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Original Communications.

NOTES ON THE PROTEIDS OF THE URINE.

BY R. F. RUTTAN, B.A., M.D., Lecturer on Chemistry, McGill University.

By the term albuminuria, when unqualified, is by most modern writers meant the true or intrinsic albuminuria, *i.e.*, urine containing substances coagulable by heat and acids which have been excreted with it, and does not include hæmoglobinuria. Although authorities are almost unanimous in the opinion that the coagulable bodies found in urine are derived from the blood of the glomeruli, yet, as Senator points out, there are many other possible sources within the substance of the kidneys, *e.g.*, the blood of the interstitial vessels, the lymph and various epithelial cells of the kidneys—all of which might yield albumen to the urine and are more or less affected in the processes which lead to albuminuria, such as congestion, inflammation, and renal degenerations.

It is customary to speak of the phenomenon of albuminuria as if it were due to the presence of one definite body, coagulable by heat and precipitated by certain reagents. For a long time this represented our entire knowledge of the proteids of the urine, and although more recent and careful study of the coagulable matter of the urine has demonstrated that this is not the case, yet, so far as the ordinary procedure in examination of urine goes, we still speak of albumen being present or absent according as a precipitate is or is not produced by the action of a reagent and wholly disregard the fact that most ordinary 51 reagents precipitate at least two albuminous substances, viz., serum albumen and serum globulin. Nitric acid, for instance, throws down serum albumen, serum globulin, egg albumen and hæmi-albuminose, and, if carefully applied, an opacity may be obtained due entirely to anecin; on the other hand, urine may contain peptone when no precipitate whatever is obtained.

It may be assuming too much to say that the majority of physicians entirely disregarded the composite nature of precipitated albumen, but the fact remains that while the detection of coagulable matter in the urine has long been regarded of the highest diagnostic value, the profession is only now beginning to appreciate the probable importance in diagnosis and treatment of a careful investigation into the nature of this precipitate. Hitherto a detailed study of the proteids of the urine required too much time and demanded a knowledge of chemical manipulation not usually possessed by a practitioner, besides it had never been shown to be of sufficient practical importance to merit the expenditure of the requisite time and energy.

Physiological chemists have now determined that at least four distinct forms of albuminous matter may cause the symptom known as albuminuria vera, viz., serum albumen, serum globulin, hæmi-albuminose and peptone. In blood plasma we find at least two forms of coagulable matter, serum albumen and serum globulin; and in many cases of albuminuria we find, not one, but both of these substances present in the urine. They are not present, however, in the same proportion as in blood (viz., 1.5 to 1), nor are they found to exist in urine in proportion to their relative diffusibility. No constant relation exists. We sometimes find an albuminous urine when the coagulable matter is 90 or even 100 per cent. globulin; and, again, very many cases of albuminuria vera, in which, by the most careful testing, no globulin can be found.

The result of these observations has led to the recognition of the two conditions of *serinuria* and *globulinuria* as special forms of albuminuria.

Hæmi-albuminose and peptone are more difficult to detect than either of the preceding, and hence they have not been so carefully looked for. The former has hitherto been found only in connection with osteomalacia, but there is very little doubt that it is excreted under other conditions of the system as well. It has distinctive chemical properties, and, like peptone when it occurs alone, can easily be identified; thus it is soluble in strong nitric acid, precipitated by dilute acid and by warming, but the precipitate produced by warming the liquid is dissolved on boiling, and is again precipitated on cooling. It is not precipitated by acetic acid or carbonic acid like serum-globulin.

A urine giving no precipitate with heat, nitric acid, or picric acid, but yielding a marked opacity with phospho-molybdic or phospho-tungstic acids and acetic acid after the urine has been clarified by precipitation with neutral lead acetate, indicates that it contains peptone.

Ralfe's well known test reacts when considerable peptone is present, but it is not decided enough to detect traces. It is made by floating the suspected urine on a few c.c. of Fehling's solution in a test-tube. Above the line of phosphates, if there is much peptone, a delicate rose-colored halo appears. If albumen be also present, it assumes a purple tint.

Hofmann, Senator and others contend that peptone is present in every albuminous urine. It is not, however, always found associated with morbid conditions of the urine, but may occur in urine otherwise quite normal. Its clinical significance is only now being fully elaborated. It may be generally stated, however, that its presence in urine is frequently associated with hyperpyrexia, with purulent exudation, or with the disintegration of pus cells somewhere in the body. In one set of cases it seems to be associated with a disorganization en masse of the leucocytes, as in typhus fever, diphtheria, tertiary syphilis, smallpox, phosphorus poisoning, etc. In another set of diseases it is associated with local inflammatory affections that have a tendency to become purulent—e.g., pleurisy, pneumonia, abscess, parotitis, etc. In twelve cases of rheumatic effusion, J. von Jaksch found peptonuria present, and generally he regards it of great diagnostic value in doubtful cases between simple and purulent exudation. He is not strongly

supported in this view, however, by more recent observers. Oliver regards it as indicative of imperfect or perverted liver work, and Pancancowski has observed it in numerous cases of cancer of the liver not associated with coagulable albumen.

The methods of determining the different forms of albumen in urine are now reduced to such simple terms as to be within the power of physicians who have not received a special training in chemical manipulation; a systematic search for the various proteids in a case of albuminuria can be made by any one who is able to devote a few hours to acquiring the necessary manipulative skill. If such a course were pursued by those who have the opportunity, no little light might be thrown on many of the debated questions connected with albuminuria.

To every reader of modern medical literature no terms are more familiar than those of normal or physiological albuminuria, sometimes called cyclical, functional, alimentary or intermittent, according to the mode of onset or the time of occurrence of the symptoms in the cases reported. These terms imply the existence of an albuminuria in persons where general health is unimpaired, and who did not at the time of examination give any history or exhibit any symptoms to account for its presence.

Are we justified in assuming that albuminuria can occur without serious systemic disturbance or a coexistent lesion of the kidney? After carefully balancing the evidence for and against, I have elsewhere expressed the opinion that it may be regarded as an established fact that the urine in health may contain at times coagulable matter,--not that it can be shown to exist in every sample of urine, as we can demonstrate the presence of urea or phosphoric, but it has been ... und so frequently, by so many accurate observers, in the urine af perfectly healthy persons that we can no longer regard its presence in normal urine either as a rare exception or as a curiosity of no significance. Nevertheless, the doctrine that the presence of albumen is invariably a sign of disease is still strongly upheld by many writers, notably Dr. Geo. Johnston, but the continual accumulation of evidence from all sides has now forced many of the supporters of this view to admit that there are at least

exceptions to a dogma which was formerly held to be absolute. More exact methods of research and the application of more delicate tests have doubtless added largely to our knowledge of the conditions under which albuminuria occurs, yet it is not so much to new methods and reagents, as to the recent changes in the theories of urinary secretion, that this change in public opinion is due.

Since, then, we are no longer justified in regarding all forms of albuminuria vera as symptomatic of severe organic changes in the kidney itself, or of morbid systemic disturbance, we must distinguish the physiological or harmless from the morbid albuminuria. There is, of course, no hard and fast line of demarcation between these two forms of albuminuria any more than there is between health and disease, but one form passes into the other. Yet few questions are of such importance to the practicing physician as this. In his capacity as medical adviser to insurance companies he has to decide whether he will follow the rule of rejecting any candidate who has albumen in his urine and thus deprive his company of many good risks or decide for himself whether or not a given case is one of functional albuminuria, thus incurring the risk of passing a candidate who has incipient nephritis. The natural tendency of both insurance companies and their advising physicians is to err on the safe side, and they adopt the former alternative. This Dr. Tyson has recently shown* in many cases to be unfair to both candidate and com-Of no less importance is the power to differentiate these pany. two forms of albuminuria in private practice. Dr. Tyson, in the article above cited, points out the following considerations which should have influence in forming a diagnosis, viz., absence of tube casts, absence of albumen in morning urine, and a high real specific gravity (i.e., of the urine for twenty-four hours) in a person under 40 years of age, are indicative of functional albuminuria, while a large quantity of urine, the presence of casts, of cardiac hypertrophy and arterial tension, the presence of the gout or of Bright's eye, are, of course, indicative of renal mischief. But, apart from these symptoms, the examination of

^{*} Philadelphia Medical News, Nov. 1888, p. 545.

the urine alone affords a possible aid to the solution of this question. The observations of Senator, Werner, A. F. Hofmann, Macguire and others go to show that no little diagnostic aid can be obtained by comparing the quantities of serum albumen and serum globulin. (Hofmann's *Eiweissquotient.*) Dr. Macguire (in *Lancet* of 1886, part I, p. 1061) has recorded some valuable observations on this question. In two cases of granular kidney he found two and a half and four parts of serum albumen to one of globulin; in one case of anæmic disorder of the kidney, one part of serum albumen to two and a half of globulin; and in two undoubted cases of functional albuminuria and one of puerperal albuminuria, the coagulable matter was 100 per cent. globulin.

Again, much information might be derived from the quantitative estimation of the coagulable proteids. Esbach's Albuminometer affords a ready method of estimating albumen quantitatively and at the same time of determining the relative properties of serum albumen and globulin. It is strange, indeed, that although this convenient and accurate mode of estimating albumen has been before the medical profession for about two years, no practitioner has made use of it to show what, if any, are the quantitative relations of the precipitated proteids to the intensity or the nature of the renal inadequacy.

CASES IN PRACTICE.

By J. M. ELDER, B.A., M.D.C.M., HUNTINGDON, QUE.

CASE 1.- Uterine Fibroid; Removal; Recovery.

I cite this case, not because its rarity renders it interesting, for it has none of those striking features presented by the gynæcological cases recently reported to the Montreal Medico-Chirurgical Society, but rather because it is typical of many cases met with in country practice, and which the physician must treat as best he can, owing to inability of the patients to consult a specialist.

Mrs. C., aged 35, thirteen years married, mother of five children, consulted me first in December, 1886. A small woman, anæmic aud wasted, with a countenance expressive of constant suffering. Family and personal history good. Present trouble began two years ago, at her last confinement, when midwife told her that she had failed to remove all the placenta, and that a "shred" was left hanging down into the vagina. Since then she has never been well, being constantly troubled with dragging pain in back, profuse vaginal discharge resembling menses, headache, constipation, loss of appetite, and weakness. Lately, too, she had developed a heetic fever, with flushes of heat, chills and sweats alternately. A constant desire to micturate, but no pain accompanying the flow. She had been treated for some time for prolapsus, but without benefit!

Examination.—Vagina packed by a hard, smooth tumor, rather larger than an orange, movable, and pediculated—the pedicle passing up into os uteri, which fitted it like a ring on little finger. Sound passed into uterus beside the pedicle a distance of three and a half inches. Tumor bathed in a sanious, non-fætid discharge evidently coming from interior of uterus.

Advised removal of tumor, but the usual horror of countrypeople for an "operation" prevented consent being given, and in the interim I prescribed Fl. Ext. Ergot m_{XX} , K. Br. gr. v, t.i.d., and advised carbolized vaginal douches. The effect of this treatment was to lessen the discharge and also the size of the tumor; but this latter, as a result of its starvation, began to slough, and the discharge became so foctid that she sent for me and indicated her willingness to undergo any operation. By this time she was much emaciated; no appetite; pulse 120; temperature 102° ; decidedly septicienic.

On April 9th, 1887, assisted by Dr. Cameron, I proceeded to remove the tumor, using ether as the anæsthetic, and having patient in dorsal position at edge of bed as for a forceps case of midwifery. Grasping the tumor firmly in vagina with vulsellum forceps, torsion was tried in vain. I then delivered the tumor (a fibro-myoma, weighing 10 ozs., 14 inches in circumference, onion-shaped) as one would a child's head, and pulling on it until the os uteri presented at the rima vulvæ, I ligated the pedicle by transfixion and a double ligature, and then excised it, being careful to retain the other end of it by means of the ligatures. Grasping this close to the os with a pair of forceps, I managed by torsion, assisted by a curette, to detach it from the intra-uterine wall at its attachment high up on the right side. The hemorrhage was almost nil—probably as a result of the course of ergot—and after carefully replacing the uterus and douching out thoroughly both it and the vagina with sublimate solution (1-3000), I dressed the vulva with a pad of sublimated jute and put on a bandage as for a case of midwifery. Saw patient next day, removed urine by catheter, found fever down to 100°, and feeling better in every way.

I was rather anxious about her for the next nine days, as the spring freshet prevented me seeing her, or hearing any news of her; but the nurse followed instructions regarding keeping her clean, and she made an uninterrupted recovery, being confined to bed only eleven days. Normal menstruation on May 13th, and she has since got fat and strong, proving herself to be as "well as ever" by nearing another confinement, which is, to her mind, the only drawback in the whole case.

CASE II.—The Use of Antifebrin in Pneumonia.

Judging from occasional notices in medical journals, as well as from hints dropped by hospital authorities, it would appear that antifebrin has had an up-hill job of it to work its way into favor with the profession as a reliable antipyretic, while its most lucky rival—antipyrin—has been landed as almost a panacea. With a view of helping to do justice to the cheaper drug, I now wish to give my experience of its use in pneumonia. We have had almost an epidemic of the disease here since January, and I have now before me the temperature charts and notes of a dozen consecutive cases in which the fever was successfully controlled by antifebrin, and in the majority of which it was *the only medicine used*, though the routine practice of hot applications to the affected portions of the lungs was carefully followed. It has with me proved much superior to quinine, digitalis, tartar emetic, or any of the "old reliable" stand-bys.

The ages of the patients varied from 7 to 85, and in none of the cases was resolution delayed beyond the seventh day, nor were there any complications in the convalescence. As a rule, the patients were too far away to enable me to see them even once a day, so I used to leave a thermometer with the case, with instructions to give a five-grain powder of antifebrin whenever the fever reached a certain point $(102^{\circ}-103^{\circ})$. In this way I assured myself that no more than necessary would be given, as the dose would only be repeated when the fever went up again. The result of a dose was sharp elevation of temperature for a few minutes, followed in twenty to thirty minutes by a profuse sweating and rapid defervescence of temperature to nearly normal, and then came the most gratifying feature of all—two or three hours good sound sleep for the patient. We all know what a gain even a few hours is in this disease, and this calming effect of the drug I found almost uniform.

The urine, too, always improved in character, being no longer so loaded with lithates as we generally find it in these cases, but I doubt if this was due to any diuretic effects of the drug (as some claim for it), because the quantity of urine was not increased, and I am rather inclined to the opinion that the amount of work thrown on the kidneys was lessened by diminution of tissue metabolism due to the antipyretic effect of the drug. I found that young persons bore the drug better, and took larger proportionate doses of it, than older persons; but at the same time they had longer intervals of a pyrexia. I have managed a case through five days on 25 grains, and that was all the medicine required except a small calomel purge on the second day. In the case of the patient aged 85, I gave at the crisis of the fever brandy 5ii with tr. digitalis m_v every two hours for four doses; and I was never able to give him more than $2\frac{1}{2}$ grains of the drug, as even that dose reduced the temperature by 3° .

To sum up, I claim the following advantages for antifebrin in pneumonia, if given in not more than five-grain doses, and only as often as the thermometer shows it to be necessary:

1. It controls and regulates the fever with certainty.

2. It husbands the patient's strength by giving intervals of refreshing sleep.

3. It is easily given, dissolved in *warm* tea or water, and does not cause nausea.

4. I have met with no untoward effects from its use with the above-mentioned precautions.

5. It has given me better results in complete resolution of the affected lung tissue than any drug I have tried.

Retrospect Department.

QUARTERLY RETROSPECT OF MEDICINE.

BY R. L. MACDONNELL, M.D.,

Professor of Hygiene, McGill University; Physician to Montreal General Hospital.

TABES DORSALIS.

The Treatment by Suspension .- During the last three months of the old year the mechanical treatment of tabes dorsalis has had full trial at the Salpëtriere and the results have been so satisfactory that M. Charcot has recently devoted a lecture" to The practice is not absolutely novel, since in 1883 it was it. first initiated by Dr. Motchoukowsky of Odessa, who published a pamphlet upon the subject, but it received no attention in Western Europe till 1888, when Professor Raymond of Paris while on a scientific mission in Russia was struck with the results he witnessed. In Motchoukowsky's pamphlet considerable improvement was ascribed to it in twelve tabetic persons; also in various neurasthenias, independent of tabes, in which the sexual functions were re-established after this treatment. The patient is suspended by means of a Savre's apparatus for a period beginning with a duration of half a minute and progressively increasing up to three or at most four minutes, an interval of two days occurring between each suspension. In order to exert greater traction on the spinal column it is well to raise the arms every fiftcen or twenty seconds. Eighteen tabetics, embracing four hundred suspensions, have been so treated. Excluding four who were not suspended more than three times, the improvement was marked in fourteen, and eight of these most remark-They were all confirmed cases, and had mostly been ably.

^{*} De la Suspension dans le Traitement de l'Ataxic Locomotrice Progressive et de quelques autres Maladies du Système Nerveux (*Progrès Medical*, Jan. 19, 1889).

treated by cauterization along the spine. Improvement in walking, at first temporary, but becoming continuous, took place after eight or ten suspensions. The patients could then stand more easily and walk without assistance. After twenty or thirty suspensions Romberg's symptom disappeared. Vesical troubles were relieved, lightning pains diminished and even disappeared, and there was a return of sexual desire and capacity. Anæsthetic and other sensory disturbances also disappeared, and general improvement set in. One patient had a return of lightning pains whilst being treated, but subsequently again underwent improvement, which in all the rest was uninterrupted. In no case did the knee-jerk return, or the pupil reaction become normal. M. Charcot considers that though at present the treatment is in the experimental stage, yet the results are encouraging.*

Professors Eulenberg and Mendel report[†] equally favorable results. The suspensions, which took place three times a week, being at first of one minute's duration, then increasing by half a minute up to three minutes. About twenty patients have been thus treated, and with the following results: 1. A certain number of patients have, immediately after the suspension, a readier and freer gait, less staggering, and complain less of lancinating pains (in some also improvement was noted in visual symptoms). 2. No ill effects followed the suspension.[‡]

After all it is well to follow the advice of the Greek sage and to hasten slowly, especially when therapeutic measures of a sensational kind are in question. The *Lancet* of the 16th March sounds an alarm. "Try it with caution and proceed with sceptical judgment." Remember the natural history of the disease and do not forget the cases in which temporary improvement took place when no treatment at all was practised. In tabes, as well as in other spinal cord diseases, inexplicable pauses in the course of the disease are known to occur, sometimes to an extent sufficient to lead one to suppose that their progress took

^{*} Lancet, Jan. 26th, 1889.

[†] Berliner Klin. Woch., No. 8, quoted in the Lancet.

t A full description of M. Charcot's cases is to be found in the Progrès Medical, Feb. 23rd, 1889.

place per saltum. And, again, in tabes the various symptoms have a time to come and a time to go; they appear and disappear spontaneously and we cannot explain their presence or their absence. The inexperienced attribute favorable progress to treatment, but it takes many individual instances to prove a general rule. And, lastly, can we always be sure of our diagnosis? The combination of a zealous but inexperienced practitioner, a tabetic patient and a suspension apparatus is dangerous.

Dr. DeWatteville's case, as reported in the Lancet, is interesting, and, so far as one case can serve, shows the benefits of treatment. The patient, aged 39, married, a carpenter, said to have had rheumatic fever ten years ago. (Tabetic pains?) Ataxy first perceptible in 1877. In 1879, vomiting and diarrhœa, diplopia, shooting pains, and bladder complications. The treatment by suspension has been carried on for six weeks. "He was much more steady both in walking and in working at his trade than he had been previously to the commencement of the treatment by suspension. He had not been able to walk at all without the aid of two sticks for many months before January of this year, but he recently walked three miles and a half without experiencing any sensation of fatigue." The gait has im-proved. The lightning pains have almost entirely disappeared. Sexual power has returned. "These erections partake of the nature of 'spermatic crises' so characteristic of spinal cord disease. Charcot has noted them in his series of cases treated by suspension." No doubt the patient has been benefited. Suspension has been practised for from thirty to fifty seconds twice a week, axillary straps being always used. Dr. DeWatteville is of opinion that suspension by the head alone should never be practised until the other mode has been frequently practised first.

At the Paris Society of Medicine the subject of suspension in tabes again came under discussion (*l'Union Médicale*),* when M. Duroziez pointed out that if tabes be invariably due to an affection of the spinal cord, it is difficult to explain how the method acts, and he asked whether other varieties of tabes must

^{*} Lancet, March 30th, 1889.

not be admitted, and also what are the cases in which the treatment was efficacious. To this M. Abadie replied that the majority of neurologists concur in believing that locomotor ataxy is a more complex affection than was formerly supposed. The remarks of Dejerine in particular have shown that patients who during life presented all the objective and subjective signs of tabes dorsalis have not shown any spinal lesion, but an interstitial peripheral neuritis. This proves that the combination of symptoms described under the name of locomotor ataxy is complex, and having regard to abortive forms and mild forms of very slow evolution, limited to a few lightning pains and a few disturbances of cöordination, as well as to the severe forms associated with joint affections, it may be concluded that the morbid varieties of ataxia are daily increasing in number. It is highly possible that the treatment by suspension, which amounts to an elongation of the nerve roots, may only act in certain forms-viz., those in which the spinal degeneration is slightly marked. "So far," added M. Abadie, "I have noticed that among the patients whom I have submitted to suspension, it is not the true ataxics who have derived the most benefit, but those who had ocular (sic) lesions of indefinite nature."

The Connection between Tabes Dorsalis and Exophthalmic Goitre.—Cases occur in which the symptoms of locomotor ataxy exist in combination with those of Graves' disease.* What is the nature of this association? It may be fortuitous, but is it possible for the tabetic nerve lesion to produce the exophthalmic goitre in virtue of some slight trangression of its usual limits. Clinical and experimental evidence exists to show that lesions about the restiform bodies produce the triad of symptoms which are characteristic of Graves' disease. In cases of the association of the two diseases, have the sclerosis and degeneration on which the tabes depends exceeded their usual boundaries and damaged those nerve cells and fibres which are concerned in the production of the tachycadia, enlarged thyroid, and protruding eyeballs.

Locomotor Ataxy with Hemiplegia.—Tabes may complicate other diseases and may itself be complicated. Its unity may be

denied with truth or at least on a scientific basis. Is hemiplogia part of the history of locomotor ataxy or is hemiatrophy of the tongue? Six cases of hemiplegia developing in the course of progressive locomotor ataxy have been put on record by Miss Blanche Edwards in the Progrès Médical. Aphasia may also complicate tabetic hemiplegia frequently in cases in which this is right-sided, but also in cases of left hemiplegia. The aphasia may suddenly arise without loss of consciousness and without paralysis, or with loss of consciousness and without paralysis, or Is the hemiplegia of locomotor ataxy akin to the with both. lightning pains, to the paralysis of the ocular muscles and sphincters, or should it be regarded as apart from the affection ? Vulpian rather regarded transient hemiplegia in tabes as a hysterical MM. Hernot and Joffroy have maintained that capilaccident. lary hemorrhage is the mechanism of transitory paralysis. Pierret thought that hemiplegia in ataxy should be explained on the view that atrophic zones existed in the posterior region of the brain. Excitations starting from the posterior regions may act upon the psychomotor regions either in an inhibitory or excitatory fashion, and this may account for the sudden hemiplegia, transitory spasms, and epileptiform and apoplectiform criscs.*

Cerebral Complications in Pleurisy with Effusion.—In connection with this subject, already mentioned in the Retrospect of Medicine (MONTREAL MEDICAL JOURNAL, Vol. XVII, No. 8, page, 599), it is interesting to note that Dr. W. B. Hadden† has recently contributed a paper on Cerebral Abscess in Empyema, in which three cases of this association are recorded.

Diagnosis of Renal Calculus.—At a meeting of the Clinical Society of London, held on the 22nd of March, the symptoms indicating the presence of a calculus in the kidney came under discussion in connection with papers read by Dr. Stevenson, Mr. Butler-Smythe, and Mr. W. H. A. Jacobson. Dr. Hale White said that he had found it a valuable sign of renal calculus when much pain was complained of in bringing the psoas into action.

^{*} Lancet, March 30, 1889.

[†] St. Thomas's Hospital Reports, Vol. XVII, new series, 1887.

One of the patients whose case was recorded by the reader of the paper had been treated as an in-patient for sciatica and hip disease in several hospitals. Mr. Barker thought that too much attention had been attached to hæmaturia in the diagnosis of renal calculus. In some cases blood was abundant and yet no stone was present. Mr. Bruce Clarke said that a large number of cases of stone occurred in which hemorrhage was never present.

Treatment of Aneurysm.—At the meeting of the Clinical Society of London, held on March 22nd, 1889, Dr. Barlow showed a case of cured subclavian aneurysm in a woman aged 52; the swelling at first increased rapidly and became as large as a chestnut; it then subsided. Treatment was by iodide of potassium and Tufnell's method, with an ice-bag over the tumor and the right arm bandaged to the chest. The iodide was continued for twelve months afterwards, commencing with a fivegrain dose and increasing to fifteen afterwards. There was no history of syphilis.

Vomiting in Phthisis.—Dr. S. H. Habershon* draws attention to the singular fact that vomiting in phthisis is far more commonly met with in left apex disease, lending support to G. de Mussy's view that in some cases this symptom depends on involvement of the left pneumogastric nerve.

"Paralysis a Frigore."—At the suggestion of M. Pasteur, a paper was read by M. Neumann at a recent meeting of the Paris Clinical Society on the part played by nervous predisposition in the production of facial paralysis a frigore. Exposure to cold alone was not a sufficient cause, but there must be a nervous predisposition in the subject, cold acting as an exciting cause, like traumatism in the induction of hysterical contracture, or in the production of gout in the gouty subject. Hence it is not to be regarded as a rheumatic affection. Inquiries into the antecedents of 41 cases were instituted. Of these many were liable to chorea, migraine, convulsions, and spasmodic tic; insanity, general paralysis, epilepsy, hysteria, chorea and ataxy were met with in relatives. The neuroses, and not organic affections (with the exception of tabes). seemed to be the more

^{*} St. Bartholomew's Hospital Reports, Vol. XXIV, 1888.

related to the liability to facial—which, moreover, he showed might be inherited, citing an instance where five cases were observed in one family.—(*Lancet*, March 2nd, 1889.)

Purulent Pericarditis .- Chéron (L'Union Médical, No. 31)* says surgical interference is called for when the effusion by its quantity threatens to arrest the action of the heart; that in such a case the presence of a concomitant pleural effusion must not be overlooked, and if existing should be dealt with first. Secondly, when the effusion is of long standing and consequently liable to induce change in the cardiac muscles. Thirdly, the fact of the effusion being purulent. Fevrier (quoted by Chéron) does not refrain from recommending tapping in tubercular pericarditis, in spite of the fact that out of twenty-two cases of this form of pericarditis so treated, twenty patients died at various intervals (from eight hours to seven months) after the operation. Fairly good results have been obtained in hemorrhagic cases, five out of nine having recovered after tapping. In serous effusions simple puncture suffices, but in purulent cases the pericardium must be incised. Out of fifteen cases of purulent pericarditis treated by operation eleven died. The operation must not be delayed, and he attributes to that circumstance an instance where sudden death followed washing out of the sac, the heart being probably degenerate. The site selected for puncture by the aspirator should be the fourth or fifth interspace to the left of the sternum. For free incision it is recommended to select the fifth interspace; and to incise the tissues layer by layer for a distance of three or four centimetres, taking care to avoid the internal mammary artery, which may need to be drawn inwards; then having exposed the pericardium it may be carefully incised with a pointed bistoury, the portion of the membrane being drawn forwards by forceps. Great care should be exercised in irrigation, if this be employed.

^{*} Quoted in Lancet, March 23rd, 1889. See also Quarterly Retrospect of Medicine, Montreal Medical Journal, Feb. 1889. p. 599.

TUBERCULAR PERITONITIS AND CIRRHOSIS OF THE LIVER.

Heintze,* as the result of the observation of twenty-five fatal cases, in all of which autopsies were made, deduces some interesting facts. He divides the cases into three groups. 1. Those where there was copious fluid effusion. Here the clinical symptoms resembled those met with in ascites from congestion, but they were distinguished from this condition by the very large amount of albumen contained in the fluid drawn off on tapping. No tubercle bacilli, however, seem to have been found. After the distension had been relieved by the removal of the fluid, the thickened peritoneum could frequently be felt and peritoneal friction could be detected. These effusion cases formed the most numerous of the three groups. 2. The plastic form, producing a coating or tumor like bodies. The pseudo-tumors formed by the exuded plastic matter could generally be distinguished from real tumors by the ill-defined character of their edges. This group comprised nine of the twenty-five cases, and in five of them there were tumors of considerable size. In plastic inflammations there is usually more pain than where there is much fluid effusion ; there is a tendency to the formation of kinks in the gut and obstructing glands, so that fæcal accumulation and ileus are not uncommon. 3. The latent form, where there is neither any great amount of effusion nor much plastic exudation.

One remarkable point is mentioned, viz., the frequency with which tubercular disease of the peritoneum is associated with cirrhosis of the liver. This was found in seven of the twentyfive cases. Pleurisy was found twenty times, and signs of scurvy twice. In many cases there were long remissions, so that the prognosis is not necessarily so grave as it is usually supposed to be. The patients died mostly from general tuberculosis, very rarely from perforating peritonitis or from tubercular peritonitis. Most of the cases occurred in the male sex, frequently amongst men addicted to drink. In three instances an injury to the abdomen had preceded the commencement of the symptoms.

In connection with the coincidence of tubercular peritonitis

^{*} Breslau Clinic, quoted in Lancet, April 6th, 1889, p. 695.

with cirrhosis of the liver, observed in seven of the twenty-five cases of Heintze, it is interesting to note the statements recently made by Dr. Samuel Fenwick on cirrhosis of the liver as a cause of general peritonitis.^{*} He shows that chronic general peritonitis is by no means always of tubercular origin. Excluding cases of local peritonitis, he cites twenty-three cases of chronic peritonitis from the books of the London Hospital, in which no tubercle was found, and which occurred during a period in which forty-seven cases of tubercular peritonitis were registered. Non-tubercular cases are therefore half as common in adult life as those which owe their origin to tubercular disease.

Now of Dr. Fenwick's twenty-three cases of chronic non-tubercular peritonitis, seven were associated with cirrhosis of the liver, and in all there was an enlarged spleen and ascites, whilst in four there was also exudation into the pleura. In five there was chronic disease of the kidneys, with enlarged heart in three, in four associated with the thickened capsule of the liver, and in two with effusion into or thickening of the pleura. In only two instances did the chronic peritonitis seem to have originated from local causes, and in two others there was disease of the heart, but in each the capsule of the liver was greatly thickened. Amongst the females, abscesses in the pelvis seemed chiefly to have set up the inflammatory process, five of the cases being associated with this condition.

There seem, therefore, to be three chief causes of chronic nontubercular peritonitis—viz., (a) cirrhosis of the liver, (b) chronic diseases of the kidneys, (c) pelvic abscesses.

In all these non-tubercular cases except one, tuberculosis of the lungs was absent, but many of them were associated with effusion into the pleura, a fact worth remembering, since some practitioners have spoken of the occurrence of pleurisy as of the highest value in the diagnosis of tubercular peritonitis.

As to the diagnosis of cirrhosis of the liver from peritonitis with effusion it is exceedingly puzzling, but it may be found to depend upon these points. (1) History. The general health has been failing, and the abdomen has been painful and tender

^{*} Clinical Lectures on Cases of Difficult Diagnosis.

for some time before there was any well marked swelling. (2) An evening rise of temperature. (3) The abdominal swelling is often not symmetrical, and the tympanitic note which marks the site of the colon floating in the fluid, which is present in ordinary ascites, is usually wanting in peritonitis, as the colon is often tied down by adhesions or covered by the thickened peritoneum. One loin may be unusually tympanitic on account of the intestines being bound down more on one side than the other. (4) After a tapping, thickened peritoneum should be searched for. (5) The condition of the lungs. If in a doubtful case a tubercular affection of the lung could be determined, or if the physical signs of pleuritic effusion were found it would go far to settle the diagnosis in favor of chronic tubercular peritonitis.

The fact that when cirrhosis of the liver and tubercular peritonitis coexist the former precedes the latter, seems to be confirmed by the records brought forward by Dr. Fenwick, for in each case the symptoms of cirrhosis first made their appearance. In two there had been hæmatemesis two or three years before the commencement of the fatal illness, in another there had been an attack of severe epistaxis, and in all there were well marked symptoms of declining health previously to the appearance of the ascites. These cases were all admitted into the hospital on account of ascites, attended by loss of flesh and strength, and no mention is made in any of the records that tubercular peritonitis was suspected. In one instance severe pain of the hypochondrium attracted notice ; in another, abdominal pain, which was acute enough to induce the patient to lie with his knees raised; whilst in a third, symptoms of peritonitis only showed themselves after the abdomen had been tapped. Along with the ascites the veins on the front of the abdomen were enlarged. and in two of the cases a hard tumor was discovered in the umbilical region. The pulse was quickened in all, and in all the temperature rose to 101° or 102° in the evenings, sinking to 99° in the mornings. All of them after death presented tubercular changes in the lungs, although there is no record, excepting in one case, of physical signs during life indicating this condition.

What circumstances should induce us to suspect that a case of cirrhosis of the liver was connected with tubercular peritonitis. We before found that this form of the disease was rarely met with excepting between 20 and 30 years of age. If, then, you found a young man affected with ascites following habits of intemperance, who was attacked with severe pain and tenderness of the abdomen, vomiting and constipation, with a rise of temperature and quickness of the pulse, you might suspect this complication. But if there was a well marked family history of phthisis or of pleurisy your suspicions would be greatly strengthened. If, in addition to these, you found a movable tumor in the abdomen, and you could exclude cancer, your diagnosis of this form of tubercular peritonitis would be tolerably certain.

"The chief points on which to ground a diagnosis should be that the tubercular affection occurs chiefly in young men, carcinoma in middle or old age of either sex; the history of intemperance would point to cirrhosis, the elevation of the temperature to tubercular peritonitis, the probabilities of which would be further strengthened by the absence of the cachectic appearance of cancer and the accompaniment of the physical signs of tubercular consolidation of the lung."

Hospital Reports.

MONTREAL GENERAL HOSPITAL.

TWO CASES FROM THE GYNÆCOLOGICAL CLINIC OF DR. GARDNER.

I.—Persistent Hæmaturia without Obvious Cause.

Mrs. P., aged 35, admitted into hospital Nov. 20, 1888, complaining of hæmaturia and lumbar pain. Has always been perfectly healthy; never ill till present attack. Menses began at 13; always regular, no pain, and flow moderate; duration two or three days. Flow has been scanty during present illness. Has had four pregnancies all to full term, the last three and a half years ago.

Family History.---Mother died of carcinoma uteri; one sister died of some acute brain trouble, lasting three days. Otherwise good. **Present Illness.**—About a year ago, while in good health, patient noticed the sudden appearance of blood in the urine. Since then it has been constantly present, the amount being about the same then as now. At the same time her eyesight commenced to fail, and she began to complain of a dull, heavy pain in the lumbar region.

Present Condition.—Patient is a well-nourished, healthylooking woman, slightly anæmic; appetite good; howels constipated; does not sleep well; has a dull, heavy pain in lumbar region; no tenderness. Micturition is not over frequent, and is not painful. Heart and lungs normal. Urine dark reddishbrown in color, specific gravity 1014, acid; albunen present, but not more than the blood would account for; no sugar; amount per diem about normal (40 to 50 ozs.); blood corpuscles in large numbers; crystals of triple phosphates; some bladder epithelium, but no casts.

Examination.—Chronic metritis. Nothing to be found about the bladder by bimanual examination. Urine drawn off with a catheter; is much clearer than if passed normally. By the sound nothing made out either in urethra or bladder, but urine contains much more blood after such manipulation.

Treatment .--- Put on Fl. Ext. Viscum Album., 5ss, t.i.d.

Nov. 30th.—Patient etherized and base of bladder opened through vagina. Nothing abnormal found. Bladder perfectly healthy. Wound was closed with seven copper wire sutures. Left catheter in urethra and stuffed vagina with iodoform gauze.

Patient made a good recovery from the operation. The sutures were removed on Dec. 9th and the wound found to be well united. On Dec. 10th the catheter was removed and the patient discharged unimproved on Dec. 19th. She was then put on Ext. Matico Fl., but when she left the city some weeks after no improvement had been seen.

A report from her about three weeks ago, however, stated that the blood had quite disappeared and the urine was perfectly clear.

II.—Hysterectomy for Large Uterine Myoma.

A. S., aged 43, married, admitted into hospital Jan. 3, 1889,

complaining of an abdominal tumor. Has always been perfectly healthy. First menstruation at 15; always regular, painless flow, and of moderate duration, three to four days. For the last year menstrual flow has been very profuse, lasting from three days to a week. Has had three pregnancies, the first two being to full term, and the last (twenty years ago) a miscarriage at the seventh month.

Family History.—Mother died of "dropsy." Father alive and well. A sister died in confinement and a brother suddenly of some brain trouble.

Present Illness.—About four or five years ago patient first noticed a slight enlargement of the abdomen; this increased slowly till about two years ago, since when it has grown very rapidly, especially during the past year. At no time has she had any pain in the growth. She has been losing flesh and color, and for the last year has lost a good deal of blood at menstrual periods, but feels in good health.

Present Condition.—Patient is a large, well-nourished woman, very anæmic-looking. Feels in good health in every way; complains of nothing but the inconvenience of the tumor and loss of blood. Lungs normal. Heart: a systolic murmur heard at the apex, at the base, and up and down the sternum, slightly transmitted to the left axilla, loudest about the junction of the fourth rib with the sternum.

Examination.—Per Vaginam: A large, firm nodule is felt in the posterior cul-de-sac, attached to the uterus. Bimanually the tumor and uterus are freely movable. *Abdomen*: A large, firm tumor occupying the hypogastric and umbilical regions, attached to the uterus and freely movable with it; the tumor is quite firm except at its upper part, where it has a doughy feel.

Measurements.—Greatest girth, $32\frac{1}{2}$ inches; from ensiform cartilage to pubes, 12 inches; from the umbilicus (which is in median line) to either crest, $6\frac{1}{2}$ inches; girth just below ribs, 28 inches.

Jan. 17th.—Patient being etherized, an incision was made in median line and the tumor exposed. It was found to be a soft myoma. It was turned out of the wound, both broad ligaments ligatured, and the snare applied about the cervix. The cervix was now transfixed by pins and the tumor, right ovary and uterus removed; the left ovary was removed separately. The incision was closed (the stump being left exposed in the wound), dusted with iodoform, and dressed with sublimated gauze, which was held in place by strips of Mead's plaster. Was ordered enemata of beef-tea and $\bar{3}$ ss brandy every four hours.

Jan. 18th.—During the night, temperature was up to 101.5° and pulse to 120. There was also a good deal of pain caused by flatus; relieved by two enemata of soap suds and turpentine. Was ordered beef-tea, milk and lime-water by the mouth. Nutrient enemata stopped. Temperature and pulse normal. Urine 28 ounces.

Jan. 19th — Patient in good condition; pulse and temperature normal; no pain. 21st—Was given porridge, soda biscuits and coffee to-day; temperature normal; pulse 84. 22nd—Magnes. Sulph. 5ii every four hours till bowels moved; this acted very freely, and Pulv. Opii gr. i was given. 26th—Snare removed to-day; took out some of the sutures, dusted stump with iodoform, and dressed with sublimated gauze. 27th—Dressed stump again; doing well. 29th—Some slight discharge of pus. 31st— Stump almost entirely detached; removed it with scissors and took out the remainder of the sutures; condition good.

Feb. 9th.—Touched granulations with copper sulph. 11th— Again used copper sulph. on granulations. 18th—Discharged cured.

Addison's Disease. (Under the care of DR. MOLSON.)

L. McD., aged 32, blacksmith, residing in Troy, N.Y., was admitted into hospital on Dec. 25th, 1888, complaining of great weakness, pain in left loin, and loss of appetite. Personal and family history negative. Present illness began one year and a half ago by great exhaustion, palpitation, dyspnœa after slight exertion, and a feeling of lassitude always present. Vomiting would occur after eating or drinking. Patient states that he was continually yawning and had a constant feeling of fatigue. Vision has been failing somewhat lately. Bowels very constipated and urine increased in quantity since illness began. Has suffered lately from vertigo.

With the above symptoms patient noticed that the color of the skin of the face, neck and back of hand was gradually and symmetrically deepening in tint. Has not taken any particular notice of several patches of bronzing which have appeared on his legs or trunk. Debility has gradually increased, and patient not deriving benefit from treatment, decided to enter hospital.

Present Condition.—Of fair nutrition and musculature well developed. Is continually yawning, sighing or taking deep inspirations; appearance is that of a man suffering from great fatigue. Pulse is 98, and almost imperceptible; respirations 24, and deep; temperature 98°; weight 152 lbs. Complains of giddiness on standing or sitting up.

Examination.—Heart-sounds are weak and distant; otherwise negative. No abnormal conditions found in blood. Lungs negative. Abdomen is retracted, and deep pressure over left kidney causes pain. Bowels are very constipated. Urine is negative.

The skin of the face is of a dull, darkish bronze hue, deeper in color on the forehead and neck. Patches of pigmentation are well-marked on the ears, nostrils, and the papillæ of the tongue toward its tip and edges. Several patches of variable size are seen on the mucous membrane of the roof of the mouth and soft palate. The scrotum, penis, lower portion of abdomen, and inner surfaces of thighs are deeply pigmented. Several circular patches of pigmentation are seen on the outer surfaces of both legs and feet.

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Reviews and Notices of Books.

The Operations of Surgery. By W. H. A. JACOBSON, F.R.C.S., Assistant Surgeon to Guy's Hospital, &c. Philadelphia: P. Blakiston, Son & Co. 1889.

This is a most comprehensive work of over one thousand pages on operative surgery, and it is embellished with nearly two hundred illustrations, many of which are new. It is well up to date, all the modern operations on the brain, intestines, spinal cord, etc., being accurately and fully described. The subject-matter is divided into six parts—viz., Operations on the Upper Extremity, on the Head and 'Neck, on the Thorax, on the Abdomen, on the Lower Extremity, and on the Vertebral Canal; also an Appendix which treats of tapping and incising the pericardium. Ligature of the various arteries is fully treated of, and the description of each operation is preceded by a short account of the surgical anatomy of the part.

We are glad to see that the author does not derive his information from English sources alone, but freely quotes foreign authorities and cases published in Continental and American journals. In fact, no modern surgeon can afford to be without this work, for in it is collected in compact form a vast amount of information which has heretofore been scattered through the various medical journals of Europe and America, and could only be obtained with difficulty by the few and not at all by the many. It would be impossible to give an exhaustive review in the small amount of space which this JOURNAL affords, nor is the work of such a character as to demand a review of this kind. It must not, however, be thought that this book is a mere compilation ; on the contrary, the author has decided views of his own on many points and freely expresses them, giving his own experience of many of the operations. There are a few omissions to which we should like to draw attention, and which in a new edition might be rectified. When speaking of gunshot wounds of the intestines. no mention is made of the work of Dr. W. T. Bull of New York. who was the pioneer in this branch of surgery, although Dennis. Parkes, Nancrede and other American surgeons are largely

quoted from. There is also no mention made of Fenwick's method of excision of the knee, or Tripier's amputation of the foot. Operative interference in perityphlitic abscess and appen-'dicitis is not alluded to. Many other omissions might be mentioned, but on the whole the book is remarkably complete, and it is a credit to the author. We can heartily recommend it, not only as a text-book for students and practitioners, but as a work of reference for operating surgeons. Mr. Jacobson is to be congratulated on having produced a book so comprehensive and free from errors, and at the same time so pleasantly and entertainingly written.

Handbook of Physiology. By W. MORRANT BAKER, F.R.C.S., and VINCENT DORMER HARRIS, M.D., Lond. Twelfth edition. Enlarged, revised and re-written. With five hundred illustrations. New York: Wm. Wood & Co.

The mere fact that this work has passed through so many editions proves that it has conformed to the views of a large class of teachers of physiology. The book has been so far changed in the last two editions as to bring it fairly into harmony with the science as it is at present. Nevertheless we do not consider this work as perfect in this respect as some others. Tt. is, moreover, as before, greatly and, as we think, unnecessarily burthened with histology. An analysis of the tissues from the anatomical standpoint is surely out of place in a work on physiology at the present time. It is better for the student to learn histology from a work on that subject; and while references to minute anatomy are indispensable in the teaching of physiology, we think the case could be met by a much less detailed treatment of the subject than has been given to it in the book under consideration. The work smacks very strongly of the English school of physiology, and lacks that breadth of treatment desirable in a book expected to commend itself to the whole class of teachers who speak the English language.

Notwithstanding these defects the book will prove interesting and profitable to a large number of students; and will commend itself, as before, to numerous teachers. To have the work in one volume is a great advantage--one, withal, which is enhanced by the pleasing appearance of the entire book.

Society Proceedings.

MEDICO-CHIRURGICAL SOCIETY OF MONTREAL. Stated Meeting, January 25th, 1889.

DR. GEORGE ROSS OCCUPIED THE CHAIR.

Melanotic Sarcoma of the Clitoris.-DR. LAFLEUR exhibited the specimen. Both the glans and the body of the clitoris were enlarged, the former measuring an inch in diameter. Its surface was smooth, and on section, was of a reddish-black color, soft and friable. Under the microscope the whole of the glans and part of the corpora cavernosa were found to contain a new growth composed of large, slightly oval, granular cells, with large nuclei, closely packed and showing very little stroma. In the glans, both within and between the cells, brownish-yellow pigment granules were seen disposed in irregular groups. Numerous blood corpuscles were also observed mixed up with the cells of the new growth, indicating hemorrhages from the blood-vessels. On making a section, including both healthy and diseased parts, the new growth could be observed beginning in the corium as groups of small roundish cells taking a very deep stain and separated from the epidermal layers by a thin band of normal tissue. Nowhere was any proliferation of the epidermal observed. These characters pointed to a melanotic sarcoma. The patient was aged 80, and had suffered from severe periodic hemorrhages from the affected part. The period of growth was three years. Amputation had been followed by a good recovery.

Abscess of Brain.—DR. LAFLEUR gave the following account of the autopsy of the case :—On removing the skull-cap the dura mater was found to be slightly adherent to it over the frontal region and the motor convolutions on the left side. The dura having been removed, the corresponding portion of the left hemisphere projected about half an inch above the right and encroached on the longitudinal fissure to the same extent. The convolutions over this area were flattened, the sulci shallow, and the pial vessels congested. The under surface of the left frontal lobe was partly adherent to the dura over the orbital plate of the frontal bone, and the brain was anchored in this situation. On removing the brain, a detached and necrosed fragment of bone half an inch in diameter was found in this situation. Through this opening a probe could be passed both into the frontal sinus and into the orbit, where there was some dense inflammatory tissue. The under surface of the left frontal lobe was softened, the convolutions and sulci obliterated, and on passing the finger through a small aperture opposite the necrosed bone, a firm, elastic, spherical tumor could be felt occupying the whole of the internal portion of the frontal lobe and encroaching on the white substance beneath the motor convolutions. An incision into this tumor gave exit to five ounces of thick greenishvellow, offensive pus. The abscess was surrounded by a wall of dense connective tissue measuring from a twelfth to an eighth of an inch in thickness and hued with small pieces of yellowish caseous matter. The left lateral ventricle was empty, and that part of its wall adjoining the abscess was softened and only an eighth of an inch thick. The brain substance around the abscess was softened and of a light reddish-yellow color. The rest of the brain showed no abnormal change. In the apices of both lungs there were recent caseating and softening tubercular nodules. The bronchial glands showed no tubercular changes. A few miliary tubercles were observed in the cortices of the kidneys. The pus and scrapings from the wall of the abscess were examined for tubercle bacilli, but none were found. From the amount of inflammatory fibrous tissue about the abscess and the thickness of its wall, it was probable that the brain lesion antedated the changes observed in the lungs, which were very recent in character. The early appearance of symptoms connected with the left orbit pointed to disease of the bone, which had probably set up secondary inflammatory changes in the brain, resulting in abscess.

Stated Meeting, March 8th, 1889.

WM. GARDNER, M.D., PRESIDENT, IN THE CHAIR.

Urinary Calculus Removed by Suprapubic Lithotomy.-DR. BELL exhibited the calculus and related the case. The patient, a French-Canadian, aged 19 years, had suffered from symptoms of calculus since he was four years old. An elder brother had died with similar symptoms, also his paternal grandfather, and his father had suffered for years until he passed a small calculus, when the symptoms subsided. The calculus, on section, was seen to consist of three small nuclei which were originally discrete stones, two of uric acid and one phosphatic. They were cemented into one calculus by a mixture of carbonate and phosphate of It weighed 530 grains. The bladder wound was sutured lime. with silk, but owing to badly tempered needles it could not be closed so as to be quite water-tight. A perineal cystotomy was also performed for drainage, but the latter was, for some obscure reason, unsatisfactory, and was abandoned at the end of the end of the second week, when it was found that a soft rubber catheter in the penis drained the bladder much better, allowing the fistulous opening in front to close.

DR. RODDICK said that experience had shown him that Sir Henry Thompson was right in his observation that the perineal section does not drain the bladder as well as one would expect.

Cystine Calculus.—DR. RUTTAN exhibited a calculus which he had noticed in going over the collection in the museum at McGill College. It consisted entirely of cystine. From a well marked nucleus of this rare material, the calculus was built up of a dum's-bell shape. It contained about 90 per cent. cystine.

DR. RODDICK said he removed the stone from a boy 18 years of age some years ago, and at the time had regarded it as a phosphatic calculus. The stone was easily grasped and removed, but from its peculiar shape he thought it had been caught in the ureter and projected into the bladder.

DR. FENWICK said that dumb-bell shaped calculi were not rare. He had once removed one from the urethra.

DR. ARMSTRONG showed six stones which he had removed

post-mortem from the bladder of a man aged about 65. But little was known of the previous history. These six stones were only about one-third the number found in the bladder, together with a great quantity of pus. They are phosphatic, and about the size of an almond.

Renal Calculus; Nephrotomy.-Dr. ARMSTRONG exhibited a branched uric acid calculus which he had removed from the kidney of a woman whom he was asked to see by a confrère, and gave the following history : Her age was about 30. She suffered from pyonephrosis for three years. Her condition had been diagnosed previously by one or more physicians, but she had persistently refused to submit to any surgical operation. At the time I saw her she was in extremis, and suffering intensely from the tension in the kidney, which swelled out and formed a prominent tumor in the right side. I gave exit to about a pint of pus and removed this stone, which is the shape of a part of the pelvis of the kidney, three horns projecting into the calices. I left more than I removed, because the patient refused to have the kidney removed, and to pull out the adherent stone from the pelvis only caused pain and hemorrhage.

DR. SHEPHERD thought that under similar circumstances he would have removed the whole kidney, as he doubted the advantage of merely removing the stone under such circumstance.

Calculus Removed by a Catheter.—DR. SUTHERLAND exhibited a small arrow-shaped calculus which be removed in the eye of a catheter. The stone was phosphatic, and was about the size of a bean.

Phosphatic Calculus.—DR. FENWICK exhibited a calculus removed by lateral lithotomy. He said the case was peculiar, as he had twice examined the man before for stone, but could find none, yet he had all the symptoms of urinary calculus, and the stone shown is of considerable age. He concluded that the stone was lodged in a crypt in the bladder, and only dislodged when the bladder was filled with water.

Exostosis from the External Auditory Meatus.—DR. BULLER exhibited the specimen and gave the following account of the case: This specimen was removed from the right ear of a woman,

33 years of age, who consulted me last September on account of an offensive otorrhœa. Twelve or thirteen years previously the ear had commenced discharging; this continued for some six or seven years, gradually ceasing without any treatment, until two years ago, when the discharge reappeared and has been going on ever since. In the spring of 1887 she had the car examined by a physician, who told her that there was a growth in the ear which might some day require to be removed, but no treatment of any kind was suggested at that time. She did not remember having suffered pain or any considerable discomfort in the ear, but found the unpleasant odor from the discharge a constant source of annoyance. The discharge was not at all abundant, but the entrance of the external auditory canal was completely occluded by a smooth, rounded, very firm growth, which presented the usual characters of an auditory exostosis, but evidently distinctly pediculated, as a fine probe or a fine wire loop could be passed beyond its convexity. In view of the impossibility of removing secretion from the deeper parts I advised removal of the tumor, and as the patient was averse to any cutting operation I made an attempt to remove it by means of a steel wire snare passed well beyond the convexity, succeeding, however, only in taking off the integument covering its sur-face. This failure I subsequently found was due to the oblique position of the outgrowth and the slanting direction of its anterior surface, in consequence of which the loop failed to grasp around the pedicle. Had this been accomplished the snare would undoubtedly have succeeded in bringing it away. The bare bony structure now exposed appeared firm and resisting, and the patient consenting to its removal in any way that I might deem expedient, the operation was performed the same afternoon. Ether was administered and the auricle thrown forwards by an incision carried along the line of its posterior attachment and across the meatus. This fully exposed the growth to view, and in exploring its deeper surface with a strong steel director I made a firm prying pressure from within outwards, when, somewhat to my surprise, the growth snapped off and come away. You now see its shape and dimensions. The shape is hat of an

irregular blunt cone; the pedicle, four millimetres in length, is a short cylinder, narrowest where it joins the growth, being only three millimetres in diameter in this position, but four millimetres wide where it sprang from the meatus. From the root of the pedicle to the furthest extremity of the cone the growth measures 1 contimetre; from base to apex of cone the length is 1.1 cm. and its thickness 0.6 cm. On boring a fine hole into the tumor it appears to be pretty solid throughout, but somewhat less so in the centre than at the exterior. The so-called auditory exostoses are mostly sessile outgrowths. In this respect the specimen before you is a rare one, provided as it is with a comparatively long pedicle, the neck of which is narrowest just where it joins the main body of the growth. It sprang from the posterior wall of the meatus at the outer extremity of the canal. The patient was not the subject of any constitutional diathesis, and it is probable the growth originated in consequence of some inflammatory condition or irritative process associated with the chronic suppurative disease already alluded to. The drum membrane was very much retracted and adherent to the inner wall of the tympanum, but Politzer's inflation failed to force air through, and there was no other positive evidence of perforation. After removal of the growth a watch could be heard at about one inch distance. Bone conduction was very good. The patient made a good recovery, and was able to return to her home in the country in a few days.

Hydrocephalus with Spina Bifida.—DR. LAFLEUR reported the examination of a foetal monster sent him by Dr. DeCow. Female foetus, delivered at full term. The largest circumference of the head was about twenty inches. The cranial sutures were all gaping and the bones freely movable, the tension of the fluid not being great. On opening the cranium the brain was found collapsed over the base of the skull. There had been great distension of the lateral ventricles with subsequent rupture of the corpus collosum and effusion into the arachnoid cavity. Owing to the macerated condition of the brain it was impossible to determine whether there was any obstruction to the venous outflow; on the other hand, there was thickening of the membranes, which pointed to a chronic inflammatory process as the cause of the serous effusion. There was a dorso-lumbo-sacral spina bifida beginning at the sixth dorsal spine. When the body was first seen there was no tumor over this area, and examination failed to show that there ever had been one. Over the left spine the integuments were entirely wanting, and there was merely a thin transparent membrane, somewhat fan-shaped, arising from the cord and passing downwards to be attached to the lower part and sides of the spine. On the under surface of this membrane the spinal cord ramified in various directions towards the intervertebral foramina. A probe could be passed into the vertebral canal and around the cord. In addition to the deformities mentioned, there was a talipes equino-varus of the right foot, a talipes calcanens of the left foot, and a double congenital dislocation or displacement of the head of the femur. On dissection the head of the femur on both sides was found displaced upwards and forwards so as to bring it almost vertically under, and half an inch from, the superior spine of the ilium. No acetabulum could be felt either in this or in the normal situation, and the head of the bone was kept loosely in place by a thin capsuled ligament attached to the ilias bone. The ilio-psoas and adductor muscles were contracted, keeping the thigh in a state of semiflexion. The anus was situated much higher up than usual, the vulva occupying the normal situation of the anus. A further dissection was required to ascertain the condition of the viscera.

Intussusception of lleum.-DR. RODDICK exhibited the piece of the small intestine showing the intussusception. The case occurred in the practice of Dr. W. A. Munro of Newington. Dr. Roddick read the following history sent him by Dr. Munro: The patient was an infant aged five months. At six o'clock in the evening of the 13th Feb., 1889, after the "most kicking and playing he had ever done any day of his life," was seized suddenly with the following symptoms : He became collapsed, turned pale and dark under the eyes, and could not hold up his head, crying with pain, and rapidly grew worse through the night; a very copious motion of bowels at 5 A.M. (14th) of natural color; another motion at 9 A.M. (15th) of dark bloody 53

slime, and another at 11 o'clock of a similar nature, but blood was brighter; abdomen a little retracted. A fourth motion on the 16th (after an injection) of slime and fresh blood. An occasional motion after this of colorless mucus. Tumefaction of abdomen began after first day of illness, gradually increasing until it became drum-like and very tense. Occasional vomiting only at first of egg-water, but latterly of a yellow fluid with an offensive smell, and was continuous. He died on the 18th. Autopsy revealed intussusception of bowel at ileo-cæcal valve, with complete obstruction. Bowel above point of obstruction greatly distended with gas and brownish-yellow stinking fluid; bowel below empty and contracted.

Extra-Uterine Pregnancy.—DR. TRENHOLME said he was called in consultation by Dr. A. Stewart of Richmond to see the case, and operated by abdominal section. He then read the following report and history as sent him by Dr. Stewart:—

Mrs. W., aged 41 years, New Rockland, Q. ; had two children, youngest $2\frac{1}{2}$ years old. Always been healthy till last June, when she became pregnant ; since then she has been complaining of pain in hypogastric region, bloody discharges, and occasionally discharging from vagina a gelatinous-looking substance. Had felt foetal movements first in November last.

Dec. 22nd.—I was sent for to attend her in what she thought was her confinment, although it was just about the seventh month of her pregnancy. On my arrival I found her suffering considerable pain in lower part of abdomen and round the lumbar region. On examination, os did not show any signs of pregnancy, nor that labor was to take place, and point of finger could not be introduced into external os. Uterus seemed to be pushed out of position, and with every paroxysm of pain quite a quantity of blood would come away, bright red in color. Fœtal heart could be heard distinctly on the left side below level of umbilicus (I may here state that the patient had been in the Montreal General Hospital a few weeks previously and fœtal heart had been heard while she was there), and from Dec. 22nd heart was not heard. After waiting a few hours, and finding labor was not progressing, I gave opiates and ordered absolute rest, and under these the pain disappeared, but the discharge still continued till February 18th, when I was again called in to "confine" her; and on examination, found to my disgust that things were no further advanced than they were two months before. The pains were very severe, but were not characteristic labor pains. Opiates had no effect on them. However, after waiting all night I got discouraged and went home.

The next day she was about the same, and I called my partner, Dr. R. N. Webber, in consultation. We put the patient under ether, explored the uterus, and found it had no child in it nor anything else, but found it displaced considerably by some hard substance situated posteriorly in Douglas's fossa ; and from the fact of having heard the fœtal heart two months before and no child in uterus, we concluded it must be a case of extra-uterine pregnancy. We immediately communicated with Dr. Trenholme of Montreal, and on February 27th he decided to operate, assisted by Dr. Webber and myself.

Feb. 27th, 1.45 p.m .- Patient was put under chloroform ; abdomen opened in median line by an incision about six inches long. On reaching abdominal cavity a large body resembling very much the uterus was found, and, in fact, was thought to be the uterus. On cutting through the above a large amount of liquid ran out, mixed with clotted blood and debris. On inserting the hand a dead foctus was found. This was removed by the abdominal opening and found to be a seven months child as near as could be reckoned. The placenta was somewhat shrivelled up and was found attached to the left broad ligament, and a large cyst-like body with muscular fibres had been developed from it and enclosed the foctus. (This cyst-like body we thought was the uterus.) The placenta was detached from its site with great difficulty, and the hemorrhage, which was profuse, was arrested as well as possible. On exploring the foetal cavity the uterus was found to be enlarged and in a healthy condition, as also were both ovaries. The abdominal cavity was cleansed with hot water and antiseptic sponges, and the abdominal wound closed with deep and superficial sutures, save a small opening at the lower end, into which was inserted a small piece of antiseptic

gauze to act as a drainage-tube. Over the wound was placed a strip of antiseptic gauze, four thicknesses of lint over that, and the whole kept in place by adhesive plaster. The operation was over by 2.30 P.M., it being only forty-five minutes from the time the patient was placed on the table till she was back to bed. Immediately after wound was dressed the pulse was 120 and fairly strong. Patient rallied well from the operation, and did not appear to suffer much from shock. A little brandy was given from time to time, also m viii tr. opii, one dose, and fid. extract ergot m vi every two hours for four doses. Patient to get nothing but a little hot water and a teaspoonful of milk every hour. 6 p.m.—Pulse 144; temperature 97.5°; considerable oozing from abdominal wound; not much pain; urine drawn off. 12 p.m.—Urine again drawn off; pulse 120; patient very restless, m viii Battley's solution.

Feb. 28th, 8 a.m.—Patient slept very little last night; pulse 120; temperature 99°; considerable oozing from abdominal wound; complains of severe pain in right inguinal region; urine again drawn off; milk and hot water given occasionally. 5 p.m.— Seems comfortable; pulse 124; temperature 98.5°; vomited occasionally during the day, but is now easier; has passed urine without catheter; ordered a dessert-spoonful of cream in hot water every four hours. 8 p.m.—Still doing well; complains of pain in umbilical region; no tenderness on pressure; pulse 120; temperature normal; tongue dry; very thirsty. 12 p.m.— Somewhat restless; m viii tr. opii juice.

March 1st, 8 a.m.—Patient passed a very comfortable night since 12 o'clock; slept about five hours; now seems much better; pulse 100; temperature 99°; Does not complain much of pain in abdomen; no nourishment allowed yet but cream and milk in hot water; drainage free from abdominal wound; dressings removed and fresh ones applied. 2 30 p.m.—Still doing well; pulse 120; temp+rature 98.5° : considerable pain in abdomen; no marked tenderness, slight fætor in discharge from abdominal wound; m vili tr. opii ordered to be given at 8 p.M. and repeated at 12 if still restless.

March 2nd, 8 a.m.-Patient continued doing well till about

11.30 last night, when she suddenly became collapsed and died an hour later. Family would not allow a post-mortem.

Discussion .- DR. ARMSTRONG said : Dr. Trenholme's case resembles in many particulars a case recently under my care. In November last I was called to see Mrs. X, aged 26, who thought she was threatened with a premature labor. She had considerable abdominal pain, and there was a little blood escaping per vaginam. On examination, I found a tumor evidently containing a living foetus at about the sixth month occupying the right side of abdomen ; one extremity just under the liver and the other reaching about to the middle line, near the pubis. By conjoined manipulation I could grasp the fundus uteri in my left hand, and it seemed but slightly movable. I ordered her to remain in bed, and the next day examined her again in company with Dr. Perrigo. We agreed that we would be justified in introducing the uterine sound, which we did, and satisfied ourselves that the uterus was empty. To have her under better observation I had her removed to the Western Hospital. Under chloroform Dr. Perrigo and I examined Mrs. X again, introduced the uterine sound again, and we felt sure that the uterus was empty and that we had to deal with a case of ectopic gestation. There was no definite history of rupture, but she had crossed to England and back during the summer of '88, and on the return trip she fell over a bench one day and had a good deal of abdominal pain for five or six days afterwards, but the pain was never very severe. On the 22nd December, on making my visit to the hospital, I was rather staggered by the house surgeon, who met me and announced that Mrs. X was passing a large quantity of water per vaginam. Assisted by Drs. Perrigo and Reddy I had the patient anæsthetized, and on introducing my finger I found the os easily dilated and the cavity of the uterus empty, but there was an opening in the right wall of the fundus, which I proceeded to dilate and then came upon the child, which I turned and delivered. The child lived about 36 hours, and was about an eight months foetus. I then introduced my hand into the cavity from which I had extracted the child and removed the placenta without difficulty. The walls of the cavity were

very thin, and seemed to possess very little contractile power. I introduced a drainage-tube to the top of the cavity and applied a very firm compress. Recovery perfect. This was her second pregnancy. I delivered her of her first child in May, 1885. This was evidently a case of tubo-interstitial pregnancy. Dr. Trenholme's case is difficult to comprehend. What condition of things obtained whereby he cut through three-quarters of an inch of muscle fibre and then came upon a child in the same cavity, together with both tubes and both ovaries, is more than I can understand.

DR. GARDNER had charge of the patient in the Montreal General Hospital, but although he recognized pregnancy, he had no suspicion that it was extra-uterine. At that time he was able to hear the foctal heart. He noticed a slight irregularity in the shape of the abdominal temor, but attributed that to the probable presence of a tumor in the walls of the uterus.

Typhoid with Peculiar Complications .- DR. LAFLEUR exhibited the liver and intestines from the case which was under the care of Dr. Geo. Ross at the General Hospital. The patient was a woman of about 30 years of age, and had suffered from abdominal pain and tenderness for some months. During the last two weeks she had had a moderate rise of temperature with diarrhœa, and had died of asthenia. Cvanosis was a marked feature during the latter part of her illness. At the autopsy a universal plastic peritonitis was found. The adhesions were firmest about the liver and spleen, those between the coils of intestine being quite recent. The capsule of the liver was much thickened and the organ itself smooth and diminished in size and weight. On section, the surface was rough, of a tawny color, and traversed by bands of fibrous tissue in every direction; these were most abundant in the neighborhood of the capsule. Microscopic examination confirmed this, the capsule being seen greatly thickened and sending out fibrous septa enclosing islands of liver tissue which were more or less atrophied. In addition to this cirrhosis of capsular origin, the central veins of the lobules were somewhat dilated and the adjacent cells atrophied. This could be explained by the condition of the right heart, both auricle and ventricle being dilated and their musele showing fatty degeneration. This would cause dilatation of the hepatic veins and their branches, and would also account for the cyanosis. In the intestines there were ulcers of various sizes and in various stages from the middle of the jejunum to the rectum ; they were most numerous and advanced in the lower part of the ileum. Some occupied the position of Peyer's patches ; others appeared to be due to inflammation of solitary follicles. In the larger ulcers the sloughs had already separated and healing had begun. The mesenteric glands were enlarged and softened. The spleen, however, though slightly enlarged, was firm, and showed numerous infarctions.

Stated Meeting, February 22nd, 1889.

WM. GARDNER, M.D., PRESIDENT, IN THE CHAIR.

PATHOLOGICAL SPECIMENS.

DR. SHEPHERD exhibited the following specimens of arterial anomalies :---

1. A hitherto undescribed arrangement of the Inferior Thyroid Arterics. In this specimen both inferior thyroid arteries came off from the right side and neither was derived from the subclavian. The right arose from the right common carotid about one inch from its commencement, and supplied the lower part of the right lobe of the thyroid gland. The left was derived from the innominate, crossed in front of the trachea to the left side, and supplied the left thyroid lobe; as it crossed the trachea it gave off a middle thyroid artery to the isthmus.

2. A very large Thyroidima. This vessel arose from the innominate artery and almost immediately divided into four large trunks, which completely covered the central part of the trachea. In this case also there were two superior laryngeal arteries on the left side, the lower of which was of large size and anastomosed freely with the superior thyroid of the same side.

3. Rare Anomaly of the Lingual Artery.-Dr. Shepherd stated that whilst operating on the dead subject some years

ago one of the members of his class cut down in the usual way upon the lingual artery of the left side, but failed to find it. The incision was a curved one, having the greatest convexity of the curve reaching the middle of the great cornu of the hyoid bone, it being the intention to secure the artery in its course beneath the hyoglossus and in the angle bounded by the junction of the posterior belly of the digastric with the hyoid bone. After carefully searching himself for it in the usual situation, and failing to find it, he made an incision along the carotid artery, and after a careful dissection discovered the missing artery. It was given off in common with the superior thyroid artery opposite the upper border of the thyroid cartilage; from here it passed upwards and inwards towards the median line of the neck upon the thyro-hyoid muscle. It crossed the hyoid bone internal to the lesser cornu. and then immediately pierced the hyo-glossus muscle and from thence onwards to the tip of the tongue its course was normal. At the usual situation of the origin of the lingual was a very small branch which ended in the hyoglossus muscle. This is a rare anomaly, and one which surgeons who are in the habit of ligaturing the linguals before excising the tongue should know. Except the lingual artery be absent, an extremely rare condition. its relation to the great cornu of the hyoid bone is very constant, even if it should arise from the carotid above or below this point, which not infrequently happens when given off in common with the facial or superior thyroid. In this case the artery was thought to be absent until a dissection of the neck revealed the displaced vessel. This anomaly originated no doubt from the enlargement of the hyoid branches of the superior thyroid and lingual arteries and a consequent diminution or rather disappearance of the main trunk of the lingual. The enlargement of already existing anastomotic branches is the not infrequent cause of anomalies of vessels, and the most familiar to the surgeon is the obturator artery given off from the epigastric in consequence of the enlargement of the pubic anastomotic branches. The anomaly above described for the first time must be very rare. Quain in his book on the arteries does not

mention it, and Dr. Shepherd, with a dissecting-room experience of many years and notes on several hundreds of subjects, had never seen it.

Malignant Disease of the Liver.— DR. ARMSTRONG showed a large cancerous liver removed from a lady aged 58. In Oct. 1887 he removed the left breast for scirrhus. The axilla was cleared of all glands. Recovery good. In December 1888 she was readmitted to the Western Hospital to have a painful nodule removed from left axilla. On examining her he found the liver projecting about three inches below margin of ribs and its free surface nodular. Jaundice soon developed and she died on the 24th of February, 1889, sixteen months after removal of the breast. Of course scirrhus is the form of cancer most likely to recur in some internal organ.

Ovariotomy.-DR. ARMSTRONG showed the Fallopian tubes and ovaries removed from a lady aged 23. She has a good family history. Her first child was born two years ago. She got up on the fourth day. Since her confinement she has had constantly more or less pelvic distress. Three months ago she was treated at the out-door department of one of our city hospitals for retroversion. She wore a Hodge-pessary for some weeks. When the pessary was removed she took a chill and was quite ill in bed for three weeks, suffering, she said, from inflammation. On admission to the Western Hospital the right ovary was found prolapsed behind the uterus and adherent there. After eight weeks rest and hot douching, her condition not being improved, I opened the abdomen to remove the prolapsed adherent ovary, when I found, in addition, the condition of the tubes here shown. Both tubes are alike, about half as large again as normal, and feeling very hard and brittle. One ligature cut through one of They were solid, contained no pus. They were filled them. with cheesy matter and the walls infiltrated with inflammatory material. Recovery perfect.

DR. ALLOWAY said the condition of the tubes has been called by Mundé pachysalpingitis. It is probably an old pyosalpinx, where the contents had become inspissated.

DR. GARDNER had often seen similar cases following the use

of pessaries. He asked if there was any history of pain or inflammation after delivery.

DR. ARMSTRONG, in reply, said there was no history of acute trouble then, but patient had an attack after the removal of a pessary three months previous to his visit.

Accessory Thyroid Gland .- DR. LAFLEUR exhibited the specimen for Dr. Bell, and said that the growth was spherical, measuring one inch and a half in diameter, and consisted of a cystcavity filled with a thin brownish-red fluid and a thin wall of a brownish-yellow color varying in thickness from a twelfth to an eighth of an inch. It was sessile, and quite smooth both inside and outside. At its point of attachment to the upper part of the trachea it presented a small area of very dense fibrous tissue ; the rest of the tumor was soft and elastic. A section of the wall of the cyst showed numerous glandular tubes separated one from another by a small amount of connective tissue, and lined by a single layer of cuboidal epithelium with round nuclei. The outermost portion of the growth was bound by a distinct fibrous capsule. Numerous blood-vessels were observed both in the glandular tissue and in the capsule. The fluid of the cyst was highly cellular, containing ordinary red and white blood cells, microcytes, and some larger nucleated red corpuscles. Several cholesterine crystal were also observed.

DR. BELL stated that the growth was removed from a young man aged 25, a French-Canadian, with the following history: The tumor had been conspicuous and increasing in size for twelve years. The thyroid gland had been gradually enlarging for the last six years. For three years past he had been unable to do a full day's work as before on account of suffering from shortness of breath upon exertion. Under observation and local application of iodide of lead ointment for four or five weeks in hospital the thyroid gland diminished greatly in size. The tumor. which was about the size of a hen's egg, with a firm, elastic feel and freely movable, was situated directly upon the crico thyroid space and first two rings of the trachea. It had no definite attachment, but was held in place by dense layers of fibrous tissue, in which large veins spread themselves over the tumor.

It was easily enucleated, and on section was found to be an irregular thick-walled sac containing a dark bloody-looking fluid. Microscopic examination showed that it consisted of thyroid gland tissue degenerated in the centre.

DR. SHEPHERD said he always operated by enucleation for cysts in this region, as they usually shelled out without difficulty.

DR. RODDICK said that while he quite agreed with Dr. Bell that the operation was in this case indicated, yet in similar cystic growths in this dangerous locality one is tempted to lay the cavity open and inject iodine as a less dangerous and equally effective mode of treatment.

End of Femur from Re-amputation for Painful Stump .--DR. BELL exhibited the fragment of the femur and gave the following history of the case : Patient, aged 30 years, had his leg amputated in May 1888 for injury to foot and lower leg. Sloughing of the stump followed, and in August 1888 amputation was again performed in the lower third of the thigh. Sloughing again occurred, and on January 1st, 1889, patient came to Montreal with a tightly covered painful stump with a couple of sinuses leading to the bone. The sinuses were scraped out with a Volkmann's spoon and carefully dressed, and soon healed. The stump still remained painful and tender, and removal of the adherent cicatrix and end of the bone was decided upon. Two and a half inches of the end of bone were removed, showing a peculiarity in the shape of a spur of new hone extending obliquely backwards and upwards for a little more than an inch. It is stout and strong, being a quarter of an inch in diameter at its base, and was doubtless the chief cause of the pain and tenderness in the stump. The wound healed rapidly, leaving a firm, painless stump.

DR. LAFLEUR, who examined the fragment, said the specimen showed a sharp-pointed exostosis an inch long growing upwards and backwards from the linea aspera. The medullary canal was in process of closure, a thin plate of bone with a few fenestrations being developed over the end of the bone.

Fragments of Tissue removed from Tuberculous Knee-joint. --DR. LAFLEUR exhibited the specimens for Dr. Bell, which con-

sisted of a greatly hypertrophied and villous synovial membrane with very dense inflammatory fibrous tissue underlying it. These corresponded to conditions found in an early stage of tubercular disease beginning in the sub-synovial connective tissue. The fringes seen in the normal synovial membrane were exaggerated. and papillary outgrowths of the same nature were found everywhere on the membrane projecting into the joint-cavity. The papillary processes were highly vascular, as was shown under the microscope, each one being furnished with a capillary plexus. The synovial membrane varied from a quarter to half an inch in thickness. The dense inflammatory tissue beneath this was less vascular, and showed localized aggregations of small round cells with a considerable number of giant cells.

DR. BELL gave the following history of the case :--Patient, aged 28 years, came to hospital with great enlargement of the left knee-joint, of which he gave the following history : Six years ago he had a rheumatic attack during a third attack of gonorrhæa. Symptoms were not very acute, and the swelling soon subsided from all the other joints except the left knee. He was laid up for several months and resumed his work as a knifegrinder with the knee still greatly enlarged. It had not increased much in size since, but for two years past he had suffered from fatigue and had been unable to do his full day's work every day as before. There was a decidedly tubercular history on his father's side. The joint was freely movable. There was neither pain nor tenderness. The enlargement extended from the ligamentum patellæ to the upper end of the synovial pouch beneath the quadriceps muscle, and measured nineteen inches in circumference just above the patella, while the other leg in the same situation measured fourteen inches. A long incision was made along the outer side of the quadriceps tendon and patella. There was very little fluid in the joint, but the synovial membrane on the front of the femur, around the edges of the patella and beneath the ligamentum patella, lay in firm, thick masses with papilliform fringes of œdematous but otherwise normal looking synovial membrane. These were carefully dissected away, the quantity removed nearly filling a quart vessel. On microscopical

examination, all the evidences of an early stage of tuberculosis were present.

Dry Gangrene of Fingers from Thrombosis of Brachial Artery .- DR. LAFLEUR exhibited the amputated arm for Dr. Bell and gave the following account of its condition : The gangrene affected the thumb, forefinger and middle finger of the left arm and extended to the dorsal and palmar surfaces of the hand, between the thumb and forefinger. The affected parts were black and quite dry, and there was no inflammatory reaction in the tissues adjoining the necrosed portion. There was contracture of all the fingers of the left hand. On dissection the brachial artery was found thrombosed from the middle of the arm to the bifurcation at the bend of the elbow; below this the radial artery was found quite pervious, while the ulnar artery had a small thrombus three-quarters of an inch in length which had undergone puriform softening. The thrombosis of the brachial was most marked immediately above its bifurcation, and in this situation the vessel was much thickened and there was slight ecchymosis into the surrounding muscles and connective tissue. Here, also, the thrombus had undergone puriform softening and was partially canalized. Neither the brachial artery nor its branches showed atheromatous changes, though there was some diminution in their elasticity. The fact that the thrombosis had started in the main trunk and not in its ultimate branches pointed rather to a localized endarteritis probably of traumatic origin.

DR. JAS. BELL said the patient, aged 62 years, who was a drunkard, gave the following history: Two years prior to admission was suddenly seized with pain and swelling of first three fingers of left hand; they also "turned black." An illness of several weeks followed, which ended in recovery, but with contraction of the three fingers mentioned. They had remained contracted, useless and somewhat colder than the other fingers ever since. Two months before admission to hospital was attacked in a similar manner while on a prolonged spree. On admission the thumb and first two fingers were in a condition of dry gangrene (mummified). The hand and lower third of the forearm were cold, livid and cedematous, and the arteries were obliterated as high as the middle of the brachial. The patient was in a low, febrile condition and suffering great pain. The arm was amputated in the upper third, and the patient made an excellent recovery. Hemorrhage was controlled during the operation by pressure upon the subclavian, as it was thought undesirable to cut off the circulation completely by an Esmarch's band.

DR. RODDICK said it looked like heroic treatment for gangrene of the fingers to amputate at the upper third of the humerus, but Dr. Bell is supported in this operation by Hutchinson, who long ago pointed out the value of the high operation in such cases. One is always tempted, however, to wait for the usual line of demarcation and so save as much as possible of the limb.

A Pin Swollowed by an Infant.—DR. KINLOCH exhibited a pin about an inch and a half long, with a glass head the size of a large pea, that was swollowed by a child eighteen months old and passed per rectum in about forty-eight hours.

Gastric and Duodenal Ulcer.-DR. Ross read a paper on this subject. The first case related was one of ulcer of the stomach of long standing. The patient, a woman of 52 years of age, had suffered for about ten years from pain after food, sometimes of a very severe character, and frequent vomitings; had been rather pale and not strong for a few years, but had still been able, with effort, to accomplish the work of her house-Her strength finally gave out and she kept her bed. hold. Some months ago she noticed a lump in the epigastrium, and observed very often snake like movements in that part of the belly ; so distinct were these that she became firmly convinced that a live lizerd was in her stomach. The tumor was found to be firm, nodulated, movable, hardly tender, and influenced very much by the vermicular movements which occurred at irregular, but short intervals. At the time of the contraction the stomach was very distinctly felt rising hard and rounded beneath the hand and obscuring the tumor ; after a few seconds it quickly became once more flaccid and the tumor more perceptible. The contractions caused pain. The stomach was not at all dilated; in fact, rather the contrary. At the patient's urgent solicitation laparotomy was performed by Dr. Bell, though it was much

doubted if anything effectual could be accomplished. The stomach was found of small size, and a firm mass occupied the greater part of the lesser curvature of the organ, encroaching upon the posterior wall. It was decided that it could not be removed. She was none the worse of the operation, and much relieved mentally. At time of writing, three months later, she was still living, but in a very weak state. It was stated that some of the consultants considered the case one of malignant disease, engrafted upon an old ulcer. Dr. R. does not take this view. He thinks the tumor a non-malignant fibroid thickening round the base of a large, very chronic, ulcer, and considers that the details of the case bear out this opinion. He has often seen tumors of the stomach of this kind reach a considerable size, most frequently near the pylorus. He admits the fact that malignant disease does sometimes develop in cicatricial tissue, but as to gastric ulcer, though the process in spoken of in this connection, yet it would seem that the facts upon which this statement is based are rather meagre. Extreme rapidity of development and coincident marked emaciation and cachexia must be demonstrated to make clear the existence of malignant disease. The diagnosis might have an important bearing upon the question of operation. The cause of the marked peristaltic movements seemed obscure. Dr. R. had often seen these in connection with pyloric obstruction, but here there was no mechanical narrowing of the outlet.

A second case was reported as a contrast to the former, in which the rapid development of painful gastric symptoms with equally rapid failure of flesh and strength in an elderly man lead to a diagnosis of cancer. A small, tender lump lay just under the xyphoid cartllage and projected downwards with the contractions of the diaphragm. This was believed to be in the liver. The autopsy showed a contracted stomach, with thick walls, infiltrated with the malignant growth. No tumor. The lump referred to was a secondary nodule in the left lobe of the fiver.

The third was a case believed to be duodenal ulcer. The patient was a large-framed young farmer, aged 23. Had suffered from dyspepsia and pain in left side for six years. Soon after, had an attack of melæna, passing large quantities of blood, fainted twice, and stayed in bed two months. Dyspeptic symptoms have persisted ever since, with weakness. In November last had a repetition of the intestinal bleeding, and when seen here soon after was blanched and feeble. It was thought that all other possible causes of the hemorrhage could be excluded, and the diagnosis was discussed with the result that the existence of a duodenal ulcer seemed certain. The situation of the pain was remarkable, being under the left hypochondrium. Examination of the stomach proved it to be in a state of moderate dilatation, succussion-sounds being very loud. He vomited occasionally, and sarcinæ ventriculi were present. The explanation of this was that a partial stenosis of the duodenum exists and acts in the same way as a narrowing of the pyloric orifice. The condition is mentioned as one of the rare sequels of dnodenal ulceration.

CHATHAM MEDICAL AND SURGICAL SOCIETY. Stated Meeting, March 4th, 1889.

T. K. Holmes, M.D., President, in the Chair.

Fatty Placentæ.—DR. DUNCAN exhibited a portion of a placenta which had undergone fatty degeneration. The patient, apparently perfectly healthy, aborted at the seventh month, the child being dead some time. There was no history of constitutional syphilis, although a sister of this patient had had premature labors.

DR. TTE mentioned that he once had a placenta sent to him similar to the one presented to the Society, the patient from whom it was delivered having miscarried seven times.

Pathological Kidney.—The PRESIDENT exhibited a pathological kidney and a large calculus removed from it, and read notes of the case. M. G., aged 73, good history, about seven years previous to her death, noticed an enlargement about the size of an orange on her right side, on a level with the umbilicus. The tumor grew gradually, but gave her no inconvenience for six years. her health during this time being good, when it began to hurt her to lie on her right side. For about three years she had noticed at intervals of a week or two a discharge of a tea-

spoonful of pus after urinating and standing up. She consulted me about two months before her death. For ten weeks previous to this she passed thick pus with her urine every day. The quantity of urine is about a pint daily; specific gravity 1026, and acid. There is no pain about the bladder or urethra, and she does not require to urinate more frequently than at any time during her life. The tumor extended from the lower border of ribs to the anterior superior spinous process of ilium and from the dorsal regions to median line in front. It is hard, smooth, and somewhat tender; only slightly movable. The symptoms until her death were slight rise of temperature, night sweats, and progressive emaciation. About a week before she died she passed considerable pus from her bowels, and later, vomited pus. The autopsy showed the right kidney enormously enlarged and adherent to liver, stomach, colon and to all organs in its vicinity. On removal it weighed 34 lbs. The pelvis was large, filled with thick pus, and contained a large calculus, which was irregularly branched, corresponding to the shape of the calyx, and weighed 180 grammes. The mass of the organ consisted chiefly of fatty tissue and several pus cavities separated by fibrous partitions. Esophageal Obstruction.—DR. BRAY read the history of the

following case : J., aged 73, came to his office a few weeks since with a piece of meat in his throat which he was unable to swallow. When a boy the patient had swallowed a quantity of lye, which produced great destruction of tissue in the throat, resulting in the formation of a stricture near the cricoid cartilage and a pouch just above it. Since the accident he has had great difficulty in swallowing solids and even fluids, having always to drink slowly and a small quantity at a time. During the past ten or twelve years he has been called as many times to remove pieces of meat, bread, apple, etc., which he had always found lodged in the pouch referred to. This was accomplished with the ordinary sponge and hair probang either by getting below the foreign body and extracting it or more frequently by propulsion into the stomach. On this occasion it was pushed downwards, requiring much more force than on any previous occasion. On removing the probang and giving the patient some water to drink, 54

he found, much to his surprise, that after swallowing about a wine-glassful it was regurgitated, the fluid did not enter the stomach. The probang was again introduced, and after passing it about 13 inches, a second obstruction was met with, which could not be overcome by using considerable force. He was seen again the next day, his condition being unchanged. Dr. Duncan, who also saw him, suggested the use of apomorphine hypodermically in hopes of dislodging the foreign substance, but on account of his age and general debility it was concluded not to do so. Dr. Duncan also suggested the use of papoid or papaine for the purpose of digesting the impacted meat. Nutrient rectal enemata were ordered and a hypodermic injection of morphine given. The following day the patient was found very weak, still unable to swallow, and complaining of much pain at the seat of obstruction. After consultation with Dr. Tye, a tube of a stomach pump was introduced into the cesophagus as far as the obstruction, through which hot water was injected by an ordinary enema syringe until it regurgitated through both the tube and alongside of it. After continuing this for about five minutes, shreds of meat were seen in the water, when the tube was withdrawn, and on administering some water it was found that he could swallow as well as he had for years.

Discussion.—DR. MCKEOUGH thought the case unique and instructive, and suggested that the careful use of graduated bougies might ward off for a time a similar difficulty, and referred to a patient at one time under his care who had stricture of the esophagus from the effects of ammonia, and who lived in comparative comfort by the periodical passage of bougies. He also mentioned a case of complete paralysis of the esophagus following diphtheria, the patient being nourished by stomach tube and rectal injections.

DR. DUNCAN considered emetics of value in such cases, and referred to a case of œsophageal obstruction due to diphtheritic paralysis, in which the patient was nourished three weeks by rectal enemata without losing any weight.

DR. TYE thought if the obstruction in Dr. Bray's case had not been relieved by artificial means it might have undergone spontaneous disintegration in time. He thought a digestive ferment, as suggested by Dr. Duncan, would have acted well. But all other means failing, gastrotomy should be performed. He mentioned a case of stricture of the œsophagus under the care of a friend in Detroit that had been greatly relieved by electrolysis.

DR. CHARTERIS could not agree with Dr. Tye in his spontaneous disintegration idea, nor with Dr. McKeough in the use of bougies.

DR. HOLMES thought well of the use of digestive ferments. Great care should be exercised in such a case in passing bougies. Thought it could have been removed easily if a Bigelow's evacuator had been attached to a soft, flexible stomach tube with a large eye, and used as in removing calculi from the bladder.

Stated Meeting, March 25th, 1889.

T. K. HOLMES, M.D., PRESIDENT, IN THE CHAIR.

Vesical Calculi.-DR. HOLMES exhibited a number of calculi which he had removed a short time ago from a man, 49 years of age, by perineal lithotomy. They were thirteen in number, weighing in the aggregate 1320 grs., and were of the laminated phosphate of lime variety with lithic acid nuclei. Attempts to sound the bladder were so painful that it could not be done until anæsthesia was induced, when the presence of the calculi was detected and the operation proceeded with. The quantity of pus in the urine had been very great for a long time, and several surgeons who had seen the case had been of the opinion that it came from an unclosed prostatic abscess, as they were unable to detect stone. The case made a good recovery, but there is still inability to retain urine longer than two hours. There is now neither pus nor mucus in the urine. Dr. H. remarked that in such cases it is always well to examine the bladder under an anæsthetic before pronouncing a positive diagnosis. The presence of the calculi might have been easily mistaken for enlarged prostate by digital examination per rectum.

Puerperal Eclampsia without Albuminous Urine.—DR. MCKEOUGH read notes of a case of puerperal convulsions asso-

ciated with marked lithæmia, but unaccompanied with albumen in the urine. The patient, a German woman aged 28, primipara, had, previous to her marriage, enjoyed perfect health. No history of hysteria or fits. During her pregnancy suffered from disordered digestion, constipation, neuralgic pains in various parts of her body, and slight ædema of her feet and legs. Her urine was examined frequently; it was usually scanty in quantity, high-colored, acid, specific gravity about 1030, and depositing on standing a quantity of amorphous lithates. No trace of albumen, even with the most delicate tests, could be discovered at any time, nor casts with the microscope. She had a normal but tedious labor. During labor her temperature was 100 5°F., the day following it was normal, and she felt very well. On the third and fourth days there was another slight rise, it afterwards became normal, and remained so. She also had a slight diarrhœa, for which a few powders of rhubarb and calomel were given. On the ninth day she got up, but did not feel well, her skin was sallow in color, tongue furred, and urine high-colored. On the morning of the tenth day Dr. McK. was hastily summoned and found his patient partially comatose, restless and moaning, with a bluish countenance and a bloody froth about the lips. While questioning the attendant, from whom it was learned that the woman had evidently had a fit, she was again suddenly seized with a violent convulsion. Twitchings of the face were rapidly followed by tonic spasms of the whole body, and this in turn succeeded by clonic spasms—a typical eclamptic seizure. One-third of a grain of morphine was injected hypodermically. The urine, more than half a pint being then drawn off with a catheter, was found to be highly-colored, acid, but not a trace of albumen could be found in it. Within two hours she had three more severe fits ; during the most of this time she was partially anæsthetized with chloroform. A copious rectal enema was given and a large dose of Epsom salts. As soon as the bowels were thoroughly moved she became conscious and had no more convulsions. Salicylate of soda and salts were administered for a few days and her recovery was rapid and satisfactory.

Epigastric Pains .- DR. DUNCAN read a most interesting

paper with this title. The form of epigastric pain to which he confined his remarks is, as he stated, seldom described, not unfrequently suffered, and in medical literature wholly overlooked, viz., pain which occurs at the close of gastric digestion, one or three or even more hours after eating, and generally relieved promptly by taking a fresh supply of food. In illustration he gave the notes of four cases :

I.—A. K., aged 38 years, active habits, nervous temperament, general health good, well nourished, has suffered from pain in the stomach for years. When he first consulted Dr. Duncan his bowels were slightly constipated, appetite fair; suffered from pain sometimes severely, occurring always from two and a half to three hours after meals; these pains always relieved by taking food; there were also acid eructations after meals. Pressure over the epigastrium elicited marked tenderness, especially to the right of median line. He states that he is much better when not actively employed, and markedly worse when worried over business.

II.—J. F., aged 54, farmer, a thin, restless man, married; habits active, nervous, anxious temperament; has passed through a good deal of mental trouble; general health previous to present attack fairly good; pain intense and circumscribed, coming on one to two hours after eating, promptly relieved by taking food; constipation marked; appetite good; no vomiting; always feels weary; tenderness in epigastrium and over liver.

III.—W. A., clergyman, aged 36, a man of intense devotion to study, of extraordinary powers of sympathy, and great energy. For six years has occasionally suffered from pain some time after eating; these attacks apparently resulted from special labor involving great mental effort. Apart from these attacks general health has been good. During the three months previous to the time Dr. D. saw this case he had suffered from great pain in the epigastrium about three hours after eating, the night attack always proving most severe, being then almost beyond endurance at times. Relief is afforded by taking anything into the stomach, though the relief is not always complete. Vomiting generally gives great relief. Epigastric tenderness extensive, especially towards the right of median line. Bowels usually constipated, appetite generally good.

IV.—T. S., farmer. Was called to attend him for an attack of localized peritonitis which had been produced by driving rapidly over a very rough road. Previous history corresponded closely with the cases just related.

Dr. Duncan stated that he formerly accounted for the occurrence of pain at the close of stomach digestion by supposing the gastric mucous membrane to be in a sensitive condition, so that any contact became a source of irritation and pain, but the fact that in almost all these cases pain is relieved by vomiting made him give up this hypothesis. He now believes the morbid condition giving rise to this symptom lies not in the stomach itself, but at the pyloric orifice, or more generally in the duodenum, and the lesion is generally ulceration. Early during the digestive process the more completely dissolved parts of the meal pass into the duodenum, the earlier products of gastric digestion are not nearly so acid as the later. The alkaline bile is stimulated to active flow by the lately ingested meal meeting and neutralizing these moderately acid first products. So digestion goes on till near its close so far as the stomach is concerned, then that organ makes a final and forcible effort to empty itself of the remaining highly acid contents, which, either from deficient peptic power or the unsuitableness of the ingesta for gastric digestion, have remained only partially dissolved. This coarse acid material is forced into the congested or ulcerated duodenum, the secretion of the protective, because alkaline bile by this time is failing, and the rough and acid remnants of gastric digestion tortures the raw surfaces in a way known only to those suffering from duodenal ulcer or allied condition. The taking of more food into the stomach stops the pain, because it stimulates a fresh flow of alkaline bile and arrests the stomach's efforts to close gastric digestion.

Discussion.—DR. RUTHERFORD could not agree with the writer of the paper as to the pathology of the symptom of pain in the cases reported, but thought it rather due to extreme acidity of the juices of the stomach acting on the lining membrane of that DR. BACKUS would rather agree with Dr. Rutherford's explanation of the cause of this kind of epigastric pain. Treated them successfully by the administration of food on the advent of pain and administering aromatic spirits of ammonia and Tinct. Camph. Co.

DR. BRAY met with these cases quite frequently; thought they were the most common form of indigestion; considered it due to extreme acidity of the gastric juice. 'Treated them successfully by rest, the use of rectal enemata of peptonized foods, and the administration in small quantities of peptonized milk by the stomach and large doses (20 to 30 grains) of bismuth.

DR. McKEOUGH had met with well marked cases, similar to those reported, but in his experience they were not common. He believed with Dr. Duncan that the pathological lesion causing the distinctive symptoms of his cases was in the duodenum, but scarcely thought that in the cases that had come under his observation there was ulceration. Dr. Osler had pointed out in his paper on duodenal ulcer that the symptoms were variable and the diagnosis almost always problematical; in Dr. Duncan's cases and in the few similar cases he had seen the symptoms bore a distinct resemblance. In his cases there was no hemorrhage, and antacids gave no immediate relief.

DR. CHARTERIS believed these cases were due to inflammation of the stomach.

DR. HOLMES believed these cases to be both rare and rather difficult to cure. He had observed in all the cases he had seen a decided general neurotic condition, and believed the pain to be due very often to a local hyperæsthesia of the duodenum. In duodenal ulcer the symptoms were less amenable to treatment, while in cases of duodenitis which he had observed the pain is more severe, vomiting more common, and catarrhal jaundice generally present. Strict regulation of the diet produces a marked beneficial effect in duodenal ulcer and in duodenitis, but there is a class of cases presenting the same symptoms of pain in which a strict regimen has seemed of little usc. Treatment that had given the most satisfaction in his hands had been that directed to the general nervous system. The neutralizing of excessive acidity of the contents of the stomach by the exhibition of soda bicarb, and other alkalies had not in his experience even temporarily relieved this peculiar pain.

DR. DUNCAN was delighted with the result of the discussion. The symptom was not a common one, but was a recognized symptom of duodenal ulcer. His first case recovered, subsequently the pain, etc., returned, and the patient died from peritonitis resulting from a perforating ulcer of the duodenum, revealed by an autopsy. His second case recovered perfectly. His third case was not amenable to treatment ; was seen by Sir Andrew Clark, who diagnosed cancer. The post-mortem revealed stricture of the pylorus and deep ulceration in the duodenum, but no cancer cells were discovered with the microscope. His fourth case still lives, but only by the greatest care can he be kept from a recurrence of the attacks. In ulcoration of the duodenum there was an hyperæsthetic condition of the mucous membrane; it might exist without ulceration and give rise to these symptoms. In the treatment of these cases he found that worry and anxiety aggravated and brought them on ; he therefore advised rest from toil, discountenanced labor and fret, regulated diet, gave nerve tonics, and bismuth in large doses.

Correspondence.

A FEW NOTES FROM ABROAD.

GRASSE, ALPES-MARITIMES, FRANCE.

This is an interesting town from a medico-hygienic point of view. Built more than a thousand years ago, it looks as if no change had ever been made in its architecture. At first sight the query arises: How can people live in houses so closely crammed together ? The mortality must be high, and how is it that typhoid and cholera do not carry off the whole population ? The streets are extremely narrow; in most of them two carts could not pass, and in very many no cart could enter at all. The houses are very high. Sunlight is perpetually excluded from these narrow lanes, and to take a walk into the old town is to experience the sensation of plunging into a cold bath. Yet generations have lived, moved, and had their being in these cold damp streets and the survivors are healthy and strong, and zymotic disease does not appear to be unusually prevalent. The answer to the query presents itself after a few weeks observation of the manners and customs of these southern people.

In the first place, the house is only used as a shelter for sleeping in. Early in the day everybody is in the street. The women do all their household work at the doorstep or in the roadway. They knit, they sew, they roast coffee, supply nourishment to the baby-all in the open air. The family washing goes to the open washing-place in the principal square of the town, where fifty or one hundred housewives are at work washing their linen in the pool from the hot spring which nature has provided for them. There is no plumbing in the houses at all. The water for household use is carried from the public fountains and public urinals are numerous and obtrusive. Windows are open all the year round, and ventilation consequently is free. In the spring the famous mistral comes, a piercing, dry, N.W. wind, which blows under a clear sky and a hot sun, drying up everything and thereby acting, as is popularly thought, as a disinfectant for the whole face of the country.

Grasse makes perfumes for all the world, and all the country round is cultivated almost entirely for the production of flowers to supply the numerous factories and distilleries. The process is not a very interesting one. Prussic acid is also manufactured on a large scale.

The neighboring country brings up recollections of materia medica lectures. The tall and graceful eucalyptus tree has been introduced throughout all the Riviera. The best trees are at Nice, where they are very stately and have the appearance of water shooting up from a fountain. Then there is the juniper and the sarsaparilla, the orange and the lemon, and the ensiform leaf of our old friend the aloe, which is everywhere planted.

Some months ago I remember reading in the *Lancet* a very sensible little article, the writer of which pointed out that in the great attention and study now devoted to matters of personal hygiene there was a danger of making people introspective and careful of themselves to an uncomfortable extent. At the time it seemed to me that the writer was alarming himself about an imaginary evil, but further acquaintance with the British public, especially that part of it which spends the winter abroad, has convinced me that the warning was none too soon, and that the writer thoroughly understood the manners and customs of his countrymen and (especially) of his countrywomen.

Fads are now more than ever the fashion. In this journal we have nothing to do with fads political, fads literary, or fads scientific, but the fad sanitary belongs to us and attracts our attention. Our ancestors had fads, at least those of them who were well enough off to afford this expensive luxury. The fortunes made out of watering places depended on the prevailing fads of the age. When the grandes dames had the vapors, which, I take it, is old English for nervous prostration, they took the waters at Bath or Epsom. Now-a-days the Riviera claims its thousands of well-to-do invalids, and their fads come with them.

Drain faddism is very prevalent. The victim is most particular in his enquiries about the drainage of his hotel, and is often satisfied by the showy appearance of the plumbing, while the ultimate destination and final outflow of the soil-pipes are dark mysteries. A fine sense of smell is in course of time developed, and life is passed in a state of sniffing doubt and suspicion. The fact is lost sight of that deadly drain gases do not necessarily smell, and every odor, whether arising from cooking or anything else, is not necessarily a cause of disease or a reason for making one's self unhappy.

The danger of drinking cold water has been well impressed upon the British mind. At one hotel where I spent two months public opinion was divided, one party holding that the tablewater and the house air caused diarrhoca and the other party denouncing both as a cause of troublesome constipation, but all agreed that the dangerous quality of the water rested in its undiluted condition, and that it was made less dangerous by the addition of some thin French wine. The whiskey fad originated with the favorite advice of an eminent London consultant, who cautioned his patients against the too free use of strong wines and substituted weak whiskey and water. This kind of faddist provides himself with a bottle of Highland whiskey at the table d'hôte, and, as in one particular case in my mind's eye, seeks gastric consolation and exercises prophylaxis against zymotic infection by the measured addition of a dessert-spoonful of the seductive liquid to a tumblerful of water, a dose too small for appreciable ordinary effect and a million times beyond the homœopathic measure of dilution. Another mode of avoiding the microbes was that practised by an English family at the same hotel. Provided with spirit lamps they boiled the water before meals and appeared each carrying his own water-bottle. This practice was certainly based on a good, solid, scientific foundation.

An elderly gentleman and his wife ate no bread except that which was baked under their own supervision, and made their appearance at the public table loaf in hand and no doubt wondered that destruction did not come upon their fellow creatures who carelessly ate what was put before them and were thankful.

Hot water faddists are of two classes. Those who drink hot water by itself and those who drink equal parts of vin ordinaire

and boiling water. Looking down the table one sees little silverplated jugs here and there indicating the vicinity of the hot water drinker.

The greatest fad of all is that which relates to clothing, and is commonly known as Jacgerism. Jacger's underclothing was put upon the market some years ago, and now the sale of it is enormous. According to the Jacgerists, not to be encased in Jaeger is foolhardy and sinful. But the principle is a good one and depends on the idea that man being an animal and, for many reasons which space will not allow me to enumerate, unable to go about in the clothes with which nature has provided him, should, if he clothe himself at all, clothe himself in garments wholly derived from the animal kingdom. It does not seem that the Jaegerites have gone into man's ancestral history to find good reasons for urging the purchase of their underwear; if they did they might argue that man when he had hair all over his body and was arboraccous in his habits had no need of patent underwear and of hygienic haberdashery, but that having reformed, cast off his hairy covering and taken to clothes, he should adopt an encasement as closely resembling the ancestral fashion as modern ingenuity can contrive. No one will doubt that good woollen underclothes are likely to be of great service, and the more so the better the quality, but that Jaeger and only Jaeger will afford comfort and protection I deny. I will admit that a Jaeger pair of drawers and a Jaeger undershirt are comfortable, and so are Jacger socks, especially if digitated, but I dispute the special hygienic advantage of a Jaeger collar, a Jaeger necktie, or a Jaeger pecket-handkerchief.

R. L. McD.

Selections.

Internal Administration of Sulphur.-Sir Alfred Garrod recently (April 6th, 1889) published a paper on " Some Chronic Diseases of the Alimentary Canal and Liver, also of the Skin and Articulations, and their Treatment by the long-continued exhibition of small doses of Sulphur given in the form of the Compound Sulphur Lozenge." The author has long been accustomed to administer sulphur in very small doses, and for a lengthened period of time, in the treatment of the abovementioned disorders. He gives a short account of the results Sulphur is an old remedy, and one in which of such treatment. the public has great faith. It is an element normal to the system, and enters into the composition of some of the most important proximate principles of the animal body, as fibrin and albumen, and also of taurocholate and sulphocyanide of sodium. The form most suitable for administration is that of a lozenge containing five grains of the milk of sulphur and one of cream of tartar. This lozenge is far from disagreeable, contains sufficient sulphur for therapeutic purposes, and patients are willing to take it for an almost indefinite period of time. In many cases one lozenge a night is quite enough to effect the desired end; if required, two may be taken at bedtime, or one cach night and morning.

Physiological Effects.—Sulphur stimulates the normal peristaltic action, and in moderate doses becomes a laxative. It is probable that the stomach is unaffected, owing to the acidity of its secretion, but in the duodenum alkaline fluids convert it into a soluble sulphide which is absorbed by the portal vessels and passes first through the liver and afterwards into the general circulation by the hepatic vein. From the blood it is eliminated by the skin as well as by various mucous membranes. The cream of tartar in the lozenge helps to prevent the formation of any soluble sulphide in the stomach, and hence the absence of sulphurous eructations. Any soluble sulphur, however, which reaches the cæcum and colon, where the reaction is again acid, is apt to evolve hydrogen sulphide and impart odor to the contents of the lower bowel.

Therapeutic Effects on the Alimentary Canal.-In the majority of cases a single lozenge taken every evening prevented the necessity of the administration of ordinary aperients, though not actually purgative. Distinct purgative effects are excep-The secretion of the liver is often increased in sluggish tional action of that organ, as is shown in the altered character of the fæces, which have been brought from a pale clay-color to the normal state. Although the action of the sulphur is slow compared to mercury, still in chronic torpid conditions of the liver the advantage of the sulphur over the mercurial treatment is undoubted. When we consider that the most important salt of human bile-namely, taurocholate of soda-is a sulphur compound and one containing a large proportion of that element, it might almost have been anticipated that the administration of sulphur for a long time would produce a marked alteration of the biliary secretion. In the case of sodium, the other base which is united with both the taurocholic and glycocholic acids, we have good evidence that its influence on the secretion of the bile is well marked, hence in hepatic and stomach disturbances we usually select sodium salts in preference to those of potassium or lithium. In hemorrhoidal conditions not suitable for surgical interference, and in some cases of bleeding from the rectum, the most marked beneficial effects from the continuous sulphur treatment have been seen.

Diseased Condition of the Pulmonary Passages.—That sulphur acts upon other mucous membranes besides those of the alimentary tract is made evident by the odor of sulphurreted hydrogen which can sometimes be detected in the breath. Experience has shown that certain forms of bronchitis, especially in the aged, are beneficially influenced by its administration.*

Diseases of the Skin.—Sulphur is eliminated by the skin. In acne, psoriasis and prurigo it is useful either alone or with some other form of treatment; also in some forms of localized eczema, especially in those connected with the gouty diathesis, as pruritus ani.

Morbid Conditions of the Muscular System.-Sulphur has

long been employed in chronic muscular rheumatism. It is in such forms of muscular affections which are benefited by guaiacum, serpentary and such-like stimulants that sulphur is found to be most efficacious. In the cramps of gouty persons relief is quickly afforded.

Chronic Articular Disease.—Dr. Garrod first prescribed sulphur in small and continuous doses for the relief of the disease formorly designated rheumatic gout, but now called rheumatoid arthritis. "From my experience I feel convinced that sulphur is useful in some chronic affections of the joints, although, as yet, I cannot say I have depended altogether on the remedy, but I have made it only part of a therapeutic plan, in which it has been often associated with powerful agents such as iodine and arsenic. The more chronic the form of articular disease the more likely is sulphur to prove beneficial. In true gouty states of the joints, when the disease is both chronic and asthenic, sulphur is often a valuable adjunct to other remedies."

Trephining for Traumatic Lesions of the Skull. By DR. HERMAN TH. SEIDLER, St. Petersburg, Russia .- During the last two and a half years there were admitted to the Obukhovsky Hospital 38 cases of traumatic lesions of the skull, of which in 23 the cranial vault was injured (five cases referred to compound fissures, two to subcutaneous fractures, and sixteen to compound fractures). In seven cases primary trephining was performed, with three recoveries and four deaths; and in three secondary, with two recoveries and one death. The remaining thirteen cases were treated without trephining; nine of them recovered, four died. In seven out of the nine fatal cases, death was caused by a simultaneous severe lesion of the brain, the patients dying in from a few hours to two days; in the eighth case by meningitis, and in the ninth by unrecognized hemorrhage from the middle meningeal artery. Of 15 cases of lesions of the cranial base, five recovered and ten died. Analyzing his cases, Dr. Seidler arrives at the following conclusions :---

1. Cerebral symptoms in cases of traumatic injuries to the

skull constitute an indication for a primary trephining only in the presence of an unmistakable train of symptoms pointing to an intracranial hemorrhage from the middle meningeal artery.

2. In the absence of the hemorrhage, no trephining is indicated in cases of subcutaneous fractures of the skull.

3. Depression of fragments by itself cannot be regarded as an indication for the operation.

4. A possibly early primary trephining should be resorted to, either for arresting intracranial hemorrhage, or for antiseptic purposes in cases of compound fractures (especially of comminuted, fenestrated, etc.). In the latter, the operation secures a thorough disinfection of the site of fracture and as thorough an antiseptic management of the wound. The operation includes the removal of free fragments, elevation of depressed pieces, trimming uneven edges, etc.

5. A secondary trephining is indicated even in the presence of symptoms of incipient meningo-encephalitis. The latter may be sometimes cut short by the operation.

6. In subcutaneous fractures, secondary trephining is indicated when there are perfect symptoms of cerebral irritation (epileptoid fits) depending upon depressed fragments.

7. In cases of fractures penetrating into the frontal sinuses, antiseptic tamponade should be preferred to suturing, since the sinuses stand in communication with the nasal cavities through which atmospheric pyogenic microbes may easily enter; besides, suppuration of the sinuses becomes more dangerous when the cutaneous wound is closed by sutures.

8. The safest and most reliable hæmostatic means in cases of wounds of cerebral venous sinuses is constituted by plugging the injured sinus.

9. The term "trephining" should be applied only to an artificial opening of an intact skull; the operation on a fractured skull should be named "*débridement*."—*Vratch*, No. 2, 1889; *Annals of Surgery*, May, 1889.

THE

Montreal Medical Journal.

MAY, 1889.

No. 11.

DIDACTIC LECTURES.

Very many years ago, before any of the readers of the MONTREAL MEDICAL JOURNAL were born-that is, at or about the beginning of this century-the didactic lecture was regarded, and very properly too, as a useful institution. Nowa-days that usefulness has almost entirely gone. At that period medical schools such as those of the present day could hardly be said to exist. The medical student, at a very early age, was apprenticed to a country surgeon, and after acquiring a rough and ready general acquaintance with the details of everyday practice, was sent up to London or some other capital to "walk the hospitals" and to attend the lectures of some one or other of the hospital men at the time eminent in medicine or surgery. There was no clinical teaching in those days, and the lad whose parents were not rich enough to buy him a dressership with Sir Astley Cooper or Mr. Abernethy, or to have him counted as one of the private pupils of a leading surgeon, had to content himself literally with "walking" the hospital, for little instruction did he get there. But then the didactic lecture was at the summit of its usefulness. It must be first remembered that text-books at this time were not of the kind now met with in the hands of the student. Take those of merely fifty years ago-Bostock's Physiology, a bulky mass of ill-digested facts and crude theory, without a single illustration or diagram, and the Edinburgh or Dublin Dissectors with not a plate in them, Cullen's "First Lines" and Hosacks Practice of Physic would not bear comparison with Erichsen's Surgery or Bristowc's Medicine. Then it was that the student found his notes of real value, representing, as they did, the crumbs which fell from the rich man's table, the practical observations of the man of experience which must be stored up for future use. Hence the great popularity of Cooper's or Abernethy's lectures. Their opinions were not written in the language of any nation. There were in those days no journals to report their lectures or to record their speeches at a learned society. The popularity of these giants of surgery led to the general establishment of what we now call medical schools, and the giving of lectures in all the branches of medical education became general.

call medical schools, and the giving of lectures in all the branches of medical education became general. Fifty old years ago, when McGill College Medical Faculty, came into existence, the model system of the period was that of Edinburgh, where each professor gave his 120 lectures per annum, collected his own fee, and examined his own class. What was good and useful in 1835 may not be either good or useful in 1889. The system has been adopted by all Canadian schools, but now it is time to look into it and to see whether improvement can be effected. The question of extra academical examiners has been settled in Ontario, but the didactic lectures in all its uselessness is in full swing throughout the Dominion. We would like to show that the Canadian student is over-lectured and under-taught. Not but that there are many men connected with our schools able and willing to do real teaching, but the time of the student is so taken up by the number of lectures he is obliged to attend, that laboratory and clinical work have to suffer. Why should a student be compelled to sit out two courses of lectures on the same subject? Either his first course is too difficult or his second course too easy. As a matter of fact, as we all know, the student usually leaves out in his first session all that is difficult, in the hope that he will find it all easier in his second year. A solution of this difficulty has been arrived at in McGill College by the introduction of a graded course in two of the primary branches; that is, one set of lectures is given for first year students and a separate set for second year students. This is as it should be. But why have so many lectures at all? When such excellent handbooks are within everybody's reach, why should not the lecturer advise one such book as a staudard and with that as a test illustrate by diagrams, models and experiments all that he considers necessary and important in the study of the subject. Why should he think it necessary

to compile a summary of his subject and administer one hundred daily doses of it to his class. The "coach" can teach a subject more rapidly and effectively than can a college lecturer. He advises the student to read carefully such and such a chapter of a standard text-book, his hour can be devoted to the illustration of and the examination on that chapter. The college lecturer will spend three hours over the same ground and not attain as good a result. Hence in schools where examinations are extra-academical the coach has completely pushed the college lecturer to the wall, and we may yet again see private schools of medicine become popular.

The profession must soon take steps to effect a change in the law regarding the amount of attendance on lectures, and the schools will, sooner or later, have to adopt a plan of teaching quite different from that in vogue in the past. Students must understand that they cannot depend upon their hastily-written notes for the solid basis of their professional knowledge, but they must take in hand some sound text-book, master it thoroughly, and then look to the college lecturer for illustration and demonstration of the truths contained in it.

THE CAUSE OF TYPHOID FEVER BEFORE THE COURTS.

The Lancet reports an action which was lately brought in the County Court by a lady against St. Ann's Hill Hydropathic Establishment, Blarney, near Cork, to recover damages for the illness of one of her sons from typhoid fever whilst occupying a room there. Evidence was given to prove that the room occupied by the youth was in the close vicinity of a closet whence foul odors were sometimes noted, and which had been shown not to be free from the escape of sewer gas. On the other hand, there had never been a case of typhoid fever contracted in the institution before, and it was contended on behalf of the plaintiff that the disease in this instance might have been contracted at Cork. Dr. Gelston Atkins, who was called to see the case and deposed to the fact of typhoid fever, was pressed by the presiding judge as to his opinion respecting the nature of the disease. Dr. Atkins affirmed that he believed it to be of a bacillary nature, and only transmissible from a pre-existing case, but that in this

instance it must have been exceptionally developed spontaneously. The judge clearly laid down that the agreement of all the scientific witnesses as to typhoid fever being a germ disease was inconsistent with the view taken by the plaintiff, and the jury found for the defendants, replying in the negative to the three questions put to them by the judge—viz., Were the closets improperly constructed so as to be unwholesome ? Was there negligence and was the room unwholesome as distinct from unpleasant ? And was the fever caused by any circumstances existing on the premises ?

ETHER AS AN INTOXICANT.

In certain parts of Ireland ether is taking the place of whiskey as an intoxicant. The Synod of the Church of Ireland have petitioned the Government praying that the ether traffic be regulated and restricted. This form of vice is chiefly prevalent in the counties of Londonderry and Tyrone. In the former the police reported that ether was constantly used as an intoxicant, and the resident physician of the lunatic asylum reported that in his district insanity is produced in many instances by an indulgence in this pernicious habit combined with other causes. Ether drinking in the County Tyrone is confined to two localities according to the police report, and in the local lunatic asylum no cases have been observed which could be referred to this cause.

THE DEAN OF THE MEDICAL FACULTY OF MCGILL UNIVERSITY.

The Board of Governors of McGill University, at a recent meeting, appointed Dr. Robert Craik to the position of Dean of the Medical Faculty of McGill University, rendered vacant through the death of the lamented Dr. R. P. Howard. This appointment has given unbounded satisfaction to his colleagues in the Faculty and University, and will, we are confident, be received with equal pleasure by the hundreds of his former pupils, now scattered far and near. Dr. Craik's connection with McGill University has been a long and prominent one. In 1856 he was appointed Demonstrator of Anatomy, which position he held until 1861, when he succeeded to the chair of Clinical Surgery. In 1867 he followed Dr. Wm. Sutherland in the chair of Chemistry. Students and graduates of the University prior to the present decade have all lively and pleasant recollections of him as the genial and accomplished Professor of Chemistry of that period. Although Dr. Craik, owing to the pressing claims of a large practice, resigned his chair, becoming Emeritus Professor in 1879, he has ever since taken a most active interest in all matters connected with the University, and has been ever ready to support measures for extending its sphere of usefulness. We feel satisfied that under the able guidance of the newlyappointed Dean, the Medical Faculty of McGill will, as in the past, continue to promote and extend the cause of higher medical education.

MEDICAL FACULTY OF MCGILL UNIVERSITY.

ANNUAL CONVOCATION.

The annual convocation for conferring degrees in medicine at McGill University was held in the William Molson Hall, on Monday, April 1st. The large room was filled to its utmost capacity, but over all there seemed an air of depression and gloom from the recent bereavement that McGill had sustained. The Acting Chancellor, Mr. J. H. R. Molson, presided, and at his left sat Sir William Dawson, and on his right Dr. A. Johnson, Dean of the Faculty of Arts. There were also on the platform Rev. Prof. J. Clarke Murray, Rev. Principal McVicar, Rev. Dr. Shaw, Rev. Principal Barbour, Rev. Dr. Cornish, Mr. Justice Davidson, Mr. Justice Church, Drs. Ross, Stewart, Mills, Girdwood, Craik, Ruttan, Roddick, Shepherd, Gardner, Cameron, Kelley, Wilkins, Fulton and Finlay, Profs. Darey and Lafleur, Messrs. Brakenridge and J. R. Dougall.

Dr. Craik, who was filling Dr. Howard's place, rose to read the list of those who had graduated and of those who had obtained prizes. Before doing so he said : My appearance here to-day to announce the results of the session of the Medical Faculty which has just closed is a reminder of the great loss which the

faculty has sustained by the lamented death of Dr. Howard, our late Dean and senior Professor of Medicine in this University. It is not for me nor is this the occasion to gauge the length, breadth and depth of the sorrow which has been caused in all classes of the community by Dr. Howard's untimely death; but I cannot refrain from saying a few words concerning more particularly his relations to the Medical Faculty itself. Connected as he has been with the faculty for more than thirty years as one of its most successful and active teachers, beginning at the bottom of the list as demonstrator of anatomy and winning his way upward till he reached the highest position in the faculty as dean and senior professor of medicine, his career has been such as to win for him the admiration and affection of all with whom he was associated, from the humblest student to the oldest of his colleagues, as well as to all those associated with him in the other departments of the University. You, gentlemen, graduates to day, but for the last four years students of the University, have often been cheered and your labors lightened by his rare courtesy, his kindly sympathy, his ever ready word of encouragement, and his warm smile of approval, and wherever your lot may be cast, you will always associate with your memo-ries of McGill University the affectionate and active interest displayed towards every one of you by your late Dean. His services to the Medical Faculty would be difficult to over-estimate. To his rare gifts as a teacher were added unfailing tact and sagacity as well as executive ability and administrative talent of a high order. His uniform courtesy and kindliness of manner often disarmed opposition where more energetic means would have failed. But he was also instrumental in aiding the Faculty in a more direct and material way. He was chiefly instrumental in procuring for the Faculty its first and only endowments in the shape of the Campbell and Leanchoil memorial funds. These funds contributed by our citizens and by the ever generous benefactor of this University, Sir Donald A. Smith, to commemorate the connection of the Faculty with its former Dean, Dr. George W. Campbell, have been of the very greatest service to the Faculty. Indeed, I may say that it would have been impossible for the Faculty to have maintained its position in the front rank among medical schools without them. The increased income derived from these endowments has not been frittered away in useless architectural ornamentation or in useless displays of any kind, but under Dr. Howard's guiding hand they have been utilized to the utmost in extending the usefulness of the University, first, by providing additional and much needed class-room accommodation ; secondly, by enlarging and increasing the equipment of our laboratories for important practical work chiefly in the departments of physiology, pathology and practical chemistry; and, lastly, by supplementing by small amounts the fees arising from some important practical branches which, though indispensible to the student, could not be made self-supporting. But though great has been the loss to the Faculty and the University in the death of Dr. Howard, we must not waste valuable time in useless repining, but must rather close up our ranks and press on shoulder to shoulder to carry on the work on the lines and in the direction so energetically followed by our late Dean, and in our work we must look to the friends of the University of every degree for that help and material assistance without which our efforts will be of little avail. We will look to our graduates to supply the talent and the scientific knowledge required to fill the gaps which must from time to time occur in our ranks ; we must look to our statesmen and men of influence to protect us against uniust legislation calculated to cramp our efforts and to cripple our usefulness; we must look also to our wealthy men and wealthy women to furnish us with means to keep abreast with the scientific progress of the day; and lastly, and above all, we ask for your hearty goodwill and active sympathy, for upon them must largely depend the success of our efforts. Relying, then, upon your active help, and with an earnest and sincere determination to use the means at our disposal to the best advantage in the interests of the Faculty and the University, may we not hope to carry forward and maintain the Faculty in the very front rank among the medical schools of this continent, and in so doing shall we not also be building up to the memory of Dr. Howard a most fitting and enduring monument.

The graduating class to the number of thirty-seven, robed in academic costume, then advanced to the dais, where Dr. Stewart administered the customary oath and Sir William Dawson conferred the degree of Doctor of Medicine and Master of Surgery on each.

Dr. Geo. McDonald then read the valedictory on behalf of the students.

Dr. Wesley Mills then read the reply on behalf of the Faculty. (See JOURNAL for April.)

Sir William Dawson, in bringing the proceedings to a close, said that they of the Faculty of Arts sympathized deeply with their sister Faculty in its deep loss, and they all joined most cordially in expressing the deep regard and the high estimation in which the late Dean was held. Those who were privileged to enjoy his friendship could testify to his efforts in the public interest to elevate the medical profession, and they know what style of man he was. IIe could say nothing stronger to the graduating class than that they should emulate their Dean as a man, a rhysician, and a Christian, and by that means they would attain to professional greatness and even to a nobler good. The graduates should remember that they were all working in the same direction with the same difficulties and drawbacks. They should give their aid in extending the borders of the University. They must do more than keep pace with public opinion, they must keep in advance and mould it in the best ways.

The total number of students enregistered in Medical Faculty during the past session was 233, of whom there were: From Ontario, 106; Quebec, 57; New Brunswick, 19; Nova Scotia, 23; United States, 10; P. E. Island, 10; Newfoundland, 2; Manitoba, 4; British Columbia, 1; West Indies, 1.

The following gentlemen have passed their Primary Examination, which comprise the following subjects : Anatomy, Practical Anatomy, Chemistry, Practical Chemistry, Physiology, Histology and Botany :---

Alexander, W. W.	Calkin, B. H.	Greene, T. J.
Ault, C. A.	Clemesha, J. C.	Hamilton, W. F.
Beers, A. H.	Dewar, Alex.	Harris, N. M.
Bennie, R.	Farwell, W. A.	Harrison, J. D.
Booth, J. S.	Fletcher, R. W.	Hattie, W. H.
Bowie, R. A.	Gibson, R. J.	Hayes, John
Brown, W. A.	Gorrell, A. S.	Hubert, P. T.
Busby, J.	Grafton, E. A.	Internoscia, Antonio

Mulligan, E. A. McCrimmon, A. A. McAlillan, J. H. McGuire, J. C. O'Connor, C. Oliver, A. J. Parke, G. H. Patton, H. M. Baberison, F. A	Smith, C. F. Sparling, A. J. Speir, J. R. Troy, W. Tunstall, A. Webstor, R. E. Williamson, H. M. Williamson, W. P. Woolruff, F. H.
Robertson, E. A. Robertson, T. F.	Woodruff, E. H.
	McCrimmon, A. A. McMillan, J. H. McGuire, J. C. O'Connor, C. Oliver, A. J. Parke, G. H. Patton, H. M. Robertson, E. A.

The following gentlemen, 38 in number, have fulfilled all the requirements to entitle them to the degree of M.D., C.M., from the University. In addition to the Primary subjects mentioned, they have passed a satisfactory examination, both written and oral, on the following subjects : Principles and Practice of Surgery, Theory and Practice of Medicine, Obstetrics and Diseases of Infancy, Gynæcology, Pharmacology and Therapeutics, Medical Jurisprudence, Pathology and Hygiene, and also Clinical Examinations in Medicine and Surgery conducted at the bedside in the Hospital :—

Aylen, W. W.Aylmer, Q.Mowat, M. M... Williamstown, O-
Booth, J. S.Booth, J. S.Montreal, Q.Muirhead, D. A., Carleton Place, O.
Brown, G. A., Charlottetown, P.E.I.Murray, D. A., B'K Meadows, N.S.
Campbell, G. G., B.Sc.Truro, N.S.McCurdy, T.Ormstown, Q.
Creasor, J. A., B.A., Owen Sound, O.McDonald, A.Creasor, J. A., B.A., Owen Sound, O.McDonald, A.Iroquois, O.Delaney, W. J.Peterboro', O.McDonald, H.N.Laggan, O.Esson, F. G.Halifàx, N.S.McDonald, G.Renfrew, O.Esson, F. G.Halifàx, N.S.McDonald, G.Renfrew, O.Garrow, A. E.Ottawa, O.McEwen, H.Carleton Place, O.Holmes, A. D.Chatham, O.McEwen, H.Stittsville, O.Hopkins, F. A.Cookshire, Q.McKinnon, T. S.Lockport, N.S.Hubert, P. T., Harbor Breton, Ntid.McLellan, A. A., Sum'erside, P.E.I.Irwin, W.T.Irwin, W. T.Pembroke, O.Philp, W. S.Montreal, Q.Kerr, N.Holyrood, O.Shanks, A. L.Huntingdon, Q.Low, D.Palmerston, O.Vipond, A. E.Montreal, Q.Mathieson, C. S., Harrington, P.E.I.Whyte, J. J.Lancaster, O.Morehouse, O. E.Gibson, N.B.Wylde, C. F.Halifax, N.S.

MEDALS, PRIZES AND HONORS.

The Holmes Gold Medal, for the best examination in all the branches comprised in the medical curriculum is awarded to Alexander E. Garrow, of Ottawa, Ont.

The prize for the best examination in the final branches is awarded to Hugh McKercher, of Stittsville, Ont.

The prize for the best examination in the primary branches is awarded to William Arthur Brown, of Chesterville, Ont. The Sutherland Gold Medal is awarded to John C. Clemesha, of Port Hope, Ont.

The following gentlemen, arranged in order of merit, deserve honorable mention :---

In the Primary Branches-Hamilton, Morrow, Busby, Bowie, Clemcsha, Spier, Farwell, Grafton, Kelly, Dewar, Robertson, T. F. Troy, W. P. Williamson, McMillan and Alexander.

In the Final Branches-Campbell, McCurdy, Murray, Philp, England and Creasor.

PROFESSORS' PRIZES.

Botany-W. B. Hallam Massiah, of Barbadoes, West Indies. Anatomy-Second year, W. A. Brown. Honorable Mention, T. F. Robertson. First year, James Henderson, of Warkworth, Ont.

CANADIAN MEDICAL ASSOCIATION.

We beg to direct our readers' attention to the following circular issued by the Executive of the Canadian Medical Association. We hope to see a large number of practitioners avail themselves of this favorable opportunity of visiting our great North-West:—

MONTREAL, April 22nd, 1889.

DEAR DOCTOR :

The twenty-second annual meeting of the Canadian Medical Association will be held at Banff, N.W.T., on the 12th, 13th and 14th of August next.

The Canadian Pacific Railway Company has agreed to carry members and delegates with their wives or members of their families at the following rates : From points in Ontario or Quebec, to Banff and return, at \$95 each, including a double berth in sleeping car for each person, and meals in the dining cars on the way West from Moncreal or Toronto and back, and four days living at the Banff llotel.

The passage tickets will be made good from and to any points on the Canadian Pacific Railway, in either Ontario or Quebec, to Montreal or Toronto, but berths and meals will begin at these two places only.

From other points in the Dominion the rates will be as follows : From Halifax to Banff and return, \$110; from St. John, N.B., to Banff and return, \$100, but the tickets from these points will not include sleeping car accommodations nor meals East of Montreal in either direction.

From Port Arthur to Banff and return the rate will be \$60; from Winnipeg or Brandon, \$50; from Regina, \$35, including meals and berths from all these points.

From Calgary the rate will be \$4.50, without meals or berths.

From Victoria or Vancouver to Banff and return, including meals in dining car and double berth in both directions, \$30, exclusive of hotel accommodation at Banff; or \$40 including four days hotel accommodation at Banff.

Owing to the provisions of the Interstate Commerce Law, it will be impossible to get reduced rates from points in the United States, with the exception of St. Paul, Minn., from which the following rate is offered: \$60 to Banff and return, including meals and sleeping car accommodation between Winnipeg and Banff only. Delegates from the United States are therefore requested to make their own arrangements between their homes and Montreal, Toronto, St. Thomas, or other points on the Canadian Pacific Railway.

An effort is also being made to secure special rates from Liverpool to Montreal by the Canadian steamship lines for trans-Atlantic delegates.

It is intended that the party shall leave Montreal on the evening of the 6th of August by the regular Pacific Express, and arrive in Winnipeg on the 9th, and stop over one day there. leaving Winnipeg on the 10th of August, they will arrive at Banff early on the morning of Monday, August 12th. The meetings of the Association will then be held in the Hotel (accommodation being provided by the Canadian Pacific Railway Company) on the 12th, 13th and 14th, after which the members of the party can either return at their convenience or take a trip to the Coast, leaving early the following morning (August 16th), for which special terms have been arranged as follows : From Banff to Victoria and return, not including meals or berths, \$20; or \$30 including meals in the dining car and The tickets for this excursion will be on sale at Banff berths. to members and delegates and their families only.

The special tickets issued by the Canadian Pacific Railway to Banff and return will be good for sixty days, and the holders will be allowed stop-over privileges on the Canadian Pacific Line in either direction at pleasure. They will also be exchangeable at Port Arthur and Owen Sound, so as to enable members to travel in either direction by steamer between these points. Meal and berth coupons will be issued in connection with these tickets and will be available as part payment of expense of any who wish to make additional stops and spend longer time on the line. It is considered desirable, however, by the Excutive Officers of the Association that, as far as possible, the party should travel together by the all-rail route as far as Banff, so that all may be present at the opening of the meeting.

In addition to the members of the Canadian Medical Association to whom this circular is specially addressed, a cordial invitation is hereby extended to all members of the regular profession in good standing in the Dominion of Canada, the United States and Great Britain, to whom the necessary certificates will be sent on application to the Secretary.

Members and delegates are requested to notify the Secretary of the points on the Canadian Pacific Railway from which they intend to start at a sufficiently early date to enable the Railway Company to forward special tickets to the aforesaid points.

It will also be necessary to present a certificate from the General or Provincial Secretary to enable members or delegates to secure the above-mentioned special tickets.

Members who intend to present papers at this meeting are requested to inform the Secretary at as early a date as possible of the subjects which they propose to bring forward.

JAMES BELL, M.D., General Secretary, GEO. ROSS, M.D., President. 53 UNION AVENUE.

Obituary.

ROBERT PALMER HOWARD.

Robert Palmer Howard was born in the city of Montreal on the 12th January, 1823. His parents were both natives of Ireland, and had come to this country some years previously. After leaving school, young Howard engaged in business with his father, who had become a well-known merchant; but mercantile pursuits were always uncongenial to him, and he availed himself of the earliest possible opportunity to enter upon the study of medicine, having conceived the strongest admiration for that profession and determined to become a member of it. He enrolted himself as a student at McGill University, and, after a brilliant career, graduated in 1848. After a year's visit to the great hospitals of London and Paris, he began the practice of medicine in Montreal in 1849, and continued in active work

in the same place up to the time of his death. His marked professional ability, combined with a courtcous and sympathizing manner, won for him at once a large *clientèle*, and he was soon looked upon as a rising man. He was appointed attending physician to the Montreal General Hospital and (1856) was made Professor of Clinical Medicine in McGill University, and, on the death of Dr. Holmes in 1860, he succeeded to the chair of Theory and Practice of Medicine. His extensive acquirements. his keen and careful investigation of all his cases, together with a rare capacity for imparting knowledge, soon made him known as a successful teacher of men. As years went on, he rose steadily in the profession until, after having been the recipient of many honors, he stood at the very top and was its acknowledged leader. His reputation, which had about it nothing meretricious, but was founded upon hard and continued labor in the professional field, led to his holding the largest and most lucrative practice in this city, and to his advice being eagerly sought from far and near. In 1882 Dr. Howard became Dean of the Medical Faculty upon the death of Dr. G. W. Campbell, and in 1886 the University conferred upon him the degree of LL.D. honoris causa, a well deserved compliment for long and successful work in teaching and for many important contributions to medical literature. Dr. Howard held at various times nearly all the important public positions of trust which are in the gift. of the profession. He was twice President of the Medico-Chirurgical Society of Montreal, President of the Canadian Medical Association, and President of the College of Physicians and Surgeons of the Province of Quebec; he was also Vice-President of the Association of American Physicians.

The name of Dr. Howard will always rank amongst the great names of this country. His life was pre-eminently a model one from every point of view. Earnestness in everything he undertook to do was the keystone of his character. His patients were his constant care, and they soon learned to appreciate the unceasing watchfulness and untiring application with which he guided them safely through an illness. For his college and his students he had a deep affection, which was on their part most cordially reciprocated. A skilled educationist, he took the deepest interest in all matters touching medical education, and took an active part in all the legislation governing this subject. He for several years labored earnestly, but in vain, to bring about a General Medical Council for the Dominion of Canada. To borrow the words of a recent writer, "Important and enduring has been Dr. Howard's influence upon the groups of students who have had the benefit of his instruction, as well as upon the men who have been fortunate enough to be his colleagues. Unselfish to a fault, keenly zealous for the welfare of the profession, enthusiastic as a youth, he has—perhaps unconsciously to himsclf—impressed all with whom he came in contact with the carnestness of life, the nobility of work, and the dignity of his calling." His works *do* follow him.

Of the many letters of condolence received by the Medical Faculty of McGill University on the death of Dr. R. P. Howard, none will be cherished more fondly than that forwarded by the graduates of McGill resident in Toronto. On the receipt of the news of Dr. Howard's death the following organized a meeting: Dr. Jos. Workman, Dr. J. A. Temple, Dr. H. C. Burritt, Dr. C. H. Cook, Dr. B. E. McKenzie, Dr. L. L. Palmer, Dr. H. Hunt, Dr. R. A. Stevenson, Dr. B. L. Riordan, Dr. Charles O'Reilly, Dr. D. Moffatt, and Dr. D. J. Gibb-Wishart. Surg.-Major Keefer, who was in Toronto at the time, and Dr. Johnston of Milton were also present. The chair was taken by Dr. Jos. Workman, the oldest living graduate of McGill University. After each of those present had testified to their respect and admiration for the late Dr. Howard, and their grief at his death, it was resolved to transmit to the Faculty the letter here appended :---

TORONTO, April 8th, 1889.

TO THE MEDICAL FACULTY, MCGILL UNIVERSITY, MONTREAL.

Gentlemen :

The recent loss our Alma Mater has sustained by the death of Dr. R. Palmer Howard, Dean, and Professor of the Practice of Medicine, prompts us all with a unanimous feeling of regret, and profound respect for his memory, to convey to you our sympathies and appreciation of the great loss you have met with in the death of so able and accomplished a teacher. His unvarying, genial, and gentlemanly manner endeared him to each one of us, and we shall ever remember

OBITUARY.

with gratofulness his many personal kindnesses to us individually while we were students. To the last he was the same ardnous, devoted student, working for the interests and wolfare of our profession.

In his death we feel you have lost a teacher whose place it will be difficult to fill; the public, an accomplished physician; the student, a warm, devoted friend and a bright example; and the profession, an ornament.

In conclusion, we beg to say that we feel this to be but a small tribute to the memory of one so highly and deservedly respected.

Signed on behalf of the Graduates in Medicine

of McGill University resident in Toronto.

JOSEPH WORKMAN, M.D. D. J. GIBB-WISHART, M.D.

DEATH OF DR C. J. B. WILLIAMS.

On the 28th of March there died at his villa at Cannes this well known veteran in medicine, who for very many years held a foremost place amongst British physicians. Dr. Williams' name has for the last fifty years or more been connected with the clinical study and pathology of thoracic diaeases. Born in 1805, the son of a Wiltshire clergyman, he took his degree in medicine at Edinburgh in 1824, and subsequently studied at Paris, where he became the pupil of Laennec and Andral. His recollections of the Paris School of Medicine are to be found in the very interesting volume Dr. Williams recently published, "Memories of Life and Work," and the reader will be able to form an idea of the state of medical practice in the pre-stethoscope days.

Dr. Williams brought to England the practice of auscultation and percussion, and soon his industry, energy and good clinical judgment brought him a large consulting practice. He became F.R.S. in 1835, F.R.C.P. in 1840, and later on Censor, Gulstonian and Lumleian lecturer. In 1839 he was appointed Professor of the Principles and Practice of Medicine at University College and first physician to University College Hospital. Dr. Williams was the founder of the Hospital for Consumption and Discases of the Chest at Brompton, an institution which has had a most successful carcer. The introduction of cod-liver oil into practice was largely due to the recommendations of Dr. Williams. As life advanced a full share of professional honors fell to his lot. He was the first President of the Pathological Society, and at a subsequent date President of the Royal Medico-Chirurgical Society, and in 1874 was appointed Physician Extraordinary to the Queen. Retirement from practice took place in 1875, when he took up his residence at his villa at Cannes, visiting England only in the summer. Death was the result of congestion of the lungs. Dr. Williams was author of the wellknown standard text-book "Principles of Medicine," as well as of "Diseases of the Chest" and (jointly with his son) of "Pulmonary Consumption," and contributed numerous papers of great scientific value to the medical journals of the last half century.

Medical Ytems.

YOUR DUTY TO YOUR NEIGHBOR .- The case of Horne versus Jessop recently tried before Mr. Justice Denman in England is interesting from a medico-legal point of view. Mrs. Horne, a laundress at Huddersfield, sent her little boy to collect an account from her customer, Mr. Jessop, having no reason to know that Mr. Jessop's daughter, then in the house, had been stricken down with scarlet fever. That was on the 8th of June, and on the 11th little Horne was found to be sickening. On the 11th his little sister was, under like circumstances, sent to Mr. Jessop's abode to fetch a bundle of linen for the wash, and two days after this child showed the initial symptoms of the same disease. Altogether four children were affected. The medical evidence went to show that from the fourth to the seventh day is the common period of infection, though it was admitted that it could take place within two days, and it was urged by the defence that scarlet fever was in the neighborhood, and that infection may have arisen from other sources. Further, it was contended that the linen carried by the children had not been exposed to the infection of the disease. The suit ended in a verdict, by consent, for the defendant, who was understood to have made a satisfactory arrangement with the Horne family. As Mr. Justice Denman hinted, there was much doubt and uncertainty in the case, but the lesson to be learnt is plain enough, viz., that when infectious disease occurs soiled linen must be washed at home.