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# CANADA

# MEDICAL & SURGICAL JOURNAL

**JUNE, 1882.**

Original Communications.

## REMARKS ON OPTIC NEURITIS.

By F. BULLER, M.D., M.R.C.S., ENG.,

Lecturer on Ophthalmology in McGill University; Attending Physician to the Ophthalmic and Aural Department, Montreal General Hospital.

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

It is not my intention to go deeply into the subject of optic neuritis; in fact it would be trespassing too much on the patience and good nature of this Society were I to attempt any such exploit on the present occasion. Nevertheless, having seen in the past six years quite a considerable number of cases in which optic neuritis formed a prominent symptom of other morbid conditions, I will try and make use of them in such a way as to illustrate some of the points of interest in this complicated and difficult chapter in neural pathology. I have only to mention the theories that have been advanced in explanation of optic neuritis, to justify the expressions I have made use of in speaking of the subject as a difficult one, and to show furthermore that there is still much to be learned before we can say our knowledge of this affection is satisfactory and complete.

These theories are four in number. They all, however, start on the common basis, viz. : that the affection is caused in some way by, and is an expression of an abnormally increased intracranial pressure, leaving out of the question, of course, the comparatively rare instances in which the condition is due to disease situated on the peripheral side of the optic chiasm.

The first was advanced by Von Grafe, who held that abnormal and excessive intra-cranial pressure so acted on the cavernous sinus as to cause a stasis in the ophthalmic vein, and hence the swelling and venous engorgement about the optic papilla. This theory is now generally admitted to be incorrect.

The second seems to offer a satisfactory explanation of a certain number of cases, and still finds some supporters. According to this theory, fluid from the arachnoid space finds its way into the nerve sheaths, and thus causes choking of the lymph vessels in the optic papilla. According to this theory, sheath dropsy is the cause of the papillitis.

The third, as I understand it, teaches that the irritation of the brain, induced by certain intra-cranial lesions, causes a disturbance in the vaso-motor nerves, which govern the blood vessels of the papillæ, and thus give rise to the effusion into these structures.

The fourth assumes that with every case of papillitis there is œdema of the brain substance, that is, interference with the lymph circulation. By direct continuity this obstruction or interference extends to the intra-ocular portion of the nerves, and occasions the swelling, etc., of these parts.

However plausible each of these theories may seem, facts have been observed in connection with different cases of optic neuritis which cannot be explained by any one of them. How, for instance, account for the occasional occurrence of monocular papillitis under apparently identical conditions with those that induce the ordinary symmetrical disease? Or, if œdema of the brain is essential to the production of papillitis, how explain a case described by Hughlings Jackson in which there was atrophy of the brain? Some of these mysteries we cannot yet solve; but I strongly suspect the difficulty will ultimately be found to lie in our defective knowledge of the process of nutrition as occurring in the brain and the structures so closely connected therewith as are the optic nerves.

If my memory serves, I once heard H. Jackson say he could quite believe the papilla forms a sort of indicator for the condition of the brain, even where no actual disease of the optic

nerve can be said to exist, and I often think there is a good deal of truth in this remark when I see a dull, turbid-looking nerve in the eye of some unfortunate who has been burning the candle at both ends. The conditions giving rise to optic neuritis are so various in regard to the nature and extent of the primary lesions that we cannot look for any constant set of symptoms indicative of this change. Violent and persistent headache, giddiness, vomiting, and epileptiform attacks occur probably only when the intra-cranial disease has progressed so rapidly that the brain has not had time to become tolerant of the irritant. On the other hand, there are many cases in which a dull, heavy feeling in the head, slight headache, with some obtuseness of the intellectual faculties, and loss of memory, may be the only symptoms noticed. This is true of a case recently in the Hospital, who came to me on account of catarrhal deafness, and merely incidentally one day mentioned that he thought his sight was failing. This led me to make an examination of the eyes, and I discovered a well-pronounced double optic neuritis, with considerable diminution of acuity of vision in one eye, and to a less degree in the other—R. 20/50, L. 20/30. A chart of the visual fields made with Carmalt's Perimeter shows that both are contracted, the left moderately, with pretty good central vision, the right reduced to an exceedingly small area, and the sense of color obliterated. In the left eye the color sense, though impaired, is still fairly good. This man was some four weeks under treatment in Hospital, and during this time his vision did not undergo further deterioration. His history was not conclusive of syphilis, though there was pretty strong presumptive evidence that way. He had no symptoms of brain trouble beyond slight dullness, and some pretty constant headache, though never at all severe.

Another case still in Hospital came to me last November, complaining of pain in the eyes, when used as they had been a good deal in reading and sewing late at night. Her story was just that of a person suffering from asthenopia after over-use of the eyes, except that she occasionally lost her sight altogether for a few moments or minutes. Vision, when first examined, was normal in both eyes. A few days later she came again,

saying she could not see so well. I then found vision barely 20/20 with one eye, and only 20/30 with the other. This led me to make an ophthalmoscopic examination, which resulted in the discovery of double optic neuritis. I then made further enquiries, and found that for several months she had suffered from intense headache, chiefly in the left temple, and thought to be ordinary neuralgia, but she had also had two or three fits, evidently epileptiform. She was sent to Hospital and placed under treatment, and although the head symptoms are greatly mitigated, the nerve affections has gone on to atrophy, and terminated in total blindness.

The disease, as far as the eyes are concerned, has run a rapid course, more so I think than can be explained by a tumor of the brain, unless it presses on the optic tracts or chiasma. Optic neuritis from cerebral tumor is known to exist in some instances for a very long time before blindness ensues, and on the other hand there may be symptoms of cerebral tumor for many years before papillitis occurs. This woman may have had neuritis for a much longer time than we are aware, but still the fact of rapid failure of vision remains the same. The case is one in which there is strong reason to suspect constitutional syphilis, and with this in view mercury was used energetically from the commencement; indeed the drug was pushed farther than I intended, for the mouth became decidedly sore, probably from want of care and cleanliness on the part of the patient. I make it a rule always to stop short of this result in the treatment of these cases, for I am quite certain actual mercurialization cannot be desirable in any instance. Tumors of the cerebellum are well known to be a frequent cause of optic neuritis, but Hughlings Jackson says he has never seen it associated with cerebellar abscess. Now it so happens that I have only seen one case of cerebellar abscess since I have been in Montreal, and in that instance there developed a double optic neuritis some three weeks before death. I have already mentioned this case in a paper on mastoid disease in a brief note as follows:

CASE XV.—J. L., æt. 23, French-Canadian; mill-hand; chronic purulent middle-ear disease since childhood. During

the past ten years the discharge was only occasional and scanty. The hearing power was entirely destroyed. Came to Hospital in June, 1879, on account of intense pain in the back of the head, which had persisted ever since an attack of ear-ache the previous autumn, brought on by working in the cold and wet. There was also great tenderness over and behind mastoid, *but not a trace of swelling*; scanty purulent discharge from the ear and nearly complete loss of the drum-head. The patient walked like a drunken man, and suffered excruciating pain from slight movement, such as driving in a cab; vomited occasionally without any apparent cause. Examined when first seen there was no sign of optic neuritis. A few days after admission an ophthalmoscopic examination was made, and double optic neuritis discovered. Diagnosis—Abscess of cerebellum, secondary to chronic middle ear disease. Died July 13th, twenty-five days after admission. The *post-mortem* revealed an abscess half the size of a hen's egg, in left lateral lobe of cerebellum. Unfortunately, I was absent from Montreal when he died, and did not witness the *post-mortem*. No minute examination of the bone was made, and therefore the connection between the abscess and the disease of the ear was not discovered, though there can be no reasonable doubt that the two conditions stood in the relation of cause and effect.

This patient, when interrogated as to his vision, claimed to see quite well, but was too ill to undergo an accurate examination, or to give reliable answers. The pupils, however, were equal, active, and not at all dilated. There is no reason to doubt the abscess had existed for many months, and thus, perhaps, approximated in its local effects the action of a slowly-growing tumor. I am not sufficiently familiar with abscess of the cerebellum to say whether a delay in the fatal issue is usually of considerable duration.

I may here mention another case of mastoid disease of a subacute character, in which the patient had pretty severe brain symptoms. After these had lasted some weeks, I was asked to make an ophthalmoscopic examination, and found well-marked double optic neuritis, without discoverable impairment of vision. This case ultimately made, I believe, a complete recovery, and is probably unique of its kind.

Sometimes we meet with neuritis for which no cause can be assigned beyond the possible injurious influence of exposure to cold or wet. In 1878, I treated a youth, 19 years of age, at the General Hospital, who belonged in this category. There was no history of syphilis or injury, nor any symptoms indicating brain trouble. He attributed his eye trouble to working in a cold, draughty shop, and being often suddenly chilled after becoming heated at his work. The eye presented the ordinary characters of a moderately developed neuro-retinitis, with great impairment of vision. Under the use of mercury and iodide of potassium, in pretty full doses, the nerves cleared up, and vision was considerably improved when he left the Hospital. I have not seen the case since, though he promised to come as an out-patient if vision was not in a satisfactory condition. It has been said that very great swelling of the optic papilla, amounting to more than four dioptries, is diagnostic of brain tumor, and that white spots about the macula, having a stellate arrangement like the well-known picture of Bright's Retina, indicates a chronic meningitis.

Some time ago I treated a young gentleman for optic neuritis, with swelling amounting to five dioptries, and about the macula the exact picture of Bright's Retina, the entire disease disappearing under the use of mercury inunctions and iodide of potash, in very large doses, for a month or more; about 300 grains of potash were taken daily. Although the optic nerves are now decidedly atrophic in appearance, vision remains almost unimpaired. In this case the disease was undoubtedly some form of brain syphilis. The visual trouble had been preceded by several weeks of intense headache, which also speedily subsided under treatment.

The more I see of optic neuritis, the more I am convinced that Hughlings Jackson struck the key-note of its treatment when he said the only remedies we can rely upon are mercury and iodide of potash in full doses. Doubtless there are many cases which will terminate disastrously, no matter what plan of treatment is pursued; but, on the other hand, a fair proportion will yield to these drugs, and if taken in time an otherwise incurable blindness may be averted by inducing absorption of the

products of inflammation before they have induced hopeless degeneration and disorganization of the nerves.

Many cases are no doubt of syphilitic origin, in which we can get no history sufficiently definite to warrant a positive diagnosis of syphilis, such, for instance, as the one from which the right optic nerve now in my possession was taken.

The patient, a robust young man, employed as a commercial traveller, was brought from a provincial town about 200 miles distant in a condition of unconsciousness, which had lasted for several days. No definite history of the case could be obtained, and there was much obscurity as to the real nature of the case. Three or four days after his arrival in Montreal, I was asked to make an ophthalmoscopic examination. I found the patient in a comatose state, but had no difficulty in making out a commencing double optic neuritis. The patient died the same day, and the autopsy revealed several rather large syphilitic gummata in the brain and a greatly swollen condition of the optic nerves, with the characteristic ampulla-like enlargement close behind the eyeball. The chances are that an early diagnosis and energetic treatment would have saved this patient's life.

There is a peculiar group of cases in which neuro-retinitis seems to be induced by menstrual disorders. Of these, the few I have seen have occurred in connection with suppression of the menses. The last patient of this class under my observation was a young woman about 20 years of age, who had not menstruated for more than six months. During all this time she had suffered almost constantly from headache, often very severely. For three months she had noticed an increasing impairment of vision, and latterly was scarcely able to read ordinary print. I found double neuro-retinitis, without hemorrhages, or white exudations in the retina. There was neither anæmia nor debility. I commenced treatment by the local abstraction of blood by means of the artificial leech, then the rapid induction of slight mercurialization—this to be kept up for several weeks,—together with potassium iodide in moderate doses three times daily.

I have since been informed that under this treatment a complete recovery was made.



Two other cases in which atrophy of the nerves had made considerable progress before a similar treatment was adopted did not terminate so favourably. The atrophic process not being arrested, complete loss of vision ensued.

In view of the importance of optic neuritis, both as a symptom and as an affection which often requires to be treated *per se* with as little delay as possible after its existence has once been discovered, I cannot refrain from urging most strongly the propriety of making a careful ophthalmoscopic examination from time to time in all cases of obstinate or persistent headache, and especially if other features in the case render the occurrence of this serious and important lesion a matter of probability. Although, in treating optic neuritis, we must be guided to a great extent, in the choice of the various measures to be employed, by the particular circumstances connected with each case, we have in mercury and iodide of potash two remedies of immense value when properly used, in a large proportion of these cases. If mercury is to be of any service, it must be used with tolerable freedom, and the same holds good of iodide of potash, but admits of being emphasized still more strongly. Without intending to lay down any hard and fast rules, I may say the plan I generally adopt is as follows: Secure physical and mental rest as far as possible by making the patient stay in bed in a quiet, dimly-lighted apartment; carefully regulate the diet. Use mercury, in the form of inunction twice daily, about a drachm of the strong ointment each time. Keep the mouth scrupulously clean, and as soon as the gums show the action of the mercury is unmistakeable, diminish the quantity used just to the extent of keeping up this action and no more; this must be continued from four to six weeks. About the third day of the mercurial inunctions, commence with iodide of potash, say three or four grains for the first dose, and increase by one grain each dose, at the same time increasing the quantity of water in which it is dissolved. A drachm of the salt will require to be dissolved in about a tumblerful of water, otherwise gastric disturbance will be likely to occur. I never stop short of 30 grains three times daily, and have several times given more than two drachms thrice daily for a

long time without causing inconvenience and with most satisfactory results. If symptoms of iodism present themselves, the quantity administered must be reduced to such an extent as may be necessary for their removal.

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## THE ÆTIOLOGY OF TUBERCULOSIS.

AN ADDRESS DELIVERED BY DR. ROBERT KOCH BEFORE THE  
PHYSIOLOGICAL SOCIETY OF BERLIN.

TRANSLATED BY W. D. OAKLEY, M.D., (MCGILL).

The discovery made by Villemin that Tuberculosis can be conveyed to animals has, as is well known, received frequent confirmation, but apparently well founded contradictions have also been made to it, so that until a few years ago, it remained undecided whether Tuberculosis were an infectious disease or not. Since, however, the inoculation in the aqueous chamber of the eye, performed firstly by Cohnheim and Solomonson, and later by Bauningarten, and further the inhalation experiments of Tappen and others have confirmed without doubt the contagious nature of Tuberculosis, a place amongst infectious diseases must in future be assigned to it.

If the importance of a malady be measured by the number of victims who perish by it, then all diseases, including the most dreaded infectious diseases, such as Pestilence, Cholera, etc., must pass into the background when compared with Tuberculosis. From statistics we learn that 1-7 of mankind die from Tuberculosis, and when nearly the mid or reproductive ages are taken into consideration, a third, and often more than a third, of these are carried off by Tuberculosis. The public have therefore sufficient reason to devote their attention to so fatal a disease, wholly apart from the fact that other circumstances, (of which merely the relation of Tuberculosis to the Perlsucht of domestic animals will be mentioned,) claim the interest of the sanitary authorities.

In the study of infectious diseases one great object of investigation with reference to the public well-being, is the elucidation to their ætiology; therefore it is our urgent duty, making use-

of the light shed by previous investigations, to seek out the cause of Tuberculosis. It has been repeatedly attempted to isolate the morbid agent or germ of Tuberculosis but hitherto without success. The various staining processes which, in so many cases, have led to the discovery of Pathological micro-organisms, have completely failed in this instance. Again, the experiment of isolating and cultivating the Tubercular virus, could not, up to the present moment, be regarded as successful, so that Cohnheim, in the latest edition of his lectures on General Pathology designates "The discovery of Tubercular virus as a problem which, "up to the present day remains unsolved."

In my researches into Tuberculosis I adhered at first only to the known methods without succeeding in attaining any enlightenment as to the cause of the disease, but I was led through some chance observations to forsake these methods and to adopt others, by the aid of which I was finally enabled to attain positive results. The object of the investigation was directed to proving the presence of foreign parasitic organisms which possibly could be regarded as the causes of the disease. This proof I was able to obtain through certain special methods of staining, with the help of which, Bacteria—heretofore unrecognized—were found in all Tubercular organs. It would take too long to describe the way by which I arrived at this new mode of procedure, and therefore I will pass on at once to the description of the results I obtained. The objects to be examined were prepared in the usual manner for examining Pathological Bacteria: namely, either spread out on the cover slip, dried and heated: or, after hardening in alcohol, cut into sections. The cover glasses, or sections were placed in the following staining fluid: 200 Ccm. of distilled water were mixed with 1 Ccm. of a concentrated alcoholic mythelene blue: this solution must be well shaken, and then must be added 0.2 Ccm. of a 10 p.c. solution of caustic potash. This mixture should give no precipitate after standing for days. The objects to be colored remain in the same

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NOTE.—These two objects, cover-glasses and sections, refer to the material used.—That is a soft material such as pus, caseous matter, &c., is spread on a cover-glass while a tissue is made into sections, and then both heated alike.

from 20 to 24 hours, though by warming the staining fluid to 40° C. in a water bath, this time can be shortened from half an hour to one hour. After this a concentrated aqueous solution of Vesuvium (Bismark Brown)—which must be filtered each time before it is used—is then poured upon the coverslips, and washed off after one or two minutes. When the cover slips come out of the mythelene blue the stratum adhering to each appears of a dark blue colour, but through the treatment with Vesuvium, the dark blue color is lost, and each appears of a faint brown.

Under the microscope all the tissue elements, particularly the cell-nuclei, and their detritus appear of a brown colour, while the tubercular Bacteria, on the contrary, appear of a beautiful blue. All other Bacteria I have as yet examined,—with the exception of Lepra-bacteria,—take a brown colour by this staining process. The contrast in color between the brown-coloured tissues and the blue Tubercle Bacteria is so striking that in spite of the very small number in which the latter often exist, they can be detected with the greatest certainty, and as such be recognized. The sections are to be treated in a similar manner. They are taken from the mythelene-blue solution, are placed in the filtrated solution of Vesuvium, and remain in it from 15 to 20 minutes; they are then washed in distilled water until the blue color disappears and a brown color, more or less deep, takes its place. After that they are freed from water with alcohol cleared up in oil of clove, and can then at once be microscopically examined in this fluid, or else finally preserved in Canada Balsam. In these preparations also the tissue elements appear brown, and the bacteria in tubercles blue.

The Bacteria which are rendered visible by this method, present an appearance peculiar in many respects. They have a staff-like shape, and thus belong to the group of the Bacilli. They are very thin, and as long as a quarter, or one half of the diameter of a red blood corpuscle, though they can attain a greater length, even to the complete diameter of the blood corpuscle. As regards their shape and size, they possess a striking similarity to the Lepra-bacilli, but they can be distinguished from the latter by being a little thinner, and more pointed at

the ends. The Lepra-bacilli also stain by Weigert's methods of staining, but the Tubercular-bacilli do not. On all points where the Tubercular process is of fresh origin and is advancing rapidly, the bacilli are present in great quantities; they then form ordinarily, small groups closely pressed together and often arranged in bundles, which frequently lie in the interior of cells, and in some places give exactly such pictures as the Lepra-bacilli. On the other hand there are abundant bacilli which lie free: especially at the edge of large caseous deposits there are almost exclusively groups of bacilli which are not enclosed in cells. As soon as the acme of the tubercular infection is past, the bacilli are not so numerous, and they are then found only in small groups, or even singly, at the edge of the tubercular deposit along with bacilli which are weakly stained and scarcely recognizable; apparently, these have either begun to die, or are already dead. At last, they may wholly disappear, though it is only very seldom that they are completely wanting, and then only in the places where the tubercular process has come to a stand still.

When giant cells appear in the tubercular tissues the bacilli generally lie in the interior of these structures. In tubercular processes which are slowly advancing, the interior of the giant cells is generally the only place where the bacilli can be found. In this case the majority of the giant cells enclose either one or a few bacilli, and it makes a striking impression to find over large areas of the section, ever-recurring new groups of giant-cells, almost every one of which contains in the wide interior space, surrounded by brown-stained nuclei, one or two exquisitely fine, blue-stained staves, seated almost in the centre of the giant-cell.

It is also possible to recognize the Bacilli unstained. For this purpose it is best to choose such places as contain the Bacilli in large numbers: we can take a little substance from a grey miliary nodule in the lung of a guinea-pig which has died of artificial tuberculosis, and examine it in distilled water or blood serum—to avoid the currents in the preparation it is better to use a hollowed slide, under these circumstances the bacilli appear as very fine rods with a molecular movement. Independent movement is entirely wanting in them.

Under certain circumstances, which we will mention later, the Bacilli form spores, even in the animal body; the simple rods then contain from two to four spores which are arranged longitudinally, at regular intervals.

With reference to the presence of the Bacilli in the different tubercular diseases of man and animals, I have investigated up to the present the following cases:—

I. From man: 11 cases of Miliary Tuberculosis. The Bacilli here were never absent in the miliary tubercles of the lungs, often indeed they could not be found in nodules of which the centres did not stain, but in such cases they were found in small groups at the edge of the tubercle. In young tubercles, whose centres were still non-caseous, they were found in great quantities. They were also found in the miliary tubercles of the spleen, the liver and kidneys, and especially abundant in the grey nodules of the Pia Mater in Basilar Meningitis. In caseous bronchial glands, also, which in several cases were investigated by me, dense groups of Bacilli were found, and among them, many containing spores; here they were generally found in the miliary tubercles, embedded in the gland tissue.

II.—*Twelve* cases of caseous Bronchitis and pneumonia, in which cavities were present. The presence of the Bacilli was here generally limited to the edge of the caseous infiltration, and they were often present in great numbers. Also in the interior of the infiltrated portion of lung nests of the Bacilli were sometimes to be seen. In the cavities they were especially abundant. The well-known small caseous masses consist almost entirely of masses of Bacilli. Among those Bacilli which were met with in the cavities and in the softened caseous deposits, sometimes many were found which contained spores. In the large cavities they were mixed with other Bacteria, though from the difference in staining they were easily to be distinguished from these; tubercle Bacteria staining blue, and the others, as already mentioned, brown.

III.—*One* case of solitary Tubercle of the brain, the nodules being larger than a hazel-nut. The caseous mass of the tubercle was enclosed by a tissue rich in cells, among which, many giant-

cells were embedded. The greater number of giant-cells contained no parasites, but here and there groups of giant-cells were seen, each of which contained one or more Bacilli.

IV.—*Two* cases of Intestinal Tuberculosis. In the tubercular nodules which were grouped around the intestinal ulcer, the Bacilli could be very easily seen, and they were principally contained in the smallest and most recent nodules. In the mesenteric glands in these two cases, the Bacilli were present in great numbers.

V.—*Three* cases of freshly extirpated bronchial glands. Only in two of these could the Bacilli be seen, enclosed in giant-cells.

VI.—*Four* cases of fungous inflammation of joints. In two cases the Bacilli were found in giant-cells which were arranged in small groups.

Then follows a list of affected animals in which the bacilli were found.

By the regularity of the presence of the tubercular bacilli, it may appear strange that they have not been discovered ere this time, but this can be explained by the fact that the bacilli are extraordinarily small structures and very few in number, especially where their presence is limited to the interior of giant-cells, so that, in the absence of special staining re-action, they would not be seen by the most attentive observer. If they are present in greater quantities they are so mingled with and covered by a fine granular detritus than their detection is even rendered in the highest degree difficult. It is true there exists some assertions as to the presence of micro-organisms in tissues which have undergone tubercular changes. Schüller, in his paper upon Scrofulous and Tubercular Joint diseases, mentions that he has constantly found Micrococci. Doubtless in this case, as also with regard to the very small moveable granules found by Klebs in Tubercles, the appearance must have been produced by something else than the Tubercular Bacilli seen by me, which are immovable and rod-shaped. Further Aufrecht, as he says in the first volume of his Pathological Reports, has found in a number of rabbits which he had infected with Tubercular substances, three cases in which in the centre of the tubercular nodules—

along with two different varieties of micrococci—there were also short rod-shaped structures, whose long diameter only exceeded the short diameter by half. The tubercle bacilli, on the contrary, are at least five times as long as they are thick, or even still larger in proportion to their thickness; besides, in pure tuberculosis they are never mixed with micrococci or other Bacteria. It is therefore extremely improbable that Aufrecht has seen the real Tubercle Bacilli; were this the case, he would probably have found the bacilli in human tubercle, and in the lungs of the Perlsucht, and the striking relation between the Bacilli and the giant-cells could not have escaped him.

On the ground of my abundant observations, I regard it as proved that in all Tubercular affections of men and animals, the Bacteria, designated by me as Tubercle Bacilli, which through their characteristic properties are differentiated from all other micro-organisms, are constantly present.

(To be continued.) p. 705-718

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## AN ABNORMALITY.

BY J. J. GUERIN, M.D., MONTREAL.

I was called last evening to attend a Mrs. R— in labour. On arriving, found the os dilated to the size of a silver dollar; the membranes had not yet been ruptured, but the head was pressing down forcibly. The pains were vigorous, and within three-quarters of an hour the membranes were torn and the head was on the perineum; after a few more pains, the child came into the world still-born. The first thing that struck me was the small size of the child, it having the appearance of a foetus between the sixth and seventh months, notwithstanding the fact that the mother protests her belief that she has been in the *family way* during the last ten months.

The mother is a well-developed, powerfully-built woman, of English extraction. She menstruated normally about the 15th of last June, after which she says she felt that she was pregnant. Two months later, when her husband was coming home one evening, he was attacked and severely beaten at his own door,



before her eyes. This naturally terrified her considerably, and the next day she says her menses returned, but only remained for twenty-four hours. Two months later one of her boarders, who worked in the St. Lawrence Sugar Refinery, was killed, having been suffocated while at work in one of the filters. When she saw him brought home she was greatly shocked, and for several months would not enter the room which the man had previously occupied. The woman seemed to have a presentiment that these frights were going to have an injurious effect on her child, for she drew my attention to the fact that she was not as large as she generally was when her children had come to full time, and as soon as the child was born she inquired if it was perfect. The father is a powerfully-built German, quite healthy. They have had two children, both of whom are healthy and strong. The infant which was just born presented the following peculiar abnormalities: Length, 15 inches; appears generally undeveloped, but more especially on the left side. The left side of the forehead was flattened, and the left side of face wore a blank expression, as though all the muscles were in a state of paralysis. There was inability to open the left eye, but the child was able to move both arms and legs. There is double hare-lip and cleft palate. The left forearm is of a most rudimentary character, thus bringing the hand very close to the humerus, and giving an appearance as though the wrist articulated with that bone; however, the elbow and a very small forearm can be felt. The hand articulates with the internal surface of this undeveloped forearm, and attached to the hand are four fingers, but no thumb. The right side of the head is fuller and rounder than the left; the right eye is more prominent than the opposite one, and was kept constantly open. There was a peculiar bluish appearance of the skin on the right side of the face and head, which was not perceptible on the left side. The thumb of the right hand is rather sessile, being attached to the hand merely by integument. The right testicle is present in the scrotum, but the left is conspicuous by its absence.

## QUARTERLY REPORT ON PHARMACOLOGY AND THERAPEUTICS.

By J. STEWART, M.D., BRUCEFIELD, ONT.

### THE TREATMENT OF DIABETES.

#### I.—*By Codeia.*

Dr. Shingleton Smith, at the last meeting of the British Medical Association, related the particulars of three cases of diabetes, which all exhibited marked improvement while taking Codeia, which improvement ceased when the Codeia was withheld, and was renewed on its repetition. Morphia had been given in two of the cases, but the result was not nearly so marked as when the Codeia was administered. Dr. Smith did not find any unpleasant effects following the use of Codeia. The skin continued moist and the bowels regular. Its use is not followed by headache. It can be given in very large doses without producing the physiological effects of opium. As much as 10 grains three times a day can be used by a diabetic without giving rise to any inconvenient symptoms.

Dr. Smith read a paper before the New York Academy of Medicine last February on the treatment of diabetes by means of Codeia. He gave the details of three well-marked cases of diabetes occurring in hard-worked men. The improvement followed quickly after the administration of the drug, and progressed steadily until all the symptoms, including the presence of sugar in the urine, had completely disappeared. More than a year has elapsed since the disappearance of the sugar from the urine. One point of interest was the fact that in these three cases the patients were hard-working men mentally, suffered from disturbances of digestion and mental depression, and led a sedentary life, with but little muscular exercise. Dr. Smith gave an account of a man, who, when he first came under his observation, in 1873, had lost 50 lbs. in weight. His urine had a sp. gr. of 1.044, and contained sugar in great abundance. He was placed upon Codeia, restricted diet, and the free use of claret with his meals, and in eighteen months he gained in weight thirty-five pounds; the specific gravity and

quantity of the urine had reached the normal; sugar had disappeared, and at the present time he was in excellent condition.

Dr. Wm. Squire says that he has seen a case of diabetes where three and a half ounces of sugar were excreted daily, completely recover where Codeia in full doses was one of the means employed.

## II.—By *Bethesda Water*.

Dr. Murrell reports a case of *diabetes mellitus* treated by these waters, and although the patient died from acetonæmia, he considers that he was much benefited by their use, and urges a more extensive trial of them in *diabetes* and Bright's Disease. The spring is in Wisconsin. An analysis of the water shows that it contains seventeen grains of carbonate of lime and twelve of carbonate of magnesia to the gallon, besides chloride of sodium, sulphate of potash, alumina, silica, and some gaseous constituents. These waters have been recommended for several years by many American physicians. The patient is directed to take from eight to ten tumblerfuls daily for ten days, and then half the quantity for the next fifteen, thirty or sixty days.

## III.—By *Chloride of Ammonium*.

Adamkiewics, acting on the theory that protein, the fundamental sustenance of the organism, may be regarded as the resultant of sugar and ammonia, has made a series of experiments upon diabetics in the hope of reducing the morbid production of sugar by administering to them ammoniacal compounds. From his first series of experiments, made on healthy men he draws the following conclusions:—(1.) Ammonium chloride is decomposed in the intestine of the healthy man; the greater part of the resulting ammonia is absorbed and probably reappears in the urine in the form of albumen. (2.) Ammonium chloride acts exactly like sodium chloride; it is dehydrated in the tissues, and favors the decomposition of albumen. (3.) The decomposition of albumen and the excretion of ammonia do not proceed *pari passu*. In the second series of experiments made on diabetics, he remarks that (1) ammonia is quickly metabolized in them, and its assimilation coincides with the

metabolism of the abnormal sugar, so that in slight cases the sugar may disappear from the urine. (2). So long as the sugar is not completely metabolized, the ammonia absorbed does not increase the quantity of water or urea excreted; but so soon as the sugar disappears, both water and urea at once increase. This he takes to be a convincing proof that a part of the ammonia is converted into urea and is excreted as such.

*Explanation of the Mode of Action of Bromide of Potassium, Atropin and Cinchonidin in the Cerebrum.*

Dr. Albertoni, of Genoa, has arrived at the following conclusions as the result of an extended series of experimental investigations into the action of the above drugs on the cerebrum :

I.—The continuous use of bromide of potassium in dogs reduces the excitability of the brain in such a marked manner, that it no longer responds to electric irritation. One large dose is sufficient to deaden the activity of the cerebrum to electric irritation. After the continuous use of bromide in dogs, it is impossible to induce through electric irritation of the brain movements of the muscles of the face and extremities.

II.—Atropine increases the excitability of the cerebrum, and induces an increased susceptibility of it to electric irritation. The variations in the irritability and development of the cerebrum explains satisfactorily the following interesting facts:— (1) The slight action of atropine in childhood. (2) The cerebral symptoms induced by atropine in dogs are more severe than those in sheep. (3) The complete failure of atropine to have any influence over pigeons. The brains of pigeons are not irritable like those of sheep. Small doses of atropine induce an increased circulation through the brain by the action of the drug on the inhibitory influence of the vagus. Medium-sized doses bring about contraction of the vessels of the brain, and dilatation of the vessels of the rest of the body. The contraction of the cerebral vessels ceases when the cervical sympathetic is cut. This action of the atropine takes place through the vaso-motor centre.

III.—Cinchonidin increases the frequency of the fits in epi-

lepsy. Even after removal of the cerebrum, the administration of cinchonidin is followed by general convulsions. It acts by irritating the central motor ganglia. The convulsions and lethal effects induced by it are completely prevented by the administration of bromide of potassium. This action of the bromide furnishes an additional proof of its usefulness in a state of "tension of the nervous centres."

The continuous use of atropine prevents neither the epileptic or fatal effects of cinchonidin. Atropine is not useless, but harmful, in an epilepsy caused by a "state of tension of the nerve centres." In epilepsy caused by fright, it may be useful. Where epilepsy is due to congestion of the cerebral vessels, atropine will prove useful. In peripheral epilepsy, atropine is likely to be useful from its power of dulling sensibility.

*Temporary Insanity following the use of Iodoform Pessaries.*

—There are now on record several cases of temporary insanity following the use of iodoform as a surgical dressing. Seeligmüller describes the case of a married woman, aged 24, who, for a chronic endometritis, had been ordered pessaries, each containing about a grain and a half of iodoform. Two of these were introduced daily into the vagina for a month. Before she discontinued using them she became melancholy, and was unable to recognize her own husband and child. These mental derangements were preceded and attended by a marked tendency to fall asleep. She lived in the past, speaking generally of her early school days. She recovered slowly after discontinuing the use of the pessaries.

Judging from the above case, it would be fair to attribute a cumulative action to iodoform. Supposing that the whole of the daily dose (3 grains) was absorbed, it would not be likely to induce such serious symptoms as detailed in this and other cases. On the other hand, Dr. Schede says that some people are so easily affected by iodoform that ordinary doses may at times prove to be very dangerous.

König reports cases where dangerous symptoms have set in with great rapidity and quite unexpectedly when iodoform was used as a surgical dressing.

As iodoform is likely to be extensively used as an antiseptic in the treatment of phthisis, it cannot be too strongly insisted on that in the form of inhalation it is more likely to give rise to grave cerebral symptoms than when given in any other form.

*Chrysophanic Acid internally in Psoriasis.*—Dr. Napier reports several cases of psoriasis under his own and Professor Charteris' care, which have been cured by the internal administration of the acid. He recommends it to be given in doses of one-third to half a grain at first, and afterwards gradually increased until three or four grains can be taken daily. If given too freely at first, it is apt to cause vomiting and purging. The local use of chrysophanic acid has the following disadvantages: 1. It is a powerful irritant to sensitive skins. 2, It stains the skin and hair. 3, It is very dirty. 4, It is very expensive.

Prof. Charteris has shown that chrysophanic acid, when applied to a patch of psoriasis on one elbow only, will cure, by virtue of its constitutional effects, a similar eruption on the opposite elbow. That this acid can be absorbed has been proved by the researches of Lewin and Rosenthal. In doses of three grains and upwards it is a valuable emetic purge, having an action on the liver also. According to Dr. J. Ashburton Thompson, it is a very useful remedy for "clearing out the primæ viæ, being unequalled by any other remedy, with the exception of a combination of ipecacuanha and tartar emetic."

#### NITRO-GLYCERINE.

Dr. Hammond, in a paper read before the New York Neurological Society, recommends nitro-glycerine in some forms of epilepsy and hemicrania. He says that in that form of epilepsy, known as the *petit mal*, in which bromides, as a rule, have but little curative action, nitro-glycerine is of particular efficacy. He commences the treatment by giving one drop of a one-per cent solution three times a day, and increases the dose by a drop every month, until the end of a year, when the patient will be taking twelve drops three times a day. In the *status epilepticus*, a condition in which the paroxysms succeeds one another so rapidly that there is no conscious interval, results have been obtained better even than those following the administration of the nitrite of amyl.

In typical hemicrania, he has had also great success with the nitro-glycerine. He is of the opinion that many cases can be permanently cured by means of it. It is only in the *anæmic* variety of headache that it is useful.

Korcynski reports five cases of angina pectoris where the use of nitro-glycerine was attended by the most gratifying results. In speaking of its use in this formidable malady, he says that it is immaterial what induces the angina; its relief by nitro-glycerine is generally certain. Cases associated with or due to chronic valvular disease, atheromatous condition of the blood-vessels, degeneration of the muscular tissue of the heart, are all readily relieved by this drug. If the attacks are due to deficient or perverted cardiac innervation, they are not only relieved for the time, but can be permanently prevented by the continuous administration of the nitro-glycerine. Workmen employed in handling nitro-glycerine, even in the form of a weak solution or pill mass, are affected by it very unpleasantly. It causes headache, flushing of the face, nausea, sleeplessness, &c.

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## QUARTERLY RETROSPECT OF SURGERY.

PREPARED BY FRANCIS J. SHEPHERD, M.D., C.M., M.R.C.S., ENG.

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of the Montreal General Hospital.

*Acute Traumatic Malignancy.*—Mr. Richard Barwell, in the *British Medical Journal* of Feb. 11th, 1882, describes several cases of malignant disease rapidly following injury, to which he gives the name—Acute Traumatic Malignancy. He thinks that “under the stimulus of severe irritation, the tissue-elements which, under favourable circumstances, would assume only the additional activity necessary to repair, may take on a more prolific cell-germination, culminating in a rapid form of malignant disease in one of those forms, be it named myeloid or round-celled sarcoma, or encephaloid cancer, which consists of little else than heaped up cells and their progeny.”

The first case is that of a boy aged 17, who, whilst playing football, fell on his shoulder and disabled it. This occurred on April 24th, 1875. A week after the shoulder began to swell rather rapidly, and on May 19th Mr. Barwell saw him, and then there was a swelling most marked in front, which was soft with some ovoid patches harder than the rest; the swelling did not rotate with the bone. On May 25th the shoulder was considerably increased in size, the skin a little tense, surface white and waxy, and large veins coursing over the growth. The texture was soft and doughy, with a sense of false fluctuation. An exploratory puncture was made and a shred of tissue removed, which, under the microscope, was seen to be made up of large cells with brilliant nuclei. Excision was advised, but was not consented to for a month. It was performed, and a round-celled sarcoma removed. The disease returned shortly after, and the boy died in about three months.

The second case was that of a stevedore aged 65, who came into Hospital for bruise of left side, due to injury from falling down the ship's hold 18 days previously. He died two weeks after admission, and the *post-mortem* disclosed malignant disease of the left pleura and lung. The new growth was an oval-celled sarcoma.



Mr. Barwell also mentions a case of malignant disease following fracture of the fibula, which many years ago was under the care of Mr. Lloyd, of St. Bartholomew's Hospital. Mr. Barwell thinks in these cases there must have been tumour diathesis, and that the local injury was provocative of a neoplasm.

Mr. H. B. Walker (*Brit. Med. Journal*, April 1, 1882), also cites several cases of acute traumatic malignancy which have come under his observation.

I remember last summer seeing an example of this affection in the Montreal General Hospital. A girl aged 18 was admitted for ununited Colles' fracture. It appears that some weeks before she had broken her right radius about an inch from the wrist, and it had been put up in the usual way, but soon after became painful, and on examination, the seat of fracture presented considerable swelling, rather soft in character, and fluctuating. The lower end of the upper fragment was expanded, and cracked when pressed. The swelling increasing, she was recommended for admission to hospital under Dr. Roddick. On admission, the tumour was incised and found to be myeloid in character, and the arm was amputated below the elbow. The case did well, the stump healing rapidly. This is the only case I can recollect having seen. The fact that malignant disease may follow injury or irritation has long been known, as, for example, epithelioma of the lip and tongue following the continued use of a short clay pipe (in those probably having the tumour diathesis), chimney-sweep's cancer following irritation from soot, blows on the breast, and probably repeated attacks of mastitis, causing malignant disease, &c. It is probable that an injury which in some would produce merely an ordinary inflammation, in others would, owing to certain misplaced germinal cells being stimulated by the increased nutrition into embryonal activity, cause a malignant growth. The additional point, however, which Mr. Barwell wishes to bring forward is that such growths occasionally assume an acute form.

Mr. Butlin, in a letter to the *British Medical Journal*, March 18th, 1882, directs attention to the fact that many cases of sarcoma of the bones, apparently directly due to injury, are already

on record, and gives several references; and he himself has seen at least six cases which have pursued an acute course, and a still greater number a chronic course. He agrees with Mr. Barwell in believing that there is a distinct tumour diathesis, and says the evidence in favour of this theory is as strong as that which supports the belief in a strumous or rheumatic diathesis.

Mr. Harrison Cripps relates two cases of malignant disease following traumatism which came under his notice when registrar of St. Bartholomew's Hospital, and remarks, with reference to a traumatic causation, that thousands of blows may be struck on bones without causing acute pyæmic necrosis, just as we see that similar injuries are rarely followed by malignancy. He goes on to say that in cases of acute pyæmic necrosis, the primary subperiosteal abscess often teems with minute organisms, and yet there has been no lesion of the skin by which such bodies could have been admitted from the external air. Thus he is driven to the conclusion that the poisonous organism must have been circulating in the blood, in which it is innocuous; but when the extravasation caused by the blow allowed it to become stationary, it multiplied, producing all its poisonous effects. He asks whether the explanation of traumatic malignancy might not lie in some organism accidentally circulating in the blood, becoming the cause of active disease by infecting the cells of a part, when left stationary, by effusion into the tissues.—(*Brit. Med. Journal*, May 6th, 1882.)

*Abortive Treatment of Buboes.*—Dr. Morse K. Taylor, assistant surgeon U.S. army, in a paper in the April number of the *American Journal of Medical Sciences*, says that for nearly seven years he has treated commencing buboes by simply injecting the glands with a solution of carbolic acid. He has treated nearly 150 cases of various forms of lymphadenitis arising from specific and non-specific causes; and where he has seen them before the formation of pus was well established, he has not failed to arrest the process immediately, and allay the pain in a few minutes. Ten to forty minims of a solution of 8 to 10 grains of acid carbolic to the ounce of water is injected. Some care is required to insure certainty in reaching the central portion of

the gland, and Dr. Taylor has found it better to wait until the gland has attained some size, and its stroma has become sufficiently distended to admit of free permeation of the injection to all parts of its structure. He also advises numbing the skin of the gland with ether spray before injecting, so that the gland may be firmly held to determine its size and to ascertain the depth to which the needle must penetrate to reach its central parts. The average time patients treated by this method have had to forego their usual avocations has not exceeded three or four days. Some twenty cases (successful) are given in detail. When pus has already formed, Dr. Taylor aspirates and then injects carbolic acid solution, and applies compression by means of a bag filled with shot or sand, with an intervening layer of oakum or absorbent cotton. Under this treatment the bubo rapidly disappears, and there is no need of the knife or poultices. For the axillary and cervical regions, he finds that compression can be most easily kept up by means of a potato trimmed to fit the location and enveloped in a strip of thin muslin.

I have several times arrested suppuration in buboes by accurately applied strips of belladonna plaster. This relieves the pain, and often, by the pressure which is used, arrests suppuration. Dr. Taylor's plan, however, is so simple, that if others find it as successful as he, it bids fair to become a recognized and favourite form of treatment.

*Treatment of Fractured Patella.*—Mr. Jonathon Hutchinson holds that in fractured patella the separation of the fragments is not caused by the muscles: repeated observation has convinced him that it is always caused by, and in proportion with, the effusion into the joint. If there be no effusion there is no separation. Mr. Hutchinson says that when the muscle is at rest it is always relaxed, and when relaxed there is no reason why the upper fragment of the broken bone should not come easily down to the other, and, in fact, that it always does so when there is no effusion. Spasm of the muscle may of course cause separation at the moment of the accident, but as soon as the limb is in bed at rest its agency ends. If the effusion is the cause of the separation of the fragments, get rid of it as quickly as possible ;

the effusion may be blood or synovia or a mixture of the two. If it occur immediately after the injury it is probably blood, and these cases, Mr. Hutchinson says, are most difficult to treat, for blood is more slowly absorbed than synovia. The treatment of both kinds of effusion is the same, viz: a vigorous application of cold. The ice-bag and spirit lotion are the best measures according to Mr. Hutchinson, who says that if by these means you can get rid of the swelling in 8 to 10 days you will have a good chance of bony union. When the effusion has been subdued the bones should be brought together with oblique strips of plaster fixed in the notches of the splint. The limb should be extended from first to last on a well-padded back splint, and the leg kept elevated; after being bandaged the limb should not be touched for from six weeks to two months, when the patient should be allowed up, using a patellar apparatus, however.

Mr. Christopher Heath while agreeing with Mr. Hutchinson as to the cause of the separation of the fragments (*British Medical Journal*, March 25th, 1882,) carries the treatment further than Mr. H., and does not hesitate to aspirate the knee-joint, both in cases of fractured patella and injury of the joint without fracture. If the joint be aspirated a few hours after the accident, the blood being still fluid, can be readily withdrawn. Having emptied the joint Mr. Heath does not hesitate to apply at once a plaster of Paris bandage over an envelope of cotton-wadding, and he allows the patient to go about with crutches as soon as the plaster is dry. If he sees the case before there is effusion, he at once applies a plaster of Paris bandage, and allows the patient to move about.

This method of treatment which Mr. Heath adopts is certainly a great improvement on the old one of clumsy apparatus, and prolonged rest in bed, when atrophy of the quadriceps is certain to ensue, and it is some months before use of it is regained. The most successful result of fractured patella I have ever seen was in a case where before effusion took place the leg was put up in a plaster of Paris bandage, and after a couple of days the man allowed to go about with crutches. The bones were separated by a very short interval, and of course the union was fibrous, but

the man had perfect use of his joint. Dr. Hamilton of New York uses a back-splint of leather or gutta-percha, or gum shellac cloth (the latter preferred). It should reach from the middle of the thigh to two or three inches above the heel; a roller of cotton is then turned round the leg and splint to within three inches of the knee, and another from the upper end of the splint to within three inches of the knee. While an assistant approximates the fragments, the surgeon should make two or three turns with a third roller around the limb and splint, close above the knee, after which the roller descends below the knee, and a number of circular turns are made close below the lower fragments, which turns should approach each other in front till the whole patella is covered. The heel is left elevated or suspended. Dr. Hamilton does not believe in evaporating lotions, but says the swelling usually goes down in a day or two, and then the patella bandages should be tightened daily as required by over-stitching the oblique turns. At the end of four weeks the apparatus should be removed and the limb bent gently daily, after which the splint should be re-applied and the patient allowed to go about with crutches.

With regard to the union of the fragments, some surgeons deem it necessary to always get bony union, and Mr. Lister frequently wires the fragments together. Now the belief is getting abroad that bony union after all is not the most desirable, but that patients who have good fibrous union have better use of their limbs than those with bony union, and besides the tendency to refracture is less. Mr. Hutchinson says he is by no means an enthusiast as to bony union. Dr. Hamilton decidedly prefers ligamentous. Mr. Heath remarks that the reason bony union is less advantageous than ligamentous is that the patella contracts adhesions to the external condyle. No doubt we are more apt to have ankylosis with bony union than with ligamentous, and for this reason the great Pott abandoned apparatus; he considered that position alone approximated the fragments sufficiently.

*Iodoform in Surgery.*—Iodoform has now taken a recognized place as one of the most valuable antiseptics. It may be used in the form of powder or iodoform wool. As a powder it is most

useful in the treatment of local sores, sinuses, &c. Its powers of lessening suppuration are remarkable, and under its influence an unhealthy sore soon takes on a healthy action. The iodoform wool is difficult of preparation. It is made by heating eight parts of iodoform with 88 of ether; in four pints of this mixture half a pound of absorbent cotton is soaked for a short time, and the wool is afterwards placed in a drug press; when dry the wool contains about 10 p.c. of iodoform, and is ready for use. The objection to the wool is that an irritating powder is spread over the room, and its odour is very disagreeable to many people. The former tendency is overcome by adding a little glycerine to the ether, and the latter is modified by the addition of eucalyptus oil. The wool should be stored in air-tight boxes. It is very useful as a dry antiseptic dressing and is much used at present in Germany. After an amputation the stump may be dressed, after sewing the wound with catgut or silver wire, and inserting a drainage tube, by properly applied pads of this wool kept in position by gauze bandages, the dressing may often be left on for ten days without change, and the drainage tube and stitches (if of silver wire) removed in the first dressing. The wound is, in a large percentage of cases, found to have united by first intention.

This mode of dressing gives us all the requisites for the rapid healing of wounds, viz., rest, elastic pressure, antisepticism, and drainage. Before applying the wool pads, iodoform may be dusted on the wound. In Germany, where it has been used most freely and in large quantities, some cases of poisoning have occurred, characterized by elevation of temperature and an erythematous eruption, and albumen in the urine. The Germans use it in wounds of the mouth; and pack it in cavities in the form of a paste made with resin. Some fatal cases have been described by H. Henry. According to Mikulicz of Vienna, the use of iodoform gives brilliant results in strumous diseases, and also in lupus after the epidermis has been removed with caustic potash. I have found it of the greatest benefit in gangrenous and sloughing wounds seen after crushing injuries; also in foul ulcers of the leg. The best way to treat foul ulcers is to dust on iodoform

powder thickly, cover this over with oiled silk, over this place a pad of absorbent cotton, and bandage carefully and firmly. Here, again, we have the benefit of elastic pressure, with asepticity. In the treatment of soft chancres, its superiority to every other application is generally admitted, and its application is quite painless. Its odour is objected to by many, but it may be controlled by keeping a tonga bean in the box containing the powdered iodoform. Mr. W. Whitehead (*Brit. Med. Jour.*, March 11, '82,) first dries the sore and then applies with a camel's hair pencil a solution of iodoform in ether. The ether rapidly evaporates and leaves the iodoform uniformly spread over the surface of the sore. This process may be repeated several times, and when the application is dry, it may be painted over with collodion, and a pinch of absorbent cotton is applied over this. Mr. Whitehead has had great success by this method. The solution of iodoform he sometimes uses is one part to two of ether and collodion ten parts. The dressing is renewed in 24 hours.

Mr. Lennox Browne says a solution of iodoform in collodion may be made without the addition of ether, by shaking up one part of iodoform with ten of collodion. The iodoform should be added to the collodion, and not the collodion to the iodoform, to obtain a clear solution. He uses it in glandular enlargements of the neck.

*Colectomy.*—Mr. John Marshall, F.R.S., in a clinical lecture delivered at University College Hospital on April 27th, 1882, gives an interesting account of the above operation. It was performed in a case of "chronic intestinal obstruction, the seat and cause of which could not be ascertained, even under the influence of an anæsthetic, but which was discovered, on a median abdominal section, to be due to a circumscribed cylindrical growth, situated in the descending colon. Whereupon this growth was forthwith removed, through a left lateral abdominal incision, by resection or excision of the diseased part, together with small adjoining portions of the intestines. The two free ends of the bowel were then attached to the lateral wound in the abdominal walls, more or less after the manner adopted in colotomy, whilst the median abdominal section was closed by the usual deep

sutures." The patient, unfortunately, only survived the operation three days, dying from a low form of peritonitis. Mr. Marshall remarks that he should approach another case of the same kind hopefully, and would make use of the left lumbar incision, as holding out greater chances of success.

Mr. Bryant, at a meeting of the Royal Medical and Chirurgical Society of London, on March 28, '82, reported "a case of excision of a Stricture of the Descending Colon through an incision made for a left Lumbar Colotomy." The operation was performed on a lady aged 50, who had suffered from complete obstruction for eight weeks. The stricture could not be felt from below. The bowel was removed by simply pulling the segment strictured through the wound and stitching each portion of the bowel, with its two orifices divided, to the lips of the wound. The stricture was of the annular kind, and involved about one inch of the bowel, and it was so narrow as only to admit the passage of a No. 8 catheter. A discussion ensued, in which it was stated that this was the first operation of the kind in British surgery. The majority of the speakers favoured abdominal incision to the left of the left rectus muscle, as being more likely to lead to a correct diagnosis in obscure cases.

*Gastro-Enterostomy.*—Dr. Anton Wölfler, in the *Centralblatt für Chirurgie*, describes an operation to which he gives the above name. A man, aged 38, had been the subject of gastric cancer for six months, and was admitted to Billroth's wards on the 27th of September last. He was weak and much emaciated, and for three months had vomited the greater portion of his food. Under chloroform, a tumour the size of an orange was felt in the pyloric region, and from the circumstance that it was movable in all directions, Dr. Wölfler was induced to make an exploratory incision, when he found cancer of the pylorus (freely movable), but in addition, the hepatico-duodenal ligament and head of the pancreas were infiltrated with the new growth. As a resection of the pylorus seemed impracticable, and as he did not wish to close the abdomen without accomplishing anything, the establishment of a nutrient fistula in the small intestine was the only thing to be thought of. The objections were obvious enough,



viz., the due admixture of bile and pancreatic juice is prevented when the fistula cannot be established at the upper accessible portion of the duodenum, and the condition of the patient with such a fistula is always more or less deplorable. Accordingly, Dr. Wölfler determined to set up a direct communication between stomach and small intestine. The stomach was opened by an incision two inches in length in its greater curvature, a finger's breadth above the insertion of the gastro-colic ligament. He then made an incision the same length in a coil of small intestine (opposite the attachment of the mesentery), and stitched the edges of the wound on the gut to those of the gastric aperture. Strict antiseptic precautions were used, but no spray. The progress of the case was in every way satisfactory; the vomiting ceased, and the patient was able to eat solid food at the end of eight days without discomfort. The external wound healed by first intention. Four weeks after, the patient was well and was passing firm, brown-coloured stools. Prof. Billroth performed a similar operation a few days later for extensive pyloric carcinoma, but bilious vomiting setting in the day after the operation, the patient only lived ten days.—(*Edinburgh Med. Journal*, April, 1882.)

*Early Treatment of Prostatic Obstruction.*—Mr. Reginald Harrison, of Liverpool, advises the early use of instruments in prostatic disease (*British Medical Journal*, March 18). To dilate the passage, he uses specially adapted bougies. The instruments are gum-elastic, two to four inches longer in the stem than usual, with an expanded portion an inch from the tip, which is made to enter the bladder. In this way the prostate is subject to pressure on the insertion and withdrawal of the instrument. As a rule no irritation is aroused. By the use of these dilators Mr. Harrison asserts that the enlargement of the prostate is so moulded as to prevent obstruction. In a few persons it becomes necessary to establish a state of instrumental toleration. In some individuals the intolerance is entirely due to the presence of unnatural quantities of uric acid in the urine.

In case of difficulty in the passage of instruments where there is *Retention of Urine* Mr. Harrison advocates tapping of the

bladder from the perniæum through the hypertrophied prostate. He has devised a special trocar and cannula. The trocar is hollow, and when the bladder is reached urine flows through it. The trocar is then withdrawn and the cannula tied in. The cannula is arranged with a stop-cock, so that the urine may be turned off or on at will. A case is related in which the urine was passed through this prostatic cannula for six weeks, with the greatest comfort, at the end of that time the urine began to pass through the natural passage. The cannula was then withdrawn and the puncture rapidly healed, and urine was passed as usual through the penis. In fact nearly all the functional symptoms of enlarged prostate ceased to exist, and on examination through the rectum the gland was found to be much smaller, having rapidly atrophied after having been punctured with the trocar.

*On Digital Exploration of the Bladder through incision of the Urethra from the Perinæum.*—At a meeting of the London Royal Medical and Chirurgical Society, held April 11th, 1882, Sir Henry Thompson reported a case in which he had successfully removed a tumour of the bladder (in a man) through a perinæal section of the urethra. The patient has been operated on some time previously for stone (by lithotripsy) but without complete relief to his symptoms; subsequently some phosphatic deposit was removed by the lithotrite, at this time he seized what at first felt like a calculus, and practically crushed it under pressure, but it was evidently fixed, giving the impression of partially imparted stone. As little benefit followed this operation it was decided to open the bladder. This was done by perineal section, and on introducing his finger into the bladder and pressure being made from above the pubes Sir Henry recognized a tumour about the size of a chestnut growing from the opposite wall, coated with phosphatic matter. The mass was easily twisted off with a pair of forceps and very little bleeding followed. The patient speedily recovered and had no return of the bladder symptoms subsequent to the operation. Regarding this and other cases Sir Henry advised that in certain cases of hematuria which was clearly vesical and was not explicable except by the hypothesis of impacted calculus or vesical tumour, an incision of

the membranous portion of the urethra from the perineum, for the purpose of exploring the bladder, should be made. In a paper in the *Lancet*, of 7th May, 1882, Sir Henry remarks that it is only during the last few years that he has gradually realized the fact, that it is possible, in not a few cases, to explore through a small perineal incision the whole or nearly the whole, of the internal surface of the bladder with the index finger—a necessary condition, of course, is that the bladder should be empty, and that firm pressure should be made with the right hand above the pubes. The method of operating the author describes as follows: The central incision should always be adopted, and a medium grooved staff, and a long, straight narrow-bladed knife, with the back blunt to the point, should be used. Having placed the left index finger in the rectum, the knife may be introduced edge upwards, about three quarters of an inch above the anus, with or without a small preliminary incision in the skin, until the point reaches the staff about the apex of the prostate gland, where it divides the urethra for half an inch or so and is then drawn out, cutting upwards a little in the act, but so as to avoid any material division of the bulb. The left index finger is now removed from the rectum and following by the groove of the staff, slowly passes through the neck of the bladder as the staff is withdrawn, when exploration is made. This operation is often of benefit in old cases of cystitis, and, as well as satisfying the surgeon as to the exact condition of the bladder, often relieves symptoms where no lesion can be made out.

*Splenectomy.*—Mr. Warrington Haward at a meeting of the London Clinical Society held on March 24th, 1882, read an interesting paper describing a case in which he had excised the spleen. The patient was a woman, aged 49, who for eighteen months had suffered pain in the left side of the abdomen, and for ten months had been conscious of an abdominal tumour, which had been steadily increasing in size, and which distressed her by its weight. When admitted into St. George's Hospital, she was rather a stout woman of good complexion, she did not look at all anæmic, and although the number of white blood corpuscles was increased she did not show any other signs of leucocythemia

excepting a very enlarged spleen. The spleen occupied the greater part of the abdomen, and extended from the ribs to the groin, and from the loin to three inches beyond the middle line; no other glandular enlargements were present, nor was there ever any dyspnoea, palpitation, or hemorrhages. Pulse, temperature, and respirations were normal. It having been determined to remove the spleen, Mr. Haward performed abdominal section. An incision was made in the middle line from two inches below the ensiform cartilage to within two inches of the pubes. The enlarged spleen at once presented, and was found free from adhesion. The enlarged vessels at the hilus were clamped and ligatured in separate portions with carbolized silk, and the organ was removed without difficulty. While the wound was being closed the patient became collapsed suddenly, but was revived by artificial respiration and the injection of ether. Five hours after the operation vomiting came on, and persisting with great frequency, rapidly exhausted the patient, who died the evening of the operation. The spleen presented to the naked eye the appearance of simple hypertrophy. The fatal result was not caused by hemorrhage, but seemed to be due to disturbance of the great sympathetic plexuses, and the consequent shock of vomiting.

In the discussion which followed, Dr. Stephen MacKenzie raised the question whether removal of the spleen in leucocythemia was justifiable, quoting Mr. Collier's tables, which show, that though the spleen has been excised successfully in several cases, in no case has the operation succeeded when performed for leucocythemia. Dr. MacKenzie thought possibly the operation was justifiable when the blood disease was not advanced, and the subject was a young one, as there were grounds for believing that the spleen was primarily at fault. Mr. Lucas thought a less serious operation, as ligature of the splenic artery, might be adopted if the affection were a simple hypertrophy. It would seem that for the present surgical interference in leucocythemia is narrowed down to splenectomy in selected early cases in young subjects, or perhaps to the substitution of some less formidable operation as ligature of the splenic artery.—(Report in *British Medical Journal*.)

*Surgery of the Kidney.*—The operations of nephro-lithotomy, nephrotomy and nephrectomy are now considered by the surgical world to be justifiable operations. It has been established beyond doubt that *nephro-lithotomy* is a most successful operation in properly selected cases, viz., where the stone is of moderate size and single, and the kidney has not become disorganized. It is a most scientific procedure to perform this operation where stone has been certainly diagnosed by needle exploration, or where the pain and other symptoms lead one to believe there is a stone present. If left, the stone is certain to disorganize the kidney, cause much suffering, and probably death. The operation of incising the kidney (*nephrotomy*) has not proved a dangerous one, and it has been frequently demonstrated that the kidney can be easily explored through a lumbar incision, and even cut into with great safety. In cases of strumous or calculous pyelitis, the sacculated kidney can be drained through a wound in the loin and the patient freed from the danger and pain of retained matter. Nephrotomy, as an operation, is merely palliative, and, as Mr. Lister suggests, should only be performed where the patient is too weak for nephrectomy.

Dr. Roddick lately, at the Montreal General Hospital, performed nephrotomy in a girl suffering from scrofulous pyelitis of right kidney. The incision made was the transverse one, as in lumbar colotomy, the enormously distended kidney, which could be easily felt as a fluctuating tumour, was reached without difficulty, and about 20 ounces of foetid pus evacuated; a drainage tube was introduced after washing out the sac with a 1 to 40 solution of carbolic acid. The operation was performed under the spray. The third day after the operation the girl had suppression of urine and symptoms of carbolic acid absorption, but after this had passed away (boracic acid being substituted for the carbolic acid) the girl improved rapidly, and was sent home some eighteen days after the operation, where I have heard she has since died, her improvement being only temporary. The relief afforded by the operation was decided, and I think this operation may be fairly considered to have been successful.

*Nephrectomy*, or removal of the kidney, is a much more for-

midable operation than the foregoing. The dangers are much greater, many cases having been followed by suppression of urine, which by some has been attributed to the use of carbolic acid, either as spray or injection. It has also proved fatal from hemorrhage and wounds of neighbouring organs, as lung and pleuræ. It has not yet been fully determined in what cases it should be performed, or at what period. Nephrectomy has been performed for tumour, cancerous disease, strumous and calculous pyelitis. Lately Dr. Barlow and Mr. Godlee read, at the London Clinical Society, notes of a case of nephrectomy performed for calculous pyelitis. The existence of the stone had been previously diagnosed by needle puncture. The kidney was removed by abdominal section, under antiseptic precautions. After the operation, a morphia suppository was administered and the patient passed off into a quiet sleep. Next morning the temperature was high, urine suppressed, and the patient was in a semi-comatose condition, from which she never recovered. Mr. Golding Bird and Dr. Goodhart, before the same Society, reported a case of nephrectomy for serofulous pyelitis of the right side only. The incision was made in the right loin and the kidney removed. The patient died of collapse shortly after the operation. The operation was difficult, and part of the 12th rib had to be removed. Mr. Howard Marsh also reported a case of exploration of the kidney and partial excision, where the patient died in thirty hours of suppression of urine.

These cases are instructive; in one apparently the morphia suppository had something to do with the fatal result. It also seems that partial excision of the kidney is quite as, if not more, dangerous than complete excision. Suppression of urine seems to be a very common complication. It is a question whether before nephrectomy is performed, a preliminary nephrotomy should not be tried. Now the loin is the most favourable position for nephrotomy and perhaps the most difficult incision for nephrectomy, so this would be an objection. Some hold that if a preliminary nephrotomy is performed, it much increases the difficulty of a subsequent nephrectomy. Again, it is important, in considering the advisability of performing nephrectomy, to find out

whether the pyelitis is confined to one kidney, or, rather, whether the other kidney is healthy. Strumous pyelitis is rarely confined to one kidney, and therefore excision of the kidney must be a defective operation, as the pyelitis is only a small part of a general disease. These are some of the difficulties in the way which make one hesitate to perform nephrectomy. Having, however, decided on the operation, which is the best incision, through the loin or abdomen? Certainly the abdominal incision gives the operator more room, and the surgeon sees what he is doing. I have frequently excised the kidney on the dead subject, and have been often amazed to find how much more easy it was to remove a kidney through an abdominal incision than through the lumbar one. Removal through an incision in the loin is very difficult, especially the ligaturing of the vessels entering the pelvis of the kidney, besides, in some people, the distance between the last rib and crest of the ilium is very short; in these cases, of course, the 12th rib has to be excised, or a T incision made, both of which procedures increase the risk of the operation. The only objection to the abdominal incision is that two layers of peritoneum are wounded; but now-a-days we are not so fearful of wounding that structure as formerly. There is another danger to which I have previously called attention,\* and which may be more easily avoided by the abdominal incision, and that is where the renal artery is multiple, and enters the kidney in all parts, and also where it is double, one entering the extreme upper end the other the extreme lower end of the kidney, no artery entering the pelvis at all. Many more operations are necessary before we can decide when and how to perform nephrectomy.

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\* Brooklyn Annals of Anatomy and Surgery, Vol. III, 1881.

## Reviews and Notices of Books.

*A Treatise on Human Physiology, designed for the use of Students and Practitioners of Medicine.*—By JOHN C. DALTON, M.D., Professor of Physiology and Hygiene in the College of Physicians and Surgeons, New York; Member of the New York Academy of Medicine, &c. Seventh edition. With 252 illustrations. Philadelphia: Henry C. Lea's Son & Co. Montreal: Dawson Brothers.

This text-book of Physiology has always been a great favorite. The clear descriptions, the easy mode of writing, the handsome black-ground woodcuts, have each had their share in winning this popularity. It having now reached its seventh edition is proof enough of the value placed upon it by the profession. Several important additions and alterations have been made in this latest edition. "In the section of Physiological Chemistry, the most important alterations relate to the classification of the albuminoid substances, and particularly to the prominence given to the Ferments as a special group. In the department of the Nervous System, more extended consideration has been given to the localization of function in special parts of the cerebro-spinal axis." "In the present work, as a general rule, topics which are uncertain or incomplete have been treated with comparative brevity, a greater space being devoted to those which are demonstrated by satisfactory evidence."

*A System of Surgery, Theoretical and Practical, in Treatises by various Authors.*—Edited by T. HOLMES, M.A., Cantab, Surgeon and Lecturer on Surgery at St. George's Hospital. First American from second English edition, thoroughly revised and much enlarged. By JOHN H. PACKARD, A.M., M.D., Surgeon to the Episcopal and St. Joseph's Hospitals, Philadelphia; assisted by a large corps of the most eminent American surgeons. In three volumes, with many illustrations. Vol. III. Philadelphia: Henry C. Lea's Son & Co. Montreal: Dawson Brothers.

The issue of the third volume of Holmes' Surgery completes



the work. It contains the articles upon the following subjects : viz., Diseases of the Respiratory Organs ; Diseases of the Bones, Joints and Muscles ; Diseases of the Nervous System ; Gunshot Wounds ; Operative and Minor Surgery, and miscellaneous subjects. As in the foregoing volumes, the names of the writers are those well known to the profession in their several departments. The revision by the American collaborators has been carefully performed, only such portions having been added as were called for by reason of more modern views thereon having been distinctly brought forward since the previous edition. The rapid completion of this elaborate and extensive work is highly creditable to the publishing firm, and they have spared no expense upon the typography and binding, both of which are of the highest quality.

*A Manual of Dental Anatomy, Human and Comparative.*—By CHARLES S. TOMES, M.A., F.R.S. With 191 illustrations. Philadelphia : Presley Blakiston. Montreal : Dawson Bros.

A most complete handbook, containing full descriptions of the natural formation and evolution of the teeth in the human being from the earliest period of foetal life. The physiology and structure of all the various portions of which the dental apparatus is composed are fully discussed. A large portion is devoted to a description of the different kinds of teeth found in the different classes of animals, and to the important bearing that these have upon classification. It is complete and thorough in every part, and is fully illustrated with excellent woodcuts.

*Percussion Outlines.*—By E. G. CUTLER, M.D., Assistant in Pathological Anatomy, Harvard Medical School, Pathologist to the City Hospital, &c., and G. M. GARLAND, M.D., Assistant in Clinical Medicine, Harvard Medical School, Professor of Thoracic Diseases, University of Vermont. &c. Boston : Houghton, Mifflin & Co.

The object of this work, intended for the use of all practical students of medicine, is to give accurate information concerning the exact position of the various internal organs with reference

to the surface of the body, and to show to what extent this can be determined by means of percussion. It is illustrated by means of a series of excellent lithographs, showing both the anatomical boundaries of these various parts and also the outlines of these as determined by actual percussion. Very great care seems to have been taken both in the completion of the letter-press and in the preparation of the plates. It will no doubt prove a very useful handbook to those engaged in studying this, one of the most useful arts which an accomplished physician can possess.

### Books and Pamphlets Received.

HOMŒOPATHY. WHAT IS IT? A STATEMENT AND REVIEW OF ITS DOCTRINES AND PRACTICES. By A. B. Palmer, M.D., LL.D. Detroit: Geo. S. Davis.

ELECTRICITY IN SURGERY. By John Butler, M.D. Boericke & Tafel, New York and Philadelphia.

A MANUAL OF OBSTETRICS. By H. F. H. King, M.D. Philadelphia: H. C. Lea's Son & Co.

ON DIET AND REGIMEN IN SICKNESS AND HEALTH, AND ON THE INTERDEPENDENCE AND PREVENTION OF DISEASES AND THE DIMINUTION OF THEIR FATALITY. By Horace Dobell, M.D. London: H. K. Lewis.

### Society Proceedings.

#### MEDICO-CHIRURGICAL SOCIETY OF MONTREAL.

*Stated Meeting, May 26th, 1882.*

GEORGE ROSS, M.D., PRESIDENT, IN THE CHAIR.

A letter from Dr. O. C. Edwards, tendering his resignation as Secretary of the Society, was read.

Moved by Dr. F. W. Campbell, seconded by Dr. Roddick, and unanimously resolved—"That this Society accepts with regret the resignation of Dr. O. C. Edwards. In doing so, it desires to place on record its full appreciation of the valuable services he has performed during the four years he filled the position which he now resigns. In parting with him the members of the Society desire to express the hope that in his new home in the North-West he may meet with that success which his professional skill and kindness of disposition fully merit; and that a copy of this resolution be sent to Dr. Edwards, and published in the English daily papers."

It was then moved by Dr. Trenholme, and seconded by Dr. Buller, that Dr. Edwards be elected a corresponding member of the Society.—*Carried.*

#### PATHOLOGICAL SPECIMENS.

Dr. Roddick exhibited a bladder in a state of acute inflammation, taken from a patient who had recently died in the hospital. The patient was admitted with complete paraplegia, the result of a fall into the hold of a ship. Death occurred on the sixth day from pneumonia. Dr. Roddick thought the condition of the bladder in this case pointed strongly to the necessity for frequent catheterization in all similar cases; he believed that the cystitis was due simply to over-distension, and in such cases where the use of the catheter was rendered difficult owing to priapism, tapping the bladder would be indicated.

Dr. Gardner exhibited a quantity of semi-solid, jam-like substance removed from the interior of the uterus of an unmarried woman 30 years of age; she had never menstruated, and had always enjoyed good health up to six months ago, when she began to fail, but had no definite uterine symptoms until two weeks ago, when there was pain and tenderness in the left iliac region. A tense pyriform mass was evident in abdomen, corresponding to a  $5\frac{1}{2}$  months pregnant uterus; the pubic hair was fairly developed, but the breasts were *nil*; per vaginam, the uterus was found large and the cervix presented a nipple-like prominence, with a depression in the centre. Ether was administered, and after incising the prominence, the os was dilated with the fingers. A quantity of dark, semi-fluid, bloody matter first escaped, and subsequently about  $1\frac{1}{2}$  pints of the substance exhibited came away. The cavity of the uterus was smooth; the attachment of the growth was from the fundus; to the finger, it felt very much like broken down placenta. A microscopic examination was not made, but Dr. Gardner believed the growth to be of a sarcomatous character.

Dr. Buller showed a microscopic specimen of a substance taken from the ear of a lad who came to him with his ear blocked up with what appeared to be cerumen and epithelium; on its re-

moval, the membrana tympani and auditory canal were red and thickened. Insufflation of boracic acid and oxide of zinc was used, and the boy improved for a time, but soon returned in the same condition as before; the ear was again cleaned out, and this time a strong solution of nitrate of silver was used. In two weeks the boy again returned, and was treated as on the first occasion. A week later, he came back again; this time the ear was fuller than ever, and the substance more tough and firm. Dr. Buller, now believing that the growth was fungoid in character, after cleaning out the ear, injected a quantity of rectified spirits, which he allowed to remain for five minutes, and then introduced a plug of cotton wool, after which the boy recovered completely. The specimen presented a number of small, black globular bodies embedded in epithelium, and is known as *Aspergillus nigricans*. It is of rather uncommon occurrence. Rectified spirit, in the treatment of such cases, is very effectual, and gives rise to little or no inconvenience. Dr. Buller then read a paper on "Optic Neuritis." (See page 641.)

Dr. Proudfoot stated that he had a case of optic neuritis, associated with suppression of the menses, in a female 30 years of age, whom he was treating with bichloride of mercury, with evident benefit. He thought a good deal might be said *pro* and *con* in regard to the various theories given in explanation of optic neuritis. He was inclined to favor the theory of oedema of the brain, but thought it strange that in hydrocephalus, papillitis is rare, possibly from expansion of the bones.

In reply to Dr. Fenwick, Dr. Buller said that mercury and iodide of potassium were not given because of supposed specific origin of the disease, but from their tendency to reduce inflammatory action.

Dr. Roddick asked if it was advisable to give mercury in later syphilitic conditions, and not rely more on iodide of potassium. In diseases of the rectum, much harm may be done by mercury, whereas the iodide is highly beneficial. Dr. Buller, in reply, said that mercury was bad in ulcerations, from its tendency to break down tissues, and that is just why oculists use it, to break down the new tissue and then promote its absorption by iodide of potassium.

Dr. Shepherd said that he had found mercury very useful in tertiary symptoms, in combination with iodide, after the latter had failed when given alone.

*Cases in Practice.*—Dr. Proudfoot mentioned having lately removed scales of molten lead from the cornea from the eyes of a young man; he recovered, with perfect vision in the one eye and only slight opacity in the other. Dr. Buller thought this might be explained by the extreme thinness of the scales; the heat was not sufficiently concentrated to cause deep injury. Dr. Shepherd mentioned a case of Phtheiriasis palpebrarum in a young man, in whom there were no traces of the parasite in other regions.

The meeting then adjourned.

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### Extracts from British and Foreign Journals.

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

**Treatment of Acute Rheumatism by the Salicylates.**—The Medical Society of London has done good service to the cause of therapeutics by eliciting, through discussion, the opinions and conclusions of those who have had the largest experience of the salicylates in the treatment of acute rheumatism. All the speakers agree that the fever and the joint-affection are alleviated by the administration of the salicylates, and that so far this method is superior to other plans of treatment. On the question of relapses, of cardiac complications, of the dose of the drug which is most efficacious, the opinions are in striking contrast. Dr. Broadbent, with Dr. Coupland and others, believes that relapses, as shown either by a renewed rise in the temperature, or by an accession of joint-pain, are perhaps even more common under the new than under the old method of treatment. The explanation is, however, to be found in the rapidity with which all the acute symptoms subside under the salicylate: patients are thus not so careful of themselves as when they have gone through the sufferings of an

unalleviated attack. Dr. Coupland, moreover, believes that the withholding of the drug renders the patient more liable to relapses than if its administration be continued, while he finds that the relapses may occur in spite of tolerably large doses having been given; as many occurring under doses of 60 grains in 24 hours as under smaller doses. Dr. Douglas Powell supposes that relapse will follow upon any exposure, exercise, or improved diet, so long as the tongue remains coated and the secretions disordered, whatever be the treatment adopted. The joint-inflammation and the pyrexia are not the essential features of acute rheumatism, any more than pyrexia and diarrhoea form the essential points in enteric fever. Dr. Broadbent and Dr. Fagge agree in anticipating that as the salicylates are brought to bear upon rheumatic fever in the first days of its existence, a notable diminution will occur in the proportion of cases in which cardiac lesions are manifested. At present Dr. Broadbent finds that his cases have presented about the usual proportion of cardiac complications; he also finds from experience that the salicylic compounds have no influence whatever upon pericarditis, and only a very slight effect upon endocarditis. For this reason he discontinues the administration of salicylic compounds the moment that he recognizes any cardiac inflammation. In no case has any permanent cardiac weakness been left behind, as a result of salicylate treatment. Dr. Gilbert Smith is of opinion that so far as hospital statistics are concerned, there is no evidence to show that the introduction of the salicylate treatment has led to any diminution in the amount of cardiac complication in acute rheumatism. Dr. Douglas Powell, on the other hand, thinks that the treatment tends to prevent and to alleviate when already present the heart-affection. Dr. Maclagan is similarly of opinion that this method of treatment diminishes to some extent both the frequency and the danger of heart complications; and the particular series of cases upon which Dr. Coupland based his observations showed in like manner that the percentage in which pericarditis appeared was below the average. The latter observer, however, states that no definite influence upon the cardiac or other complications can be observed, and that both pericar-

ditis and endocarditis may be observed whilst the patient is under the influence of the remedy.

As regards the dose of the drug and the toxic symptoms which may arise during its administration, Dr. Isambard Owen shows that with different dosage there is practically no difference in the total duration of the illness. Dr. Broadbent gives 20 grains of salicylic acid in combination with soda every hour for six hours, repeating it on the second day. The further administration of the salicylic compounds has been in the same dose perhaps thrice a day, or, if the temperature has not absolutely gone down, four times a day for some days afterwards. In only very few cases did any unfavourable symptoms set in which could be attributed to the drug—delirium, sullenness, giddiness, deafness, etc.; in the majority of these cases he attributes the symptoms to impurities in the salicylate used. Dr. Coupland has throughout endeavoured to give as small an amount of salicylate of soda as was possible, the usual quantity being 15 grains every four or six hours; relapses are, as far as possible, guarded against by continuing the administration long after the subsidence of the primary fever. Dr. Coupland finds also that the toxic effects are serious in proportion to the largeness of the dose, and perhaps also to the state of impurity of the drug, and in this latter point he is confirmed by Dr. Fowler, who shows that no such toxic symptoms occur in the case of patients treated with the acid obtained from oil of wintergreen. Dr. Maclagan, regarding acute rheumatism as a malarial fever, maintains that the salicylic compounds must be given in full and frequently repeated doses; in fact, that the larger the quantity that can be thrown into the system in a given time, the more rapid will be the destruction of the poison. Salicin is looked upon by Dr. Maclagan as equally powerful with salicylate of soda, whilst its use is infinitely preferable, inasmuch as it produces none of the deleterious effects of the salicylates; so that in several cases full doses of salicin have been given with the best results to patients suffering from the depressing and disturbing action of salicylate of soda. Dr. Bedford Fenwick, after a free purge, gives 20 grains of salicylate of soda every hour for six hours,

adding digitalis and brandy to each dose if the heart-sounds are feeble and dull, and suspending the treatment if faintness or vomiting occur. The after treatment consists in giving half-drachm doses of citrate of potash every six or eight hours, until saliva becomes alkaline to test-paper.

The *modus operandi* of the drug in cases of rheumatism is explained by Dr. Latham thus: Salicylic acid enters into chemical combination with the antecedents of lactic acid and glucose, to whose presence in the circulation the disease is due. The presence of the excess of lactic acid in the blood is due to the inaction of an "inhibitory chemical centre," whose function it is to control the nutrition of the muscular and other tissues. Relapses will occur if the administration of the remedy has been suspended after the symptoms are relieved, but before the "inhibitory chemical centre" has recovered its tone. Dr. Maclagan, as we have hinted, regards the rheumatic poison as malarial, *i.e.*, due to minute organisms. The local joint and heart affections are the result of the action of these organisms on the fibrous textures of the joints and heart. The salicylic compounds produce their anti-rheumatic effects solely in virtue of their destructive action on these organisms.—*The Practitioner*.

**Torsion of Arteries.**—At Guy's Hospital, the London correspondent of the *Boston Med. & Surg. Journal* says that all the surgeons use torsion to the exclusion of the ligature, except in very small vessels wherein it is difficult to isolate the vessel from muscular fibres. They give a very large statistical showing in its favor. He has seen every kind of amputation there except of the hip-joint, and never a ligature applied to a large vessel. They use no transverse forceps, but seizing the cut end of the vessel with strong forceps, twist it until it is felt to "give way," that is, the two inner coats break. He has often seen six and sometimes ten complete turns given to the femoral artery. Mr. Bryant said: "Doctor, theoretically the twisted end ought to slough off, but practically it never does. We have to talk to our students about secondary hemorrhage, but we do not show it to them." Mr. Lucas told him that for a long time they have ceased to dread or look for secondary hemorrhage.



CANADA

# Medical and Surgical Journal.

MONTREAL, JUNE, 1882.

## THE ONTARIO MEDICAL ASSOCIATION.

The second annual meeting of the above Association was held in Toronto on the 7th and 8th days of June. The attendance of members numbered over a hundred, and the greatest interest was manifested in the proceedings. About twenty papers and reports were read, most of them by country members. None were of special merit; in fact, as a rule, it may be said the papers were rather below than above the average. No papers but those on that one topic, which is so dear to the ordinary practitioner, and in which so many are or would like to be amateur specialists, elicited any discussion. Of course we refer to gynecology. Ontario seems at the present time to be suffering from a severe attack of laceration of the cervix, and her medical men are vigorously applying the now very fashionable remedy—Trachelorrhaphy.

Discussion was rather discouraged than otherwise. Papers were rapidly read, one after the other, and no opportunity for discussing them offered. The acoustic properties of the hall were such, that unless the reader of the paper had a remarkably clear delivery, or the listener remarkably sharp ears, very little could be heard.

The proceedings were opened on the morning of the 7th with an address by the President, Dr. Covernton, on State Medicine and Hygiene, in which he strongly urged that it was quite as important that special hospitals should be established for the purpose of isolating cases of diphtheria, scarlet fever, and other contagious diseases, as it was to have them for small-pox. He also advised that the bodies of persons dying of infectious dis-

eases should be burnt or otherwise destroyed. The President remarked that very little doubt now remained that earth worms conveyed infection to the surface of the ground. The importance of physicians reporting to the Central Board of Health all cases treated by them during the year was insisted on; also that the officers of the Local Boards of Health should be medical officers. After alluding to the discoveries of Pasteur in regard to chicken cholera, charbon, &c., he expressed a hope that soon all infectious diseases would be produced in a modified form, so that people might be protected from their ravages by inoculation of the poison in a diluted condition. Next the discoveries of Klebs in reference to the effect of water washing away ague germs were alluded to, and the importance of Koch's investigations concerning the existence of a tubercle bacillus was discussed. Finally, this most eloquent and instructive address concluded with a few well chosen remarks on the necessity of educating the public on health matters generally, and the hearty co-operation of the members of the Association in this great work was solicited.

It being now 12 o'clock an adjournment took place, and on reassembling at 2 p.m. a number of papers were read.

The first paper was read by Dr. Worthington, of Clinton, on *Diphtheria*. The principal treatment advised was the application of cold externally and internally, supporting the patient with free use of brandy, beef tea, milk, and quinine gr. ii every two to three hours. It was also advised that the throat should be brushed with acid carbol. 1-80, and sometimes a spray of nitric acid used. Dr. Worthington held that cold applied to the throat best controlled the inflammation in the larynx and lowered the temperature. A number of cases were detailed.

Dr. Philip, of Brantford, next read a paper on the *Antiseptic Method of Treating Phthisis*, in which paper he adopted the views of Dr. McKenzie, of Edinburgh, viz., the use of continuous inhalation of carbolic acid. Dr. Philip held that if the disease was of septic parasitic origin, then this method of treatment was the most rational one. The inhaler should be used 8 to 10 hours a day. Dr. Philip has drawn his deductions from too few a

number of cases, and the improvement in those cases was not sufficiently detailed. The special inhaler was shown.

Dr. Stewart, of Brucefield, then exhibited a case of *Locomotor Ataxia*, in which the sciatic nerve had been stretched, with the usual result of relief of the pain, but not of the ataxic symptoms. Dr. Stewart read a most scientific and able report of the case. Before the nerve was stretched the patient had severe paroxysms of pain every twenty-four hours, generally confined to one limb, and often to one spot, the dorsum of the foot. The strange thing about the case was that after these attacks the limb atrophied within twenty-four hours, often measuring from  $1\frac{1}{2}$  to 2 inches less in circumference. This symptom Dr. Stewart has not seen noticed in works on the subject. There was also loss of sensation in the limbs, and no plantar reflex. If the limb was pricked with a needle it took five or six seconds to feel it. After the stretching, patient had no pain for three weeks, and now has pains only at long intervals of six weeks and more. Has some plantar reflex, and can feel the prick of a needle in two seconds. The ataxic symptoms are not affected. This is the fourth case in which Dr. Stewart has stretched the sciatic for locomotor ataxia. In three the pain was relieved, but not the ataxic symptoms; in the fourth, both pain and ataxic symptoms relieved, and patient now well.

After Dr. Stewart had exhibited his patient, Dr. Avery, of the Michigan State Board of Health, was introduced to the meeting, and made a short address; after which Dr. Fenwick, of Montreal, President of the Canada Medical Association, assured the members of the Ontario Medical Association that the Dominion Association did not look on them with any antagonistic feelings, but, on the contrary, wished them well in the good work they were doing, and hoped that the other Provinces would follow their example. Dr. Fenwick, after alluding to the good fortune of Ontario in having lately instituted a Board of Health, thanked the meeting for the kind way in which he had been received.

Dr. Curry, of Rockwood, then read a paper on the *Science of Medicine*, in which he dwelt on the great importance of

reflex action, and the wonderful influence the sympathetic ganglia had on disease. After some allusion to the pineal gland and other structures, the reader concluded a novel and original paper, the pathology of which was, however, rather obscure.

Dr. Temple's paper on *Laceration of the Cervix Uteri* was the next one presented. He believed this operation had a brilliant future before it. The men who oppose the operation do so on *a priori* grounds, having had no experience in its performance. Dr. Temple does not believe that every case of laceration needs sewing up; most of the minor cases of laceration will get well of themselves. According to the greatest authorities (as Emmet, Thomas, &c.) 32-33 per cent. of women delivered suffer from laceration of the cervix. After detailing the symptoms and consequences of rupture of the cervix, mentioning, among others, pelvic cellulitis, prolapsus uteri, and last, but not least, cancer, the reports of a number of cases were read in which the reader of the paper had performed Emmet's operation with perfect relief. In one case the ruptured cervix had caused prolapse of the uterus, so that it protruded beyond the vulvæ several inches; after the operation had been performed all the symptoms were relieved, and of course the prolapse as well. Now the uterus was reduced to its normal size.

(The discussion on this paper was postponed till other papers on the same subject had been read, and will be given in the report of the second day's proceedings.)

A paper was read by Dr. Powell, of Edgar, on *Hemorrhage after Tonsillotomy*. He said few people understood how to quickly and surely stop the bleeding after this operation. He mentioned his personal experience as a patient, how he had been operated on, and the surgeon who operated on him (Dr. Lefferts, of New York), having left the dispensary, severe bleeding came on. No one seemed to know what to do. One advised iron, others astringent gargles, and one suggested tying the carotid artery, and it was only after loosing between five and six pints of blood than another surgeon arrived, who easily arrested the hemorrhage by pressure of a pad of cotton applied with a forceps. Dr. Powell advises the use of the tonsillotome in child-

ren and adults where the gland protrudes, the blunt-pointed bistoury where the gland is sessile.

Dr. Dupuis, of Kingston, related a case of dislocation of both bones of the forearm backwards successfully reduced after six weeks, and others after two and three weeks. Nothing new was advanced in regard to the treatment or pathology of this accident. As more mistakes occur in diagnosing this accident than any other, Dr. Dupuis advises that in all cases of difficulty the assistance of other surgeons should be sought to divide the responsibility.

At the evening session Dr. Daniel Clarke read a most interesting paper on the Therapeutics of Insanity, in which he recommended chloral, bromides and hyoscyamine, after which Dr. Oldright explained some fallacies regarding *Measurements in Surgical Practice*, showing how that when the lower limb was abducted and flexed it apparently was shorter by from half an inch to an inch than the other. That before measuring, both limbs should be in the same plane. He exhibited a simple instrument by which this could be made certain. This consisted of a thin stick of wood, with cross piece of cardboard on the top. The stick should be placed in centre of pubes, and the cardboard cross piece should reach from one anterior superior spine to the other. In this way any obliquity of the pelvis could be discovered, and any fallacious measurements corrected.

Dr. R. W. B. Smith, of Sparta, read a paper on *Alcohol in Disease*, which was listened to with great interest, after which some valuable contributions on State Medicine were presented by Dr. Yeomans, of Mount Forest, on the *Relation of Local Boards to the Provincial Board of Health*, and Dr. Playter, Toronto, on *Some Points in Vital Statistics in Ontario*. That the recent establishment of a Board of Health has stimulated the profession of Ontario into taking a greater interest in health matters than heretofore, is evinced by the increasing numbers of papers read on State Medicine.

Dr. Ryerson, of Toronto, read a paper on *Adenoma of the Roof of the Pharynx*, and exhibited a patient suffering from this affection. He advised removing these growths from behind

with a scoop, which he showed the members; also the galvanic cautery proved often useful. He drew attention to the fact that this affection was often mistaken for enlarged tonsils, and was principally confined to young people. This affection generally leads to deafness, and the children suffering from it have a peculiar stupid expression. Numbers of plates exhibiting the growths *in situ* were exhibited.

Dr. Osler remarked that Dr. Ryerson had neglected to mention the use of an instrument which every surgeon carried about with him, and which was most efficacious in removing these growths from behind. He referred to the finger, and mentioned several cases where it had been used with the greatest success.

It being now 10 P.M., the meeting adjourned till the next morning, when Dr. Palmer read a paper on *Hygiene in Schools*, which chiefly treated of myopia in children, produced by bad light, badly constructed desks, badly ventilated rooms, &c., and and over-study in those predisposed. He concluded by hoping the Provincial Board of Health would give attention to this matter, and bring about such changes as were necessary to protect the health of juvenile scholars.

Dr. Macdonnell, of Brechin, next read a paper on the use of Calcium Chloride in Phthisis. He instanced several cases in which the above remedy proved highly beneficial and probably curative; especially in cases of broncho-pneumonia, which do not yield readily to potassium iodide, is the effect of this remedy most useful. It is also useful in buboes and glandular enlargement. Dr. Macdonnell did not attempt an explanation of the *modus operandi* of this remedy, nor from his description was it perfectly clear in what special affections of the lungs was calcium chloride curative. Potass. iodide seems to have been a favorite remedy with Dr. Macdonnell and his brother practitioners before calcium chloride was introduced, and was given in heroic doses for lung affections.

Dr. Holmes, of Chatham, was now called upon to read his paper on Trachelorrhaphy. Nine cases of successful operation were reported. To prevent this accident, Dr. Holmes advised that in cases of labor, where the cervix was thin, the patient

should be cautioned against bearing down, and when the os was completely distended chloroform should be given. After the reading of the paper was concluded a lively discussion ensued.

In answer to Dr. Mullin, of Hamilton, Dr. Holmes said that laceration of the cervix occurred in 33 p. c. of deliveries.

Dr. Temple, of Toronto, in this operation said he prefers the scissors to the knife, as then there is less hemorrhage. He gives no anæsthetics when operating. The cervix should be protected from injury during the first stage of labour, and gr.  $\frac{1}{4}$  of morphia should be administered hypodermically to relax the os when rigid.

Dr. Zimmerman inquired in what number of forceps cases laceration occurred. Dr. Holmes replied that three out of the nine cases operated on by him were lacerated by the forceps.

Dr. Gardner of London wanted to know in what class of cases during labor laceration occurred. Dr. Holmes replied, where there was a rigid os and strong expulsive pains.

Dr. Macfarlane of Toronto held that in many cases the cervix and perineum will be ruptured in spite of all precautions, and that meddlesome midwifery is bad midwifery. Where rupture occurs, he does not operate, but trusts to nature and rest. Thirty-three per cent he thought a too great percentage of lacerated cases. Subinvolution is, in his opinion, more often caused by letting the patient up too soon than by laceration of the cervix.

After a few remarks from the President and Dr. Bray of Chatham, Dr. McFayden said the reason older men had not seen more laceration was because they did not examine patients properly. This should, first of all, be done with the finger, and afterwards the woman should be examined in the Simms' position, with a duck bill or Simms' speculum.

Dr. Albert McDonald of Toronto remarked that if the laceration was slight, operation might be avoided. He also advised sewing up the cervix and perineum at the same time, if necessary.

Dr. Mullin of Hamilton said he had attended all kinds of people with small and large heads, and he had not seen many cases of

laceration. He remarked that the gentlemen who had read papers had not spoken of their own experience as to the frequency of laceration. Now some women he had attended in seven or eight labours, and according to the percentage given, each should have lacerated her cervix twice. Well, all he would say, that if his patients have had laceration, he has not found it out, and they have gone on bearing children as usual. He should like to see statistics giving the frequency of laceration, and how many cases get well without operation.

Dr. Canniff did not think that laceration of the cervix is a frequent accident, and he did not care, as long as his patients remain well, whether they have or have not rupture of the cervix.

After a few remarks from other members, the discussion was closed, and the meeting adjourned till the afternoon.

On reassembling, Dr. Ghent read a paper on *Diphtheria*. He always treated his cases by insufflations of equal parts of sulphur and powdered borax. This powder was blown into the throat every 1 to 4 hours, according to the severity of the case. The treatment was commenced by a dose of calomel and Dover's powder, followed by castor oil. The room should be fumigated with sulphurous acid, by heating sulphur on coals. By this method of treatment, Dr. Ghent says the patch disappears in 24 hours, and the glands give no trouble, nor are the cases followed by paralysis. Dr. Ghent has treated one hundred cases in this way and has not lost one.

After a short discussion, in which Drs. White, Osler and the President took part, Dr. McKelkan of Hamilton read a paper on the *Treatment of Diphtheria*. He said that by experiment he found that the membrane was dissolved by Liquor Calcis in 25 seconds; he therefore used it in cases of diphtheria in spray of Liq. Calcis, to which is added Permanganate of Potash gr. ii to 1 oz. of Liq. Calcis. He also gives this internally in doses of half a drachm every half hour. By this treatment he found many severe cases recovered, though some died.

After a few remarks by Dr. MacDonald of Hamilton, Dr. Osler said that diphtheria was a self-limited disease. Many cases get



well without treatment ; others, again, have no hope of recovery from the first.

Dr. Holmes divided cases into laryngeal and non-laryngeal. The first class were generally fatal, and the latter, as a rule, terminated favorably. His treatment was pure air, nourishment, with tinct. of iron, chlorate of potash and quinine internally.

Dr. Riddell of Toronto was now called upon to read his paper on *Coroners and their Duties*. He said that as his paper was a long one, and the hour was late, he would not read it ; but on the President putting it to the meeting, it was decided that Dr. Riddell should proceed, which he did.

The various reports were then presented : Dr. Geikie, on the International Congress in London ; Dr. Fulton, on Medicine, Pathology and New Remedies ; Dr. Roseburgh, on Ophthalmology. The report of the Elective Committee was then read and adopted unanimously :

*President*—Dr. Macdonald, Hamilton.

*1st Vice-President*—Dr. Stewart, Brucefield.

*2nd Vice-President*—Dr. Dan. Clarke, Toronto.

*3rd Vice-President*—Dr. Dupuis, Kingston.

*4th Vice-President*—Dr. Harrison, Selkirk.

*General Secretary*—Dr. White, Toronto.

*Treasurer*—Dr. J. E. Graham, Toronto.

*Corresponding Secretaries*—Dr. Wm. Graham, Brussels ; Dr. Burt, Paris ; Dr. Coburn, Oshawa ; Dr. McIntosh, Vankleek Hill.

*Committee on Credentials*—Dr. Beeman, Centreville ; Drs. Burns and Payne, Toronto.

*Committee on Public Health*—Drs. Playter, Allison, Oldright, and Yeomans.

*Committee on Legislation*—Drs. Spohn, Sloan, G. Wright, Covernton, Mallow and Macfarlane.

*Committee on Publication*—Drs. Cameron, Burns and Fulton, with the Secretary and Treasurer.

*Committee on By-Laws*—Drs. A. H. Wright, Moore, Tanner, Cotton and Bowlby.

*Committee on Medical Ethics*—Drs. O'Reilly, McKelcan, Carney, C. K. Clarke, and Sinclair.

Dr. Riddell then presented the report on Necrology. He had only one death to report, viz., that of Dr. F. H. Wright, son of Dr. H. H. Wright of Toronto.

Dr. Avery of Michigan then offered the following resolutions, which were passed :

" This Association approves of the action of the Provincial Board of Health of Ontario to co-operate to the full extent of its powers with the National State and Local Boards of Health in the United States and in the Dominion of Canada in the attempt to prevent the introduction and spread of smallpox by the inspection and vaccination of immigrants, and the disinfection of their baggage and clothing, and by notification to all Boards of Health interested of the entry or proposed entry within their jurisdiction of immigrants suspected of carrying within them the germs of any disease dangerous to the public health. That in this attempt to lessen the spread of smallpox and other communicable diseases on this continent, it is desirable that all Health Officers and Boards of Health under whatever governmental control shall earnestly and faithfully co-operate, and to secure this co-operation at the earliest possible date we bespeak and invite the individual efforts of every member of this Association."

A discussion now ensued as to whether it was advisable that the Association should move round from place to place annually or remain in Toronto permanently. Finally the members decided to hold the next meeting in Toronto.

At the evening session, Dr. Canniff moved—" That in the opinion of this Association the formation of a Medical Library and Museum would prove beneficial to the profession of this Province, and that the following committee be appointed to consider the feasibility of such a scheme, to report to the next meeting : Drs. Cameron, Holmes, Fulton, Reed, Davison, Powell, and the mover." *Carried.*

Dr. D. Clarke moved that the secretary, Dr. White, receive a gratuity of \$100 for his valuable services during the past year. *Carried.*

The President elect, Dr. Macdonald, was then installed, and made an appropriate speech, thanking the Association for the honor conferred upon him, and prophesying a brilliant future for the organization.

After passing some formal resolutions the meeting adjourned.

F. J. S.

THE ROYAL SOCIETY OF CANADA.—His Excellency the Governor-General has been pleased to establish a National Literary and Scientific Society, the first meeting of which was held in Ottawa on the 25th ult. Four sections have been formed, two of Literature, French and English, one of Chemistry and Mathematics, and another of Geology and Biology, the number in each being limited to twenty members. A large number of valuable papers were presented, and the gathering may be considered a great success. An Association of this kind will do much to stimulate research and bring men into contact with each other. Strong hopes are entertained that the Government will give a grant sufficient to cover the publication of a quarto volume of Transactions. The medical members are: Dr. Bucke (English Literature), Professor Girdwood (Chemistry), Dr. Grant (Geology), Professor Osler (Biology), and Professor Robert Bell (Geology).

NOTICE TO GRADUATES OF BELLEVUE HOSPITAL MEDICAL COLLEGE.—A second decennial revision of the catalogue of Alumni of this College is being prepared for publication, and we are requested to ask that all graduates send their present address at once, on a postal card, to the Historian of the Alumni Association, Bellevue Medical College, New York.

—We regret to see announced the death of Surgeon-Major Hughes, Professor of Midwifery in Grant Medical College, Bombay. Dr. Hughes was a native of Toronto, and graduated at the University in 1868. He went to India in 1870, and since 1874 had been in Bombay, where he enjoyed a large practice, and occupied the Chair of Midwifery in the College. His death was from blood poisoning, caused by a small puncture received while performing a trifling operation.

## Obituary.

GEO. W. CAMPBELL, A.M., M.D., LL.D.

It is with no ordinary feelings of sorrow and deep regret that we find ourselves called upon to record the death of our oldest surgeon, Prof. Geo. W. Campbell. On the 30th March last Dr. Campbell attended the annual convocation of McGill University, and took leave of his friends and colleagues, as he was leaving for England the following day. No one who saw him that day, no whit less cheerful and active than usual, for one moment dreamt that this city would so soon be shocked by the telegraphic news of his death in a far-off country. But so it was. For some years past Dr. Campbell suffered from bronchitis, and was obliged to retire from active practice and give himself more rest. He had also suffered from slight attacks of pneumonia. When in London, pneumonia again set in, but being somewhat better, he went to Edinburgh, where, however, more serious symptoms showed themselves, and he expired on the 30th May.

In losing Dr. Campbell, an immense loss has been sustained by the whole of this community. The Faculty of Medicine loses its Dean—its tried and trusty general, who has directed its operations with a master hand for many years. The Hospital loses its senior consulting surgeon—him whose opinion always carried the weight of experience and mature judgment. Our greatest financial institutions lose one who has been found worthy to fill posts of the highest trust and confidence. The general public lose one to whom they could always go for sympathy in distress and relief in extremity. His friends—and their name, indeed, is legion—lose a warm-hearted, true and generous friend. His professional brethren in this district lose their chief—that chief who, from his personal and professional worth, retained for so many years the loyalty and devotion of all.

One, indeed, has gone from amongst us, of whom it has been a common remark that, "take him for all in all, we shall not look upon his like again." This feeling has been produced by the rare combination of good and attractive qualities which found themselves so happily associated together in our estimable Dean. As a professional man—and he was that before all things—in how many ways was he an example to us all,—able, skillful, devoted, untiring towards his patients—courteous, generous and invariably considerate towards his *confrères*—energetic, zealous and enthusiastic in all touching the progress of the medical art and science—always upholding, by word and deed, the dignity of that profession to which he was proud to belong—kind and encouraging to every brother honestly practising his profession in a straight path, but an uncompromising foe to every kind of professional dishonesty or hyprocrisy. No wonder that there gradually grew up for such a man a feeling of rare warmth and affection, a feeling which we know to be shared by all within our ranks. No matter how else divided, on this point there was unanimity, viz., that in Dr. Campbell we recognized a noble example, whom to imitate was to do right.

With Dr. Campbell has passed away one of those links, now so few, which joined the present generation of medical practitioners to a past one. Possessed of the best technical education which was afforded at that day, Dr. Campbell came to this new country to make his own way in the world. How well this was accomplished, and what well-merited success he met with, is known to all. Whilst thus pursuing his way to name and fame, no selfish aims were ever allowed to obstruct his exertions in the common cause. Endowed with great strength of character, combined with an excellent judgment in all the ordinary concerns of life, he always interested himself in every

scheme tending to the promotion of the general good. Firm and fixed in his endeavors to attain an object once definitely settled upon as being desirable, his great influence was naturally always sought for and highly prized.

Not only was Dr. Campbell deservedly looked up to as the leading surgeon of the city, but he was held in the warmest estimation as a citizen. His voice and influence were always to be counted upon to assist in any good work, and many an undertaking to-day in flourishing condition, and on a firm basis, owes the success of its early efforts to the assistance then lent it by this public-spirited man. The greatest of our public charities, the Montreal General Hospital, always claimed and received a large share of his fostering care. In every matter connected with the medical management of this large Institution, the advice of Dr. Campbell was looked for, and time and attention to its interests were given ungrudgingly and without stint. It is not for us to speak of the many marks of the esteem in which he was held amongst our merchants and laymen—the many posts he has held, of themselves, speak for this. He was for many years Director, and lately Vice-President of the Bank of Montreal, and also Director in the City Gas Company, the Montreal Telegraph Company, and many others. He will long be remembered amongst his fellow-citizens as a clear-headed and judicious business-man, possessing qualities in this respect sufficiently uncommon amongst medical men.

For nearly half a century Dr. Campbell's name has been identified with the Medical Faculty of McGill University, and it is largely due to his ability as a teacher of surgery that that school attained the high degree of popularity which it has so long enjoyed. As its Dean, he always possessed the fullest confidence of his colleagues, and, under his able management, its policy was always

dignified and liberal, whilst internal dissensions were entirely unknown.

Dr. Campbell did not write much for the medical journals. "Deeds, not words," was his motto. But his work as a successful teacher, and as a member of the Corporation of the University, led to the appropriate bestowal of the honorary degree of LL.D. His style of lecturing was free from all oratorical effort, but it was clear, forcible and impressive. Hundreds of practitioners throughout this continent and elsewhere owe the foundations of their surgical knowledge to Dr. Campbell's early teaching.

As the acknowledged head of the profession in Montreal, he was often called upon to entertain strangers and professional visitors, and most worthily did he perform this duty. His house always held for such, a warm welcome, and we know that the news of his death will bring sorrow to many who have there received a true warm-hearted Scotch reception. He was an excellent host; his pleasant, cheery manner, his sparkling reminiscences, his stores of learning always bright, his animated conversation, made an evening spent in his company always something to be remembered. He took great pleasure in seeing his friends around him, and all know well the kindly and generous hospitality which for years has been dispensed from his house by himself and his talented family.

Dr. G. W. Campbell was born in Roseneath, Dumbartonshire, Scotland, in the year 1810. He entered early upon his medical studies, which he pursued in the Universities of Glasgow and Dublin. After graduating with distinction, he came to Canada in May, 1833, and settled in Montreal. His marked ability soon placed him in the front rank amongst his compeers, and gave him a large share of city practice. The success following him naturally led to his being very frequently called in consultation by his *confrères*; and for a great many years be-

fore his death very few cases of any importance were treated in this city without the advice of Dr. Campbell having been obtained. His grand knowledge of pathology, naturally clear insight into the varying shades of distinction between clinical conditions apt to resemble each other, made him our expert in diagnosis. Surgery was always his *forte*, and his great reputation was chiefly made by many successful achievements in operative work. In 1835 Dr. Campbell was appointed to the Chair of Surgery in McGill University, which position he continued to hold with credit to himself and great advantage to the school until 1875—exactly 40 years—when, owing to failing health, he resigned. He was made Dean of the Faculty in 1860, taking then the place of the late Dr. Holmes. The duties of this office he fulfilled even after his resignation of the Chair of Surgery, and it was only in March last that Prof. Howard was appointed Acting Dean in order to relieve him of some necessary work and supply his place during temporary absences.

The example of such a man as Dr. Campbell cannot fail to be productive of great good. An accomplished physician and skillful surgeon, an upright, honorable citizen, a kind and considerate friend to the poor, a loved and honored counsellor of the rich, zealous in business but scrupulously honorable, a firm protector of the dignity of his profession, and, above all, a thoroughly consistent Christian gentleman.



## Medical Items.

—Professor Hüter of Griefswald, the celebrated German surgeon, died last month, aged 44, of kidney disease.

—Mr. H. P. Gisborne has been appointed Canadian agent, with his head-quarters in Toronto, for Messrs. Reed & Carnrick, manufacturers of Maltine, and also for the New York Pharmacal Association, manufacturers of Lactopeptine.

**MEDICAL CANDIDATES FOR PARLIAMENTARY HONORS.**—There seems to be an unusual number of medical men brought out as candidates for Parliamentary honors in the approaching Dominion elections. The names of those already announced are as follows: Dr. Wilson, East Elgin; Dr. Landerkin, S. Grey; Dr. Sproule, E. Grey; Dr. Sullivan, Kingston; Dr. St. Jean, Ottawa; Dr. Platt, Prince Edward; Dr. Ferguson, Welland; Dr. Chamberlain, Dundas; Dr. Sloan, E. Huron; Dr. Springer, South Wentworth; Dr. Samson, Kent; Dr. Bergin, Stormont; Dr. Bowlby, N. Waterloo; Dr. Gravel, Beauce; Dr. Lesage, Dorchester; Dr. St. George, Portneuf, Que.; Dr. Borden, Kings, and Dr. Forbes, Queens, N.S.

**OBSERVATIONS ON THE DIGESTIVE FERMENTS.**—By WILLIAM ROBERTS, M.D., F.R.S.—“If properly prepared, malt extracts are rich in Diastase, and have a high power in digesting starchy matters. But you will be surprised to learn, as I was, that a large proportion of the malt extracts of commerce have no action on starch. This is owing to a high temperature having been used in their preparation. Any heat above 150° Far. is destructive to Diastase in solution, so that if the extract be evaporated, as is directed by the German Pharmacopœia, at a temperature of 212° Far., it is necessarily inert on starch. Out of fourteen trade samples of malt extract examined by Messrs. Dunston and Dimmock, *only three* possessed the power of acting on starch. These brands were MALTINE, Corbÿn, Stacey & Co.'s Extract, and Keppler's Malt Extract.”—*Brit. Med. Journal.*