at the same time we must admit that greater things might reasonably be expected of the

national Association of a great people—greater in nothing than its youthful attainments in the science and art of medicine. We entirely agree with Dr. Sayre, in his Presidential address, that it would be far better for the Association to inaugurate and publish such a weekly as the *British Medical Journal*, than to continue to issue “the present bulky, tardy, little read and unproductive volume of Transactions.” This one idea we deem to be the most pregnant with profit in this edition.

A Practical Treatise on Fractures and Dislocations. By FRANK HASTINGS HAMILTON, A.M., M.D., LL.D. Sixth American edition, revised and improved. Illustrated with 352 wood-cuts. Philadelphia: Henry C. Lea's, Son & Co., 1880. Toronto: Hart & Rawlinson.

The appearance of the sixth edition of this work celebrates the attainment of its majority. In the 21 years which have elapsed since it first saw the light of day, no rival in the English language has arisen to divide or diminish the universal esteem or favour to which it at once attained. This fact alone speaks volumes for the manner in which it has supplied the wants of the profession and fulfilled its mission. Our foreign brethren, too, were not slow to recognize its merits; and by means of translations they now generally enjoy its use. Indeed, Malgaigne's classic, but now antiquated, work, is the only other complete treatise on the subject in any language. The noteworthy changes of the sixth edition are:—A Chapter on General Prognosis, a new account of Fractures of the Patella and a few minor substitutions and additions. To those who have not the work already we can only say that we marvel greatly, how the practical surgeon can be content to get along without it.

A Text-Book of the Physiological Chemistry of the Animal Body, including an Account of the Chemical Changes occurring in disease. By ARTHUR GAMGEE, M.D., F.R.S., Professor in Victoria University, Manchester; Brackenbury, Professor of Physiology in the Owen's College. Vol. I. London: Macmillan & Co. Toronto: Willing & Williamson.

In this work chemistry is made subordinate to physiology and pathology, and for this reason it is of more practical interest and value

to the physiologist and physician than the title might lead one to suppose. In this volume the author takes up the elementary tissues of the body, including lymph and chyle. The chapters on blood are both scientific and exhaustive, not only in describing its physical characters and chemical composition under normal conditions, but also in discussing the changes which it undergoes in disease. The diseases, thus discussed, include 1st, various disorder of nutrition, such as anæmia, leucocythæmia, purpura, rheumatism, &c.; 2nd, fevers; and finally, diseases of the heart, lungs, liver, kidney, and diabetes mellitus. In the chapters on the connective, contractile, and nervous tissues, we get the chemistry, histology, and physiology. The description of the contractile tissues is especially exhaustive and interesting. Although this volume is complete in itself, the author promises another during the year which will treat of the chemistry of the chief animal functions.

We can recommend this work without any reserve as being thoroughly scientific and at the same time highly practical. While the arrangement is good, and the subject matter everything that could be desired, the style is more pleasing and attractive than we had expected to find in such a book. It forms a happy connecting link between pure chemistry, on the one hand, and physiology and medicine, on the other. We hope it will be found in the hands of all our advanced students, and all our physicians who make any pretensions to combine in any degree the scientific with the practical.

A Practical Treatise on Diseases of the Skin. By LOUIS A. DUBRING, M.D. Second Edition. J. B. Lippincott & Co., Philadelphia, 1881.

The former edition of this work, published in 1876, was deservedly received with much favour by the profession on this continent. The present revised and enlarged edition is still more worthy of professional patronage.

A number of new articles have been inserted, treating principally of diseases which have been more fully investigated and described since the publication of the former volume. Many chapters have been enlarged, and important additions made to them. The work is thorough-

ly up to the times, nothing worthy of consideration in literature having escaped the notice of the author.

The book is remarkable for its completeness. In the description of disease and in the department of therapeutics, it is especially good. Perhaps the least satisfactory chapter is that on prurigo. In it the author adheres too closely to the description as it has been given by Hebra. This particular form of the disease, as it is frequently seen in Vienna, is so exceedingly rare on this continent, or in England, that a lengthy description would scarcely appear necessary. The writer is confident, however, that we occasionally meet with a popular condition attended by intense itching, which is essentially a prurigo, but which does not answer to the description of the disease as given Dr. Dühring.

It is very gratifying to the profession here that so admirable a work as the present should have been published on this continent. It is the most complete text book for students which has yet been published in the English language, and it is doubtful if a better book has ever been brought under the notice of medical men in any language. We would advise all those who wish to possess a thoroughly reliable, and at the same time not unwieldy text book on this important branch, to at once procure this work.

Meetings of Medical Societies.

TORONTO MEDICAL SOCIETY.

Meeting of 24th March. Dr. Geo. Wright, Vice-President, in the chair. Drs. James Baldwin and McCullough were elected members. Dr. Workman read a translation from the Spanish of a case of intestinal invagination in which 34 centimetres of gut were passed *per anum*.

Dr. Riddel related a case: A.B., aged 32, robust, syphilitic, hard drinker, came to him with facial erysipelas from which he shortly recovered. Delirium tremens followed with some puffiness of face and extremities. Recovery ensued but in about a month he was seized with convulsions and died. Dr. Graham narrated a case of convulsions developing suddenly

without known cause followed by coma and ending in death with no kidney lesions. Dr. Oldright mentioned a case of empyema in which he tapped the chest and washed cavity out daily by the simple syphon method which he had employed in a number of such cases with gratifying results. Dr. Geo. Wright presented a dried anatomical preparation of ruptured diaphragm.

Dr. Graham reported several interesting cases:

1. For the past five or six years had suffered from frequent attacks of jaundice which finally became permanent. For a year and a half before death occasional heart-murmurs were heard, systolic basic, during the last six months they were permanent. Autopsy showed absence of valvular lesions; the cystic and common bile ducts were obstructed by contraction.

2. A case of lateral spinal sclerosis. *Vide* page 146.

3. Splenic leucocythæmia, white corpuscles in varying proportions at different observations, 1 to 8, 1 to 12, 1 to 15. Red globules averaged 3,000,000 to c.m.

4. Acute tuberculosis—no diagnostic physical signs during life. Lungs found studded with tubercle. Purpura hæmorrhagica immediate cause of death.

5. Age 49. Working in an office he early contracted the habit of retaining his urine all day long. Some catarrhal trouble has now appeared with albuminuria. He thought that there could be no doubt that the kidney affection resulted from the habitually distended bladder. A general discussion ensued. Dr. Playter then read a paper upon Contagious Diseases in Men and Animals, after which the meeting adjourned.

Meeting of 7th April. The President, Dr. Covernton, in the Chair. Dr. Workman read a translation from the French, describing a case of trephining in an ancient Danish or Norse skull found in a grave of about 200—500 A.D. Dr. Cameron exhibited the lungs from a case of empyema of the left pleura. The patient, a boy eight years of age, was admitted to the Children's Hospital when the disease was of 15 months' standing. Under tonic and anti-

septic treatment he gradually improved and was able to go about, eating and sleeping well. At the end of four months caseous bronchopneumonia manifested itself on the healthy side and in a few days he succumbed. The left pleural cavity contained cheesy and liquid pus; the lung was completely carnified and crowded against the vertebrae which were diseased at points of juncture of second and third ribs. The right pleural cavity contained some clear serum with numerous fresh adhesions. The lung was congested and presented a number of caseous foci. Dr. Oldright exhibited three specimens from the same subject, a man of 73 years of age. (1) The left hip. Thirteen years ago it was injured by a fall downstairs. There were evidences of fractures of the ischium and pubis; the femur fractured through the neck, the head had disappeared and the remainder of neck articulated with the filled-up acetabulum and could be dislocated on to dorsum. A rounded piece of bone closely resembling the head of femur was firmly attached, by its edge, just below the iliac crest, behind the superior spine. Another small bony outgrowth existed below and in front of this. The bladder (shown), thickened from chronic inflammation, presented a sacculum at its upper part, and a papillary growth at the neck obstructing the outlet. The left kidney contained a large cyst on the surface extending to the pelvis. The ureters were dilated. Dysentery was the cause of death. Dr. Oldright then read a paper on Contagion and Infection. He confined his remarks principally to some questions of school quarantine, viz. :—The length of time it is necessary to keep scarlet fever cases at home, and the other members of an infected family; and as to the non-necessity of preventing the school attendance of apparently healthy children, where a case of typhoid fever or diphtheria was present in the house. A general discussion followed.

Dr. Workman then moved the addition to the by-laws of which he had given notice, limiting the number of Honorary Members of the Society to twelve. On a division the motion was carried, and the Society adjourned.

HURON MEDICAL ASSOCIATION.

The regular quarterly meeting of the Huron Medical Association, was held in Clinton on April 5th, Dr. Sloan, of Blyth, President, in the chair.

The following members were present: Drs. Sloan, Holmes, Worthington, Williams, Taylor, Campbell, Graham, Young, and Stewart.

Dr. Worthington showed a young lady with lateral curvature of the spine, who is wearing a "Wyeth's Plaster Jacket," with great comfort.

Dr. Stewart showed a case of badly united fracture of the tibia and fibula.

Dr. Campbell showed a uterine polypus which he removed a few days previously from an unmarried woman, aged 35. For a period of two years this patient suffered severely, before the appearance of the catamenia, from severe pain referred to the region of the uterus. The menses were very profuse, and for some days the loss was so great that she was unable to leave her bed. Dr. C., on making a vaginal examination, discovered a tumour about the size of a hen's egg in the vagina, and having a pedicle which could be traced to the internal os. Dr. Campbell, with Dr. Scott's assistance, removed the polypus by means of a long curved forceps. The patient is doing well.

Dr. Graham, of Brussels, exhibited a beautiful specimen of dilatation of the stomach arising from the cicatrization of a chronic ulcer. The patient from whom the specimen was taken was a blacksmith, 28 years of age. He had suffered for seven years from pain after eating, and vomiting.

About two years ago the stomach was found to be greatly dilated. He had several epileptiform convulsions, and was frequently troubled with severe tonic spasms of the muscles of the lower extremities. Emaciation was extreme. He complained of having a ravenous appetite and uncontrollable thirst. He vomited large quantities of fluid, containing products of fermentation.

Dr. Graham began, at this period, to wash out the stomach. This treatment was continued for five weeks, and was attended by marked benefit. The thirst and vomiting disappeared, and the convulsions and spasms ceased to return. He rapidly gained flesh and strength, and his state was so satisfactory that it was not considered necessary to use the stomach pump any longer. He continued, to

all appearances, in good health until about two months ago, when the thirst and vomiting set in again.

The tonic spasms of the lower extremities returned and were soon followed by death.

The stomach weighed 23 oz. ; length from the cardiac to the pyloric extremity, 20 inches; vertical diameter, $7\frac{1}{2}$ inches. The pyloric orifice has a diameter of only $\frac{1}{8}$ th of an inch. An ulcer $\frac{1}{2}$ of an inch in diameter, and nearly the same in depth, with undermined edges, was situated at the commencement of the pyloric orifice.

Dr. Graham concluded the report of this case by saying, * * * The treatment of this case convinces me of the very great benefit derivable from Kussmaul's method of washing out the stomach when this organ is dilated. I feel satisfied that although the pyloric constriction could never be removed, that with proper attention to quantity and quality of food, and the use of the syphon or pump, at the proper time, he may have been tided over many months—perhaps many years.

Dr. McDonald, of Wingham, read the notes of a case where he stretched the sciatic nerve for obstinate sciatica. The result in this case has been very encouraging.

Dr. Stewart gave a report of a case where he and Dr. Hurlburt performed a similar operation for an inveterate sciatica. Sufficient time has not yet elapsed to decide as to the permanent value of the operation in this case.

Miscellaneous.

MEDICAL COUNCIL EXAMINATIONS.

There were 150 candidates for the Professional Examinations, of whom 83 were for final; and 125 for matriculation. The final were written and the primary entirely oral, the anatomy being on the dissected subject. This is the proper method, and it is a mode that is very popular among students who *know their anatomy*.

The following are the final questions :

THEORY AND PRACTICE OF MEDICINE.

N.B.—The candidate will only answer the first three questions, and any three of the remainder.

No. 1.—You have been in daily attendance

upon a patient, who has been several days ill; you determine that it is a case of typhoid fever, although no rash is present. Show why it may not be a case of acute tuberculosis or tubercular peritonitis.

No. 2.—(a) Locate the normal superficial cardiac dullness. (b) Record the symptoms and physical signs of dilatation of the right ventricle of the heart, and determine the causative differences between dilatation of the right and left ventricles. Treatment of both.

No. 3.—Distinguish the causes, other than surgical, upon which an unconscious condition may depend; and give a short account of any case which may have come under your own observation.

No. 4.—(a) What are the relative lengths of inspiration and expiration in tracheal, bronchial, and vesicular respiration? Compare the interval in each. (b) In the healthy state of the respiratory organ, where would you expect to find bronchophony? (c) What condition of the lung would it indicate, if found in other parts? and what diseases does this condition of lung include?

No. 5.—Diagnose, describe the characters of, and treat a case of tinea-tonsurans.

No. 6.—Give the clinical history and treatment of acute dysentery.

No. 7.—(a) Illustrate how the thermometer may very materially aid in diagnosis. (b) What are the ranges of temperature in health? (c) In what diseases does hyperpyrexia most frequently occur?

No. 8.—Determine the clinical differences between, and give briefly the diagnostic points in chronic gastritis, gastric ulcer, and cancer of the stomach.

F. R. ECCLES, *Examiner*.

SURGERY (OTHER THAN OPERATIVE).

No. 1.—Describe the symptoms of—dangers to the eye from—and treatment of a case of simple iritis.

No. 2.—Diagnose intra from extra-capsular fractures of the femur.

No. 3.—Give the symptoms and diagnosis of hip-joint disease.

No. 4.—What is considered the most favourable time for operating after gunshot wounds—and what are the general results of secondary amputations?

No. 5.—What causes may give rise to abscess of the groin, and how would you diagnose from psoas abscess presenting there?

No. 6.—Describe the various forms of cutaneous ulcers, and give treatment of indolent ulcers.

No. 7.—Diagnose a dislocation from a fracture.

No. 8.—When dislocation and fracture co-exist, what is the rule for reduction?

W. P. BUCKLEY, *Examiner*.

OPERATIVE SURGERY.

No. 1.—Describe Chopart's operation.

No. 2.—In what case is excision of the elbow joint advisable—and how is it performed?

No. 3.—Describe the operation for vesico-vaginal fistula.

No. 4.—In what part of its course is the brachial artery usually tied, and how is the operation performed?

No. 5.—What are the various circumstances requiring trephining, and how is it performed?

W. P. BUCKLEY, *Examiner*.

SURGICAL ANATOMY.

No. 1.—Name the parts divided in tracheotomy. What structures are to be avoided?

No. 2.—In what direction, and to what is due any displacement occurring in fracture of upper third of the thigh.

No. 3.—Name in some order the structures divided in excision of the ankle joint.

No. 4.—What parts are successively divided in the operation of colotomy?

No. 5.—Trace the course of any vessels between the bones of the head and brain, which being wounded may compress the brain.

No. 6.—Give the exact position of the eustachian tube—how would you pass a tube into it?

No. 7.—Beginning at the skin, name each tissue successively divided in removal of the lachrymal gland, and describe the course of the canals whereby the tears are conveyed from the eyeball.

No. 8.—What parts would require division to ligate the popliteal and posterior tibial arteries? State the anatomical difficulties in each case.

M. SULLIVAN, *Examiner*.

MIDWIFERY (OTHER THAN OPERATIVE).

No. 1.—Describe the formation of the placenta and umbilical cord from their origin to complete development, and state their functions.

No. 2.—Describe the conditions which will retard the progress of labour in the first stage, and specify those cases in which, if left to nature, the result to the mother would be serious, perhaps fatal; give treatment.

No. 3.—What is placenta prævia? Give symptoms, diagnosis, prognosis, and treatment.

No. 4.—What is menorrhagia? Give its causes, symptoms, and treatment.

No. 5.—Give the symptoms, pathology, prognosis, and treatment of phlegmasia dolens.

H. ROBERTSON, *Examiner*.

MIDWIFERY (OPERATIVE).

No. 1.—What are the objects of craniotomy? In what cases is it justifiable? Describe the method of operating.

No. 2.—In what cases is cesarean section justifiable? State the object of the operation, and describe it fully.

No. 3.—What is ovariectomy? In what cases would you recommend it? Give the operation and treatment.

No. 4.—State the causes of vesico-vaginal fistula; give symptoms and treatment.

No. 5.—How is inversion of the uterus produced? Give symptoms and treatment.

H. ROBERTSON, *Examiner*.

MEDICAL JURISPRUDENCE.

No. 1.—Distinguish between ante-mortem and post-mortem twins.

No. 2.—What is the average term of gestation—the shortest term compatible with full development of fœtus—and the longest term?

No. 3.—In a case of infanticide from strangulation, what signs, if any, would show that strangulation took place after an independent circulation had been established in the body?

No. 4.—To what extent is generative power developed in cryptorchids?

No. 5.—What symptoms would give rise to a suspicion of poisoning? and in such a case, what points in its history, in the appearance of the body, and in the surroundings, should be noted?

No. 6.—Do you consider the following case one of suicide or homicide? Give reasons for your opinion:—A man found dead—lying on his face—with throat cut, right arm placed under body, with right hand near left shoulder; and close to right hand a razor found open with blade smeared with blood; blood on neck and chest; incision in throat four inches long and two and one-half deep, extending obliquely from about an inch above left collar bone to right side of chin, dividing all the vessels and anterior vertebral muscles—deepest part of incision at right angle of wound, and extending behind the unbroken skin.

W. T. CAMPBELL, *Examiner*.