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Original Communications.

UPON THE EXISTENCE OF A MINUTE MICRO-ORGANISM  
ASSOCIATED WITH CASES OF PROGRESSIVE  
PORTAL CIRRHOSIS.<sup>1</sup>

BY

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It will be known to members of this Society that, working in 1894 and '95 in Nova Scotia, I was not only able to confirm the previous observation of Wyatt Johnston, that a very interesting disease occurring among the cattle in a district to the north of the Peninsula, was infectious and epizootic, but further, obtained from cases of this so-called Pictou Cattle Disease, a characteristic micro-organism pathogenic for rabbits and guinea pigs. This organism I found constantly in the cultures from the livers and abdominal lymphatic glands, and fairly frequently in cultures made from other organs.

The main feature of this Pictou Cattle Disease is a peculiarly extensive cirrhosis of the liver accompanied by swelling of the periportal and retroperitoneal lymph glands, with some ascites and a condition of multiple follicular ulceration of the fourth or true stomach. The ulcers are generally found in a cicatrised condition.

The first recognisable symptoms (of which the most marked is the rapid diminution in the amount of milk given off together with a peculiar bitter taste and odour of the same when heated) occur only from 24 hours to ten days before death; evidently therefore the extreme cirrhosis of the liver must have been advancing for a long period without symptoms. Death occurs most frequently with progressive weakening and paresis; in some few cases there is a period

<sup>1</sup> Read before the Montreal Medico-Chirurgical Society, June 20th, 1898.

of intense excitement almost maniacal followed by exhaustion and death.

The micro-organisms present in this disease are most difficult to stain in the tissues; indeed, the difficulty that I have found in determining any method whereby they can with certainty be demonstrated, has prevented me so far from publishing an extended description of my results.<sup>1</sup> Apparently they stain easily, but lose their stain with extreme facility. With practice I have been able to recognize them in an unstained form in the tissues and in this condition they have a faint brownish tinge and a halo is faintly but definitely recognisable. For a long time it appeared to be almost a matter of chance whether I was able to stain them or not, or more correctly, only if I was fortunate enough to clear the sections with sufficient rapidity did I get the microbes stained. Yet another difficulty in staining this micro-organism has been its minute size within the tissues, so that with the ordinary 15th inch immersion which I have used until the last year or two, unless they were stained to the right extent, neither under nor over stained, they were recognisable with great difficulty. Still, there they were, and under the proper conditions they could be found in great numbers in the liver and abdominal lymphatic glands.

If thus an extreme condition of cirrhosis of the liver is brought about in animals by the proliferation in the tissues of a micro-organism which sets up the chronic and progressive hepatic disturbance, it has seemed to me possible that a similar result may be produced in man. As a matter of fact, for some years past Hanot and the French school of Pathologists have insisted that one form of cirrhosis—the large, smooth, cirrhotic liver with jaundice, the form now frequently spoken of as Hanot's cirrhosis—is of infectious origin, though they have not been able as yet to declare what is the microbe causing the infection. To the best of my knowledge however, no one has so far ventured to state that the more common or so-called atrophic cirrhosis, the ordinary hobnailed liver, is of microbial causation. While the time has gone past when it was taught that such hobnailed livers are directly caused by alcohol, the prevailing opinion is that alcohol or other irritant by setting up a condition of chronic gastro-enteritis and destruction of the mucous membrane of the upper portion of the intestinal canal, permits the absorption of toxic substances from the food, and these toxic substances taken up by the portal blood induce

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<sup>1</sup> Statements concerning my investigations in Nova Scotia and early studies of the micro-organisms associated with the disease are published in the Reports of the Department of Agriculture for the years 1894 and 1895. At the Montreal meeting of the British Medical Association last year, I also read a paper upon the subject, of which epitomes were published in the *British Medical Journal*, *Lancet*, &c.

a surrounding chronic phlebitis with or without direct action upon the liver cells.

During the last four years I have carefully studied all cases of hepatic cirrhosis which have come to the post-mortem room at the Royal Victoria Hospital to observe whether I could make out the existence in them of micro-organisms to such an amount and so constantly that we may safely conclude that the disease is associated with the presence of these micro-organisms. Here again the same difficulty pursued me as was present in the earlier stage of my studies upon the Pictou Cattle Disease; at times I could distinguish in sections the presence of numbers of minute diplococcus-like bodies, but further sections from the same case did not stain well, and there has been the added difficulty that the liver contains so many fine granules that in the unstained condition it is extremely difficult to make oneself positive that what one sees is not of the nature of some cellular precipitate or fine deposit. In two cases in 1895 and 1896, I thought that I had gained cultures from the liver, but upon growing these they were overrun with the colon bacillus and I lost them. In a more recent case, during last month, I was able to gain from an agar tube of the liver juice an extremely minute diplococcus staining with great difficulty, and scarcely visible. The tube was reported to me as being sterile and only upon the 4th or 5th day of the growth did I examine it myself, and found there this presence of small micro-organisms in small numbers, but when I tried to make further growths the microbe had already died out, if indeed, what I saw was anything beyond the microbes already present in the juice, upon inoculation of the tube, which had not proliferated.

In connection with this case, which was one of atrophic portal cirrhosis with pigmentation, I have been able to find micro-organisms in considerable quantities in the tissues. Dr. Abbott, who has been working on this case more especially in connection with the pigmentation of the organs, showed me some sections of the abdominal lymph glands which she had stained by Weigert's fibrin stain, and which under the high power had a peculiarly granular appearance. Upon examining with the 18th inch immersion, I found that the fine granules resolved themselves into great numbers of minute microbes of the character which I had learnt to recognise in connection with the Pictou Cattle Disease; namely, the micro-organisms present were extremely minute, even smaller than those seen in the Pictou Cattle Disease; in the main they were present as diplococci with a slight halo round them, very much smaller than the diplococcus of pneumonia, but like that organism certain of those present were longer and more distinctly in the form of diplo-bacilli.

Many of the forms present resemble closely minute editions of the gonococcus. Further, the micro-organisms vary to some extent in size; this may be a matter of imperfect staining or may be another evidence of the polymorphism to which I have already drawn attention. On the whole, inasmuch as certain examples are distinctly bacillary, the organism then should be placed among the bacilli rather than the diplococci.

Examining a series of livers by Weigert's fibrin method, I am in doubt as to whether the bacilli truly resist the action of the iodine solution, for while I get good results in some cases, in others I see a very large number of what I may term 'shadows.' It may be therefore only that the bacteria are relatively resistant to the action of the iodine.

To-day I have elaborated a still more satisfactory stain which shows the presence of bacteria with certainty. The method is as follows:

Taking the sections that have been well hardened and cutting them by the freezing microtome, I place them for a minute or two in a weak solution of acetic acid in order to clear the cells as much as possible. I then wash out the acetic acid and place in absolute alcohol; from this I transfer to a solution of methylene blue in anilin oil. This oil takes up the blue with fair ease and I employ a half-saturated solution. In this I leave the sections for half an hour. The methylene blue anilin oil mixture has the advantage over an anilin oil gentian violet mixture in that it does not overstain. At the end of half an hour I transfer the sections for a quarter of a minute into a mixture of two parts of anilin oil to two parts of xylol, then rapidly into xylol. If there is any tendency to excessive stain, I treat them for a longer period with a mixture of two parts of anilin oil to one of xylol before placing in the xylol; they then are mounted.

The method is not perfect, for the tissue is not completely decolorised; nevertheless, the bacteria are to be seen clearly in the newly formed connective tissue. Staining by this method I also find that not all the bacteria take the stain completely; there is a large proportion which has retained a brownish tinge, but these from their diplococcus shape and faint halo, can only be microbes. Many of the microbes are also without doubt within the liver cells.

I thus come to the conclusion that a large number of the microbes present are probably dead, and have absorbed some colouring matter from the blood or the bile. So far I have come across this one form in very considerable numbers in every case of advanced hobnailed cirrhotic liver which I have examined (five cases) with one possible

exception, the exception being a case in which the undertaker had embalmed the body, and the crystals and débris of the embalming material cause so much dirt in the sections that it is difficult to make out the state of affairs, but even in this case I believe I can detect some of the characteristic bacteria.

Thus at the present time I would go so far as to say that in a certain number of cases, at least, of hobnailed liver, there is present, more especially in the liver and the abdominal lymph glands, a minute micro-organism resembling closely that found pathogenic in the infective cirrhosis of cattle; a form which is present most frequently as a minute micrococcus but sometimes has a more bacillary appearance, and which is thus to some extent polymorphous.

*Appendix, July 9th, 1898.*

Since reading this communication, through the kindness of Professor Hektoen and Dr. Flexner, I have had the opportunity to examine fifteen other livers showing distinct evidence of portal cirrhosis from the material at the Rush Medical College, Chicago, and the Johns Hopkins Hospital respectively. I have not, as yet, examined all the material from the latter source, but in all the Chicago cases, as in ten well marked examples from Baltimore, I recognise the appearances above described. More satisfactory staining of the doubtful case above mentioned, show the undoubted presence of diplococci.

A fuller description of my observations, together with the description of the bacillus, isolated by me recently from a case of cirrhosis, will be communicated to the meeting of the British Medical Association, at Edinburgh, by Dr. Osler. I would only add here that the methylene blue, anilin oil method of staining described above, while giving very fair results for immediate study, does not in my hands yield permanent specimens, the dye tending to fade out of the microbes.

# THE NEW BRITISH PHARMACOPŒIA.

BY

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For some time past the medical profession, not only in England, but throughout Greater Britain, has been awaiting with interest the appearance of the New Pharmacopœia. The volume is now before us.

To us in Canada, the edition is of interest as being the first in the preparation of which any reference has been made to the wants of the more distant portions of the empire. In the preface it is stated that assistance has been sought from the various medical and pharmaceutical bodies in the Dominion, India and the Colonies, and that many of the recommendations of these bodies have been incorporated in the text of the present edition. We are also informed that an addendum will shortly be published dealing at greater length with plants and medicinal substances which have as yet a comparatively local reputation and employment, but which nevertheless are recommended for notice by the official representatives of the medical profession in the more distant parts of the empire.

On examining the volume we notice that the metric system, which in previous editions was employed as an alternative only in the paragraphs relating to volumetric analysis, is in the present volume employed exclusively in these paragraphs, while such alternative employment is now extended to every official paragraph which makes use of the usual imperial system of weights and measures. Throughout the volume, we find both systems in juxtaposition, but the quantities thus given are not to be assumed as the equivalent of one another. Preparations made according to either system will contain as nearly as possible the same proportion of ingredients, but as a matter of course the two systems cannot both be used in the same operation.

The description of the various articles in the Pharmacopœia has undergone complete revision in the present edition. No subject is said to have given the committee more trouble than this part, for they have had to recognise as far as possible conflicting opinions on the part of experts. The alterations coming under this head, while not a matter of special interest to us, as practitioners, will we think be welcomed by our pharmaceutical brethren. Here it is sufficient to state that almost every article bearing on the description, source and botanical origin of

drugs, has undergone some modification. The changes thus made, will, we think, be admitted by all to be a distinct improvement.

With the alteration in the description of the drugs, numerous alterations in nomenclature have been made. Hydrochlorates are in future to be called hydrochlorides, and hydrobromates, hydrobromides. The Pharmacopœia no longer speaks of bromide of sodium, carbonate of lithium, &c., but of sodium bromide, lithium carbonate, &c. Carbo-lic acid is now termed phenol, and arsenious acid, arsenious anhydride. Many of the Latin names have also been altered. Creasotum is now spelt creosotum, and asafœtida, asafetida. Ipecacuanha becomes ipecacuanhæ radix, and gelsemium, gelsenii radix, coca becomes cocæ folia, &c. The words aloin, pepsin, and pyroxylin, become now aloinum, pepsinum, and pyroxylinum. Tabellæ nitroglycerini become tabellæ trinitrini, while the modified preparations of lunar caustic become now argenti nitras mitigatus, and argenti nitras induratus. Another change is in the gender of all names ending in "as," such as carbonas, tartras, &c. Such were formerly regarded as feminine, now they are regarded as masculine, and associated adjectives must correspond. This brings the English Pharmacopœia in line with those of continental Europe and of America.

Considerable freedom has been exercised in the matter of discarding obsolete drugs. The names of 188 have been dropped from the present edition. In regard to the great majority of these, we are sure that the general feeling will be one of thankfulness. As to a few of the omissions, however, the feeling with many in Canada will be that of surprise. We are at a loss to understand, why cinchonine and cinchonidine should have been dropped, or veratrum viride with all its preparations, or extract of aconite, acetic extract of colchicum, and extract of sôcrotrine aloes. Possibly some of these may reappear in the addendum shortly to be published.

Examining more carefully the list of drugs omitted we note that all the cataplasmata, enemata, vapores, and most of the decocta have disappeared. The reason given by Dr. Leech in a recent article, is that the Pharmacopœia is not issued for the purpose of indicating the methods in which drugs may be employed. Doubtless in this the profession generally will agree with him. In this *index expurgatorius* we also note that all dietetic substances, such as pearl barley flour, bread crumbs, eggs, milk, cucumbers, lettuce, vinegar, &c., substances, which, as the *Lancet* says, were intimately associated in the professional mind with the constituents of a salad, or with the index to Mrs. Beaton's domestic pharmacopœia, are no longer stamped with the official brand. With these have disappeared most of the domestic

remedies, such as poppyhead fomentation, canomile tea, manna, oak bark and its decoctions. &c.

Further it is not considered necessary to include among the official drugs many of those substances from which drugs are obtained, especially where such drugs have distinct characters and can be easily tested, as for example, star anise fruit, *sabadilla*, *santonica*, *creta*, &c. Many substances whose popularity has waned have also been omitted; among these are noticed *bael* fruit, *canella*, animal charcoal, *berberine*, *frangula* bark, *mastich*, *tobacco*, *savine*, *rue*, *kamala*, *matico* and *bromine*. Many chemical substances are also left out which formerly were used as tests.

A large number of preparations have disappeared or have been more or less altered. It has been felt that the last two Pharmacopœias have been unduly burdened, and a beginning has now been made in decreasing the number of preparations of individual drugs.

Among the more important of these omissions we note that the two citrates of bismuth and ammonia have disappeared. They were rarely used except in the official solution, which still remains. Of the preparations of iron, seven have been discarded, the granulated sulphate was regarded as merely a convenient form of the official salt; the pill of the iodide of iron was regarded as unstable, and with the introduction of the pill of iron the necessity for a carbonate of iron pill has ceased; the tincture of the acetate of iron will scarcely be missed, but many we think will regret the omission of the solution of dialysed iron. The reason for its omission is said to be its uncertain strength and the fact that it is readily decomposed.

Three preparations of opium and three of morphine have been discarded; the confection and the wine of opium were regarded as relics of the past, while the lozenge of morphia supplies our requirements better than the previously official lozenge of opium. It will surprise many to find that the sulphate of morphia and its preparations have been omitted, but the solution of bimeconate will scarcely be missed. In their place we have a new salt, morphine tartrate introduced on account of its stability and solubility.

Calamine, a favourite with many practitioners, and defined in the last Pharmacopœia as a native carbonate of zinc, turns out to be almost entirely an artificial preparation; it is in fact an oxide or carbonate of zinc coloured in various ways. One of two courses had to be taken; either to introduce an artificially coloured oxide or to omit calamine altogether; the latter course has been adopted.

Water and proof spirits both disappear from the new official list. Wherever water is employed, distilled water is specified. Only in

those cases in which distillation is employed in producing the special preparation is "good natural potable water" directed to be employed. The name proof spirits has been abandoned. Careful enquiry as to the best menstruum for extracting the active principles of drugs, has led to the adoption of ethylic alcohol in five several degrees of dilution, containing respectively, 90 per cent., 70 per cent., 60 per cent., 45 per cent., 20 per cent. of alcohol. The 90 per cent. alcohol is called *spiritus rectificatus* in Latin, and has the synonym in English of rectified spirit. Its purity and strength are well defined.

Referring now to the various official forms of preparations in order, we note that no changes of importance have taken place in the list of acids or vinegars, one acid only, the dilute lactic, has been omitted.

Among the *aque*, we notice that chloroform water is now only half the strength it was previously; other waters are little changed.

Three of the plasters have disappeared, namely the plaster of iron, galbanum and brown soap. They will not be missed.

The word essence now disappears from the Pharmacopœia, being regarded as savouring of old-time medicine. All solutions of the essential oils in alcohol are now termed spirits, but the strength of these solutions is increased in nearly every instance; it is now 1 in 10 instead of 1 in 50 as previously.

Of the confections four have disappeared, namely, those of opium, hips, scammony and turpentine. The confections of senna, sulphur, pepper, and roses are retained with comparatively little alteration.

Many extracts have been omitted; of these the most important are:

Extractum Aconite	Extractum Hæmatoxyli
Extractum Aloes Socotrine	Extractum Jaborandi
Extractum Calumbæ	Extractum Lactucæ
Extractum Colchici Aceticum	Extractum Lupuli
Extractum Conii	Extractum Quassia
Extractum Gelsemii Alcoholicum	

The strength of the alcoholic extract of belladonna has been reduced to one-third of its previous strength, bringing the dose down to that of the green extract. One wonders why the latter has been retained, as it is the only preparation of belladonna, with the exception of the succus not standardised. In reference to the acetic extract of colchicum, Dr. Leech says: "The acetic extract of colchicum was introduced on the supposition that acetic acid dissolves the active principles of the drug more readily than water. This is not so. The ordinary extract is a perfectly efficient preparation." Ergotin is now to be known as the extract of ergot. This is wise. The sooner the name ergotin is dropped by the profession the better. It is only confusing. One new extract appears, the extract of strophanthus.

The omissions in the list of infusions number seven. On this subject the committee state that an effort was made to prepare in a concentrated form the three decoctions and twenty-two infusions still retained in the Pharmacopœia, but it was found that some underwent deterioration by keeping, or were wanting in flavour and aroma, and were accordingly rejected; the more successful have been admitted into the Pharmacopœia under the title of *Liquores Concentratæ*.

The following is a list of them. It is to be noted that they all contain a small amount of alcohol.

Liquor Calumbæ Concentratus.	Liquor Rhei Concentratus.
Liquor Chiriatæ Concentratus.	Liquor Sarsæ Compositus Concentratus.
Liquor Cuspariæ Concentratus.	Liquor Senegæ Concentratus.
Liquor Krameriæ Concentratus.	Liquor Sennæ Concentratus.
Liquor Quassiæ Concentratus.	Liquor Serpentariæ Concentratus.

Fifteen liquors have been omitted; among these are included, the effervescing solutions of potash, soda, and lithia, which are deemed hardly worthy of official recognition, having more of a dietetic than a medicinal character. The stronger solutions of acetate and citrate of ammonia have also disappeared, as it was found that the fresh solution supplied a more palatable preparation. The solution of iodine (*Lugol's Solution*) is now discarded, but its name passes on to the liniment of iodine, the composition of which is slightly altered. It will in future be known as the *Liquor Iodi Fortis*.

Among the more important of the new liquors introduced is a solution of ethyl nitrite in alcohol. It is directed to contain when freshly made 3 per cent., but never less than  $2\frac{1}{2}$  per cent., by weight of ethyl nitrite. Dr. Leech says of this "It will not take the place of the spirit of nitrous ether as a diaphoretic, but will be chiefly used as a remedy for dyspnoea, for which the spirit, on account of the uncertain amount of ethyl nitrite it contains, is not well fitted."

The solution of hydrogen peroxide (*Liquor Hydrogenii Peroxidi*) now becomes official; also that of witch-hazel, and that of coal tar. A fresh departure is made in recognizing dried thyroid, and thyroid solution; and in introducing liquor pancreaticus, the committee have paid the compliment to Sir William Roberts of following his formula.

The liquors, which in previous editions were supposed to represent a 1 per cent. solution, but which were found in practice to deviate from this strength considerably, have in the present edition been brought back to absolute uniformity (1 gramme in 100 cubic centimetres, or one grain in 110 minims).

The hypodermic injection of morphine is now prepared from the tartrate. It is to be noted that it is only half the strength of the 1885

injection. When made according to the previous formula it was very liable to deteriorate.

No changes of importance have taken place in the group of liniments, although many minor alterations have been made.

Two mixtures disappear; the aromatic mixture of iron which was both unchemical and unsightly, and the mixture of scammony.

The oleo-resin of cubeb, the oil of rue and the oil of savine are no longer official.

Three pills only are omitted, the pill of hemlock which was inert, and the pill of the carbonate of iron, and of the iodide of iron, to both of which we have already alluded. One new pill that of quinine sulphate has been added. The pill of phosphorus contains under the new formula nearly twice as much phosphorus as under the old. In the preparation of many of the pill masses, confections have been replaced by bitter extracts; in some instances syrup of glucose, which has long been known as an excellent excipient is employed.

Three syrups have been dropped, the syrup of mulberry, the syrup of poppy heads and the syrup of subchloride of iron. Several have been added; the well known Easton's Syrup is now official under the name of the syrup of phosphate of iron with quinine and strychnine. A syrup of calcium lacto-phosphate, resembling that of the United States Pharmacopœia is now made official. We note also among the new introductions a syrup of codeine containing a quarter of a grain of the phosphate to the drachm, which will probably prove useful. There is also an aromatic syrup made official containing tincture of orange, cinnamon water and syrup, which will probably meet with general acceptance as a flavouring agent.

All the suppositories containing soap are now dropped, as well as the suppository containing mercury. Two new ones have been introduced, one of phenol, and one of belladonna.

The tinctures in the old Pharmacopœia number 75. Three new ones are introduced; the ammoniated tincture of ergot, a tincture of Virginian prune, and a tincture of quillaia. The following are omitted:

Tinctura Aurantii (Cort. Sicc.)	Tinctura Laricis.
Tinctura Chloroformi Composita.	Tinctura Lobeliae.
Tinctura Ergotæ.	Tinctura Sabinæ.
Tinctura Ferri Acetatis.	Tinctura Valerianæ.
Tinctura Gallæ.	Tinctura Veratri Viridis.

Tinctura Zingiberis Fortior.

In the preparation of the tinctures, the special dilution of alcohol is employed, which has, after careful testing, been found to act best as a menstruum in the case of each drug. Changes have been made also in the method of preparation in many instances.

More important, however, to the practitioner, than mere omissions and additions are the changes in strength and dose, in respect of which the whole group has been reduced from a condition of chaos to one of comparative uniformity. All tinctures are now divided into two classes, in one of which the strength has been arranged so that the dose averages from 5 to 15 minims. In the second class the dose varies from half a drachm to a drachm. This involves many important changes in strength among which the following are to be remembered :

- Stronger.—*Tinctura Belladonnæ* (twice previous strength.)  
*Tinctura Chlorof. et. Morph. Co.* (four times in *Morphia.*)  
*Tinctura Colchici* (nearly twice.)  
*Tinctura Lobeliæ Ætherialis* (nearly twice.)  
*Tinctura Nucis Vomiceæ* (twice.)  
*Tinctura Podophylli* (twice.)  
*Tinctura Quassiaë* (three times.)
- Weaker.—*Ext. Opii Liquidum* (three quarters.)  
*Tinctura Aconiti* (two-fifths.)  
*Tinctura Strophantii* (one-half.)

A few new lozenges are introduced, and the basis of almost all has been altered; many of them now contain black current paste under the name of fruit basis. The new lozenges introduced are the lozenge of phenol, of eucalyptus gum, of rhatany and of rhatany and cocaine; the lozenge of opium has been omitted.

Among the ointments we notice that the ointment of tartarated antimony is now officially discarded, along with the ointment of sulphurated potash, and the ointment of turpentine. All the ointments containing alkaloids have now a certain amount of oleic acid in their formula to act as a solvent for the alkaloid. In the majority of ointments, paraffin is now used as a basis. Five new ointments are introduced; these are rose water ointment, capsicum ointment, cocaine ointment, mercuric oleate ointment, yellow mercuric oxide ointment and paraffin ointment.

In a large number of the official preparations, although no alterations have been made either in their name or strength, minor alterations have been made in their mode of preparation. To a few only of these have we referred, considering that they interest the pharmacist more than the medical practitioner.

Many much used substances have not been made official, because on enquiry it was found that they were proprietary preparations, made only by foreign firms, and purity tests could be of no service.

Many changes have been made in the official posology. With regard to this portion of the work there will probably be many conflicting opinions. In the preface it is expressly stated that the quantities appended are intended to represent average doses in ordi-

nary cases for adults. They are meant for general guidance, but are not authoritatively enjoined by the council. In previous editions there were many discrepancies in this portion of the work. In many cases the amount of active ingredient contained in the doses given for a drug, and for its various preparations differed widely. In the present edition, an attempt is made to make the doses of similar preparations more uniform, and the disparity in active ingredients between doses of different preparations of the same drug has, as far as possible, been removed.

Although the Pharmacopœia, as published, contains exactly the same number of pages as the Pharmacopœia of 1885, only 389 of its 535 pages are occupied by the Pharmacopœia proper, 83 pages less than was occupied in that of its predecessor. The remainder is taken up by several appendices and a very copious index. The appendices themselves need not detain us beyond the statement that they contain full directions for the various tests, and their employment, and for the various processes employed in the preparation of tinctures, lozenges, &c. The most important part to the practitioner is the index, which occupies 90 pages, almost a fourth as much space as the matter which it deals with. It has been carefully elaborated and will undoubtedly be of much service to the practitioner, affording at a glance not only the names of all the official preparations of a drug, but also the dose of each, and where it has been thought advisable the strength of the preparation.

# CONTINUED IRRIGATION OF THE UTERUS VERSUS HYSTERECTOMY, IN ACUTE PUERPERAL SEPTIC METRITIS.

BY

HORACE MANSEAU, M.D.

The reports of the following cases will serve to show that continued irrigation of the uterus is a most effective method in those cases of puerperal metritis, in which by many surgeons, hysterectomy would be looked upon as a last resort.

A communication on the subject from the pen of Dr. Hiram N. E. Vineberg, in the *New York Medical Journal*, of April 2nd, 1898, impressed on my mind the importance of advocating uterine irrigation. From the article in question—a report of eight successful cases of hysterectomy for acute puerperal septic metritis—we are led to infer that success has followed every intervention, although possibly such was not intended by the author.

The removal of the appendages or of pustules seems to be at present best and most conservative surgery. It is not so, however, in regard to infected mastoid cells for instance, here the surgeon is content to open into the infected cavity so as to be permitted to wash away the micro-organisms, and the accoucheur while dealing with the same enemy might attain a like result by following the same line of treatment, that is, by opening up and thoroughly washing out the cavity of the uterus and so do away with the necessity of amputation of the organ. Every text-book, every professor of surgery, is now preaching the necessity of drainage. It is for this purpose that the abdomen, the chest, and the head are being repeatedly opened, and there is equally good reason for applying the same method of treatment to the uterus.

For years past it has been my custom to wash out the uterus at the first rise of temperature during the puerperium and to keep washing it out as long as the temperature was above normal. It is hardly necessary to state that sepsis is the cause of 98 per cent. of all serious trouble met with after child-birth, and that the uterine cavity is an extremely favourable ground for the development of septic pathogenic germs, as besides being a perfect culture medium the tendency to drainage is very slight. The os on contracting, will, together with the sphincter vaginae form a partly closed barrier to the escape of the discharges. Taking for granted that septicæmia is due in the majority

of instances to a retained portion of placental tissue, the curette should first be resorted to and the dull is preferable to the sharp curette because it does not produce lacerations of the partly healed surfaces and so provide fresh material for the germs to grow upon. Afterwards, continued irrigation should be carried out to complete the work of the curette and cases that it will not cure will not be saved by the removal of the uterus. The following cases have been treated by this method.

CASE I.—In 1885, Mrs. W., aged 28 years, a resident of Duluth, Minn., gave birth to her third child, a female weighing  $9\frac{1}{2}$  pounds. The labour lasted six hours and was in every respect a normal one; the expulsion of the placenta was complete and followed within half an hour, and although the fourchette was torn, the perineum was intact. All went well until the fourth day, when at four o'clock in the afternoon she suffered with headache and had a chill, and her pulse rose to 126, and the temperature to  $103\frac{1}{2}^{\circ}$ . A vaginal douche of 1 to 6000 bichloride was ordered every three hours. The following afternoon (5th day) the symptoms were aggravated, the pulse 135, temperature  $104\frac{1}{2}^{\circ}$ , and she had another chill. There was no fetor, but a profuse vaginal discharge of flake-like muco-pus. The uterus was then washed out every three hours, but the succeeding day showed still no improvement, the pulse was very rapid, and a chill of an hour's duration followed by profuse sweating had taken place. The milk was fast leaving the breasts. I had noticed that after each intra-uterine douche temporary improvement occurred in the patient's condition and consequently commenced irrigation on the sixth evening at 8 o'clock. Water was kept flowing continually for twelve hours at the rate of seven or eight gallons an hour, and on the seventh day the temperature had fallen to  $100^{\circ}$  and the pulse to 115, and the general condition was much improved. Irrigation was then stopped and five hours later when again seen the temperature was higher than ever. On the eighth day at 3 p.m., the irrigation was resumed and kept up for nearly twenty-four hours, and the temperature had by this time fallen to  $99\frac{1}{2}^{\circ}$  and the pulse to 110. After having given directions to continue the treatment for three hours longer, I left the house at five o'clock to take a rest. On returning the following day I found that a midwife, who had quite a local reputation, had been sent for from a town a hundred miles away, and, on arrival the previous day, had stopped the treatment. She greeted me with "The patient is now in a dry bed and feels much better already. The case is an ordinary one and no one need worry." I felt sufficiently sure of the result to predict that unless my treatment was resumed the

poor woman would soon be beyond hope, but I was not permitted to interfere, although the temperature was then already rising. On the following day, however—the tenth—the husband who knew enough to count the pulse beats, came to me and requested me to take charge again. On entering the sick-room I found the temperature  $106\frac{1}{2}^{\circ}$ , and the pulse 180, and the patient delirious, with tympanitic and painful abdomen, and the genital tract bathed with pus. Several chills had occurred since the previous visit. Dr. Wallack, a local practitioner of much ability, was called in consultation, and together we decided to resume at once the intra-uterine irrigation, with of course heart stimulants and careful feeding. For some hours the irrigations did not seem to have the same effect as on the previous occasions and, fearing that the nozzle of the syringe (an ordinary uterine one) was not acting satisfactorily, I substituted a male catheter No. 12, and increased the amount of water from 7 to 12 gallons an hour. Some difficulty was experienced in getting the catheter to enter the uterine cavity. After 40 hours work with four suspensions of never more than an hour at a time, the temperature was found to have reached  $100^{\circ}$ . It was noted that even during the hour's interval the temperature at once commenced to rise and increased from one-half to one degree.

It was now 1 p.m., on the twelfth, and a few hours rest was allowed with the result that the temperature rose to  $101^{\circ}$  by 4 p.m., and a slight chill occurred. Irrigation was again taken up and kept up with an occasional intermission of never more than three hours for three days longer, by which time convalescence had become permanently established.

Would not this most severe case be considered under the present conditions a very strong suggestion in favour of hysterectomy, and is it not most instructive in many ways? At the outset the temperature was controlled by irrigations at the rate of seven gallons of boiled water per hour, but later on it was found necessary to increase the amount to twelve gallons in order to bring about the desired result. If less water was flowing or the stream interrupted for even an hour at a time, the temperature was sure to rise and sometimes with astonishing rapidity, and it was only on the 16th day after the confinement, and the 10th of the nearly continuous irrigation that convalescence was permanently established. Over 2,200 gallons of water passed through the uterine cavity and as the continuation of an antiseptic solution for so long might have been injurious, only boiled water was used except at the termination when a pint of  $1\frac{1}{2}$  per cent. carbolic acid solution was substituted. The secretion for the first four

days was very abundant and composed of flake-like muco-pus, after that it was purulent. On the tenth day of the puerperium the patient was seized with a cough and pain in the right side so severe as to necessitate a hypodermic injection of morph. sulph. gr.  $\frac{1}{2}$ , and the following day consolidation revealed the presence of pneumonia.

Besides the above, three other cases may be reported more briefly, these are:

CASE II.—Mrs. N., was confined on June 6th, 1886, by a midwife, and on the 12th she was seen for the first time by me when her condition was very grave; temperature  $105^{\circ}$ , pulse 145 to 150, irregular, abdomen painful and tender, tongue coated, and lochia fetid. An intra-uterine douche of 1 to 6000 bichloride was given every three hours. The next day she had several chills and was delirious and very weak, so irrigation was started and kept up for 36 hours with four intermissions of one hour each. As the temperature had fallen to  $100^{\circ}$  and the patient was adverse to the method of treatment, an attempt was made to do without the water but always with the result of sending up the temperature. Six days of irrigation resulted in complete recovery.

CASE III.—Mrs. D., confined on May 31st, 1893, for the sixth time had a natural labour except that the os was torn. On June 4th, at 5 p.m., the temperature was found to be  $103^{\circ}$ . and pulse 120. There was intense headache and several chills. The uterus was washed out seven times at intervals of three hours, but the following day all the symptoms were aggravated, the temperature reaching  $104\frac{1}{2}^{\circ}$  and pulse becoming very rapid and irregular. The same night continued irrigation was started, using from five to six gallons of water per hour with short intervals of suspension. In spite of this there was little decrease in the temperature so after 30 hours the amount was increased to ten gallons per hour. After eleven days of this treatment recovery was complete.

CASE IV.—Mrs. C., was confined in one of the private hospitals in this city and on the seventh day removed to a private boarding house. On the 9th day I was called in and found the patient with a temperature of  $104^{\circ}$  and a very rapid pulse (about 140). She had had several chills. There was intense cephalgia, no milk in the breasts, and hardly any vaginal discharge. I had her at once removed to the Home Hospital and commenced treatment with intra-uterine douches of warm bichloride solution 1 to 6000 every three hours. The next morning curettage brought away a large quantity of detritus. The intra-uterine douches were then kept up for twelve hours but without producing much effect. On the 12th day after confinement, continued

irrigation at the rate of eight gallons of boiled water per hour was instituted, and in eight hours the temperature had fallen from 105° to 101°. During a rest of two hours it rose again to 103°. There was still much tympanites and the abdomen was painful and tender. Irrigation was resumed and kept up almost continually for three days when the temperature had reached normal. Extreme weakness in this case made it necessary to give ether and digitalis hypodermically on several occasions. On the 15th day, irrigation for two hours at a time every six hours was substituted for the continuous, and carried on for three days longer, and convalescence was permanently established on the 18th day. Recovery was complete.

Three other cases similar to these in every respect could be reported, but the ones already given will serve as examples of the whole. It was found that in every case it was necessary to keep up the irrigation until such a time as the uterine cavity had undergone repair to be sure that the improvement in the general condition had become permanent. In every one of the seven cases, recovery was complete, and, with two exceptions which were lost sight of, all became pregnant again. Is not this latter fact alone a sufficient argument against total hysterectomy in these cases, even supposing that equally good results would follow the surgical method of treatment?

## A CASE OF FATAL STRYCHNINE POISONING—TRIAL— ACQUITTAL.

BY

D. W. Ross, M.D., Florenceville, N.B.

The case was that of Regina vs. Annie L. Canovan. Mrs. Annie L. Canovan was tried at the Carleton Circuit Court for the murder, by poisoning, of her sister, Minnie Tucker.

The evidence developed at the trial the following facts. For some months Mrs. Canovan had threatened her sister. She had on several occasions enquired the name of the poison used, and talked of its powerful nature. The accused had on Saturday purchased from a druggist one dram of strychnine sulphate to kill foxes. The following Tuesday evening her sister, Minnie, after a two weeks absence, returned to their common home. She was in good health and spirits and came into the house laughing. In fact she had snowshoed about four miles. The next morning the deceased prepared the breakfast. The meal was late. Shortly afterwards she commenced to wash clothing. While doing so she mixed some ginger tea and was seen to drink it. About half an hour after drinking it she sat down on a chair to rest.

While sitting thus she suddenly straightened out, upset the chair, and falling backwards struck her head against the side of the house with sufficient force to make a loud noise, and lay over the upset chair in convulsions. She was black in the face, frothed at the mouth, then she came to and recognized her father, spoke to him, drew him down to her and kissed him. She recovered her colour between the convulsions. While here she spoke to her mother, and told her sister that she was dying. She was then lifted by those present from the chair to the floor, where she lay on her right side. After being placed on the floor she recognised and spoke to those present. The speaking was always in the intervals. The convulsions were distinctly tetanic. She continued to have convulsions, increasing in intensity, for from fifteen to thirty minutes, when she died. While on the floor she drew her arms up, when in the convulsions, and one witness says she drew her feet up so that she looked "like a ball" "Drew herself up into a ball" is the way he expressed it. At no time, was there any *risus sardonius* observed. It was established that rigor mortis did not succeed death immediately; but that it came on early. A coroner's inquest was held two days after death;

and a post-mortem ordered, which was made 72 hours after death. This examination was held by Drs. Ross, Welch, Cummins and Somerville.

A careful search was instituted to find some natural cause for such a sudden death. None was found. Outside of this negative result the post-mortem did not reveal much. The most that could be said from it alone was that death was most likely due to asphyxia.

Rigor mortis was found slightly in the arms, more marked in the legs and entirely absent in the muscles of the neck and jaw, and was judged to be passing off. The fingers were clenched, the tongue un-bitten, and the lips livid. The membranes of the brain were found congested, the brain substance and ventricles normal and the cavities entirely empty. The abdomen was opened and inspected, and nothing unusual observed except an enlarged uterus.

In the thorax, the lungs were found engorged with dark, liquid blood. The heart was found entirely empty and uncontracted. It presented no evidence of disease.

The uterus was found to contain an unbroken foetal sac containing a foetus, that had reached the development corresponding to the third month. A small clot was found, at the lower part of the uterus, between the membranes and the uterine wall. There was also some separation of the foetal sac, but it was thought to be only such as is usual at this early stage of development. The cervix was found undilated, and the internal os so strongly contracted that the little finger could not force an entrance and the whole cavity had to be laid open with a knife.

There were no punctures or wounds about the uterus or vagina. The kidneys were found to be normal in size and structure, so far as the naked eye could determine. They were highly congested, but, of course, some of this must have been due to hypostatic congestion.

The urinary bladder was found empty and uncontracted.

The intestines were almost completely empty.

The stomach was ligatured *in situ*, removed, put into a glass jar and sealed. (The chemist to whom it was sent found that it contained three ounces of liquid contents.) It, with the kidneys, liver, heart and uterus were delivered to a chemist for analysis.

The blood was found throughout black and liquid. No clots were seen, except one in the uterus.

The result of the chemical analysis, although known by the law officers of the Crown, and by them communicated to the counsel for the defence, was not made known to the crown medical witnesses until after they had given their testimony.

In considering this case it must be remembered that the evidence as to the character and nature of the convulsions rests wholly on the evidence of untrained observers. Any one of the characteristic appearances may have been present, and not noticed by them. One of the witnesses, who showed plainly a tendency to shield the accused, changed materially her testimony as to the character of the convulsions from what she had sworn to before the magistrate and the coroner. The chemist, W. F. Best, of St. John, N.B., to whom the organs were submitted for analysis, gave his evidence right after that of the Crown medical witnesses. His report was that in one half of the stomach contents he found no strychnine, that in the other half of stomach contents and one-half the stomach he found .005 grammes of strychnine and no volatile or mineral poisons. In a small portion of the liver he found strychnine. In the rest of the organs, *i.e.*, liver, kidneys, heart, uterus, and one-half the stomach, after an analysis occupying 35 days, he found .03 grammes of a residue which he proved to be strychnine, by the color tests and by the melting and subliming tests. There was no brucine present, hence *nux vomica* could not have been administered. He used both Stass' and Dragendorff's methods to obtain the strychnine. On microscopical examination of the mucus membrane of the stomach he could not detect any crystals of strychnine.

As to ptomaines he considered that, while some of them might give a few of the color tests; yet they could not stand the subliming process. This test he considered completely eliminated ptomaines. The substance after melting at the melting point of strychnine and subliming at its corresponding degree, gave the usual reactions of strychnine. He also tested the blood that had exuded from the organs and found no strychnine, but he thought this may have been because this process was hurried too much in order to report to the Crown law officers who were anxious to learn the results. We have here about positive proof that the dose had been all absorbed before death resulted.

The amount separated from the tissues equals about  $\frac{1}{2}$  grain; certainly a poisonous amount. No doubt had the brain, lungs and muscles being analysed a much larger amount would have been obtained. From the condition of the stomach and intestines absorption must have been fairly rapid, and yet some little time (30 minutes) elapsed before the onset of the symptoms. The form in which it was taken also was that of the sulphate, while the form isolated was the alkaloid itself. There is no doubt that a very much larger amount must have been taken, and the analysis proves that it was all absorbed

too. To our mind now there is certainly no doubt, since grs.  $\frac{1}{2}$  of strychnine was isolated from a few organs into which it had been absorbed, that the death was due to the fatal action of strychnine.

The effect of strychnine on the uterus might come up. If it had as powerful an effect upon it as upon the other muscles of the body, it is a wonder, considering the condition of the cervix, that the membranes were not ruptured, for, although at this early stage the ovum is usually expelled entire, yet it is difficult to understand how such could have resulted in this case if violent contractions had been set up. It seems to the writer that violent contractions would have easily ruptured the membranes, for they were undergoing physiological degeneration, and were very fragile, except where the placenta was developing. Especially would we expect such a result when the convulsions only lasted at most half an hour. The writer is under the impression that in this case, at least, strychnine had no effect whatever upon the muscular tissues of the uterus, and still the bladder was found entirely empty. One would suppose that the convulsions had emptied it. There are two cases reported where pregnant women took poisonous doses of strychnine and recovered. One of these aborted and the other did not.

*To Summarize.*—1. History and symptoms. A previously healthy adult, not subject to epilepsy, drinks some mixture and is suddenly seized with tetanic convulsions. There are intervals of relaxation during which she talks. Consciousness is certainly present in the intervals. Convulsions rapidly succeed each other, and rapidly proceed to a fatal termination in less than half an hour from the first seizure.

2. Post-mortem examination reveals no cerebral lesion, no cardiac or pulmonary disease, no rupture of internal organs or other cause for sudden death, and gave the general appearance of death due to asphyxia.

3. Chemical analysis proved positively the presence of strychnine in the coats of the stomach, and also absorbed into the liver and kidneys, grs.  $\frac{1}{2}$  strychnine being isolated.

From the above summary, when due weight is given to the three factors, the symptoms and previous history, the post-mortem appearances and the results of the chemical analysis, the fact of the death being solely due to the lethal action of strychnine is considered by us to be demonstrated.

The Crown had no evidence that the poison was administered by the accused, and the jury returned a verdict of acquittal.

# A SIMPLE AND RAPID METHOD OF DETECTING TUBERCLE BACILLI IN FLUIDS.

BY

E. W. HAMMOND.

(From the Molson Pathological Laboratory, McGill University.)

Anyone who has attempted to detect tubercle bacilli in fluids, knows how wearisome and uncertain are the ordinary methods. Numerous suggestions have been made with regard to the shortening of the process of detection; some workers have employed caustic potash to dissolve out mucous and proteid materials, and have obtained fair results by decanting. Others again have employed the centrifugal machines and the hæmatocrit. In neither case do the results obtained appear to be so certain and the process so satisfactory as that here given.

Some authorities have used very complicated methods:

Ilkavitch<sup>1</sup> coagulates 20 ccm. of milk by dilute citric acid and dissolves the coagulum by phosphate of soda (saturated aqueous solution); then sulphuric ether and water are added, the mixture is shaken for 15 minutes, the solution is allowed to stand, and after the fat has separated the remainder of the liquid is taken and dilute acetic acid is added until the first sign of coagulation appears. It is then transferred to the centrifugal machine giving 3600 revolutions per minute and the deposit is conveyed to two slides and examined with oil immersion.

However, as a result of a series of studies in which at the suggestion of Dr. Adami, I tried various methods of separating the bacilli and gaining them from milk, I have eventually discarded one after another of the solvents of the various constituents of the milk, and have devised a method which appears to be at the same time accurate, cleanly and fairly rapid. The method is briefly as follows:

Taking milk to which preferably, in order to arrest the growth of other bacteria (which are apt to hide the tubercle bacilli), 5 per cent. of glacial carbolic acid has been added, I take 30 cc. 15 cc. in two tubes, and centrifugalise in Purdy's electrical centrifuge, or even preferably in the hand centrifuge of Bausch and Lomb or Queen, for the latter appears to give easily more rapid revolutions per minute. After centrifugalising for about 15 minutes, the supernatant fluid is poured off; the precipitated debris, which contains the bacilli, is then

<sup>1</sup> Munchen. Med. Wochenschr., 1892, p. 5.

treated while in the tube with about 3 cc. of a 5 per cent. caustic potash solution, is mixed up thoroughly by giving a good shake, and is left for two or three minutes. The tube is then filled up to the 15 cc. mark with distilled water and centrifugalised for about 20 minutes. If now the supernatant fluid be taken off, the minute quantity of the debris at the base of the tube can be examined at once, or if the material be required in a still purer condition completely free from caustic potash, a series of dilutions and centrifugalizations with distilled water can be carried on.

By this method a film can be made upon a slide or coverslip which is free from fat and proteid granules, and which contains only the bacteria present together with any solid debris which may be in the milk or other fluid. To get rid of this foreign matter, if present in any large amount, one may safely filter the fluid at the beginning of the process through the finest gauze. It is wholly unnecessary, I find, to treat milk with sulphuric ether in order to separate off fats, the caustic potash being useful to remove both fats and proteids from the deposit after the first centrifugalisation in a way that is completely satisfactory.

I have employed this method and have been able to detect bacilli in the milk in which they were present in such small numbers that Dr. Martin, inoculating 15 to 35 cc. of the same milk into a series of over 50 guinea pigs and rabbits, has only once obtained a development of tuberculosis, and I will go so far as to say that this fact indicates that the method affords a more sure diagnosis of the presence of bacilli in milk than does inoculation. It may be added that using this same milk I have concentrated down 70 cc. using distilled water alone and have inoculated the deposit into a rabbit which now after 14 days is showing definite emaciation and indications of the progress of tuberculosis.

It is scarcely necessary to add that this same simple method can be most satisfactorily employed for the detection of tubercle bacilli in other animal fluids; it gives excellent results for example, with sputum from suspected cases of tuberculosis, and although as yet I have had no undoubted example of tuberculous urine, I have found that it gives a very clear precipitate of bacteria in urines containing a large amount of mucus and pus.

## A NOTE ON CONCURRENT CARCINOMA AND TUBERCULOSIS.

BY

W. F. HAMILTON, M.D.,

Demonstrator in Clinical Medicine, McGill University; Assistant Physician, Royal Victoria Hospital.

Two causes contribute to render this subject of interest to clinicians.

The first is the theory of the intimate pathological relationship of these two diseases now long since disproven, and the second is the strong authoritative teaching of Rokitansky that these diseases were antagonistic and very rarely, if ever, found progressive in the same subject.

That tubercle and cancer were regarded in some way related is shown from articles written in 1859 and 1868, in which such questions as the following are asked :

1. Is there anything in the fundamental structure of tubercle that shows affiliation with cancer ?
2. Is there any similarity in their manner of development ?
3. Is there any evidence that the tubercular taint can produce cancer ?

The first and second questions are long since answered by microscopic observations upon the structure of these growths or deposits, while the third is so vague that more definition of the term " tubercular taint " is yet needed.

The second cause of interest in the subject, as we have seen, arises from the statement of Rokitansky. In his manual on Pathological Anatomy, he says, " An antagonism prevails between tubercle and carcinoma. Whenever their general correlation is susceptible of proof, cancer has succeeded to tuberculosis "

The following case, which may be summarized briefly, is one among many which narrow somewhat the broad generalization of this authority.

The patient was a stonemason, aged 42 years, who was the subject of ascites, weakness, vomiting, progressive emaciation, and slight cedema of the lower extremities. He had suffered from pleurisy of the right side at the age of 23 years. He was an habitual and a hard drinker, and had contracted both gonorrhœa and syphilis. His family history was negative, concerning tuberculosis and cancer.

He gave up his work in November, 1896. He died in May, 1897.

The clinical diagnosis was cirrhosis of the liver, of the atrophic variety, with tuberculosis of the peritoneum and lungs.

The autopsy showed no cirrhosis of the liver. The peritoneum, the retroperitoneal glands, the right lung at its apex and the right pleura were involved in a tuberculous process. At some parts the tuberculous process was recent and advancing.

The stomach walls and lower part of the œsophagus, to the length of 6 cm., were invaded and infiltrated with carcinoma. It was a diffuse infiltrating carcinoma of the stomach.

The pathological reports of the Royal Victoria Hospital up to date show three other cases of concurrent cancer and tuberculosis. The following brief details may be of interest :

CASE I. (68, 1896)—Male, aged 76. Carcinoma of the tongue ; bilateral lobar pneumonia ; chronic interstitial nephritis ; obsolescent left pulmonary tuberculosis ; rheumatoid arthritis.

CASE II. (83, 1896.)—Male, aged 85. Primary carcinoma of the urinary bladder ; secondary carcinoma of the prostate and urethra ; chronic interstitial nephritis ; indurative right pneumonia with progressive apical tuberculosis ; left apical obsolescent tuberculosis.

CASE III. (47, 1897.)—Female, aged 59. Adenocarcinoma of the œsophagus ; stricture (gastric operation case) ; obsolescent tuberculosis of the right apex, caseous peribronchial glands ; chronic indurative pneumonia.

CASE IV. The case already given in detail above.

Drs. Pepper and Edsall, of Philadelphia, have recently written upon this subject, and the statistics quoted by them from Lubarsch and others, while showing a degree of exclusiveness between the two diatheses, do not show them to be so antagonistic as Rokitansky's teaching would lead one to believe.

## Hospital Reports.

### TOTAL EXTIRPATION OF PENIS FOR EPITHELIOMA, TWO CASES.<sup>1</sup>

BY

J. ALEX. HUTCHISON, M.D.,

Surgeon to the Montreal General Hospital.

CASE I. J. B., aged 62 years, was admitted to the Montreal General Hospital on August 13th, 1897. In the previous April he complained of pain in the penis and called in aid to relieve bleeding. Later I was asked to see him and found a congenital phimosis, which on opening up presented the characteristic epitheliomatous growth. Operation was advised, but delayed until a very severe hæmorrhage took place.

*Family History.*—A brother and cousin died of cancer of the throat, otherwise negative.

Operation on August 5th, 1897. I did a Pearce Gould's operation bringing the urethra out in the perineal space, and retaining some of the fibres of muscle over the flesh. As the inguinal glands were enlarged, I removed them on both sides.

Dr. Wyatt Johnston's pathological report says they are diseased.

Patient made a good recovery, and was discharged September 9th. To-day he is in good health, has gained about fourteen pounds, has complete control of the bladder. No sign of recurrence.

Notes from case report of Dr. F. R. Wainwright, House Surgeon.

CASE II. W. B., aged 37, was admitted to Montreal General Hospital, March 24th, 1898.

He had always been a strong healthy man. Eleven years ago he had chancroids and gonorrhœa, and he has used tobacco and alcohol to excess.

In May, 1897, he was treated in the Out-door Department. Diagnosis chancroids, inguinal adenitis and phagedenic ulceration. On May, 22nd, under ether, I curetted the diseased tissue, thoroughly cauterizing the stump with acid nitrate of mercury. He was shortly after discharged to be dressed in the Out-door Department, and was again admitted, as stated above, with well developed epithelioma.

Operation March 28th, 1898. I did a Pearce Gould amputation in addition to double castration and removal of enlarged inguinal glands on both sides. The removal of the glands occupied a long time,

<sup>1</sup> Read before the Montreal Medico-Chirurgical Society, June 6, 1896.

requiring extensive dissection on the right side well down the thigh. The castration was done as the result of the experience of my first case, the scrotum being in the way, interfering, with micturition. The operation occupied a long time. Some saving was made by simultaneous excision of glands, Dr. Elder kindly taking one side. Some superficial infection took place, but on the whole the patient made a good recovery, and was discharged April 31st. To-day he is working regularly and in good health. He has complete control of the bladder.

Dr. Johnston reports that the glands removed were not infected with the disease.

Notes from case report of Dr. C. C. Gurd, House Surgeon.

## Case Reports.

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### CASE OF OVARIAN DERMOID WITH A TWISTED PEDICLE.<sup>1</sup>

BY

F. A. L. LOCKHART, M.D.

I am indebted to Dr. F. G. Finley for the patient from whom this specimen was removed and whose history is as follows :

Miss S., aged 22 years, when first seen complained of intense pain in the lower abdominal zone.

She first menstruated at the age of twelve, and has always been quite regular every four weeks, the flow being profuse but painless. From the onset of puberty, however, she has had attacks of pain at intervals in the left side of the pelvis, but these attacks have had no relation to her menstrual periods. She was last unwell on April 14th nothing abnormal being noticed. Dr. Finley saw the patient during one of the above mentioned attacks and there was no sign of any abdominal swelling at that time. She had a severe fall on the back when she was a child of nine, but had otherwise been quite healthy except for two cysts which appeared ; one in the lobe of one ear, this suppurating and thus becoming cured, and a second one in front of the throat to the left of the thyroid cartilage. This latter cyst appeared in infancy and used to become inflamed if she caught cold, but has gradually disappeared; leaving quite a noticeable umbilicated cicatrix. It would be interesting to know whether or not these were dermoids.

On Wednesday (May 11th) the patient had pain in her abdomen and back but was able to go about her usual occupation. On the 12th, the pain had increased to such an extent that she was compelled to remain in bed, and it had extended from the left side, where it had started, across the hypogastrium to the opposite side. That evening, she took what her friends called "a turn." She first felt intense pain in the hypogastrium while sitting at work, this being followed by the limbs and whole body becoming rigid. On Friday, the lower abdomen was noticed to be enlarging and becoming hard.

I first saw her on Saturday, when she was having great pain in the lower abdomen, but was partly under the influence of morphia. Her temperature was 100.8° F., pulse 108 and weak, and her respirations were 28 per minute.

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<sup>1</sup> Read before the Montreal Medico-Chirurgical Society, June 6, 1896.

On examining the abdomen, a large, smooth, rounded swelling was seen to be occupying the hypogastric and lower half of the umbilical regions and to be encroaching slightly upon each iliac region. The tumour was somewhat tender on pressure and felt very similar to the enlarged fundus uteri. The abdomen was hard and board-like all around the mass. A vaginal examination revealed a firm cervix with small os, and a small firm mass, which was made out to be the retroverted fundus, lying posteriorly. In front of the latter and separated from it by a well-marked sulcus was the above mentioned mass which seemed to be closely connected with the front of the uterus and which was but very slightly moveable. Examination under ether threw no further light upon the case. On passing a male silver catheter, so as to exclude the possibility of the swelling being a distended bladder, a little non-albuminous urine was drawn off. As the patient was not in a dangerous condition, it was decided to keep her closely under observation.

I again saw the patient with Drs. Shepherd and Finley at 11 p.m., on Sunday, when she was distinctly worse. For several hours the patient had been vomiting the black fluid so often seen in toxæmic conditions. The temperature had dropped nearly two degrees, viz., to 100° F., since morning, while the pulse rate had increased to 126 beats per minute, these signs pointing to internal hæmorrhage. The mass had increased in size until it reached about half an inch above the umbilicus and to the right side, so that it was decided to operate at once and the patient was conveyed to my private hospital.

After careful preparation of the abdomen, the usual incision for ovariectomy was made, a dark congested mass being exposed to view. This was made out to be a tumour connected with the left appendages and with the pedicle tightly twisted three times, so that it only measured 10 cm. in circumference. As the tumour was evidently cystic and could not be brought out of the abdomen intact without greatly enlarging the incision, it was incised, and about two litres of a creamy fluid escaped. The sac was then quite easily drawn out through the abdominal incision and the pedicle was ligated and divided. After the abdomen had been well flushed out with a saline solution, the wound was closed with three layers of sutures as usual, and the patient was given a saline enema and  $\frac{1}{30}$  gr. of strychnine hypodermically. Post-operative pulse was 112, temperature 99 $\frac{1}{2}$ ° F., and respiration was 24.

Since the operation, her highest pulse-rate was 120 and that was on the night after the operation, when the temperature and respiration also rose to 100 $\frac{1}{2}$ ° F., and 32 respectively. Just after the opera-

tion, she complained of cramp-like pains in her arms and legs at times.

At 12.30 on the day after operation, she took a weak turn which lasted for 12 minutes. This began by a cramp-like pain in the abdomen, the left side of the face twitched and the fingers kept working, she became unconscious and the eyes were fixed, the pupils being very dilated. The pulse was rather weak and increased to 120. She was given two drachms of whisky hypodermically and heat was applied to the cardiac region. After coming to, she complained of a burning sensation in the abdomen. The urine was carefully examined and found to be perfectly normal. She had four similar attacks during the next 48 hours. Although very alarming at first, there is but little doubt that these attacks were hysterical, as the patient is somewhat neurotic, and when the second attack was just beginning, the nurse sent for me and it was noticed that she was comparatively quiet until she saw that both the nurse and I were watching her attentively. This was the only attack which I saw from beginning to end, and the pulse did not weaken to any appreciable extent, although it became somewhat rapid.

*Description of Tumour.*—The mass was originally the size of an adult head. It has been preserved in Torre's fluid and you can see how very dark and congested the surface is. The left tube, which was removed with the tumour is considerably thickened and congested, as is also the corresponding portion of the broad ligament, and you can see the twist of the pedicle where it was divided. On opening the cyst, it is seen to be multilocular, some of the loculi containing light coloured hair (the patient's hair is red) together with the cheesy material seen in dermoids, and others contained extravasated blood. In the largest loculus were two small spicules of bone at the base of a pyriform mass composed of blood which had extravasated into the cyst wall.

It was three weeks last night since the patient was operated on and she has made a very good recovery. She sat up in bed to-day, and will probably go home next Saturday, four weeks all but one day from the date of the operation.

In conclusion, I must thank Drs. Finley and Shepherd for kindly assisting me with the case.

## OBITER SCRIPTA IV.

Casual notes from the Medical Clinic of the Royal Victoria Hospital.)

BY

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AND

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### SOME ATYPICAL FORMS OF PNEUMONIA.

Year after year, diseases which are epidemic present variations not only in the individual cases but likewise in the disease as a class, and it is by no means easy to detect the reasons for these general departures from the usual types. Five or six years ago, for example, it was a common experience to find in the epidemics of typhoid fever, that diarrhoea was one of the most constant of the earlier symptoms, while on the other hand, more recently constipation has been present in probably 90 per cent. of the cases. In many of the epidemics too, in present years, the vast majority of the cases have been of the mildest type, while previously even with very much similar treatment, the number of fatalities was certainly greater.

So far as the incidence of pneumonia is concerned, the epidemics of influenza have had an undoubted influence on the statistics of the disease, as has already been noted by several authors. Rankin of Glasgow, for example, described some three years ago a series of cases following influenza where the features were distinctly unusual, there being a very insidious onset without rigor, pain or cough, and where nausea and gastro-intestinal symptoms were the prominent conditions. In these cases too, the temperature was markedly irregular and the pulse slow. Rendu, of Paris, and Gmeiner, have noted somewhat similar facts though in less detail, referring more especially to the gradual onset, the irregular temperature, and the termination by lysis rather than by crisis.

During the past season, it has been our experience at the Royal Victoria Hospital in meeting with an unusual number of cases of pneumonia, to find comparatively few typical so-called text-book types. Only two or three at the most, out of fifteen or twenty cases, have presented a frank pneumonia where the temperature has run

from five to ten days a high continued course followed by a crisis. In many of the cases indeed, the onset has been most insidious, the initial symptoms continuing over several days, and being those rather of a mild form of influenza with slight malaise and perhaps chilliness, headache and gastro-intestinal symptoms, all of which are superseded after some days by the initial pleural pains of pneumonia. In several of the cases too, the gastric symptoms were so marked as to completely mask in the earlier stages, the true nature of the disease.

One case is peculiarly interesting as showing precisely the reverse of this mode of onset, the patient presenting the initial rigor within 12 hours of the time of exposure, his condition previously being that of perfect health. True rigors at the onset of the disease have been comparatively few, *i. e.*, in less than one-third of all the cases. So far as the children are concerned of which there have been 7 ill with pneumonia, the onset was likewise gradual and was in no instance demonstrated by convulsions which under ordinary conditions is apparently fairly common.

So insidious has the onset been in certain cases that it has only been through the ordinary routine examination of the lungs that the signs of consolidation were manifested, as in the case of one child who entered the hospital because of some pain in the neck, while in another instance, a child who was originally brought to the Outdoor Department on account of general malaise, was found to have the apex of one lung consolidated without there being any other subjective or objective signs of the affection. This same child who had for some five weeks a markedly high temperature accompanying the pneumonic process, was never at any time in any obvious distress, and insisted throughout the course of his malady on sitting up in bed.

Histories such as the following have been quite common in the present epidemic. The patient entered the hospital complaining that early in the malady for six days he had had coryza, neuralgic pains in the legs and sore throat followed by nausea and occasional vomiting. At no time did he have any chill. One week later, pain in the side developed and the patient, though endeavouring to keep on with his employment, was obliged to take to his bed, and a few days later came to the hospital, one lung being found in a state of partial consolidation. During the next week that he was under observation there, his temperature assumed a distinct intermittent type as the chart will show, (Chart No. I) and although a complicating pleurisy with effusion was suspected on account of this irregularity in the fever we were never at any time able to obtain proof of its presence.

This question of temperature has been throughout the series of

cases one of the most interesting features. In two patients where the ordinary basal consolidation was present without complications, the temperature assumed a markedly intermittent type for at least one week. Pseudo-crises have been the rule rather than the exception, there being often several in the same patient. Remittent temperatures and termination of the fever by lysis has likewise been among the commoner manifestations as will be seen from the accompanying chart No. II.

One of the patients in whom this was manifest was a young married woman in whose family during the same week there had already been two other cases of the same disease. Five days after the initial rigor, she took the cars for some distance towards the hospital and then walked a quarter of a mile in order to gain admission. She was practically moribund on being placed in bed and the heart itself was showing signs of failure, the second pulmonary sound being distinctly weakened. However, the condition fortunately subsided, and though no complications could be detected, the temperature ended in much the same manner as do ordinary cases of enteric fever.

Among other interesting features which have been noticed in the present epidemic has been the insidious manner in which pleurisy with effusion may complicate the disease, and in several cases where the temperature was either on the descent, or had already attained normal, fluid either serous or sero-purulent had collected without manifesting any appreciable alterations in the temperature. In one case indeed, the fluid collected within 24 hours, filling half the chest without there being any evidence to indicate it on the chart. Aspiration of this patient's pleural cavity, showed the presence of sero-pus which disappeared without further operation.

That pus may be present in the pleural cavity without appreciable chart alterations is of course a well recognised fact, but to have it completely fill the pleural cavity as in another instance, where the pulse, temperature and respirations were normal, is certainly among the very atypical forms of disease. In yet another of our cases delirium tremens was present and the pneumonia occupied but a very secondary part of the symptomatology. It is perhaps less uncommon to find in patients with delirium tremens a great elevation of temperature, and the condition may go on insidiously though much of the lung be involved.

Such was the condition in our case referred to where, though there was but slight rise of temperature, the rusty sputum and evidences of consolidation in a portion of one lung, were quite sufficient to make the diagnosis of pneumonia undoubted.

Examination of the blood showed that in most of the cases, leucocytosis was present, and it has been our experience to find that in the non-fatal cases, a good prognosis is certainly associated with its presence. To this, however, we have perhaps a slight exception, in a young child whose condition was so severe as to be considered practically beyond hope, and only 8000 leucocytes were present. The disease became bilateral, the pulse reached 175 per minute, and the respirations 72; for a time likewise there was Cheyne-Stokes respiration. A few days ago, however, a crisis appeared and the patient is now convalescing. It should be stated, however, that the day after the crisis the leucocytes reached 16,000 to the cubic millimetre. The most marked leucocytosis present in any case was 44,000 to the c.mm.

Delayed resolution had not been uncommon, the signs of consolidation persisting often for many days after a crisis would have been expected. In two instances occurring some months ago, delayed resolution was of such a nature as to arouse the suspicion of a tuberculous pneumonia although the temperature had attained the normal for some days. Tuberculin was injected without a definite reaction, and a correspondingly good prognosis was given to the friends, a proceeding which was finally found to be quite justifiable, the patients both ultimately making a good recovery.

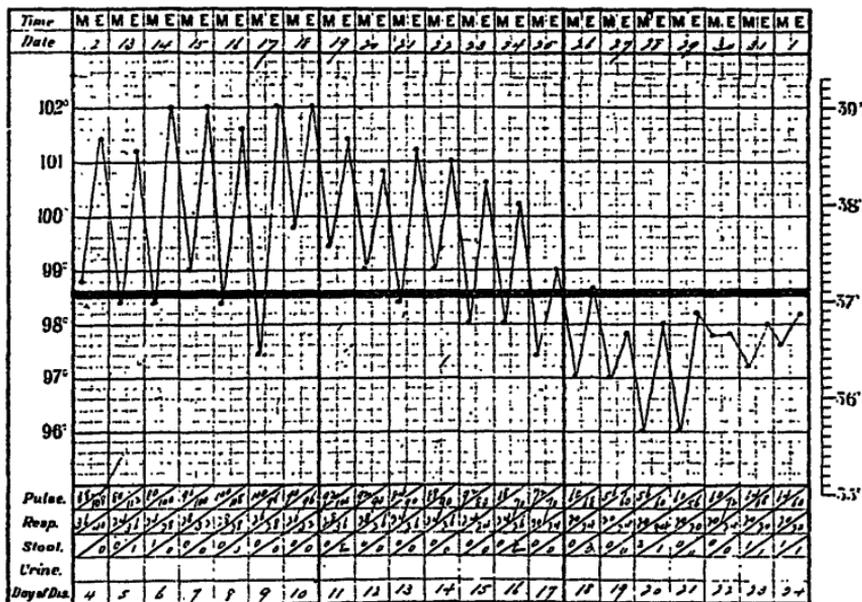


CHART I.

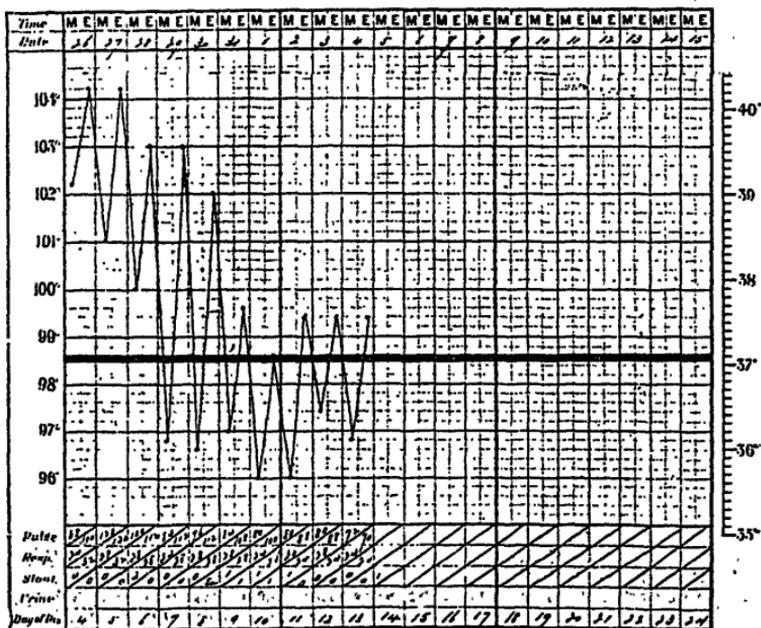


CHART II.

# RETROSPECT OF CURRENT LITERATURE.

## Medicine.

UNDER THE CHARGE OF JAMES STEWART.

### Liver Cirrhosis.

ALEXANDER JAMES, M.D. "Liver cirrhosis and its varieties."—*The Scottish Medical and Surgical Journal*, June, 1898.

Dr. James states that he believes there is a unity between the pathological processes seen in acute yellow atrophy of the liver and primary cancer of the liver, and the middle link is liver cirrhosis.

He then defines the two main forms of cirrhosis of the liver, the large, hypertrophic, biliary cirrhosis and the small atrophic, portal cirrhosis. Thereafter the first point to which he draws the reader's attention is the *transition* forms between the hypertrophic and atrophic cirrhosis.

He declares that these are extremely common, and in presenting cases illustrating this transition, he says that "they are a few collected out of many, and they have been specially selected to illustrate variations in the periods of time required for this transition."

Five such cases are detailed in which the symptoms and physical signs of portal cirrhosis supervened upon the original symptoms and physical signs of biliary cirrhosis. In cases of children transitional forms are the rule. The time of the transition varied considerably.

The next variety discussed is that variety of cirrhotic changes in the liver, secondary to gastric fibrosis, illustrated by two cases. In the first, observed by James, a gastric ulcer caused adhesion to the liver and a growth of fibrous tissue along Glisson's capsule. The second is quoted from Frerich's "Diseases of the Liver," in which the fibrosis spread from a gastric ulcer and involved the portal vein. Then a third variety, illustrated by three reports, embraces those cases suggesting tumour of the liver. They were of chronic type and developed signs of cirrhosis.

### Rheumatic Affections of the Heart.

JOHN F. H. BROADBENT, M.D. "Rheumatic affections of the heart in childhood and early adolescence."—*The Edinburgh Medical Journal*, May, 1898.

In this article, Dr. Broadbent emphasizes the following points :

1. Articular manifestation of rheumatism in childhood are slight. The cardiac structures rarely escape.
2. As danger signals in suspected cases of rheumatism in children, rheumatic nodules, exudative erythematata and chorea are to be watched for.
3. Salicylates are not so effectual in rheumatism of childhood as in adult life.

### General and Local Bloodletting in Children.

ADOLF BAGINSKY. "Ueber allgemeine und örtliche Blutenziehungen in der Kinderheilkunde."—*Berliner Klinische Wochenschrift*, No. 21, 1898.

Dr. Baginsky reviews briefly the history of the practice of bloodletting in diseases of children from 1835 to the present time, quoting Jacobi's opinion and strong recommendation against the operation as recorded in 1870.

Before directing the attention of the members of the Berlin Medical Society to the question proper, he deprecated the practice of bloodletting in children, when the only purpose in view was experimental, e.g., cases in which either during the progress of illness or in convalescence it is desired to withdraw the blood for examination for bacteria or antitoxins.

The main questions of Dr. Baginsky's paper are whether there are cases in which bloodletting in children is urgently indicated, and if so of what class are these cases. The question first presented is answered in the affirmative, and three reports of cases so treated are given—thus in part answering the second question. The three cases occurred in children from 7 to 9 years of age. They were cases of pneumonia, pneumonia with heart disease, and cirrhosis of the lungs with bronchiectasis. All presented the most distressing cardiac symptoms, manifest in cyanosis and suffocative signs. Prompt relief followed the bloodletting. In two cases the blood was taken from the veins; in one the radial artery was cut. From 80 to 120 c.cm. of blood was withdrawn.

The second question, as to the class of cases, is further answered in Dr. Baginsky's paper by his reference to simple eclampsia and uræmic eclampsia. In such cases, however, local bloodletting is the practice and is done chiefly by means of leeches or by cupping.

In closing his remarks upon the subject, he briefly summarizes them in the following words :

"I hold venesection allowable and urgently indicated whenever, by mechanical pressure in the circulation, paralysis of the over-filled heart is threatened. For local bloodletting I take as indications, eclampsia, the simple as well as the uræmic form, likewise any mechanical hindrance to the circulation within the skull. When the circulation in the brain is so great that the customary remedies, as warm baths with cold douches, chloroform, chloral, etc. fail to relieve them, I believe it is indicated and plainly demanded that local bloodletting should be done."

*W. F. Hamilton.*

### **The Presence of the Organism of Cerebro-spinal Fever in Healthy People.**

DR. ARTHUR SCHIFF (Vienna). "Über das Vorkommen des Meningococcus Intracellularis in der Nasenhöhle Nicht-Meningitis-Kranker Individuen."—*Ctblt. f. Innere Medicin*, 4 Juni, 1898.

To the clinician bacteriology is often the cause of what seems verily a reasonable indignation ; while no department has opened up a vaster field for him, it has likewise offered an equally great series of conundrums. A micro-organism is discovered and approved of as a specific germ of a disease, and not long afterwards its presence requires explanation in tissues or situations where no abnormality whatever exists. There is no more prominent example of this in modern times than the conditions under which the bacillus of diphtheria is found, where both clinician and expert are often, and very often, placed in a quandary to decide upon an absolute diagnosis, more especially in the face of all that is learnt and written concerning the pseudo-diphtheria bacilli and analogous forms, streptococcus membranes, etc. And while of course the ordinary cases are easy enough of diagnosis, there are nevertheless instances whose number are legion, where the expert can only conscientiously recommend a practitioner to "be on the safe side and treat the case as one of diphtheria." Such instances are happily becoming fewer of late years, and by means of inoculations and controls we are in a better position to obtain a satisfactory clue to obscure cases.

The gonococcus has time and again offered similar difficulties, more especially in connection with its presence in the female genital tracts, and in spite of all that has been done and written on the subject, we are still scarcely in a position to give what we might call a medico-legal opinion with absolute certainty in every instance. Happily

there is less likelihood of our falling into error with that most important of all bacilli, the micro-organism of tuberculosis, though even here one observer insists that he can obtain from milk a germ whose micro-chemical reaction is in every way identical with that of the tubercle bacillus. Such a statement, however, in the light of our present knowledge, sounds very much like begging the question, and so far as we are aware, that authority is scarcely in a position to prove his contention.

It has fallen to the lot of Dr. Schiff, working in Schroetter's Clinic in Vienna, to make some interesting observations in connection with the specific organism of epidemic cerebro-spinal meningitis. Since the discovery of that germ by Weichselbaum in 1887, much interesting work has been done in connection with the disease, and not the least in importance is the application of Quincke's device for puncturing the spinal canal as a means of diagnosis, a method which, both for tuberculous and epidemic meningitis, has proved of great value.

It has been more recently contended, however, that other means of diagnosis, much more simple, could be brought into effect. Strümpell, Weigert and others, had frequently observed the association of nasal catarrh with the epidemic form of this disease, both as a clinical symptom and in post-mortem findings; and it was left for Weichselbaum to discover his germ in the nasal tract as well as on the meninges, a fact from which he deduced the theory that infection took place primarily from the nasal mucous membranes through the ethmoid sieve, and so to the brain and cord. Certainly in subsequent cases the germ was abundantly present in those regions, and so great a hold did the theory gain, that treatment was partly based upon it, and one of the great prophylactic measures was the thorough disinfection of handkerchiefs employed by the victims of this disease. Dr. Schiff having met with a case where differential diagnosis between the various forms of meningitis was somewhat obscure, he examined the nasal secretion and found the meningococcus abundantly. The fluid removed by puncture from the spinal canal, however, was quite clear and revealed to his surprise the bacillus of tuberculosis, while the autopsy too verified this latter discovery and showed an ordinary typical tuberculous meningitis.

Starting from this discovery he examined the nasal secretion of 27 individuals, people who were suffering from indifferent slight ailments, and found among these seven where the meningococcus was present and pure cultures were obtained in three instances. From this surprising fact, there are two main deductions: firstly, that there is

no clinical value whatever to be attached to the examination of the nasal secretion in suspected cases of meningitis, and secondly, it renders the theory still more probable that infection in epidemic cases does indeed occur through the cribriform plate of the ethmoid bone. Where the condition and soil are favourable, the organism may become virulent and set up the disease, while otherwise, it will remain innocuous very much in the same way as the pneumococcus, being present, may or may not be associated with inflammatory conditions in the lung.

*C. F. Martin.*

# Surgery.

UNDER THE CHARGE OF GEORGE E. ARMSTRONG.

## Tumours of the Liver.

MM. TESSIER ET AUVRAY. "Les tumeurs du foie au point de vue Chirurgical étude sur la resection du foie."—*Revue de Chirurgie*, 10 mai 1898.

The surgical history of hepatic tumours, and consequently of resection of the liver, is of recent date. Lins was the first, in 1886, to remove a solid tumour from the liver. Since then not only tumours, but floating lobes and hydatid cysts have been resected. The subject has been studied experimentally on the lower animals by Glück, Tizzoni, Griffini, Podvisatzky, Pondfick, Meister and others. In 1892 Keen published a very interesting account of this work in the *Boston Medical and Surgical Journal*, and in 1896 the Russian authors Kousnetzoff and Pensky published their personal experience in the *Revue de Chirurgie*. Several others have also written on the subject.

The following varieties of tumours are found in the liver: Syphilitic, cancerous, tuberculous, angiomatous, lymphatic and biliary cysts. Syphilitic gummata are found in hereditary, and in the late tertiary stage of acquired syphilis. They vary in size from a pea to a large nut. They are generally rounded, but sometimes irregular in form. They can be isolated, are firm, of a greyish or pale yellow colour, and surrounded by a fibrous tissue layer, from which they cannot be enucleated. They generally co-exist with a condition of hepatic cirrhosis, and adhesions of the liver to the diaphragm or to the neighbouring viscera.

In cancer, only cases of primary cancer of the liver have any surgical interest, and of these only those, unfortunately rare, of one or two nodules. Cancer, secondary to disease elsewhere, could hardly be considered from an operative point of view.

Adenomata are not always easy to distinguish from cancer at the operating table. They sometimes become encysted, and they are not umbilicated. Another characteristic is that they tend to attain considerable size and to become pedunculated.

Like cancer, sarcoma of the liver is of interest to the surgeon only when primary. It is nodular and grows to a very large size.

Langenbuch removed one weighing 370 grammes, and the weight of Issail's case was 1225 grammes. It was attached to the right lobe by a base 15 centimetres in diameter. In the patient of Sklifassowsky the sarcoma was the size of a "man's head" and presented large vessels at its base.

Myxo-fibromata have been observed in the liver.

Tuberculosis of the liver has, as a rule, but little of interest to the surgeon. A large tuberculous nodule might exceptionally be dealt with, or a tubercular cavity be might opened and drained.

Angiomata occur as a congenital condition, which sometimes occupies the whole of a table and may develop to an enormous size; and acquired angiomata observed chiefly in old men.

Lymphadenoma have been observed. Biliary cysts, non-parasitic, have been removed. König reported a case of an enormous cyst, holding three litres of a brown liquid, containing cholesterine.

*Symptoms and Diagnosis*—The diagnosis of these tumours, so very important, is extremely difficult, as indicated by the number of errors made. Yet a careful observation of physical signs and disturbance of function will often enable one to form a pretty correct idea of the condition present. An opinion must be formed from the co-existence of many signs. In a general way it may be said that the symptoms increase as the tumour develops. If malignant, the general condition of the patient becomes altered rapidly enough, as is the case in malignant disease elsewhere. The appetite fails, the digestion becomes impaired, vomiting and constipation ensue. More or less pain is felt, particularly in the right hypochondrium, the respiratory movements are embarrassed, active exercise soon becomes difficult or impossible, and icterus occurs when the bile-ducts are pressed upon.

The increase in the size of the abdomen occurs chiefly in the upper part and to the right.

By inspection the tumour can often be seen moving up and down with the rise and fall of the diaphragm, and by palpation the consistence can frequently be determined, and sometimes the connection between the tumour and the liver can be grasped. Occasionally a small degree of lateral motion can be obtained.

When all these signs exist, the diagnosis of a tumour of the liver may be considered fairly certain, but the absence of any one, may lead to error. Occasionally a tympanitic note can be obtained between the upper border of the tumour and the liver.

Tumours of the liver have been mistaken for uterine fibroid, for tumour of the mesentery and of the pancreas, for ovarian cysts, and in one instance for an aneurysm of the abdominal aorta.

A point worth remembering is that a cancerous mass in the liver may break down and cause fever and hecti. Routier reported a case in which he opened what he took to be a suppurating hydatid cyst, and only at the autopsy did he find out that he had been dealing with a cancerous mass in the liver.

*Treatment.*—1. What are the indications for surgical interference in tumours of the liver ?

2. By what different methods can we proceed, and which of these possess the greatest merit ?

The cases suitable for surgical interference are rare. The methods of operating adopted up to the present time must be regarded as tentative.

A tumour of the liver to be removable, must be unique ; it must be accessible, preferably in the left lobe. An Italian surgeon, Tricomi, has removed the whole of the left lobe of the liver. To obtain access he resected the xyphoid cartilages, divided the rectus muscle and the triangular ligament.

Tumours situated deeply in the substance of the liver are seldom removable. A pedunculated tumour, particularly if growing from the lower surface of the liver would be more easily removed. Absence of adhesions would be another favourable condition.

In some instances these operations are curative, and in others only palliative, as in the removal of a tumour pressing on nerve trunks, or on the bile-ducts, or on the intestine.

The incision must vary to suit the requirements of each case, at one time central, at another lateral, and again along the costal border, or an oblique and a vertical incision also. Access must be good, and as much of the liver as possible made to approach the opening in the abdominal wall.

In the ablation of the tumour very simple measures have thus far been employed. Jacobs used the thermo-cautery ; Bruns divided the pedicle with a bistoury, and then touched it with a thermo-cautery ; Mikulicz and Schmidt curetted a gumma and packed the cavity with iodoform gauze ; Eiselberg removed an angioma with a cautery and ligature. It is found that the vessels in the substance of the liver may be caught with hæmostatic forceps and ligatured without difficulty. Kousnetzoff and Pensky found that the vessels in the liver required to rupture them a weight of from 750 to 850 gr., according to their calibre. Some operators have attached the pedicle to the abdominal incision.

(To be continued.)

**Varicocele.**

SENN. "On the frequency of varicocele and the limitation of operative treatment for this affection.—*The Philadelphia Medical Journal*, June 18, 1898.

Dr. Senn has recently had an exceptional opportunity of determining the frequency of varicocele. As a member of the Examining Board, he has, at Camp Tannar, Springfield, Ill., inspected 9,815 recruits for the volunteer service, and in doing so took special pains to investigate varicocele as a cause of disability. The disease was found more frequent in the robust strong, than in men of slight build. In most instances the men were otherwise in excellent condition. Atrophy of the testicle was seldom noted. The men with large varicocele were questioned as to whether the condition caused pain or discomfort, and, with the exception of 3 or 4 cases, the replies were negative. In more than half of the cases that presented, the men were ignorant of the existence of the affection. The whole number of recruits examined was 9,815, and 2,078 were affected with varicocele or 21.17 per cent. The condition was bilateral in 17 cases. In 15 cases the right side only was affected, and in all of these the varicosity was slight or moderate. Dr. Senn concludes that operation is seldom called for, and that varicocele is very seldom a cause of disability for military service.

One point it would, perhaps, be well to bear in mind, and that is, that these men were volunteer recruits and presumably anxious to be accepted.

*Geo. E. Armstrong.*

## Gynaecology.

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### Uterine Fibroids and Conservative Surgery.

KRUSEX, W., M.D, "Conservative surgical treatment of uterine fibroids.—*Amer. Gyn. and Obstet. Journal*, April, 1898.

Following the example of A. Martin, of Berlin, the writer has given myomectomy a trial, and reports a series of six successful cases. The number of the tumours varied from one to thirteen in any individual case, but the sizes are not mentioned, except in the case of the patient from whom thirteen were removed, where he says that "thirteen growths, varying in size from a pea to a walnut, were removed." The seat of growth varied, some being submucous and others interstitial and others again being subserous. A few were pedunculated.

In preparing the patient for operation, the vagina should be very thoroughly sterilized, and the first step in the operation itself is to carefully curette the uterine cavity and wash it out with an antiseptic solution, as it may be required to be opened into during the removal of the growths. If, on opening the abdomen, the appendages are found to be diseased or the tumour is fibro-cystic or cedematous, supra-vaginal hysterectomy is the operation to be selected. In myomectomy, an incision should be made through the covering down to the tumour, which may then be seized with forceps and enucleated by either the finger or Allis' dissector. Hæmorrhage may be controlled temporarily by passing an elastic ligature around the neck of the uterus or by compressing the vessels digitally. After the tumours have been removed, it is advisable to ligate each bleeding point separately, and then bring the opposing surfaces of muscle together by rows of buried catgut sutures so as to leave no space in which blood might collect. Lastly, unite the edges of the peritoneum by interrupted sutures of silk or catgut. Success depends to a great extent upon asepsis and perfect hæmostasis. If draining is necessary, the gauze bag of Michulicz drain is advocated.

Pozzi has reported a series of myomectomies performed during pregnancy, in which gestation was uninterrupted, although some of the growths were interstitial.

### Removal of the Uterine Fibroids without Hysterectomy.

MONTGOMERY, E. E., M.D. "Removal of uterine fibroids without hysterectomy."—*American Gyn. and Obstet. Journal*, April, 1898.

Among the pleas for this method of surgically dealing with fibroids of the uterus are the hesitancy of women to undergo an operation which will result in the loss of the uterus, and secondly the unpleasant effects of a premature menopause as is induced by the removal of that organ. Myomectomy, with proper aseptic precautions is accompanied with less shock and discomfort to the patient than the sometimes easier operation of total hysterectomy. "All pedunculated or sessile submucous and interstitial fibroids not too large to pass through the pelvis should be attacked through the vagina," otherwise the abdominal route is the best.

Where one suspects the growth to be submucous and the cervix is not sufficiently patulous to admit the finger, the canal may be enlarged in three ways, viz.: packing with gauze, by tents, or by bi-lateral incision and of these methods, the use of the tent will be found to be the most satisfactory. The hollow laminaria tent will usually affect sufficient dilatation in twelve hours to admit of digital exploration, and, if one is not then prepared to operate, the canal may be kept open by packing it with gauze. As regards packing the uterine canal with gauze after a preliminary curetting, the author warns us against its use as it is apt to confuse the operator by giving him the impression that there is another fibroid nodule when he feels really the gauze through his abdominal opening.

### Removal of One Free Calcified and Two Subserous Pediculated Fibromyomata During Pregnancy.

WALLACE, A. J., M.D., Edin. "Removal of one free calcified, and two subserous, pediculated fibromyomata during pregnancy."—*British Med. Jour.*, April 30th, 1898.

The patient was 38 years old and had been married for two years. A few months after marriage she had a miscarriage which was accompanied by a very severe hæmorrhage. Menstruation had always been normal and there was no history of any pelvic trouble.

In the centre of the abdomen, just above the pubes, was a firm, hard, rounded tumour, which felt like a stone and gave a dull percussion note. It was slightly moveable in every direction except downwards. Vaginal examination revealed the pregnant uterus lying retroverted and below the tumour, which could be easily felt to be

the size of a foetal head. Between the tumour and uterus could be felt a second mass about the size of a pigeon's egg. As the pregnant uterus was locked down in the pelvis so that it could not enlarge, it was decided to interfere.

At operation, the tumour was found to be calcareous and to have simply adhesions for attachments, it being lifted out of the abdomen as soon as these were separated. Two pediculated sub-peritoneal myofibroma were removed from the anterior uterine wall.

The patient made an uneventful recovery from the operation and pregnancy was not interrupted.

The calcareous deposit occurred in the periphery of the tumour and was greatest at the points to which adhesions were attached. This points to the existence of some relation between this condition and that of lithopædion as the latter is associated with the presence of adhesions between the foetus and its sac.

#### **Enucleation of Uterine Fibroids.**

ALEXANDER, WILLIAM, M.D., F.R.C.S. "Enucleation of uterine fibroids."  
—*British Med. Jour.*, May 21st, 1898.

Judging from his own experience, the writer considers "that once a fibroid asserts itself by symptoms or signs, the life of the patient is always more or less spoiled. No medical man would recommend her at first-class rates to an insurance company, and probably she could not obtain an insurance policy from any office, a sure proof that the disease shortens life either directly or indirectly. If married, the patient with fibroid disease of the uterus runs the risks of all of the dangers of abortion and obstructed or complicated labour and she would be much better off without her fibroid, if it could be removed without great risk or the sacrifice of healthy organs. Good results, as regards life, are now attained from total hysterectomy for fibroids, the lessened risk of death, however, does not necessarily justify an operation.

In 1894, he removed a very large uterine fibroid, leaving the greater part of the uterus itself. During the operation the hæmorrhage was controlled by passing a double ligature of stout silk through the uterus and tying it around each half. The cavity left by the removal of the tumour was packed with lint soaked in perchloride of iron, and this was held in place by tying over it, the ends of the ligatures which had transfixed the uterus. The peritoneum was stitched to the uterus just below the ligatures and the wound closed. The patient made a good recovery, as did also a later one upon whom he operated. The uterine cavity was not opened in either case.

In Sept. 1896, three fibroids, averaging in weight  $\frac{1}{2}$  lb. each, were removed in a similar manner from one uterus. The large cavity left was packed with gauze, the upper edge stitched to the anterior abdominal wall and the wound closed over the gauze except at the lower end where an opening, through which one end of the gauze protruded was left. A small sinus, due to the use of silk formed, but otherwise the patient recovered perfectly with a normal sized uterus. Several other very successful cases are reported by the same author.

#### **Relation of Ventro-Fixation to Subsequent Pregnancies.**

BOYD, G. M., M.D. "Pregnancy and labour complicated by anterior fixation of the uterus."—*Amer. Gyn. & Obstet. Jour.*, Sept. 1898.

While ventro-fixation of the uterus is usually followed by complete restoration to health, it is frequently the cause of more or less serious complication or obstruction to labour, although these results do not necessarily follow the operation when it is properly performed. Two cases of abnormal labour are reported by the writer.

In the first case, the patient had had her uterus tacked up to the anterior abdominal wall two years before she was confined. Since the operation, she had had two miscarriages and was now at full term with her fourth pregnancy (3rd since operation).

When admitted she had been 18 hours in labour and forceps had twice been applied ineffectually. The fœtus was dead and the anterior wall of the cervix and uterus were so greatly thickened as to cause considerable obstruction to the delivery of the fœtus. Excessive moulding of the dead fœtus had taken place, and it was delivered with axis traction forceps. The cervix was lacerated into the bladder, this resulting in a vesico-cervical fistula which was successfully repaired one month later.

Case two had had three full time children. Three years previous to this last labour, ventro-fixation had been performed and one ovary had been removed. The latter part of her pregnancy was pathological owing to considerable pelvic pain. Internal examination caused pain and the cervix was difficult to reach being drawn upwards and backwards. The anterior wall of the uterus was greatly thickened. On this latter account, labour was induced at the 8th month by introducing two rubber bougies into the uterus. After waiting for fourteen hours, the os was found only to be the size of a silver dollar, so it was dilated artificially under anæsthesia and the child delivered by forceps, it having died during delivery.

The writer advocated careful watching of a pregnant patient upon whom ventro-fixation had been previously performed, in order that a

threatened abortion might be averted by promptly opening the abdomen and setting free the uterus. Later on premature labour may be induced when the presenting part is displaced and there is marked thickening of the anterior wall of the uterus.

#### Accidental Hæmorrhage.

TWEEDIE, E. H., F.R.C.P.I. "The action of the vaginal plug in accidental hæmorrhage."—*Brit. Med. Jour.*, June 4th, 1898.

In deciding upon the form of treatment to be adopted in this condition, it is necessary to decide whether we have to deal with an atonic or an active uterus and this is difficult to decide if the patient is not in labour. If labour is in active progress, puncture of the membranes, and turning and bringing down a foot will stop the hæmorrhage as a rule, or forceps or accouchement force may be indicated. If the cervix be not dilated by the labour, the opening of it by force is apt to result in a more or less severe laceration. Instead of this, the writer advocated the use of the vaginal plug, as was the routine treatment of accidental hæmorrhage in the Rotunda Hospital during the last few years of Dr. Smyly's Mastership, on the theory that the vaginal tampon prevented external bleeding, excited labour pains and induced rapid dilatation of the os, as well as increasing the intra-uterine tension, should internal bleeding take place. In addition to the above, Dr. Tweedie states that the cotton acts as a species of tourniquet by pressing upon the uterine arteries through the vaginal fornices, by packing this part of the passage while firm traction upon the cervix is exerted. The plug is composed of several balls of absorbent cotton soaked in some antiseptic solution.

F. A. L. Lockhart.

# Pathology.

UNDER THE CHARGE OF J. G. ADAMI.

## Acellular Fermentation.

EDUARD BUCHNER. Lecture upon Acellular Fermentation, delivered before the Berliner Chemische Gesellschaft, March 14th, 1898.—*Berichte der Deutsche Chemischen Gesellschaft*, 36, 6, 568.

The subject of fermentation and its nature is one which, throughout this century, has caused great interest, and one which has been approached from several aspects, which further, is of special interest to the medical man in that from of old a similarity has been recognized between fermentative processes and conditions of disease.

When Schwann in the thirties discovered the yeast cell, the first great step forward was accomplished, and when next in the sixties Pasteur showed that other fermentations, as for instance the lactic acid fermentation, were also due to micro-organisms, and that in fact, the presence of living microbes was absolutely essential in all fermentative processes the second great advance was accomplished.

Into the excitement that was caused by this discovery of Pasteur, and the theories which it exploded, it is not necessary for me to enter. I need but to refer to the now well-known fact that it was these studies of Pasteur which led Lister to recognise the nature of the process occurring in open wounds, and so led him to determine that putrefaction is but fermentation occurring in connection with animal tissues, and so caused him to study how to destroy the micro-organisms appearing in connection with wounds, leading in this way to the establishment of antiseptic and again of aseptic surgery.

Pasteur regarded the reaction which results in the production of alcohol from sugars during the process of fermentation as one which is purely physiological brought about by the life of the yeast cell itself. On the other hand, Moritz Traube, Berthelot, Liebig and Hoppe-Seyler, were of the opinion that the yeast produces a substance—a ferment or enzyme—which breaks up cane sugar into two bodies, fructose or fruit sugar, and glucose or grape sugar, and this hypothetical substance was provisionally called invertin. They pointed out that there would seem to be another substance which caused the further breaking up of these sugars into carbon dioxide and alcohol.

The main observation upon which this opinion is based, is that if

yeast be taken and macerated, and the yeast cells in this way destroyed, the fluid or extract separated off from the disintegrated cells when brought into contact with cane sugar, will perform the first stage in the decomposition of the cane sugar; but until recently no one has been able to bring about the second stage and the production of alcohol without living yeast cells being present. Thus until now, the theory with regard to the existence of a second enzyme leading to the production of alcohol from glucose, has lacked experimental proof. It has been plausible, but in the absence of proof, what has been termed the vitalistic theory, has been more popular. It has been generally held that while the first stage in the fermentation of sugars has been brought about by the action of an enzyme secreted by the cells; the latter stage has been accomplished by the vitality of the protoplasm of the yeast cells, the enzyme preparing the cane sugar, which now, in the modified form of glucose, is taken up as a food material by these cells, and in the digestion thereof (as it may be termed) it is broken down, alcohol and  $\text{CO}_2$  being given off into the surrounding medium, very much in the same way that urea, urates and other bodies are passed off from the human organism as distinct end products of the metabolism occurring in the animal tissues.

For some years past Prof. Buchner has been studying this subject of the products of bacterial and microbic activity, and, as a resident of Munich, his attention has almost naturally been directed to the yeast plant. At last he has been able to settle this matter of the conversion of sugars into alcohol and to prove that it is essentially of a chemical nature.

Fresh Munich beer yeast is taken and submitted to a pressure of 50 atmospheres, by which the liquid in which the cells are floating is removed. The dry cake is then mixed with an equal part of dry quartz sand and a fifth part of a diatomaceous earth (kieselguhr) and placed in a specially constructed comminutor, consisting of a weighted porcelain pestle, oscillating in a mortar, which is driven by means of a motor. The trituration is continued till the dry cake has once more become moist. The moisture here comes from the yeast cells by the rupture of their envelopes and the consequent setting free of the protoplasmic contents. A microscopical examination showed that at least 40 per cent. of the envelopes were disintegrated. The moist mass is then placed in a hydraulic press and a pressure of 500 atmospheres (500 pounds to the square inch) is applied. After two hours the cake is removed, moistened with distilled water and again submitted to the same process. So violent has been the treatment to which the cells have been subject, that only 4 per cent. of the envelopes

are now intact. From 1 kilo of yeast, after the addition of 140 ccm. of water, there are obtained 560 ccm. of fluid, so that one must assume that 350 grams of fluid have been expressed from the cells themselves.

The fresh extract is a nearly clear yellow, slightly opalescent fluid, having the characteristic yeasty smell. It contains some carbon dioxide gas which is given off at 40°C., and a considerable quantity of coagulable albumen.

Enzymes are present as is shown by Schönbein's test.

One part of the extract is diluted with ten parts of water and six parts of a 10 per cent. solution of hydrogen peroxide added.

To another portion eight parts of water, two parts of a 2 per cent. solution of hydrocyanic acid and six parts of the hydrogen peroxide are added. In the first test one obtains immediately a violent evolution of oxygen due to the action of the enzyme on the hydrogen peroxide. In the other case no reaction takes place.

If the hydrocyanic acid be removed from solution by a current of air, the enzyme reacts with the peroxides.

Here we have to assume that a loose combination takes place between the hydrocyanic acid and the enzyme. This compound is incapable of setting free oxygen, and is so unstable that a current of air decomposes it, giving the ferment in its former reactive state.

Of the different enzymes which are present in the extract, invertin has always been detected. There are also maltose and a ferment which hydrolyzes glycogen. Oxydase, which has been found by G Bertrand as a constituent of many plants, is present in some quantity. Proteolytic enzymes have been detected by M. Hahn through the liquefying action which they excite on gelatine.

The most interesting property of this extract is its capacity for converting sugars into alcohol and carbon dioxide. This not only takes place with cane sugar, but also with malt, grape and fruit sugar. Lactose and mannite are not fermentable. Experiments made with this extract show that it possesses equal fermentative power with yeast. The action is, however, much quicker.

As a result of these experiments, Buchner draws the following conclusions :

That living yeast cells are not necessary for fermentation.

The process is not a physiological act, but connected with the presence of an enzyme, Zymose, which is, however, only formed by living cells.

The isolation of this product has so far been unsuccessful on account of its instability and the presence of other enzyme.

Against this view three objections have been raised :

1st. That the micro-organisms present in the extract are really the cause of the fermentation. This is untenable, as the filtered solution is found to be almost free from yeast cells or bacteria. Further the addition of antiseptic agents, such as arsenious acid, chloroform, benzol and large quantities of glycerin and sugar do not inhibit the action of the extract.

2nd. A second objection is that the carbon dioxide evolved is not the result of the alcoholic fermentation, but is conditioned by some other process. Those who have raised this objection have not characterised the other reaction of which they speak. The quantitative experiments showed that alcohol and carbon dioxide are formed in amounts which closely correspond with the theoretical quantities acquired by the equation for alcoholic fermentation.

3rd. It has been suggested that living particles of plasma may yet be present in the extract. If, however, the fluid be kept at 100°C. for six hours, it is still capable of fermentative action. The extract precipitated by absolute alcohol also causes an alcoholic change with cane sugar.

Substances, such as arsenious acid, which act poisonously on protoplasm do not prevent the action of the extract.

If one examine the foregoing experimental evidence, it must be concluded that the presence of zymose has been demonstrated, and that one is again able to point to the comparatively simple action of a distinct substance as the cause of a process which has hitherto been regarded as an extremely complicated physiological one.

*C. G. L. Wolf.*

# Canadian Medical Literature.

UNDER THE CHARGE OF KENNETH CAMERON.

[The editors will be glad to receive any reprints, monographs, etc., by Canadian writers, on medical or allied subjects (including Canadian work published in other countries) for notice in this department of the JOURNAL. Such reprints should preferably be addressed to Dr. Kenneth Cameron, 903 Dorchester street, Montreal.]

## The Dominion Medical Monthly and Ontario Medical Journal.

*February, 1898.*

1. Tuberculosis Testis. J. W. S. McCULLOUGH.
2. Acute Traumatic Gangrene. W. E. STRUTHERS.
3. Case of Anomalous Dentition. H. H. OLDRIGHT.

*March, 1898.*

4. Social and Personal Measures for the Control and Limitation of Insanity. E. H. STAFFORD.
5. The Treatment of Inebriate Prisoners. A. M. ROSEBURGH.
6. Correct Diagnosis and its Necessity. A. B. HARVEY.

*April, 1898.*

7. A Few Thoughts in Regard to Syphilis. W. C. HEGGIE.
8. Anæsthesia and Analgesia. H. H. OLDRIGHT.
5. Treatment of Inebriates. (Cont.) A. M. ROSEBURGH.

*May, 1898.*

9. Puerperal Eclampsia. C. J. O. HASTINGS.
10. Chronic Cystitis, its Causes, Diagnosis and Treatment. B. HAWKE.

1. McCULLOUGH gives the clinical history of a man who had tuberculous disease of both testicles. He also describes a case of appendicitis and one of hydronephrosis with subsequent nephrectomy.

2. STRUTHERS describes a case of gangrene of the leg following a wound by duck-shot. When the man came under observation his clothes were rank with stable filth and several fragments were found in the wound. The leg was thoroughly irrigated and dressed antiseptically, but on the following day the anterior surface was black and painful and quantities of gas escaped from the wound. The leg was removed in the upper third, but the process extended into the body and the man died.

3. The baby was born with two lower central incisors cut and set in a hinge-like moveable process of the alveolar margin of the jaw. There was an exostosis at the symphysis. The child developed well-

marked symptoms of syphilis. The process became firmly united, but the teeth softened and were soon worn to the level of the gums.

4. STAFFORD considers that insanity is the shadow of a faulty civilization, and much can be done to limit its spread. He divides insane persons into two classes. The majority are destined to be insane as the child of African parents is destined to have a dark skin. Here the insanity is not the outcome of ignorance, rashness or misfortune of the individual himself—it is a crime of the parents. It is a crime for many people to marry. On the other hand the minority owe their insanity to their own ignorance, rashness or misfortune. Had they not been ignorant, had they not been rash and imprudent, or had they not been unfortunate, they would never have become insane. The measures for prevention should be mostly personal. Society and legislation can do nothing.

The stupidity of the present educational system, both in Europe and America, is indirectly accountable for a great deal of insanity. This system is fanciful to the verge of silliness when the mental needs of the child are considered. The majority receive their knowledge between ten and twenty. From ten to sixteen the boy or girl is at school. The mind during that time is subjected to one constant strain. It is always on the stretch. The inhuman practice of subjecting the student to periodical examinations makes matters still worse. The superficial facility of one in receiving information in a short time is put in glaring contrast with the natural slowness of another. The cerebral apparatus is degraded to the level of the digestive system. Indeed few stomachs would stand the strain then put upon the brain. Parents are probably ignorant of the great risk they are running at the time. There is a great need of reform. Some day the main aim in education will be to teach men and women *to think* and to live. Some day one of the hardest tasks in life will not be dropped upon the yielding shoulders of unmaturing youth, but will be undertaken when the individual is better able to endure it. These four years should be a time of rest not of tremendous strain. Attention to work, food, sleep and clothing, is very essential. No child should do violent or heavy work until its bones are developed. Lack of sleep while often the first symptom of insanity is also often one of the causes. Some wise saw of the past is evidently accountable for the gospel of early rising. Men and women are not poultry, and the search for the early worm is a senseless proceeding. The development of the mind requires a great deal of sleep. Above all things the emotions should not be stirred. Psychology has revealed the fact that the religious temperament and the erotic temperament are very closely related. To bring religious emotion into full play at the critical period at, or just follow-

ing, puberty, already referred to, has often been sufficient to unbalance the mind. The mind is weak and unstable, and the terrible force of these emotions passes over the delicate regions of thought like a deep and heavy storm. In young men and women hysteria is often mistaken by evangelists and religious advisers for what is called religious conviction, and under that mistake is encouraged by them to the great peril of the person.

Lastly comes misfortune as a cause. Sunstroke and accidents causing injury to the head, besides some contagious diseases which alter the consistence of the blood, may lead to mental aberration. Starvation and fright may be classed with these other misfortunes as unexpected. We can provide against them. It is our own fault if we are ignorant.

5. At the January monthly meeting of the Executive Committee of the Prisoners' Aid Association of Toronto, Dr. ROSEBURGH was commissioned to visit American Inebriate Hospitals and to interview specialists in alcoholic inebriety with a view to the introduction of special medical treatment of inebriates while undergoing imprisonment.

In executing the commission he visited the various institutions in Canada and the United States, and in formulating his recommendations, endeavoured to secure the maximum of efficiency with the minimum of expense. The recommendations may be summarized as follows: (1). The appointment by the Lieutenant-Governor-in-Council of an Inspector of Inebriate Institutions. This inspector should be a qualified medical practitioner who had made the medical treatment of inebriety a special study. (2) The establishment by the Ontario Government, of an industrial reformatory for the more hopeless or incorrigible class of habitual drunkards. The farm-colony plan is recommended with cheap buildings, and the indeterminate system of sentences adopted. (3.) The establishment in Toronto of an hospital for the treatment of the more hopeful class of inebriates, where a course of three or four weeks' treatment would be given. In other cities of the province an inebriate department should be established in the existing general hospitals. (4). The introduction of special medical treatment for the relief of dipsomania among the inmates of the Central Prison, Toronto. (5). The adoption of the probation system for the supervision of incipient drunkards at large on suspended sentences. (6) A cottage home in Toronto for the care and medical treatment of the more hopeless class of female drunkards. (7). Sentencing the more hopeless class (the gaol class) of chronic female drunkards to the Mercer Reformatory on the maximum sentence of two years. (8). In the adoption of scientific medical treatment, the Norman Kerr-Crothers

system or general plan of treatment is recommended. In the interests of science and good morals proprietary remedies should not be given.

6. HARVEY discusses the general principles of the science of recognizing disease and of distinguishing one disease from another. It is the imperfect diagnosis that renders doubtful the value of the remedies in use. No means, however laborious, should be neglected in arriving at a correct conception of each case.

7. HEGGIE offers a few ideas in regard to syphilis. He has endeavoured to find out some cause why in one person the disease runs a benign course, while in another a malignant one. He believes that the main cause of this difference is in the soil on which the disease is transplanted; and, further, that this is fertile, or not fertile, according as immunity has been transmitted or not. Instead of believing fondly in the old dogma, that children are bound to inherit this disease from one or other of their parents, it begins to look as if many have transmitted to them a resistance to the disease, and that the grandchildren of syphilitics and the children of cured syphilitics are less liable to contract the disease than the offspring of clean ancestors, and when contracted it generally runs a benign course. He therefore does not believe that there is any hereditary syphilis, but that children so born contract the disease from the maternal parts in the usual way, by contact, or through the maternal circulation. The histories of children born with syphilis, the mother not being a syphilitic, should be looked on with grave suspicion. In regard to treatment his experience has been that in the true syphilitic state mercury is the remedy *par excellence*. In the sequelæ, potassium iodide stands without a rival. Of all the preparations of mercury the bichloride easily takes the lead, especially immediately after infection.

8. [This paper was noticed last month.]

9. HASTINGS discusses the cause and treatment of puerperal eclampsia. He thinks that all will agree that the seizures are of a toxæmic origin. In the pregnant woman there are two distinct and separate organisms, throwing almost double work on the excretory functions of the mother. These excretory functions of the pregnant woman are not as active as in the non-pregnant condition, while the amount of toxins is very much increased. In all toxæmic conditions there is more or less congestion of the kidneys. Probably this explains the albuminuria of pregnancy, and the albumen in the urine is the first indication that the patient is suffering from an attack, more or less severe, of toxæmia. These toxins, if not rapidly eliminated, come in contact with the supersensitive nerve centres, and are very likely to produce eclampsia.

The treatment is simply that of toxæmia ; and should be, for the most part, preventive.

10. HAWKE discusses the pathology and treatment of chronic cystitis. The medical treatment he has often found very unsatisfactory, and relates the history of a man cured by suprapubic cystotomy after all other methods had failed.

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### The Canadian Practitioner.

May, 1898.

1. Appendicitis—Its Clinical Aspects. J. F. W. ROSS.
2. The Symptoms and Pathology of Seborrhœic Eczema. GRAHAM CHAMBERS.
3. Colles' Fracture. R. FERGUSON.
4. Opium in Heart Disease. ALEXANDER MCPHEDRAN.
5. A Case Showing in a Peculiarly Marked Manner one of the Effects of Eye-strain. G. HERBERT BURNHAM.

1. ROSS records several cases of appendicitis, presenting different phases of the disease, and strongly urges early operation. The diagnosis should be made without difficulty in the great majority of cases. When there is sudden pain in the abdomen, vomiting, tenderness on pressure and rigidity of the right abdominal parietes, it points almost invariably to the lesion, and then medical treatment should be shelved. Physicians should call upon the surgeon early and not allow the golden opportunity to slip by, when, if the patient is saved, it is only after a prolonged convalescence.

2. CHAMBERS describes the general symptoms and pathology of this disease, and the clinical features as they appear in the different localities on the body.

3. FERGUSON describes the deformity and its causes, produced in the injury known as Colles' fracture. He points out that it is not merely a broken bone that has to be treated, but a severe sprain and injury to the wrist joint as well. He advocates a long anterior and short posterior splint, allowing free movements of the fingers. The plan suggested by Pilcher of enveloping the wrist with a snug strip of adhesive plaster is applicable only in simple cases where there is no extensive laceration of the ligaments.

4. MCPHEDRAN, writing upon the use of opium in heart disease, says that in most of the writings on the treatment of cardiac failure too little is made of the great benefit to be derived from the use of the drug in such conditions. Many do not even make any reference to it, while others place it next to digitalis. Several cases are cited which illustrate the great value of morphine given hypodermically when the failure of the heart appears to be largely due to exhaustion of the

nerve centres, as shown by the irritable action of the heart and the paroxysmal respiratory distress. The morphine quiets the irritable heart and enables the patient to obtain sleep, during which excretion is increased and the circulation and nutrition improved. In proportion as the dyspnoea and distress are due to serous effusions into the pleural cavities, the pericardium, the lungs, etc., morphine becomes less efficient in giving relief. In these cases the symptoms are largely, if not wholly, due to mechanical causes resulting from the presence of the serous exudate, and can only be relieved by removing the causes.

5. BURNHAM relates the history of a man who had suffered intense pain in the left eye, temple, side and back of the head. The sight of the eye was poor, there being merely perception of large objects. Examination showed a good deal of hypermetropic astigmatism in the left eye, but of a much less degree in the right. Correctly fitting glasses completely relieved the symptoms.

### Maritime Medical News.

May, 1898.

1. Diagnosis of Intra-Abdominal Disease. P. R. INCHES.
2. Osteopathy. G. R. J. CRAWFORD.
3. Action of Certain Drugs on the Gastric Secretion. ANDREW HALLIDAY.

1. INCHES, in an interesting paper, points out the many difficulties that frequently render an exact diagnosis a matter of doubt, perplexity and anxiety to the practitioner, and holds the opinion that the exploratory incision in such cases is perfectly justifiable, and that in the future the practice will be more often advised than it has been in the past.

2. CRAWFORD gives an account of the hot conflict that had recently taken place between the New Brunswick Medical Society and the disciples of the latest fad in quackery known as "Osteopathy" over a bill brought by the patrons of the new method before the New Brunswick Legislature, to legalize its practice. The bill was fortunately defeated in committee, but by the slender majority of one. The definition of "Osteopathy," taken from their college (?) catalogue is interesting. "Osteopathy may be formally defined as the science which consists of such exact exhaustive, and verifiable knowledge of the structure and function of the human mechanism, anatomical, physiological and psychological, including the chemistry and psychophysics of its known elements, as has been discoverable certain organic laws and remedial resources within the body, by which nature under the scientific treatment peculiar to osteopathic practice, apart from all ordinary methods of extraneous, artificial or mechanical principles, molecular activities and metabolic processes, may recover from displacements, derangements and consequent disease, and regain its nor-

mal equilibrium of form and function in health and strength." [It may be hoped that the inhabitants of New Brunswick realize the deep debt of gratitude they owe the New Brunswick Medical Society for protecting them against such a fraud.]

3. Halliday calls attention to the action of antipyrine, phenacetine, and quinine on the gastric secretion, with special reference to the total acidity and the free hydrochloric acid.

### **The Canadian Journal of Medicine and Science.**

*May, 1898.*

1. The Treatment of Inebriety. A. M. ROSEBRUGH.
2. Some Remarks on Mechanico-Therapeutics. T. H. MCGILLICUDDY.
3. California as a Tourists' Resort. JOHN HUNTER.
4. How to Hypnotize. SYDNEY FLOWER.

1. [Noted above].

1. MCGILLICUDDY considers some of the remedial effects of the employment of curative exercise, or mechanical or manual treatment. He claims that it will regulate the circulation, increase secretion and excretion, increase respiratory power, increase digestive power and assimilation, increase vital action, and regulate muscular action.

3. HUNTER advises physicians to go to California if they wish to spend a pleasant holiday and describes the various localities of interest in the State.

4. FLOWER says that the physician will find that the whole art of applying hypnotism therapeutically lies in the suggestions given and the manner of making them, and he proceeds to point out how this may be done.

### **The Canadian Medical Review.**

*May, 1898.*

1. The Treatment of Inebriates. A. M. ROSEBRUGH.
2. Pulmonary Tuberculosis. JOHN HUNTER.
3. Gastro-Duodenal Ulcer. H. J. HAMILTON.

1. [Noted above]

2. HUNTER says that one cannot live long at a health resort without observing many things concerning tuberculosis, that are not written in text-books. One of the first to obtrude itself on the attention is the great multitude of people affected with phthisis. There one realizes the terrible ravages the "white plague" is making upon the race. A second noticeable feature is the varied stages of the disease and the physical conditions of the patients. Another impression that forces itself very strongly on the physician's attention is the urgent need of an early recognition of the disease. It is a most lamentable and dis-

creditable fact that the initial symptoms and conditions in by far the larger percentages of cases are overlooked or attributed to other causes. The treatment of phthisis should consist fundamentally in seeking out and opening up every avenue conducive to the restoration of health. He thinks that it can be positively asserted that ninety-five per cent. of doctors know practically nothing about so-called health resorts. The patient should not be loaded with advice and prescriptions, but should be advised to put himself under the care of some competent and reputable local physician. One of the great dangers of health resorts is the possibility of infection or re-infection.

3. HAMILTON relates the history of a man, 28 years of age, who had suffered from periodical dyspeptic symptoms. He had complained of nausea and a sense of fulness after eating, with intense soreness over the stomach. He had had vomiting of black blood followed by tarry stools. After some time a swelling developed at the right costal margin. While this swelling increased he felt sick, the nausea becoming intense, constipation was marked and jaundice supervened. After a severe attack of vomiting the swelling would disappear and be followed by diarrhoea and intense irritation at the anus. The examination of the stomach contents showed excess of hydrochloric acid, and starch digestion incomplete. In this case the duodenum was certainly involved and at a point at the opening of the common bile duct. The feature of the case worthy of note was the stenosis of the common bile duct which was opened by the muscular effort of vomiting.

*Kenneth Cameron.*

### L'Union Medicale du Canada.

*February,, 1898.*

1. Des affections pendant la période puerpérale. E. A. RENÉ DE COTRET.
2. Nouveau modèle de serre-nœud à anse froide et galvanique combinées. A. A. FOUCHER.
3. Opération césarienne : application du forceps à travers la voie opératoire, sutures utérines, solution de gélatine comme hémostatique. ALBERT LAURENDEAU.

*March, 1898.*

4. Exposé succinct des résultats obtenus et de l'expérience acquise dans deux cent quarante-huit opérations abdominales. A. LAPTORN SMITH.

*April, 1898.*

5. De la contention des fractures par la gouttière plâtrée. O. F. MERCIER.
6. Le Tétanos. D. A. DÉROME.

May, 1898.

7. La physiologie des bactéries. J. E. LABERGE.
8. Restauration d'un prépuce précédemment enlevé par la circoncision. O. F. MERCIER.

1. This paper is an essay on mastitis, with a description of the forms originating from the lymphatics and from the galactophorous ducts. The views of various writers, well-known and otherwise, are given on prophylaxis and treatment. Nothing new is advanced.

2. This writer makes a strong plea for the country practitioners to undertake major cases and not to hand everything over to the specialist. He thinks there is a danger of becoming "courtiers en médecine." His patient possessed a rachitic pelvis. At her first confinement a dead child was extracted by forceps. At the second craniotomy was done. The conjugate was 6 centimetres. As for the choice between symphysiotomy and Cæsarian section, the writer's view is that when the conjugate is between  $6\frac{1}{2}$  and 9 centimetres symphysiotomy is indicated; when below 6, Cæsarian section. In conclusion he somewhat naïvely remarks that if there is a choice between the life of a mother who conceives a child that she knows she cannot bring alive into the world and that of an infant who has had no say in its own production, the safety of the child should transcend that of the mother.

4. This paper has been reported in the January number of this Journal, p. 64.

6. This is a valuable *resumé* of the researches leading up to the discovery of tetanus antitoxin, and also describes the mode of preparation as practised in the Pasteur Institute of Paris. The immunising power of this serum is such that an injection of one thousand millioneth part of its body weight injected into a mouse will prevent death. The dose for man and the larger animals is 10 cc., repeated if necessary, but the original wound should be treated antiseptically as well or excised.

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### La Revue Medicale.

February 2nd and 9th, 1898.

1. Les phénomènes psychiques, et la médecine. CHAS. VERGÉ.

February 16th, 1898.

2. De la diphtérie à la campagne. S. G. PAQUIN.

February 23rd, and March 2nd, 1898.

3. Opérations sur les paupières. JEHIN PRUME.

*March 9th, 1898.*

4. Cas de grossesse extra-utérine: laparotomie. A. LAPHORN SMITH.

*March 23rd, 1898.*

5. Un cas de corps étranger des fosses nasales. L. N. J. Fiset.

*March 30th and April 13th, 1898.*

6. Du traitement électro-thérapeutique des vomissements incoercibles de la grossesse. M. D. BROCHU.

*April 6th, 1898.*

7. Rapport de deux cas de tumeurs de la matrice expulsées à la suite de traitement électrique. A. LAPHORN SMITH.

*April 20th, 27th, and May 4th, 1898.*

8. De l'électricité statique en médecine. CHARLES VERGÉ.

*May 11th, 1898.*

9. Observation d'un cas de blessure de la verge et du scrotum; autoplastie. J. F. DUSSAULT.

*May 25th and June 1st, 1898.*

10. Bains d'air chaud sec. P. V. FAUCHER.

1. This is an interesting account of various psychoses. It deals with the "jumping Frenchmen" of the lumber woods, lycanthropy (loup-garou), and other popular superstitions as "La chasse-galerie" (vide Drummond's Phil-o-rum Juncau). Telepathy, clairvoyance, spiritualism, thought-reading and hysteria gravis are taken up.

3. Jehin-Prume describes cases of ectropion, epithelioma of the lids and double ptosis on which he had successfully operated.

5. In this case there was a button completely blocking the nasal passage, embedded in granulations. It was removed with the serre-neud. The button was thickly encrusted with salts.

6. This is a record of a case of obstinate vomiting of pregnancy cured by electricity. The writer employed faradism. The positive pole was applied to the external os of the uterus, and the other to the epigastrium. A weak current, gradually increased, was used for 10 minutes. This was repeated.

7. These cases have been reported in the April number of this Journal, p. 304.

8. This is a description of various electrical appliances, and the application of electricity to the treatment of chlorosis, dysmenorrhœa, neuralgia, migraine, chorea, writer's cramp, hysteria, neurasthenia etc.

*Albert G. Nicholls.*

## Reviews and Notices of Books.

**The Nervous System and Its Diseases.** A Practical Treatise on Neurology, for the use of Physicians and Students. By CHARLES K. MILLS, M.D., Professor of Mental Diseases and of Medical Jurisprudence in the University of Pennsylvania; Neurologist to the Philadelphia Hospital. Diseases of the Brain and Cranial Nerves, with a General Introduction on the Study and Treatment of Nervous Diseases. With 459 illustrations. Philadelphia: J. B. Lippincott Company. London: 6 Henrietta St., Covent Garden, 1898. Montreal: Charles Roberts.

This, the most recent contribution to the great department of Neurology, promises to be when completed a work that will take a worthy place beside the great English work of Gowers. In the present volume, the diseases of the brain and cranial nerves are considered. Dr. Mills hopes to complete the work in a second volume, dealing with the diseases of the cord, insanity and the medical jurisprudence of both nervous and mental diseases.

The introductory part of the work is devoted to a very full and clear description of the anatomy and physiology of the nervous system together with an account of methods of investigation and the general principles which underlie the scientific management of nervous diseases in general.

The author devotes a good deal of space to the consideration of cerebral localization. We know of no work that deals with this important subject in such a full and clear manner. The cranial nerves and their disturbance of function receive also full consideration. Dr. Mills adopts very fully the nomenclature and terminology of Dr. Wilder. This may be an advantage, but it is at least confusing. We doubt very much whether it will ever become popular. Dr. Mills' work contains upwards of 1000 pages. It is an excellent specimen of book making. The illustrations are numerous and well executed.

J. S.

**A Compendium of Insanity.** By JOHN B. CHAPIN, M.D., LL.D., Physician in Chief Pennsylvania Hospital for the Insane; late Physician-Superintendent of Willard State Hospital, New York. Illustrated. Philadelphia: W. B. Saunders. 1898.

There being so few satisfactory works of this class, this little text-book will be welcome, especially to medical students, general practitioners and even members of the legal profession. The writer's purpose has been to compile for such, in concise form for convenient use, the principle facts relating to diseases of the mind, and in this he has succeeded admirably.

The classification made is simple, the author dealing only with such forms of insanity as are commonly met with. Many pages are devoted to treatment, so that the practitioner who may be obliged to treat a case of mental disorder at home will find many useful hints to aid him in his difficult task. The chapter on medical certificates and feigned insanity will also be found of much service to all who require to send patients to hospitals.

A distinguishing feature of the work are the illustrations, which are reproductions of photographs of some of the author's patients. These are as helpful as can be expected.

The volume is a modest one, yet throughout it bears the stamp of one who has had long experience of his subject, and the well-earned reputation of the writer will alone secure its success.

T. J. W. B.

**Diseases of the Nervous System.** A Handbook for Students and Practitioners. By CHARLES E. BEEVOR, M.D., F.R.C.P., Physician to the National Hospital for the Paralyzed and Epileptic. With Illustrations. London: H. K. Lewis, 136 Gower Street. 1898.

This compact and handy volume is the latest addition to the well-known *Lewis's Practical Series*.

After an introductory chapter, an admirable account of the anatomy and physiology of the nervous system follows. This chapter, although short, comprises the essentials of what is frequently looked upon as a very difficult subject. Dr. Beevor, however, has the power of making difficult subjects plain.

The following chapters deal with the method of case-taking and modes of examination. We would especially call attention to the clearness with which the author deals with diplopia and how to discover the muscle or muscles at fault.

The different diseases of the peripheral and central nervous system are dealt with in detail, of necessity succinctly, but still with a clearness and simplicity which is refreshing.

The work is well illustrated and altogether a creditable production.

J. S.

**Diabetes Mellitus and Its Treatment.** By R. T. WILLIAMSON, M.D., M.R.C.P., Medical Registrar, Manchester Royal Infirmary. With Eighteen Illustrations. (Two colored.) Edinburgh and London. Young J. Pentland. 1898.

Dr. Williamson has produced a work which we have no doubt will be for some time the standard treatise in the English language on this disease. The work is one of over 400 pages, and it is needless to say that the whole subject is dealt with in a very complete manner. The author, from his position in the Manchester Royal Infirmary has had unusual opportunities for becoming intimately acquainted with the protean manifestations of diabetes.

Among many interesting observations noted by the author the following deserve mention. In sixteen cases of diabetic coma, the urine was found to contain casts. In the majority of the cases, the urine had been examined for days before the onset of coma, but in none were casts found until about twenty-four hours before the onset of the coma. He believes that in severe cases of diabetes, the appearance of casts, in the way above described, is an important sign, pointing to the near approach of coma. The numerous views advanced to explain the nature of diabetic coma are fully described, but the author is of the opinion that the true cause remains yet to be determined. Changes of a degenerative nature in the spinal cord, resembling those met with in pernicious anæmia, are figured and described. They were found limited to the postero-internal and postero-external columns. Mention is made of somewhat similar changes described by others.

The cord changes are attributed to a toxic blood state. As changes of a somewhat similar character are met in many wasting and nutritional disorders, it is difficult to say whether they are the direct effect of infection, or simply the result of disordered nutrition.

The treatment is very carefully and fully considered.

Altogether the work is the result of painstaking labour, and is a mine of information on the interesting and important disease of which it treats.

The publishers have spared no pains in bringing out what is a very handsome volume.

J. S.

**Manual of Operative Surgery.** By H. J. WARING, M.S., M.B., B.Sc., (Lond.) F.R.C.S., Demonstrator of Operative Surgery and Surgical Registrar; late Senior Demonstrator of Anatomy, St. Bartholomew's Hospital; Surgeon to the Metropolitan Hospital; Surgeon in Charge of the Throat and Ear Department, Metropolitan Hospital; Surgeon to the Belgrave Hospital for Children; and FRASER WILSON, Lecturer to the Royal College of Surgeons, England. Edinburgh and London: Young J. Pentland. New York: The MacMillan Company. 1898. pp. 644.

As stated in the preface "this book has been written with the object of serving as a text-book for the classes held in the Operative Surgery Department of St. Bartholomew's Hospital." A short description is given of the main indications for each operation or group of operations. An introductory chapter deals with the indications for operations, preliminary preparations for asepsis and anæsthesia, the selection of instruments, position of patient and operator and his assistants, actual operation and after treatment.

Subsequent chapters deal with the different operations in detail. It is somewhat surprising that in the description of the different operations for hæmorrhoids no mention is made of that by the clamp and cautery. The methods described are the removal by the ligature, Whitehead's

and curetting, the use of the ligature being recommended as the most safe and satisfactory.

Three operations for the radical cure of hernia are given; Bassini's, Kocher's, and Macowen's, the different steps being very clearly illustrated. The chapter on amputation of the breast is hardly as full as its importance merits. In speaking of excision of the tongue, the necessity of making a careful dissection of the side of the neck with the object of removing all the lymphatic glands is not emphasized, and the partial removal of the tongue not recommended. Mr. Butlin, also a surgeon to St. Bartholomew's has lately written in favour of partial excision, and he speaks after having had a large experience. Altogether the book is concise, well illustrated and to be recommended. G. E. A.

**A Treatise on Apathy and other Speech Defects.** By H. CHARLTON BASTIAN, M.A., M.D., F.R.S., Physician to the National Hospital for the Paralyzed and Epileptic. With illustrations. London: H. K. Lewis, 136 Gower Street. 1898.

During the last two or three years several special works have appeared on the ever interesting subject of aphasia. The subject is one that naturally presents great difficulties, and the literature bearing on it has become so voluminous that it is a great labour to present in a clear way what is really known. It has been so obscured by theoretical opinions, without any foundation of fact, that it is impossible for one who has not paid great attention to the matter and is, at the same time, capable of investigating it to have any clear ideas concerning its nature.

The whole tenor of Dr. Bastian's able treatise is to simplify and make plain. There is a refreshing absence of burdensome nomenclature, such as is too characteristic of the works of certain authors who have written on the subject.

He endeavours to found his conclusions on accurately observed cases during life, and completed by properly conducted post-mortem examinations. It is not possible in the space at our disposal to give a survey of the full and complete way in which the author takes up the various forms of speech defects.

The work is a necessity to any one who takes an interest in the subject and who desires to know what is really known about it. J. S.

**Accident and Injury: Their Relations to the Nervous System.** By PEARCE BAILEY, M.A., M.D., Assistant in Neurology, Columbia University. New York: D. Appleton & Co. 1898.

Dr. Bailey has performed a valuable work in bringing together what is known about the relation between injury and diseases of the nervous system. The traumatic neurotic disorders are a very important group of diseases, interesting not only from a purely clinical standpoint, but also in their medico-legal relations.

Most of the literature relating to these disorders is in scattered monographs, chiefly foreign, so that it is impossible for the general practitioner to be conversant with all that is known on the subject.

An introductory part of 50 pages is devoted to a description of the significance of nervous symptoms. An unnecessary addition, we think, to the work.

Upwards of 100 pages are devoted to the organic effects of injury to the nervous system and 150 to the functional disturbances resulting from similar causes.

The work concludes with a few pages dealing with malingering and the treatment of the traumatic neuroses.

There are many well executed illustrations, and the volume, as a whole, is a credit to both author and publisher. J. S.

**Selected Essays and Monographs.** Translations and Reprints from various sources. London: The New Sydenham Society. 1897.

The following are the contents of this volume :

1. A contribution to the Study of Syringomyelia. By Isaac Bruhl, M.D. Translated with Notes and Additions, by James Galloway, M.D., and Lindsay Scott, M.D.

This is a very complete account of our present knowledge of this interesting disease.

2. A Case of Cerebro-Spinal Syphilis, with an Unusual Lesion in the Spinal Cord. By Henry M. Thomas, M.D., of Johns Hopkins University.

A well reported case of syphilitic arteritis of cerebral vessels and diffuse gummatous formations in several cranial nerves and substance of the brain, gummata of anterior roots of the third cervical nerves, meningitis of the cord, poliomyelitis of lumbar enlargement, and hyaline degeneration in the wall of the small arteries.

3. Pemphigus Vegetans by Prof. Köbner. Translated by F. H. Barendt, M.D. Pemphigus Vegetans, by Prof. Neumann. Translated by F. H. Barendt, M.D.

4. Observations on Yaws and its influence in originating Leprosy. An epitome of Dr. Nicholl's Report on Yaws, compared with British Guiana and Figi Experiences, by J. S. Wallbridge and C. W. Daniels.

5. Two Papers on Frambœsia.

6. On the Visceral Complications of Erythema Exudative Multiforme, by Wm. Osler, M.D.

7. Sleep in its Relations to Diseases of the Skin, by L. Duncan Bulkley, M.D.

8. A Remarkable Case of Purpuric Eruption ending in Gangrene, apparently caused by Sodium Salicylate, by F. S. Shepherd, M.D., of Montreal.

9. Syphilis and General Paralysis, by Prof. Fournier. Translated by Guthrie Rankin, M.D.

10. The Relation between Treatment in the Early Stage and Tertiary Syphilis. J. S.

**Third Annual Report of the Board of Managers of Craig Colony to the State Board of Charities.** For the fiscal year ending Sept. 30th, 1896.

The Craig Colony for Epileptics in the State of New York, admitted during its first year of work 145 patients (69 men and 76 women). Several interesting points are referred to. No doubt future reports from this institution will be more valuable than the present one. Could not the learned Superintendent use simple language in his future reports?

That used to describe some matters is not worthy of the earnest work apparently about to be attempted at the institution. To give an example in classifying the causes of epilepsy reference is made to cases arising from injury in the following dropsical style.

"*Traumatic*.—Including cases in which the indenture of the calvarium is maintained, or in which trauma acted more forcibly than a slight determinant to an existing pre-disposition."

In the treatment of the disease special care is exercised in proper feeding. Meat is allowed but once a day. Potatoes, tomatoes, beets and carrots are the favourite vegetables. Cabbage or cucumbers are prohibited. J. S.

**The Extra Pharmacopœia.** Revised in Accordance with The British Pharmacopœia, 1898. By WILLIAM MARTINDALE, F.L.S., F.C.S., Member of the Council of the Pharmaceutical Society and late Examiner. Serotherapy, Organotherapy, Medical References and A Therapeutic Index. By W. WYNN WESTCOTT, M.D., London, Coroner for North-East London. Ninth edition. London: H. K. Lewis, 136 Gower St., 1898.

We are pleased to notice the ninth edition of this very valuable little work. The principal changes in this edition are due to the effort to bring the work up to the recent official pharmacopœia. J. S.

## Correspondence.

### CANADIAN MEDICAL ASSOCIATION.

To the Editors of THE MONTREAL MEDICAL JOURNAL.

SIRS,—There is no man so deserving of a holiday as the hard working physician who has had his nose to the grind-stone from early morning till late at night. It is not only a privilege but a duty to relax one's energies at least once a year and take an outing. Having made up one's mind to go away for a bit, the next question is where to go, for one likes to gain some mental profit as well as physical vigor. This year the Canadian Medical Association offers peculiar inducements to the busy man by meeting in the historic old city of Quebec, on August 17th, 18th, and 19th, next. This will give to the physicians throughout the Dominion, an opportunity to visit, at a trifling expense, one of the most picturesque parts of our own, our native land with profit to himself and benefit to his patients. It too will enable the English and the French to become better acquainted, thus helping to bring about a better understanding of each other.

The President Dr. J. M. Beausoleil is putting forth every effort to make the meeting a success. The local committee of arrangements under the chairmanship of the Vice-President Dr. Parke ably assisted by the local secretary Dr. Marois are doing good work toward making the visit of their medical brethren enjoyable. It has been whispered that a trip to Grosse Isle is probable as a part of the entertainment.

The officers of the Association are confidently looking forward to a large and enthusiastic gathering. For particulars address

F. N. G. STARR,

General Secretary,

Toronto.

THE

# Montreal Medical Journal.

*A Monthly Record of the Progress of Medical and Surgical Science.*

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## THE NEW BRITISH PHARMACOPŒIA.

In this number we publish a review of the new British Pharmacopœia epitomising some of the more important changes to which we desire to call the attention of our readers. By a resolution passed at a late meeting of the Montreal Medico-Chirurgical Society, it was recommended that in this city, after the first day of October, physicians in prescribing should make use of the new Pharmacopœia. The Pharmaceutical Societies of Quebec and of Ontario, have, we understand, also passed resolutions fixing that date for the new edition to come into force. Nevertheless for many months it will be advisable in prescribing preparations, of which the strength has been materially altered, to insert after the name "B. P. 98" to insure accuracy, and prevent possible error. Pharmacists also for some time should carefully calculate the dosage of any prescription in which there may be a doubt as to which edition is employed. All prescriptions written previous to this date should be dispensed according to the older Pharmacopœia, even if they are presented to the druggist many months afterwards. This will involve additional care on the part of physicians in writing and dating their prescriptions, and judgment on the part of the pharmacist in dispensing them. Moreover it will involve the necessity on the part of the pharmacist for some time to keep a double line of many preparations, one representing the formula of the older, the other that of the new Pharmacopœia. The many changes demanded by this new edition may appear for some time as very onerous both to physician and pharmacist. Doubtless from all quarters many will arise to criticize unfavourably special points. Even the members of the committee would scarcely regard this fourth British Pharmacopœia as in all points perfect. Nevertheless we all hail it as representing a great advance upon the last in every department, an advance much greater than was marked by the three previous editions.

We understand that already work is commenced upon the Addendum "in which medicinal plants and other substances suggested for inclusion by Indian and Colonial authorities will be dealt with more fully than has been possible in the present volume." Already suggestions have been invited from Canada.

Divided as our profession is into Provincial Colleges, we have, unfortunately, no official recognition by the British Medical Council, in the same way as have the Medical and Pharmaceutical Societies of Australia and India. The only association that can be officially recognized, and that only by courtesy, is the Canadian Medical Association. We trust, therefore, that at the next meeting in Quebec a thoroughly representative committee may be appointed to act in conjunction, perhaps, with a committee of the Pharmaceutical Society, to take action upon this matter, and determine on a list of Canadian plants and preparations which may be deemed worthy of this semi-official recognition.

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#### THE BACTERIOLOGICAL PRODUCTION OF FIBROSIS.

We desire to draw attention to an important communication made by Dr. Adami in the current number upon the etiology of cirrhosis. A diplo-bacillus differing from the bacteria already known has been found constantly present in a series of cases and, as pointed out, if its rôle in the ætiology can be clearly proved by experiment, it will clear up a number of points in connection with this disease not satisfactorily explained by any of the theories hitherto brought forward. A full account of Dr. Adami's later communication will be published simultaneously in this JOURNAL and in the *British Medical Journal*. We hope that Dr. Adami will be led to study the etiology of fibrosis in other organs from the same point of view. His present investigation appears to open up a new field of research in connection with a department of pathology at present very imperfectly understood and in which the current explanations as to causation appear to be illogical and unconvincing. The usual assumption that fibrous tissue spontaneously tends to develop *ex vacuo* is by no means a universal solution of all the problems in connection with fibrosis.

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#### THE CANADIAN MEDICAL ASSOCIATION MEETING.

We gladly call attention to the invitation issued by the Secretary, Dr. Starr, and we hope to see a successful and largely attended meeting. We fear that the intense interest caused by the recent election may have drawn off attention from the meeting up to the present

time, but there is yet sufficient interval to remedy that. Above all it is to be hoped that any personal feeling created by the election may be forgotten, and we must remember that no connection exists between the two events. The Canadian Medical Association is the only link which at present binds together the members of the profession in the different provinces and no consideration whatever should justify those who are members of the Association in any action which might tend to endanger its existence or impair its usefulness.

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#### DR. MONTIZAMBERT AND THE QUARANTINE STATION.

We are much surprised to hear it stated that Dr. F. Montizambert, a man of wide reputation and proved ability, is to be superannuated and replaced by a man of his own age who has had no practical experience whatever in quarantine matters. We trust that so great a blunder may yet be avoided. We would point out especially the danger to the commercial interests of the country in allowing the quarantine service to suffer a change which would lessen the reputation in which it is now held by other countries. We trust that the transportation companies and the commercial world in general, whose interest in the matter is even more direct and personal than that of the medical profession, may succeed in making their influence felt and prevent any such undesirable meddling with the sanitary safe-guards of the country.

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#### TRIENNIAL ELECTION OF THE BOARD OF GOVERNORS OF THE COLLEGE OF PHYSICIANS AND SURGEONS, 1898.

The result of the election held on July 13th was the election of the entire reform ticket by an enormous majority, the total vote cast being 950 out of 1169 licensed physicians who were qualified to vote. The following is a list of the members of the new board with the votes cast for each.

*Montreal District.*—Beauharnois, Dr. C. Marshall, 905; Bedford, Dr. C. L. Cotton, 900; Iberville, Dr. E. N. Chevalier, 903; Joliette, Dr. M. S. Boulet, 902; Montreal, Dr. T. Cypihot, 903; Ottawa, Dr. E. L. Quirk, 900; Richelieu, Dr. E. H. Prevost, 901; St. Hyacinthe, Dr. E. Turcot, 901; Terrebonne, Hon. Dr. D. Marcil, 903.

*Montreal City.*—Dr. J. E. Baril, 899; Dr. L. J. V. Cléroux, 901; Dr. J. I. Desroches, 897; Dr. S. Girard, 901; Dr. A. R. Marsolais, 900; Dr. J. A. MacDonald, 903.

*Quebec District.*—Beauce, Dr. T. Fortier, 899; Gaspé and Rimouski, Hon. Dr. R. Fiset, 903; Kamouraska, Dr. P. E. Grandbois, 900; Mont-

magny, Dr. S. Bolduc, 901; Chicoutimi and Saguenay, Dr. Jules Constantin, 903; Quebec, Dr. J. A. Ladrière, 905; Quebec, Dr. M. Brophy, 902.

*Quebec City.*—Dr. J. P. Boulet, 904; Dr. F. X. Dorion, 902; Dr. C. Gingras, 901; Dr. A. Jobin, 912; Dr. C. C. Sewell, 903; Dr. A. Vallée, 904.

*Three Rivers District.*—Arthabaska, Dr. L. J. O. Sirois, 906; Trois-Rivières, Dr. L. P. Normand, 849; Trois-Rivières, D. E. F. Panneton, 901.

*St. Francis District.*—Dr. P. Pelletier, 900; Dr. A. N. Worthington, 904; Dr. T. L. Brown, 899.

In addition the following physicians received a number of votes not sufficient to elect; E. D. Aylen, 86; A. T. Brosseau, 57; J. M. Beausoleil 42; E. Laurent, 42; A. G. Belleau, 41; L. Larue, 38; W. A. Verge, 36; A. A. Watters, 34; C. S. Parke, 37; C. Rinfret, 36; J. M. Mackay, 35; A. Godbout, 35; C. E. Vaillancourt, 35; P. M. Guay, 35; Hon. J. J. Ross, 34; L. A. Plante, 37; G. A. Lacombe, 34; J. F. R. Latraverse, 39; L. J. P. Bissonnette, 39; S. Gauthier, 42; P. Laberge, 36; A. P. Cartier, 39; H. Cholette, 35; J. E. Fournier 35; J. O. Camirand, 42; L. C. Bachand, 40; F. J. Austin, 34; Des Grosbois, 26; Picotte, 24; A. W. Haldimand, 24; Bastien, 23; H. Trudel, 22; A. Simard, 21; Robinson, 17; P. C. Prevost, 3; Brochu, 2; J. A. Beaudry 2; Faucher, 2; Lanctot, 2; J. Neill, 2; Comost, 1; Godin, 1; Brunelle, 1; Phenix, 1; Tassé, 1; Bernard, 1; Rosconi, 1; Rottot, 1; Migneault, 1.

The proceedings of the meeting, if boisterous, were none the less impressive, and it is to be hoped that the half dozen loud-voiced individuals, who endeavoured to control the meeting and to prevent half a thousand of the most representative members of our profession from voting on the day of the election, will have learned that the rights of majorities are not to be infringed upon with impunity and that obstructive tactics may do more harm than good.

On the other hand, while the meeting was apparently unwilling to allow Dr. Brosseau and Dr. Marcil to occupy as much time as these gentlemen felt to be necessary in order to rebut certain accusations (which had never been made against them) we are sure that it was because both of them happen to be what we may term so notoriously upright that no one in this Province would for a moment suppose that they could be anything else.

The pleasant and straightforward manner in which the President, Dr. Simard, acquiesced in the verdict of the meeting although adverse to his administration quite won the good will of those present before

the close of the meeting which closed in a very amicable manner by proposing a vote of thanks to the presiding officer.

The new board proceeded at once to elect the following officers: President, Dr. E. P. Lachapelle; Vice-Presidents, Drs. R. Craik and L. Catellier; Secretary, Dr. J. A. MacDonald, Treasurer, Dr. Jobin; and Registrar, Dr. Marsolais.

For the first time in at least nine years the board really represents the wishes of a majority of the profession in the different districts. The electoral committees who have labored for this end are to be congratulated on the result and it must also be said that they have acted wisely as well as consistently in accepting without question the candidates nominated by the districts, and therefore the choice of the local majority.

It will be remembered that both the parties in the recent contest had advocated election by districts and it is to be hoped that all those interested will continue to assist and encourage the new board in their efforts to secure a better election law. It is to be hoped also that in future the profession throughout the province will take more interest in the action of the governing body in the interval between elections than has been the case in the past. It was lack of interest on the part of the body of the profession which brought about the recent deplorable condition of affairs. We trust that the new board may receive the candid criticism of its friends as well as the support of its late opponents whenever the public interests demand it, and that all purely personal questions which have arisen may be speedily forgotten.

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### GESTA MEDICORUM.

“QUICQUID AGUNT MEDICI NOSTRI FARRAGO LIBELLI.”

Prof. William Osler will succeed Prof. William H. Welch as Dean of the Johns Hopkins Medical School in October.

Sir William Hingston at the recent convocation of the Ottawa University, received the honorary degree of Doctor of Laws.

The Toronto Clinical Society has appointed the following officers: Pres., F. LeM Grasset; Vice-Pres., G. A. Bingham; Sec., H. A. Bruce.

Dr. W. A. Feader, Late Senior House Surgeon to the Royal Victoria Hospital, leaves in August for Halle, when he intends to continue his medical studies.

Statues to Skoda and Rokitansky have been erected in the University of Vienna. Addresses suitable to the occasion were delivered by Professors Weichselbaum and Nothnagel.

It is announced that the Thirteenth International Medical Congress will be held in Paris in 1900, under the Presidency of Prof. Lannelongue. The general secretary is Dr. A. Chauffard, 21 Rue St. Guillaume.

Professor Alexander Kolisko so well known to many Canadians as a brilliant teacher of pathology and morbid anatomy has been offered the chair of medico-legal pathology in the University of Vienna. His appointment as Hoffmann's successor is now announced.

Prof. A. von Zenker, of Erlangen, is dead, aged 73. He has been well known as a distinguished pathological anatomist, but has been in retirement for some years. He was the first to draw attention to the chronic pneumonias following dust-inhalation (Zenker's Pneumokoniosis.)

The Toronto Medical Society has appointed the following officers for the coming year: Pres., A. Primrose; 1st Vice-Pres., F. Oakley; 2nd Vice-Pres., J. Webster; Corr.-Sec., M. Currie; Rec.-Sec., J. N. Brown; Treas., G. H. Carveth; Council, W. J. Wilson, J. E. Graham, T. F. MacMahon.

The consolidation of the University and Bellevue Hospital Medical Colleges, of New York, has been consummated, and the 126 professors of the new school announced. Dr. E. G. Janeway will be the Dean. The New York University has received a gift of \$50,000 for the Productive Endowment Fund.

During last month the Freedom of the City of Edinburgh was given to Lord Lister. He is also to receive the honorary degree of Doctor of Science next October, by Victoria University, on the occasion of the opening of the new Physiological and Pathological Laboratories of the University College, Liverpool.

Dr. J. Leonard Vaux, of St. Luke's Hospital, Ottawa, has been awarded the gold medal of the Alumni Association of Trinity University, Toronto, for his paper on "Indol, Indican, and Indigo-blue, their Pathological Significance and Clinical Value. The judges were Professors Adami, Wyatt Johnston and Ruttan.

It was decided at the seventy-eight annual meeting of the Pharmaceutical Society of the Province of Quebec to recommend that October 1st be adopted as the date for the coming into force of the new British Pharmacopœia. Dr. T. D. Reed was present as a delegate from the Montreal Medico-Chirurgical Society. Since then the latter society has formally agreed to the date fixed so that the date Oct. 1st, becomes official for the Province of Quebec at least.

The British Institute of Preventive Medicine has now taken possession of its new building, situated on the Thames embankment, near Chelsea Bridge. It is provided with bacteriological, photographic, chemical, vaccine and other laboratories, besides rooms for private research. On the third floor is a lecture room which will accommodate 150. A crematory and animal house are attached. The director is Dr. Allan Macfadyen; the bacteriologists are Mr. R. Hewlett and Dr. Foulerton, F.R.C.S. The chemist is Dr. Arthur Harden.

A meeting of the district of St. Francis Medical Association was held Friday afternoon at Sherbrooke, Dr. Pelletier, President, occupied the chair.

The following officers were elected: President, A. N. Worthington; 1st Vice-Pres., A. G. H. Beique; 2nd Vice-Pres., W. D. Smith; Sec.-Treas., C. J. Edgar; Assis. Sec.-Treas., W. Lemay, and T. L. Browne, C. N. Stevenson, J. O. Camirand; Governors at the next triennial meeting of the provincial board; Drs. A. N. Worthington, P. Pelletier, T. L. Brown.

The semi-annual meeting of the Governors of the College of Physicians and Surgeons of the Province of Quebec took place July 5th, at Laval University. Dr. L. J. A. Simard, President, occupied the chair.

The following candidates obtained their license:—Doctors Mande, E. Abbott, Edward Archibald, Geo. E. Beauchamp, E. J. Bedard, Chas. E. Boisvert, J. W. Blanchet, J. J. Benny, Brown W. Kerr, J. A. D. Beaudry, J. A. Corcoran, Thos. J. Curran, M. Chagnon, Cushing Harold, Geo. E. Cartier, Wm. Delaney, W. H. Dalpe, J. A. Darche, Campbell Davidson, Arsene Descotcaux, Louis Doray, F. C. Fraser, W. A. Feader, M. Jos. Eugene Fiset, F. A. Gadbois, V. Gosselin, S. A. Bandall, Jos. C. Gelinat, L. O. Gauthier, H. P. Hudson, Geo. Hume, Grosvenor L. T. Hayes, R. Ashton Kerr, Richard Kerry, Amedee Lassonde, Daniel E. Lecavalier, Ernest Lauzon, H. P. Lavallee, A. Lefebvre, Jos. T. Loranger, John A. McCabe, A. W. McArthur, Jesse H. Macdonald, M. J. Mooney, G. H. Manchester, J. B. Menzies, Eximere Martin, H. R. Macaulay, Edouard Martin, Chas. Ogilvy, Martin Powers, Henri Prevost, H. St. Aubin, J. Clarence Sharp, Oscar B. Stevens, Jas. A. Thompson, Jos. H. Tremblay, Eug. Virolle, F. R. B. Wainwright, John West, Wolferstan Harold Thomas, J. Ernest Pruneau, Henri Alex. Larue, W. Gadbois, J. G. Dequoy, Jos. Nap. Roy, J. P. Aylen, Ulric Geoffrion, D. Chouinard.

The American Medical Association met during June in Denver, Col. In the absence of the President, Surgeon-General Sternberg. Dr. J. M. Mathews, of Louisville, Ky., presided. 1336 members attended.

Among the papers presented were: Differential diagnosis between Yellow Fever and Dengue, H. A. West; The Essential of the Art of Medicine, J. H. Musser; Diabetes Mellitus at the Massachusetts General Hospital from 1821 to 1897, R. H. Fitz and E. P. Joslyn; The Medical Aspect of Appendicitis, H. A. Hare; Indol, Indican and Indigo-blue, their Pathological Significance and Clinical Value, J. Leonard Vaux; Adrenal Tumours of the Kidney, Bayard Holmes; Pneumaturia, Howard Kelly; Neutral Dynamics, W. J. Headman.

The following officers were elected: President, Joseph M. Mathews, of Louisville; First Vice-President, W. W. Keen, of Philadelphia; Second Vice-President, J. W. Graham, of Denver; Third Vice-President, H. A. West, of Texas; Fourth Vice-President, J. E. Minney, of Topeka; Treasurer, Henry P. Newman, of Chicago; Librarian, George W. Webster, of Chicago; Chairman of Committee of Arrangements, Stirling Loving, of Columbus, Ohio. Place of Meeting, Columbus, Ohio.

The final meeting of the local executive committee nominated in connection with last summer's meeting of the British Medical Association in Montreal, was held in Montreal on Saturday, July 2nd.

It took the form of a supper at the St. James Club, Dr. Roddick was in the chair, with Sir William Hingston on his right, Dr. E. P. Lachapelle being vice-chairman,

During the evening the treasurer's report was read when it appeared that in all, from every source, a total of \$17,500 had been received. After all expenses had been paid a small surplus remained in hand, which had been devoted by the committee to the purchase of suitable souvenirs in appreciation of the labor and services of those who had charge of the local arrangements.

Dr. J. A. Springle, hon.-sec., received a pair of Doulton vases, Dr. Hutchison, a large Doulton vase, Dr. Benoit, a handsome silver mounted set of writing table accessories, and Dr. Adami, a handsome jardiniere.

The Council of the College of Physicians and Surgeons of Ontario opened its Annual Meeting at Toronto, on July 5th. Dr. Thorburn, the retiring president gave the customary presidential address. He closed with the suggestion that a committee should be appointed to consider such means as would tend to create uniform standard in the various provinces of the Dominion. The election of officers resulted as follows: President, Dr. L. Luton, St. Thomas; Vice-President, Dr. W. F. Roome, London; Registrar, Dr. R. A. Pyne, Toronto; Treasurer, Dr. H. Wilberforce Aikens, Toronto; Solicitor, Mr. B. B. Osler, Q.C., Toronto.

Dr. Armour, of St. Catherines, gave notice of the following motion "That this council hereby places on record its willingness to cooperate with the medical organizations of the several provinces and territories to establish an office of Dominion medical registration whereby provincial practitioners may secure the rights to pursue their calling in all parts of Canada, on the following basis: The several provinces shall require a course of professional study of not less than four years and shall have a central examining board before whom all students and applicants must pass before receiving provincial registration. All provincial licentiates of five years standing shall be entitled to Dominion registration." It is learned that the council has again declared against reciprocity.

On Monday, June 27th, was held the last meeting for the season of the Lister Laboratory Club. This is a society started among the younger members of the teaching staff who are specially interested in laboratory work. The meetings so far have been well attended and the material provided has been excellent. For a new departure its success is very gratifying.

At the last meeting Dr. J. G. McCarthy demonstrated a hitherto undescribed appearance in the structure of the Hippocampus Major of the human brain. His investigations are to be published *in extenso* at the approaching meeting of the British Medical Association in Edinburgh.

Dr. A. Brûère showed a series of preparations stained by various selective stains for fat, such as Sudan III, Sudan yellow, indulin, quinolin blue, and osmic acid. He was of the opinion that the best results were obtained by the use of Sudan III. He found that like quinolin blue this stained myelin.

Prof. J. G. Adami gave a demonstration of specimens of liver and lymph glands in Pictou cattle disease, showing the characteristic microorganisms. Also specimens from progressive atrophied cirrhosis in man showing a somewhat similar organism.

Dr. Morrow read a communication upon certain rare cases in which he had found that after boiling saline for a short time its diastatic properties had not been destroyed. He enumerated the precautions to be taken to ensure that the saline had been really boiled.

Dr. MacTaggart and others showed morbid specimens.