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Original Communications.

PRELIMINARY NOTE UPON EMPLOYMENT OF AN ANTI-STREPTOCOCCUS SERUM IN SEVERE CASES OF SCARLET FEVER.*

BY

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[From the J. H. R. Molson Pathological Laboratory, McGill University.]

In the number of the *British Medical Journal* for Oct. 4th, just to hand, there appears (p. 1086) a paragraph upon a communication by Dr. Paul Moser, of Vienna, to the meeting of the German Naturforscherversammlung held recently at Carlsbad, dealing with the results which, in his hands, have followed the employment of an anti-streptococcus serum in the cure of scarlet fever.

His serum, it would appear, had been produced in the Sero-therapeutic Institute of the Rudolph Hospital under the superintendence of Dr. Paltauf, Professor of Pathology in the University of Vienna, by injecting horses with the products of cultures of streptococci obtained from the blood of scarlatinal patients. The streptococci had been isolated by him from the blood of 63 out of 99 children who had succumbed to the disease. The "serum has been used clinically since November, 1901, in about 84 cases, with the result, that the mortality among 400 cases of the disease in the St. Anne's Hospital has been reduced one-half. Only the more severe cases in the hospital were treated with the serum on account of the difficulty in obtaining a sufficient supply. All of the children, who were treated within three days of infection, recovered; their condition underwent a striking and rapid improvement, and the pyrexia in many cases greatly abated. So far the

* Read before the Montreal Medico-Chirurgical Society, October 17th, 1902.

serum has not been produced in a concentrated form, so that a comparatively large quantity has been injected into each patient. In some cases erythematous eruptions developed, but they soon disappeared. Prof. Paltauf and Prof. Escherich, Director of the St. Anne's Children's Hospital, testify to the good results obtained with it, both in the cases of children and adults." The paragraph proceeds to state that the Austrian Government is about to devote a considerable sum to the purpose of preparing the serum in large quantities for distribution to all the hospitals.

Unknowingly I have, for now close upon two years—to be exact, since Jan. 26th, 1901—been engaged upon a similar series of studies upon the cases of scarlet fever admitted to the Montreal Hospital for infectious diseases, and upon the treatment of the same. The results obtained by me follow closely upon those detailed in the paragraph I have just read; in fact, they seem more remarkable. So striking have they been, that I have felt that I dared not publish on the subject until I had accumulated a larger number of cases and could place myself in a position beyond any reasonable doubt. My intention had been to wait until I could report upon at least thirty, preferably fifty, cases that had undergone the particular treatment, the number depending upon whether the epidemic of last year continued through to this autumn and winter. The singular harmony between the results here in Montreal and those recorded from Vienna, absolves me, I think you will agree, from the necessity of waiting any longer. I only add that I make the matter public at this juncture, not with any intention of claiming priority, for obviously Prof. Moser and his fellow-workers already possess such priority in publication—and that is the only priority which is permitted to stand nowadays—as also in the use of a successful serum, but to let it be known that here in Montreal and on this continent, similar studies and clinical observations, conducted independently, have led to similar results. And, more particularly, I desire to engage your interest in the matter and your aid in obtaining more cases for the employment of this method of treatment, to the end that it may be placed upon an absolutely secure basis.

During the time in which I have been engaged upon this work 117 cases of scarlet fever have been studied bacteriologically. Cultures have been taken from the tonsils and pharynx in all these cases, and streptococci have been found in 65, or 55.5 per cent. of those examined. From 25 of the most severe cases cultures have been taken from the blood during life, relatively large quantities of broth being employed for the purpose. In these I found streptococci invariably present when the blood had been obtained during the first five days of the disease. I also

succeeded always in obtaining cultures of streptococci from the pus from suppurating cervical glands and in the discharge from the ear in cases of otitis media. The urine also, in suitable cases, contained streptococci, particularly if the patient had marked albuminuria at the time of examination. Courtois has found streptococci in the urine of 91 per cent. of the cases of scarlet fever examined by him while the patient was suffering from an attack of albuminuria, and in 27 per cent. of those without albuminuria. Many other workers have, from time to time, noted the frequency with which the streptococci are to be found in scarlatinal anginae, more especially, I might here mention, Kurth, Seitz, Booker, Pearce and Dowson, all of whom have written lengthy reports giving the results of their investigations.

I would here note that for some months I was considerably interested in endeavouring to confirm the work done by Glass of Chicago upon an organism which he has termed the *Diplococcus Scarlatinæ*. There is no doubt that an organism corresponding with that described by him can be isolated from cases of scarlet fever, especially when his methods are followed, but I was unable to satisfy myself that it had anything to do with the causation of the disease. However, I must add that the streptococcus also does not appear to be the essential agent in the disease as has been claimed by D'Epine and others. In the mild, uncomplicated cases streptococci were not found. These cases gave no trouble and, after the first week or more, required little more than detention in quarantine. My bacteriological studies, carried on at the time when I was also observing the cases clinically, bred in me the conviction that the streptococcus leads to a secondary infection, and that this secondary streptococcal infection is the cause of most, if not all, of the unfavourable complications of the disease. The severity of the attack appears to be due to the concurrent, or, as Roger employs the term, symbiotic action of this micro-organism and the causative agent of scarlet fever upon the susceptible individual, much as it has been noted that streptococcus infection renders diphtheria more severe, though the ill-effects of this symbiosis in scarlet fever appear to be still more marked.

The administration of anti-streptococcus serum was therefore indicated, to counteract the effects of the toxins of the streptococcus and to bring about the destruction of that organism. For it appeared that if this could be accomplished, the cases would resolve into a less severe type and the prognosis would become more favourable.

The various anti-streptococcic sera have, from time to time, been tried in these cases by Baginsky and others, including myself, but with little or no result. Within the last few months, however, I have had submitted to me, and have been given the opportunity to test, an anti-

streptococic serum, produced in the biologic department of the firm of F. Stearns & Co., of Detroit and Windsor, under the direction of Dr. Hubbert, head of that department. Full information has been given to me regarding the mode of production of that serum, and I have myself tested and tried the streptococcus employed in the process of production. It is but fitting that Dr. Hubbert should himself announce the methods by which he has obtained this serum. All that is necessary for me to state is that it is produced along the lines of other sera, a special process being employed, and that in my hands it has proved itself remarkably effective. Nor shall I pretend to explain why one anti-streptococic serum is more active than another in this particular class of streptococcus infections, nor discuss whether we here have to deal with a distinct species of streptococcus, or with a strain modified by growth in association with the causative agent of this particular disease.

So far, since the 24th of June last, I have employed it in the treatment of 15 cases. These cases were all severe, and the majority of them, I have no hesitation in saying, under ordinary treatment, would, if they had not terminated fatally, at least have suffered from lingering and troublesome complications. As it was, there were 13 prompt recoveries, almost free from complication. Not one of the 13 has suffered from albuminuria nor from suppurative otitis media. In all, upon admission to the hospital, there was involvement of the cervical glands, but in only two instances did this go on to suppuration; the usual termination was by resolution within 48 hours after the injection of the serum. Another interesting feature of these cases was the rapidity with which desquamation proceeded. It was usually completed by the thirty-second day of the disease, and thus it frequently happened that a severe case was discharged before a milder one which had been admitted at the same time, but had not been treated by the serum.

Two deaths have occurred in this group of fifteen cases. One of these patients was in a dying condition when admitted to the hospital, and lived only four hours. The other, upon admission, was suffering from a severe pneumonia, and though improving somewhat, succumbed five days later to an attack of laryngeal diphtheria.

The quantity of serum injected has been moderate. My usual dose has been 20 c.cm., but in those cases which from the severity of the attack seemed to require a larger quantity, this dose has been repeated. In this respect the serum appears to be more active than that employed by Professor Moser. The effect was usually prompt: the temperature began to fall within two hours after giving the injection, and became normal in from two to four days. There has been no other treatment

in these cases except stimulation during the first three or four days, with the usual precautions as to laxatives, diet, and rest. And lastly, no adverse symptoms, either local or general, have so far arisen from the use of this anti-streptococcic serum.

It does not, I hold, cure scarlet fever, but its timely administration in the severe cases, tends to allay unfavourable symptoms, overcomes complications and, given at an early stage of the disease, it prevents a fatal termination.

Thus, to sum up, the results seen by me to follow the injection of this anti-streptococcic serum in severe cases of scarlet fever have been:—

1. Rapid subsidence of the pyrexia.
2. An accompanying decrease in pulse-rate with improvement in tension and rhythm.
3. Prevention, or, at least, marked amelioration of such complications as cervical adenitis, otitis media, and albuminuria.
4. Rapid and favourable convalescence in the majority of cases.

I am not prepared to lay the most stress upon the reduction in mortality. It is true that from my clinical experience of the scarlet fever cases in Montreal during the last two years, individually I should have expected a fatal termination in the majority of the cases treated with this serum, so severe did they seem to be. But the intensity of scarlet fever notoriously varies, and again, despite the most earnest desire to preserve an evenly balanced mind, when greatly interested in a subject I recognize that this is most difficult. The physicians who sent these cases into the hospital are possibly more fitted to express an opinion. What I would emphasize is the most remarkable and rapid subsidence of serious symptoms which, in case after case, followed the employment of the serum. I have never previously seen the disease pass so suddenly from a severe, not to say alarming, to a relatively mild condition.

I hope later to publish the results of the observations in fuller detail; in the meantime, I feel that this is a matter of such promise and high import that I beg the co-operation of those here present in affording opportunities for confirming the results which I have just placed before this society.

SENILE PERITONEAL TUBERCULOSIS.*

BY

ARTHUR BIRT, M.D. (Edin.), Berwick, N.S.

At the risk of harping on a rather hackneyed theme, I venture once more to direct your attention to the subject of tuberculous disease as it affects the serous membranes. I do so with the more confidence because the case with which I shall attempt to illustrate my text forms a rather striking contrast as regards the age of the patient, the difficulty of diagnosis, and the results to be expected from surgical procedures, to the one which I had the pleasure of bringing to your notice at the Maritime meeting last July.

Case Report. The patient in the present instance was a nulliparous, married woman, 60 years of age, of good build, but rather spare and fallow. Her health had been good until the present illness, with two exceptions, *viz.*, she had suffered for many years from a tendency to looseness of the bowels following diet errors or emotional stress; and, nine months before I saw her, she had passed through what was diagnosed by her physician as an attack of pneumonia, from which she recovered after a few weeks illness, but without regaining all her former strength and vigour. When the patient came into my charge she had already been confined to bed for three weeks suffering from abdominal pains, anorexia and a tendency to diarrhœa.

At this stage the patient did not look noticeably ill. There was no definite icterus. The pulse was 80, respiration quiet, and temperature normal. She complained of occasional shooting pains on movement in the upper abdominal segment, "soreness" in the lower epigastric region, and of slight colicky pains on defæcation. The abdominal contour was natural with a slight degree of tumidity (meteorism). Palpation showed a moderate tenderness along the junction of the epigastric and umbilical regions, and over this area there was slight muscular rigidity with a very ill defined sense of resistance. Percussion was resonant all over. Vaginal and rectal examinations showed the uterus rather enlarged, freely moveable, and lying backwards and to the left; cervix healthy and fornices soft, but slight tenderness on high pressure in left one. No discharge was noted. The rectum was apparently free from disease. Examination of the urine was also negative. The edge of the liver could be made out rather below its normal position, smooth and not tender. The gall-bladder was not in evidence. The spleen did not seem en-

* Read before the Nova Scotia Medical Society, July, 1902.

larged nor was any information obtained from the blood examination. No enlarged glands were noticed.

With one's attention now focussed on the digestive tract, carcinoma of the *stomach* was first eliminated by inflation and the test meal, the formal procedure showing an organ of normal size without any obvious growth, the latter proving the constant presence of free hydrochloric acid in fair amount. There was, too, neither nausea nor vomiting. The possibility of the *pancreas* being the seat of disease was then considered, but the absence of jaundice, the freedom from stomach symptoms, the absence of sugar from the urine, and of fat excess from the *fæces*, seemed rather against it although the position of the tenderness and resistance, the fact that it seemed to shift a little with respiration and the clay coloured offensive stools did not to my mind altogether allow disease of this organ to be excluded. The *colon* now seemed to be the most probable offender, a view which gained some colour from the old history of diarrhœal attacks, which it was thought might have resulted in a chronic colitis with dilatation and thickening, especially as the tenderness seemed to follow the line of the transverse and, to some extent, the ascending colon pretty accurately. The stools, however, contained no excess of mucous and no blood, whilst inflation of the colon seemed to make the resistance more prominent, thus pointing rather to malignant disease of the transverse colon. Against this was the rarity of malignant disease in this precise position, the absence of any definite signs of stricture, of "Wyllie's patterns," of hæmorrhage from the bowel and the bright eye and non-cachectic appearance of the patient. Omental growths were also considered; but, to cut a long story short, the diagnosis remained open for about a month, at the end of which period, the physical signs having developed somewhat, I asked Dr. John Stewart, of Halifax, to see the case with me, with a view to deciding for or against surgical interference.

There was now a rather more marked degree of tenderness in the epigastric and umbilical regions, and some extension of the transverse area of resistance at their junction, the most painful spot lying a little above and an inch or two to the left of the umbilicus. There was also tenderness and ill-defined thickening to the left of the uterus near the pelvic brim. Vaginal examination gave results as before. There was still slight general tumidity of the abdomen, but no sign of free fluid could be elicited. There was, perhaps, a suggestion of "doughy" feeling on palpation. The patient had lost flesh slowly. Tenesmus was present at intervals, and the motions were pale and fairly formed. The extension of the tenderness and the ill-defined character of the resistance felt in at least two points of the abdomen,

now pointed to involvement of the general peritoneum, either tuberculous or malignant; and, after a careful re-examination under chloroform, the former was selected as the more probable condition, although we did not feel able even yet to exclude malignant disease. The points which decided in favour of tuberculosis were:—The appearance of the patient; the lack of virulence in the progress of the disease; the ill-defined nature of the thickening felt (suggesting multiple adhesions); the absence of free fluid and of definite nodules, more or less umbilicated; the moderate character of the pain; and last, but not least, the history and residual signs of pleural involvement, this latter giving us (assuming the disease tuberculous) a definite primary focus.

Operation was deferred for the time being and the patient was put, at Dr. Stewart's suggestion, on the treatment recommended by Burney Yeo of late years; *viz.*, a pill of iodoform and creasote, with the regular inunction of an ointment containing iodoform over the abdomen. The usual anti-tuberculous measures were, of course, taken.

Medical treatment, however, proved of little avail and the case slowly but steadily progressed until, at the end of another six or seven weeks, she presented the third and final picture. At this stage the patient was markedly emaciated; the abdomen was greatly distended, the lower segment being now the more prominent, and projecting forward and rather to the right. The squareness of free fluid was still lacking. Over the area of greatest prominence, (Vide Fig.) the percussion sound was nearly flat, with an extremely high pitched tympany on lightest percussion. There was also a vague sense of fluctuation over this area but no "thrill." The flanks, especially the right, were a little more resonant. The abdominal wall was still quite thick in contrast to the general emaciation. As to her symptoms, pain was now much more marked, requiring moderate doses of morphine; it was referred chiefly to the old site and was occasionally felt with great severity in either groin. There was continual regurgitation of food and bile, from compression of the stomach. There was a trace of albumin in the urine. Urination and defæcation were difficult, and marked œdema of the sacrum and lower limbs had supervened.

Before the patient had arrived at such a pass the question of laparotomy had been mooted more than once. In view, however, of the patient's age, the anomalous physical signs, the disinclination of herself and relatives, unless some permanent and definite result could be promised, and the rather unsettled state of present medical opinion as to its value in such a case, the idea was reluctantly abandoned. A fortnight before death, permission was given to introduce a trochar to try and reach the encysted fluid, which was presumably present.

This was promptly done, midway between pubes and umbilicus, and it was felt to pierce a greatly thickened, gristly peritoneum, but, in spite of various manipulations, I failed to strike the fluid and did not again have an opportunity to try. The patient lingered for two or three weeks and finally died from simple asthenia, owing to the continual vomiting of food. In the last few days of her illness the left pleura was noted to contain some fluid.

Autopsy. A considerable deposit of fat in abdominal wall. Lower part of omentum adherent to abdominal wall, forming with intestine the front wall of a cavity containing a large amount of turbid serum in the lower central zone. Sparsely scattered miliary tubercles on peritoneal surfaces, in mesentery, etc. The resistant mass in epigastric and umbilical region composed of laminated adhesions, between thickened omentum, colon, liver, etc. The adhesions were firm and fibrous, and only a few scattered miliary tubercles were detected in the laminae. Subdiaphragmatic adhesions were also present. Liver moderately enlarged and markedly fatty. Stomach compressed closely under diaphragm. It showed only signs of slight chronic gastritis. Pancreas, spleen and kidneys appeared healthy. Colon showed nothing internally but chronic mucous catarrh; it was, however, kinked and pressed on by the adhesions and the omentum lying athwart it. Mesenteric glands caseous. Sigmoid showed collection of larger tubercles on it, forming a patch of some little size (this was apparently the tender point noticed to left of uterus during life). Uterus moderately enlarged, lining showed caseous patches, as did the tubes and ovaries. Left pleura showed a few miliary tubercles; its cavity was half full of turbid serum, and the lung was partially collapsed. The lung was not tuberculous. Right pleura a few old adhesions. No tubercle in right lung. Heart somewhat dilated and fatty. The tubercle bacillus was demonstrated in scanty numbers.

Consideration of the conditions above noted lead one to infer that a two-inch incision would in all probability have evacuated the fluid and prolonged (for a little at any rate) the patient's life. Her age, the pleural involvement, and the extensive adhesions in the upper abdominal zone, seemed to almost prohibit a final recovery. The primary source of infection seemed clearly to be the pleura and dated probably from the old, so-called pneumonic attack.

I venture to add a few remarks on the diagnosis of these cases. In the first place we evidently cannot depend greatly upon temperature and pulse. Subnormal temperatures have been frequently recorded, and are not at all uncommon in all forms of tuberculosis in the chronic insane. I have personally noted this more than once in demented patients, found at autopsy to be suffering from tuberculous peritonitis.

it may occur also in elderly patients, whose reactive powers are on the wane. In the present case the absolutely normal pulse and temperature, persisting until quite late on in the disease, were interesting. The explanation seemed to be:—(a) small doses of toxin (few bacilli), or (b) defective reaction to them in degenerating tissues.

The exclusion of malignant disease in the stomach is, of course, important, but this can be secured by careful palpation, inflation and the appropriate chemical tests. Pancreatic disease might give rise to doubts, especially in the early stage of a case like this, where there is no free fluid in the greater peritoneum and the distension and resistance appear first in the upper zone, and where no portal of tuberculous infection is evident. Its comparative rarity must be borne in mind, and, also, the unreliability of fatty stools and glucosuria as proof of its presence or absence.

Before evidence of general involvement of the peritoneum is present, the possible existence of carcinoma of the large intestine has to be considered. Morris, of London, and Fried. Crämer have recently called attention to the stealthy advance and anomalous symptoms of this condition. Of these latter, attacks of colic, intestinal rigidity, stenotic murmurs, persistent tenesmus, with small, repeated, bright hæmorrhages seem to be the most reliable. In my case there was considerable difficulty in eliminating this condition at one stage of the diagnosis. As soon as it is evident that the general peritoneum is involved, the diagnosis narrows down practically to a separation of tuberculous from malignant disease of that membrane. In this relation the detection of a primary tuberculous, or probably tuberculous, focus in pleura, genital tract, or elsewhere, is all important; and the history gives valuable suggestions. The omental tumour is common to both conditions, and its vagaries are decidedly puzzling. It may form* :—(a) A solid cake-like structure lying on the intestines, and be mistaken for an enlarged liver. (b) Be drawn up, thickened and adherent to abdominal wall. (c) Be quite drawn up and form a hard ridge attached to transverse colon. This occurs in some cases of diffuse malignant disease of the abdomen.

The doughy feeling of the abdominal wall in tuberculosis is very suggestive when it occurs. After all, some cases must remain for a while in doubt. In malignant disease the rapid accumulation of free fluid and the detection of large umbilicated nodules with glandular enlargements, is more common. In either cases the fluid may be sanguineous and characteristic elements wanting. F. P. Henry considers that a peri-umbilical erythema is diagnostic of tuberculous peritonitis, when present.

* Gibson and Russell "Physical Diagnosis," 1902.

Into the diagnosis between the acute cases of this disease and typhoid fever, and between the encysted cases and ovarian tumour, I do not propose to enter; the latter is classic, and described in all the text-books, so that it is sufficient to remind you how often the mistake has been made and in what skilled hands. I recently was told by a friend of a case that was operated upon for acute appendicitis, in which tuberculous peritonitis became the diagnosis on inspection.

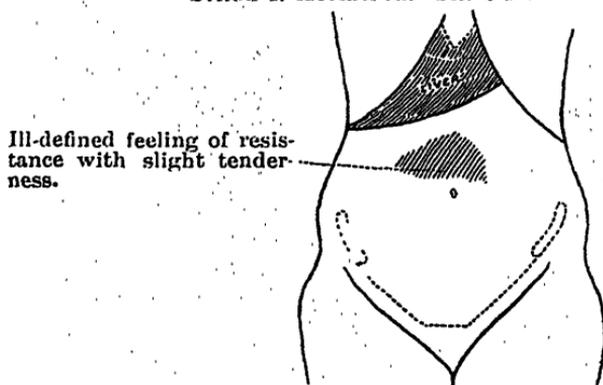
I am aware that within the last year or so there has been a considerable reaction amongst the surgeons with regard to operating on these tuberculous cases.* Some go so far as to hand back all of them to the physician. I think, however, that the bulk of us are agreed, that in the cases with free fluid, no probable adhesions, and fever: drainage by a limited laparotomy is the best treatment. It is such cases as the one I have reported, and those with multiple loculi filled with fluid, in short, the ones that are hard to diagnose and hard to drain, that I would like some of my surgical confrères to advise us on.

At the same time it would be interesting to hear suggestions as to diagnosis or treatment from those who, like myself, have been non-plussed at times by the protean forms of this common but always important disease.

In conclusion, I would like to acknowledge my indebtedness to my able consultant, Dr. Stewart, whose diagnostic acumen and sound judgment were most welcome in the handling of the case.

N.B.—Appended are rough diagrams to illustrate three stages of the case.

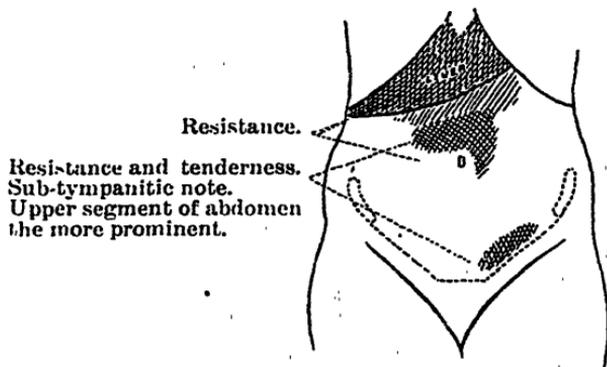
STAGE I. ATTEMPTED DIAGNOSIS BY EXCLUSION.



Symptoms—Pains in abdomen; looseness of bowels; anorexia; slight loss of weight. Temperature, pulse and respiration, normal.

Signs—Contour normal; abdomen tympanitic all over; ill-defined feeling of resistance and slight tenderness over region of transverse colon as indicated; no sign of fluid.

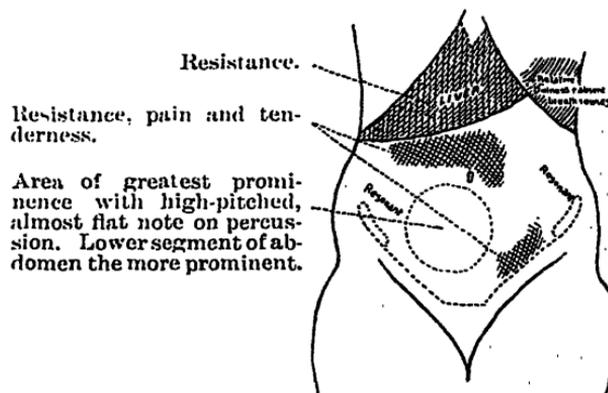
STAGE II. TENTATIVE DIAGNOSIS TUBERCULAR PERITONITIS.



Symptoms—Pain more marked, especially on movement or defæcation; tenesmus; alternate attacks diarrhoea and constipation; slow but steady emaciation. Pulse, 85–90; respiration normal; temperature normal.

Signs—Distension more marked, but still only slight; contour not much altered; breathing costo-abdominal; marked tenderness and resistance as indicated (Fig. 2); the upper segment of abdomen being more prominent than normal; lower end of liver can be sharply differentiated above the mass; tender thickening in l. iliac region to left of retroverted uterus; no sign of free fluid.

STAGE III. POSITIVE DIAGNOSIS—ENCYSTED DROPSY OF PERITONEUM (TUBERCULOUS) WITH OMENTAL TUMOUR.



Symptoms—Marked emaciation, except of abdominal wall; pain more marked and more continuous, especially over tumour and in groins, tenesmus at times; continual regurgitation of food and bile, difficult urination and constipation.

Signs—Dulness and absent breath sounds at lower base; abdomen greatly distended, greatest prominence below umbilicus and to right (vide figure); over this area percussion sound is nearly flat, with a suggestion of very high-pitched tympany on very light percussion; there is a vague sense of fluctuation over this area, but no real thrill; flanks more resonant, especially the right; marked œdema lower limbs and sacrum: trocar midway between pubes and umbilicus failed to withdraw fluid.

FOREIGN BODIES IN THE VERMIFORM APPENDIX.*

BY

JAMES BELL, M.D.,

Professor of Clinical Surgery, McGill University; Surgeon to the Royal Victoria Hospital, Montreal, etc., etc.

It is safe to say that in the earlier days of operations upon the appendix vermiformis, less than two decades ago, all of the laity and many members of the medical profession believed that appendicitis was generally, if not always, caused by the presence of a foreign body in the appendix. This belief arose from the fact observed in autopsies, especially those made upon fatal cases of peritonitis, that the appendix contained, or had recently contained, a concretion which was assumed to have a grape seed, apple seed, or some other foreign body, as its nucleus. Indeed, within the last ten years (it was in 1893), a distinguished foreign physician, who was present at my clinic when I operated upon two cases of gangrenous appendicitis, in each of which a large concretion was a conspicuous feature, said to me, in speaking of the case after the clinic was over, "Excuse me, but I did not hear you bring out the fact (in the history) as to when these patients had eaten the grapes."

Surgical treatment of the inflamed appendix and its consequences, necessarily led to a careful and thorough examination of the parts removed, as well as of all the tissues involved, and especially of the concretions and other contents of the appendix. The result has been an absolute demonstration that appendicitis does not depend upon the introduction of foreign bodies, and, moreover, that real foreign bodies in the appendix are very rare indeed. The concretions so constantly found nearly always consist of inspissated faecal matter without nuclei of any kind; and all degrees of inspissation are observed.

I will now go further, and state my opinion that when foreign bodies do enter the appendix, they are either accidental occupants, or, if they give rise to symptoms at all, they do so in a different way and do not, as a rule at least, cause a genuine appendicitis. In the last ten years I have found the following foreign bodies in the appendix, in cases operated upon for its removal, viz.: In two cases, ordinary pins; in one a forked fish bone; in another a large and a small gall-stone; in another two seeds (probably flax seeds); in another a bit of woody fibre (probably apple core); and in another case in which a portion of the appendix had sloughed off, a large lumbricoid worm lay in the localized abscess.

* Read before the Canadian Medical Association. Sept. 17, 1902.

This is not a large number to have discovered in, say, about 900 to 1,000 operations, and yet, as far as I know, it is much larger than the average proportion. I have discussed this question with a good many surgeons who have each done a large number of operations every year, without ever having found a foreign body in the appendix. Of course, I refer to real foreign bodies, introduced from without, and do not include those fecal concretions or accumulations (coproliths), some of which may contain foreign material. The fish bone, the flax seed and the apple core, were probably accidental occupants of the inflamed appendix, although it could not be shown that they had no relationship to the disease, and the worm had probably escaped through the open end of the appendix and had nothing whatever to do in causing appendicitis.

In one of the pin cases the discovery was made so late in the suppurative process, that no inferences could be reasonably drawn one way or the other. In this case the patient, a young man, had suffered from an abscess in the right Scarpa's space, which had been opened and drained. A sinus had persisted, and he came to the hospital several months afterwards. In following up this sinus it was found to extend beneath Poupart's ligament and communicated with the open extremity of the adherent appendix. The appendix was removed and an ordinary pin was found lying in the abscess cavity at its extremity. The symptoms had been indefinite and subacute, and had not caused any suspicion of appendicitis. In all probability perforation of the appendix at its tip by the pin had occurred, causing adhesion and abscess without any inflammation of the appendix itself.

In the other two cases, which were observed in the acute and early stages, the symptoms and pathological changes produced were those of intestinal perforation. They were, briefly, as follows:—

CASE 1.—A boy, 16 years of age, was admitted to the Royal Victoria Hospital on the afternoon of July 9th, 1894, with a diagnosis of acute appendicitis, and immediately operated upon. He stated that he had been kicked in the abdomen on the 7th, forty-eight hours previously, and that pain and vomiting had begun almost immediately. There was a definite hard and tender mass in the appendix region lying well anteriorly. On opening the abdomen this was found to be the appendix embedded in an enveloping mass of omentum. The whole mass was removed, and on examination a black pin of medium size was found protruding through the appendix near its apex. Two-thirds of the pin lay outside the appendix in a small collection of pus. The mucous membrane of the appendix did not seem to be abnormal, and bacteriological examination of it was negative. The boy stated that for a year previously he had had slight attacks, of short duration, of pain in

this region. This history seems to show very clearly that the pin had found its way into the appendix several months previously, and had given rise to very little in the way of symptoms until a blow upon the abdomen caused it to perforate the appendix; and then arose a train of symptoms due to perforation without pre-existing inflammation.

CASE 2.—Has a very similar history. A young woman, *æt.* 22, on the afternoon of Thursday, July 31st, 1902, had stepped up on to the seat of a chair to enable her to place a heavy book upon a high shelf. In stepping down, afterwards, the chair tilted and the back of it struck her in the lower abdomen and gave her some pain, and she felt sore for the balance of the day and the next day, Friday. On Saturday she scarcely felt it, and did her day's work and ate her evening meal about 6 o'clock with her usual relish. About 9 o'clock, however, she began to have severe pain in the abdomen. This was so severe that a physician was called and gave her a hypodermic of morphia, and she had a fairly good night. On Sunday she had a good deal of pain and vomited frequently. Sunday night she suffered a good deal, and about 8 o'clock the pain became unbearable, and she could not "get her breath." The ambulance was sent for and she was brought to the hospital; I was summoned at 10 o'clock a.m. She then showed all the evidences of having a severe general peritonitis. She was livid, breathing with difficulty, short catchy breaths; pulse, 140 to 160; temperature, 102°, and the abdomen somewhat distended and absolutely rigid. The previous history could not be fully obtained under the circumstances, but these two important facts were elicited—she had had an attack when she was thirteen years of age which had been diagnosed as appendicitis, and she had never suffered from dyspeptic symptoms.

In spite of these statements, I thought that the peritonitis was probably due to a perforated gastric ulcer, and opened the abdomen in the middle line above the umbilicus. There was a gush of gas and a flow of pus when the peritoneum was opened. The whole cavity was literally swimming in pus. There was no perforation of the stomach and the gall bladder and gall passages were normal, but a mass was felt by the hand within the abdomen, in the appendix region. An incision was made over this and the cæcum delivered through it. The appendix stood upright with an opening near its base, as large as a five-cent piece, partially blocked by a large faceted gall stone more than half an inch in diameter. A small faceted gall stone lay in the appendix beyond the larger one. On moving the bowel so as to displace the stone, liquid fæces poured out of the opening. The appendix, including the stone, was removed, the peritoneal cavity cleansed and drained, and the patient did well.

On the 11th of August the gauze was removed and the wound sutured. On the 20th the temperature began to go up. On the 25th there was slight cough but no pain, some slight increase in the area of dulness in the right side—some slight upward increase in the area of hepatic dulness. An aspirating needle introduced in the 8th intercostal space, just behind the posterior axillary line, found pus. Next morning, on the 26th, a portion of the 8th rib was removed and a healthy pleural cavity opened. A portion of the 9th rib was then removed and adherent pleura encountered, but no pus, and a crepitant lung. A needle introduced through the lung withdrew pus. The lower border of the lung was then perforated at the spot by the cauter, but no pus found. The finger introduced found neither pus nor cavity, and separated the adherent lung from the diaphragm for some distance. In the meantime the patient began to cough and expectorate about half an ounce of pus. Since that time a moderate discharge of pus has developed through the lung, and an occasional small quantity is expectorated. The patient is still feverish and weak, but has neither symptoms nor local sign, and her abdominal condition is all that could be desired.

It will be noted that the first symptom in this case occurred from 50 to 52 hours after the injury, that operation was performed about 38 hours after the first abdominal symptoms, and that the later symptoms of subphrenic abscess penetrating the pleura, occurred about 21 days after the operation.

Here again the foreign body had been in the appendix for a long time (9 years), and a slight blow upon the abdomen was the initial factor in producing a large perforation of the appendix, close to the bowel, with precisely the same result as would have followed had an opening been produced by a shot-gun, stab-wound, or other traumatism, or by an acute or chronic ulceration from within.

Incidentally I may point out that this case is almost unique in the number and variety of unusual and grave pathological conditions. In the first place, the passage of gall stones is unusual at such an early age; secondly, there is clear demonstration that the large gall stone must have passed along the gall ducts into the intestines, as I examined carefully the gall bladder at the time of operation and ascertained that nothing in the way of spontaneous anastomosis (if one may use the term), between the gall bladder and any part of the intestinal canal, had occurred; thirdly, the perforation after a slight traumatism; and, finally, the extraordinary course of the pus which found its way into the lung three weeks after operation. In explanation of the latter condition, I believe that it must have found its way into the mediastinum along the right crus of the diaphragm.

It would, of course, be absurd to draw general conclusions from such a small number of cases as I have been able to report in the present communication; but, when on the one hand, such an overwhelming number of cases of appendicitis are due to causes other than the presence of foreign bodies in the appendix (causes with which we have at present no concern), and on the other hand, when the cases which have been observed of foreign body in the appendix, seem to show that the foreign body had no such causative relation to the disease; and, finally, when these facts are *a priori*, in accord with the results of general surgical experience, the conclusion would seem to be almost irresistible, that such foreign bodies have no essential relationship to the condition which is so widely and generally known as appendicitis. I am well aware that it is unnecessary to argue this point, as no one at the present day would seriously dispute the foregoing conclusions, but the discussion of this subject has given me the opportunity of placing upon record a couple of very interesting cases and calling attention to a cause of intestinal perforation which has not heretofore been generally recognized.

NORMAL LABOUR.*

BY

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The subject of normal labour in general practice is more important than has generally been recognized. My object is, therefore, to outline the subject briefly, with the hope of bringing out some important discussion on the whole subject of obstetrical practice.

At the outset I desire to say that if the laity were better informed with regard to the great importance of the proper management and treatment of the patient during gestation, as well as during her delivery and after treatment, it is my firm belief that the oft resultant wrecking of the mother's health would be materially minimized, and the manifold operations and treatment of the ambitious gynæcologist would be considerably diminished. It is not my desire, however, to depreciate the good offices of the gynæcologist, but rather to chide ourselves, the general practitioners, for our many failures in the past to bring our patient successfully through her gestation and puerperium.

Lest I might be considered pessimistic, let me say at the outset, from observation, that I believe the results obtained at present in the management and treatment, especially of the puerperal state, are much better than the results obtained by ourselves and our predecessors ten or fifteen years ago. For this improvement, much credit is probably due to the more general understanding by the profession of asepsis and antisepsis as applied to labour and the puerperal state. There is yet much room for advancement, however, and we, as physicians, should not be satisfied till we are able, even in abnormal and difficult cases, to guide our patient through her oft-dreaded and all important event, without any lacerations or complications of any kind.

Now, what is the physician's duty with regard to a patient in the early stages of gestation, who engages him for her confinement, and who may or may not draw his attention to any of the various ills to which she may be subject at this time? Some women there are who are so healthy, or who from instinct or acquired knowledge, so regulate their habits by an obedience to Nature's laws, that they require little or no advice during this period. Many, however, stand greatly in need of special treatment or advice to guide them aright in this important era.

Who can estimate the importance of a woman's environment, as well as that of her general health, in its effect upon her expected offspring

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while it is yet in the early embryonic stage? While scientific investigation in the human family has not yet reached a climax along this line, yet we learn from the analogy of comparative anatomy and physiology that a healthy mother, surrounded during gestation by refined and cheerful company, and the best possible environment, cannot fail to produce the most desirable and healthy features in her child, both physical, mental and moral.

With regard to the diet of the patient during gestation, and other hygienic treatment, I shall say little, as the same general rules apply as at other times. The bowels should be regulated by laxative foods, mild laxatives, mineral water, etc., and the diet should be nutritious, but not excessive.

Perhaps the most important organs of the whole body to watch at this important period are the liver and kidneys, whose functions in the most healthy are oftentimes prone to be refractory on even slight provocation. Toxæmias of various kinds, with their multitudinous nefarious effects—now well worthy of our suspicion in almost every functional deviation from health—should be doubly doubted in the case of the pregnant woman who manifests any special disturbance of her physiological functions.

Pregnancy is not a disease, but a physiological incident, and can be maintained as such by the observant and ready physician. Let us not wait, then, till serious manifestations of albuminuria are apparent or the blood becomes surcharged with bilirubin or biliverdin, urea or uric acid; but set about without delay by the ordinary eliminative processes, to rid our patient of the waste products retained in the blood.

The principal reasons why our pregnant patient is peculiarly exposed to the dangers of auto-intoxication are that she is exposed to an increase of waste as well as a diminution of excretion. First, her blood contains an increased amount of poisonous material due to stimulation of the metabolic processes to provide for the nourishment and protection of the foetus and the tissue-waste passing into her circulation from the foetus. Secondly, the enlarging uterus may produce reflexly a spasmodic contraction of the blood vessels, and as it enlarges there is a constantly increasing intra-abdominal pressure with a growing liability to mechanical interference with the action of the liver, bowels and kidneys. I need not here enumerate the various symptoms of these toxæmias familiar to you all, but would only emphasize the importance of frequent urinalyses to ascertain the presence or absence of albumen or sugar, and above all, to measure the approximate elimination of urea from a 24 hour sample of urine, which may be deemed a reliable clinical index of elimination. A microscopic examination showing the state

of the kidney tissues will complete the data required for an exact diagnosis.

I have, perhaps, indulged in some verbosity with regard to toxæmia in pregnancy, because I recognize in its train a large factor in the causation of all the ills that may follow during labour and the puerperal state. Even pernicious vomiting of pregnancy may own toxæmia as its chiefest cause, although in this case, we should examine closely into probable peripheral sources of irritation as well. Perfect quiet and rest may be required by an excitable and weakened patient.

Irritation from a displaced uterus can be detected and corrected by bi-manual manipulation. Pessaries or aseptic tampons may be used to advantage. Should the displacement be complicated by adhesions, tampons medicated with ichthyol and glycerine are useful. If there is no pathological condition other than a cervical discharge or erosion of the os uteri, then treat with nitrate of silver applications, or dilate the os; if rigid, dilate under chloroform, which may, however, produce an abortion, mention of which should always be made if such procedure be deemed necessary. Chloral and sodium bromide may also be used to overcome the irritability of the nerve centres after eliminative measures are exhausted. Abortion or premature labour may be justifiable in extreme cases.

And now, with regard to *Labour*, it is not my intention to deal with the subject, more than to make a few observations which have frequently impressed me in my more or less limited twelve years' experience. I have learned to look upon normal labour as a physiological process which in normal conditions of health will be accomplished satisfactorily with little aid from the obstetrician. While meddling midwifery is surely to be deprecated, yet I believe much suffering can be averted and much appreciated aid can be rendered by the prudent, careful and judicious obstetrician.

In many cases the stage of dilatation is a much prolonged, exceedingly painful and tedious process, due perhaps to the condition of the already weak, over-sensitive and exhausted patient. In such a case, my usual practice is to give a few whiffs of chloroform, and the same dilatation is accomplished by the fingers, without suffering, in three to five minutes, which would have taken by nature's patient and long-suffering method hours to accomplish. Then I sometimes give her another chance in the second or expulsive stage, which is often too slow for the patient's patience or weak condition; the latter condition being usually the chief index of the length of time I wait before I again supplement her work by that most valuable though most dangerous instrument in undexterous hands, the forceps.

And here I desire to state my belief that in dexterous hands the forceps can be used successfully in almost any case of confinement where indicated, except perhaps extreme contracted pelvis or extreme monstrosity, without injury to either mother or child.

Many cases occur where the vertex is extremely large and the vagina and perineum comparatively small. These are the cases that are trying on the patience in an attempt to save the perineum, and where nature unaided, if she deliver at all, will be sure to rupture the perineum, perhaps completely into the anus.

These are cases where the experienced obstetrician can crown himself with glory, although the excellence of his work may never be recognized by anyone but himself in this world. On the other hand, the obstetrician who fails in preventative may crown himself with jewels by securing a more or less imperfect union of the lacerated perineal tissues, and the patient's knowledge of the brilliant stitching operation necessary in her extraordinary and unique case. A year or so later his patient returns with leucorrhœa and bearing down and sinking and pains galore. He now reveals to her the fact that she has a *new* disease in another and entirely different field, the gynæcologist's realm, who is in turn rendered ever grateful to his confrère for such fruitful supply.

It is not my purpose to go into the details of the *modus operandi* of the different stages of labour which every obstetrician works out more or less satisfactorily for himself. I beg leave to mention chloroform as a most useful adjunct, the benefit of which I believe to be great in almost every case when used judiciously. At the acme of expulsion, as the head is passing the introitus, the anæsthesia should generally be pushed to full unconsciousness. This not only spares the patient the severe pangs of labour, but, by retarding expulsion and by relaxing the muscular structures of the pelvic floor, it lessens the risk of lacerations at the vaginal outlet. I would also recommend the judicious use of chloroform occasionally in the second and first stages of labour. It relieves needless suffering and spares unnecessary exhaustion, but anæsthesia should be avoided till the latter part of the expulsive stage.

The mechanism of expulsion must be so regulated that the smallest circumference of the head is constantly kept within the grasp of the existing girdle. The direction of expulsion must also be controlled lest the soft parts be subjected to too great strain by misdirection of the driving force. The head should be permitted to descend only so far at each pain as can be done without exposing the tense structures to risk of tearing. To relieve the pelvic floor from undue strain by misdirection of the expelling force, press the head firmly up into the sub-pubic arch and at the same time the perineum may be supported by the palm

of the hand; thus the movements of the head may be controlled till the perineum is sufficiently stretched to ensure safety.

Having thus safely accomplished delivery, it is my practice to immediately proceed with the delivery of the placenta by a modification of the Crèdè method, making only sufficient interval to tie the cord and wrap the child. With one hand firmly grasping the uterus and pressing it down and compressing it, I immediately enter the fingers of the other hand into the vagina, where, if I do not quickly find the placenta expelled, which is usually the case, I follow into the uterus and grasp or scrape if need be, with nature's best instruments, the fingers, and between my two hands I carry away, not only the placenta, but even the decidual membranes. If this final act of expulsion of the placenta and contraction of the uterus—thus completely emptying it of child, placenta, membranes and incidental clots—is properly accomplished, and the uterus accordingly fully contracted, there is little or nothing to fear in the puerperal state. Nowadays, with our universal knowledge of asepsis and antiseptis, there is no excuse for septicæmia. I trust I may be pardoned, however, in this connection, for emphasizing more especially the universally admitted importance of the details of asepsis throughout the confinement.

The nails should be thoroughly cleaned and the hands scrubbed with soap and boiled water, if not in some antiseptic solution. Greater precaution still should be exercised if the physician has recently been exposed to the exanthematous diseases, diphtheria or a post-mortem examination.

The practice of keeping a puerperal patient in bed, using bed-pan, etc., and almost motionless for ten days, I think has now become almost obsolete. I am a thorough believer in attending to nature's calls in the erect posture as soon as they occur, and I encourage the patient to sit erect in bed as soon as possible, because of the advantage of gravity in aiding the natural effort of the uterus to rid itself of the natural discharge. An occasional douche with warm water or any of the weak antiseptic solutions I believe to be useful in many cases, but I do not consider it necessary as a routine practice.

Another point on which I would like to hear some discussion is with regard to the use of ergot after delivery of the placenta. In my early experience I used it as a routine practice. I discarded it gradually, till at present I believe there is little or no need for it. The only case in which I would recommend it now, is that of possible post-partum hæmorrhage from inertia and relaxation of the uterus,—a complication which I believe to be entirely a preventable accident. The application of a good pad over the uterus and a snug and well-applied bandage will

ensure safety in the case of any uterus that has once been fully contracted. Ergot may also be considered something of an additional safeguard where, for any reason, prolonged anaesthesia has been necessary.

Chloral has its well understood use in the first stage of labour, where the os is rigid, but I am not a believer in very large doses. Better supplement its action with a few whiffs of chloroform, even at the risk of diminishing temporarily the pains.

THE COUNTRY PRACTITIONER OF TO-DAY.*

BY

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Under this title I would include the grey-haired veteran who, in some measure at least, has kept in touch with the progress of medical science, as well as the newly-finished product of the medical school who is up-to-date in everything, except experience.

My remarks will apply particularly to the English-speaking doctor as he pursues his calling in the valley of the historic Chateauguay, in the south-western corner of the Province of Quebec. He is a son of the soil, invariably. No city youth would ever content himself to settle down to practice in a country village or rural district. As a rule he is a man of average ability; the dull ones are weeded out before graduation day, and the brilliant ones naturally and wisely gravitate to the cities and towns. He is a unit in the great army of professional workers, who, as individuals, are seldom or never heard of beyond the little circle in which they live.

The great advances made in all branches of medical practice during the past twenty years have not been limited to hospital and city work, but the knowledge obtained at college, laboratory and hospital has been carried to the country places and applied to relieving the sufferer wherever found. I have no wish to disparage the work of our predecessors. Good work was done before we were born, and better work will be done after we are gone than we are doing now, but I wish to note some of the benefits which country residents enjoy from an improved medical service.

Twenty years ago deaths from sepsis during the puerperal period were common, and many a family of small children was left motherless because of "inflammation" or other complication. To-day, under medical care, this happens only in rare instances, and there are men who have been in active practice for five, ten, and even fourteen years who have never had the misfortune to lose a case as the result of confinement or miscarriage, although they have run the gauntlet of hæmorrhages, eclampsias, abnormalities, and mal-presentations, in all sorts of surroundings, and in spite of the lack of the trained nurse and other convenient accessories of modern midwifery which are considered indispensable by the city physician. Not only is the mortality reduced to almost

* Read before the Medical Section of the Canadian Medical Association, at Montreal, Sept. 18th, 1902.

nil, but the solace of anæsthesia afforded, severe lacerations prevented or repaired, and pelvic diseases subsequent to parturition reduced to a minimum. These results are not obtained without vigilance. In addition to waiting upon himself in the matter of procuring boiled water and preparing utensils, the careful man must keep a sharp look-out that the untrained nurse does not mar his arrangements, in her zeal.

In times within the memory of the youngest practitioner scarlet fever and diphtheria used to pass along a neighbourhood like a scourge, claiming one or more victims from every family of young children. This is a thing of the past. Very few deaths occur from these diseases now, where a physician has been called. Isolation, antiseptics and anti-toxin have robbed these diseases of their worst terrors.

The better management of acute febrile diseases, such as pneumonia, pleurisy, rheumatism, Bright's disease and typhoid fever has reduced their mortality to a very low rate, especially during the active period of life. From the vital statistics of the province for the year ending June 30th, 1901, I find the total number of deaths in the county of Huntingdon set down at 157. Only 42 occur between the ages of five and fifty-nine years. Of these tuberculosis accounts for 20, or nearly one-half. Organic disease of the heart claims 4; diphtheria and croup, 2. Only one each is attributed to the following causes: typhoid fever, appendicitis with abscess, pneumonia, enteritis, puerperal septicæmia, puerperal hæmorrhage, alcoholism, and intestinal obstruction. This, out of a population of over 13,000, is not a bad showing, except for tuberculosis. Perhaps the comparatively infrequent occurrence of venereal diseases in country practice may account to some extent for the low mortality. Railway facilities enable us to send some bad cases to the city hospitals, especially surgical cases. Three cases of compound fracture of the skull, two of them with loss of brain substance, occurring in my own practice within recent years, have been saved by the skill of the surgeons in the Montreal General Hospital.

The best results of the country practitioner are not always obtained by the use of the newest fad in medicine, or the latest wrinkle in surgery, although new things are sometimes employed with the happiest results, but by attention to the general principles of the healing art. For example, we are called out on a mild winter morning to consult over a man who is suffering from double pneumonia. He is only 48, but he looks much older; he has been intemperate, and his physician has despaired of his life. We find him in a small room upstairs under a pitched roof. The room is darkened to exclude the light from his face, the door and window are closed tight for fear he might catch cold, three neighbours are watching by the bedside to show their sympathy and minister to the sufferer. The patient is delirious and cyanosed.

We examine him and say privately to the doctor, "Your diagnosis is all right, and your treatment is all right, but I don't like that room." "I don't like it either," he answers; "but I cannot get them to let him have more air." "Oh, but we will back you up in that." As no other room is altogether suitable, we call for a hammer and some small nails. We remove the curtain altogether, and half of the small window. We tack up a piece of netting to keep out the snowflakes, and a shawl to prevent draught blowing directly on the patient. We have the bed reversed so that his eyes are shaded, order the watchers to get behind the bed to be out of the way of draughts, and issue the injunction, "Now, don't touch that window till the doctor tells you to." An hour later we find the cyanosis considerably lessened and the respirations easier. The following day a favourable crisis occurs, and the man is soon well.

Typhoid fever is not a very fatal disease in country practice. But it often gives the physician ample scope for the use of his art. Exceptionally there is a trained nurse to lighten the burden, but as a rule he has to give instructions—and not only instructions, but object lessons—in feeding, bathing, cold sponging, and disinfection, and see that they are carried out.

One remarkable case seen on the twelfth day is worth mentioning. There was troublesome diarrhoea, and in the fourth week great meteorism which was hard to combat. A drive of eight miles over a bad road was necessary in order to reach him. The patient use of the rectal tube to draw off flatus was attended with considerable success, and probably turned the trembling balance in his favour. After apparent convalescence had set in, a fluctuating tumor, with pain, developed in the umbilical region. Improvement was arrested, the temperature was irregular, and the strange tumor increased in size. Beyond the fact that the tumor was fluid I could not make a diagnosis. He was fearfully reduced and getting worse, so I determined to send him by boat from Port Lewis, where he lived, to the General Hospital, in the faint hope that something might be done to save him. There the opinion was reached that the patient was suffering from tubercular peritonitis instead of typhoid. As his condition became desperate, obstruction of the bowels having set in, he was turned over to the surgical department, where 20 ounces, or more, of pus were evacuated through an incision below the umbilicus. His blood gave the typical typhoid reaction. The conclusion finally adopted was that it was a case of typhoid perforation followed by localized abscess, a very rare occurrence. The man made a good recovery. Up to the present date, out of 46 cases of typhoid, I have lost three patients. The last case I had was an unusual one in a man of 70 years, who succumbed after one hundred of illness.

Appendicitis is another disease which usually does well. There are cases which recur and recur with lessening severity, and finally cease, remaining quite well during the intervals. Some do not recur at all. The hospital surgeon cuts down and amputates the inflamed or gangrenous appendix, and demonstrates to his student class the wisdom and necessity of doing so. Perhaps he is right. If every patient who takes appendicitis could be brought at once to the hospital and operated upon by skilful hands we believe the results would be good. But in the country, where neither the hospital nor the skilful surgeon is at hand, we believe the treatment that will save most lives is rest, opium, and cold or hot applications. No salts, no purges, no enemas, except in selected cases, and when got at the very first; but rest, absolute rest: everything to limit the morbid process. If abscess forms or any residue of trouble remains, send the patient to the hospital for treatment: *secundum artem*.

Antiseptic technique enables the country doctor to undertake fearlessly and successfully many minor operations which formerly would not have been attempted, and to save portions which formerly would have been sacrificed. Perhaps few men now in country practice have ever amputated a limb. The hand mangled by the threshing mill, or gun-shot wound, is no longer removed by amputation through the arm, but everything not absolutely destroyed is saved. Such things as the removal of growths, cysts, or tumors from accessible regions; excision of a cancerous breast and clearing out of axillary glands, aspirating a pleurisy, ascites, or a distended bladder; also excision of tonsils, clearing out adenoid growths, opening abscesses, evacuating an empyema, herniotomy, curetting operations, and the treatment of external wounds of all kinds, are operations within range of his powers. A few of my confreres have even ventured on operations involving laparotomy. Other good men avoid the use of the knife whenever possible, and either call in the services of a friend with surgical tendencies, or send the patient down to the city, according to circumstances.

In the country a doctor must keep a stock of drugs and supplies of all kinds. He dispenses his own medicines, and has all the advantages and disadvantages which that system involves. Even here there is some improvement on older customs. Prescriptions are no longer put up in old patent medicine bottles, or such like, with directions written on a bit of foolscap and pasted on, and the whole wrapped up in a piece of old newspaper. The man of to-day uses neat prescription bottles, with appropriate, business-like labels, and wraps them up in white drug paper. His supplies need never run low, for his office is visited at short intervals by agents representing drug and instrument houses eager to take orders for their respective lines of goods. In this con-

nection there is a noticeable difference between English and American business methods. The representative of the English house, or rather its Canadian branch, comes along with note book and pencil and quietly takes down the order as given to him. Perhaps he modestly asks if there is anything else. The American, on the other hand, carries a handsome case of samples which fairly sparkles inside with goods put up in the most attractive forms. He frequently leaves samples of the newer drugs or compounds, the merits of which he dilates upon, explains how they are made, with other points of interest, tells what large sales they command, and so forth. He leaves or send descriptive literature, with an elegant price list, and generally takes away a good-sized order. Thus we see, in a small way, how American enterprise beats the Briton on his own territory.

: In the matter of surgical instruments and devices of all kinds for facilitating the diagnosis of diseases and relief of the same, the man of to-day has advantages beyond anything his predecessors ever imagined, as regards beauty, utility, and price.

As to fees—if we dare mention the subject: the man of wealth, the altruistic physician with a wide fame and a lucrative practice may ignore the question of fees, but for the average country doctor they are an important consideration. They mean food and clothing; they mean a living.

Here is a list of fees which forms a sort of basis for charges in our part of the country. I quote a few, sufficient to show the great difference between city and country on this point.

Office consultation and medicine75 cents.

As a rule, if we do not give the patient a bottle or something he will not consider that we are entitled to any pay at all.

Examination of the chest \$1.00

Visit and medicine in the village 1.00

Subsequent visits75

Visit three miles distant 2.00

Ordinary confinements. \$5.00 to 10.00

Forceps cases 2.00 extra.

To poor people, and they are numerous, the customary charges are still lower. Fees for surgical work of special character are somewhat better, when people are able to bear them.

A doctor's gross income will range from \$1,000 to \$5,000 a year, according to the volume of his practice. A man who takes in \$2,000 or more in a year is considered to be doing well, and compared with the salaries of other professional men in the country, it is very fair indeed. A curious thing about country practice is that a new man acquires a certain clientele almost at once, and in a few years may

reach his maximum. Indeed, such are the limitations of country practice that a man may be doing as well, or almost as well, financially, within five years of commencing as he will do after ten or twenty years of experience.

One of the drawbacks of country practice is the lack of mental stimulus. Medical books and journals are within his means, but he misses the active, sharpening influence of the medical society, with its papers, specimens, and discussions.

He can seldom afford to take a long holiday; small fees will not allow it, but this is compensated for by the fact that he is much less in need of holidays than his over-worked city brother.

Usually the doctor's work is pleasant enough, but there are trying experiences peculiar to work in the country. Here is a case. About ten o'clock in an evening late in March we are called to a case of confinement near the shore of the St. Lawrence, ten miles distant. The roads are breaking up, the *cahots* are beyond description, but we reach our destination in due time. Our patient is a xvii para. This is her fourteenth full term pregnancy, and she has had three premature deliveries. The child has been born for half an hour or so. The woman, for some unexplained reason, is lying on the floor in a narrow space between one of the beds and an old bureau in the small room. She is flowing freely and is lying in a mixture of blood, fæces, and water. The only assistant is an inexperienced and timid neighbour woman. There is one smoky lamp to light up the midnight gloom, but there is no boiled water, and the only wash basin available is a much worn granite-ware article used for general purposes in the kitchen. We hastily shed our coat and administer a dose of ergot by the mouth, being obliged to stand with one foot on each side of the woman's limbs, so narrow is the space. Then quickly preparing the bed with a rubber sheet and a folded quilt we get the woman on to it with some difficulty, for she is pretty well exhausted. Getting rid of the mess we proceed to extract the placenta. But it won't come. There is inertia and continued flowing. We excite some irregular contractions, but our best manipulations fail to effect their purpose. The horrid gurgle of the life blood continues at intervals, the pulse is weak and face pallid. Moments are precious. That placenta must be removed, and that very soon, or we shall have a corpse on our hands. We get such water as we can, rinse the battered dish, throw in a bi-chloride tablet and more water. There is no time for antiseptic technique, but we clear the vulva, roughly cleanse hand and arm, empty vagina of clots, pass the hand within the uterus, and endeavour to separate the placenta. Easy enough in theory, easy in text-books, sometimes not extremely difficult in practice, especially with intelligent assistance, but only those who

have been in a similar position can appreciate a situation like this. The exertion has a powerfully diaphoretic action—on the operator. But we eventually succeed in clearing out the womb, and the hæmorrhage ceases. None too soon, for our patient is sighing, begging for water, and almost pulseless from anæmia and shock. We raise the foot of the bed, remove pillows, admit air, inject a warm saline solution into the colon, and stand at guard until things have improved. As we jog along our homeward way towards 3 or 4 a.m., feeling the effects of the general tension, we think of our revered professor of obstetrics, our old classmates who are more fortunately situated than we are, and wonder if they would acknowledge us as belonging to the same species.

We return on the third day—perhaps we should have gone sooner—and we find that our profoundly anæmic patient has fever, and there is a putrid discharge from the uterus. With set jaws and deep inspiration we prepare for further fight. We are better provided with utensils this time, and we have time to get things in order. The uterus is irrigated and gently curetted to remove debris. We find that our patient has been a handsome woman, of natural refinement, and comes of a very respectable French-Canadian family. The farm is valued at \$1,000, but is only a little more than half paid for, and until it is many household comforts must be done without.

For the next three mornings we rise very early, get ready our horse and sleigh and take advantage of the crust on the roads to expedite our travel. The case yields to treatment, and the woman is saved.

The country practitioner cherishes a strong regard for his former professors, and when he meets a case that is beyond his powers his thoughts turn with all confidence to some of them for help, and if he can secure the same it affords him great satisfaction. Nor is the satisfaction lessened if his patient is able to pay a handsome fee for the extra skill.

Toward his confrères in the country his attitude is usually friendly. He is at least on working terms with all of them. He is not always a model of perfection, and may sometimes forget the Golden Rule. I have known of one or two instances in which professional malevolence produced far-reaching and long-enduring mischief. But this is the dark side of the shield; the other side is bright with deeds of kindness, and of help in times of trouble. Long drives undertaken in darkness and storm; hours of watching by the sick bed when the doctor himself, or someone dear to him, has become a patient; arguing against a gloomy prognosis, fighting disease, giving comfort and cheer. Cases could be multiplied where a doctor has given his best services to his neighbour and rival throughout a serious illness, and helped to restore him back to health and practice again.

CASE OF TUMOUR OF THE SUPERIOR MAXILLA.

BY

CHAS. F. FORSHAW, LL.D., F.R.S.I.,

Doctor of Dental Surgery of the Baltimore College of Dental Surgery, and Honorary Dental Surgeon to the Bradford Orphanage for Boys, etc., etc.; Graduate in Pharmacy, Apothecaries Hall, Ireland; Member Royal Society, Dublin.

Miss B. D., aged 29 years, a lady of healthy appearance, came to me some twelve months ago to ask my advice as to what should be done with respect to a swelling on the left upper jaw. The tumour was about the size of a pigeon's egg, had first made its appearance some twelve months prior to her visit to me, and gave to her face an ugly asymmetry. Its situation upon the jaw was eight lines from the alveolar margin. It was slightly lobulated, sessile, and gave to the finger a sense of slight pulsation. Its origin could not be directly traced to the peridental membrane lining the alveolus, in connection with any decayed teeth. In general appearance the body suggested gumma, epulis of an unusual form, or epithelioma. The patient had been treated with potassium iodide without benefit, and there was no history or symptoms pointing to a specific origin. There were no glandular enlargements at the angle of the jaw or about the triangles of the neck. The growth appeared to spring from the labial surface of the alveolar process. Its development had been very rapid for the last three months, and was quite unaccompanied by any form of ulceration, nor was there any pain.

Miss D. had worn a partial upper vulcanite denture for some years, which was displaced so much as to show some of the natural teeth in both the superior and inferior maxilla, owing to her being unable to quite close the mouth on account of the protuberance of the tumour.

In January of last year, the patient having been prepared, chloroform was administered by means of Junker's inhaler, Mason's gag inserted in the mouth, the cheek retracted, and everything placed in absolute readiness. Mr. P. Lodge, F.R.C.S., with my assistance, removed the growth with one sweep of the knife. There was much hæmorrhage, one or two vessels having to be picked up by catch forceps and tied. The actual cautery (the circular flat button) was now freely applied to the base of the ulcer so produced. This process was pushed so as to destroy the tissues right down to the bone, some of which was gouged away and removed. The wound was plugged with iodoform gauze and the patient allowed to recover from the

anæsthetic, after having been under its influence less than a quarter of an hour. The total quantity of chloroform used was one drachm.

In seven days the lady's face had resumed its normal appearance; she was much brighter and had even increased in weight. We also, at the same time, excised the edge of the scar where the alveolar process adjoined the mucous membrane, which had a slightly suspicious feel of rigidity, the portion removed being about three-quarters of an inch in length by an eighth of an inch in breadth. I saw her again on the following week, and on this occasion the healed surface had quite a healthy appearance. There has been no return of the condition up to the present, March 21st, 1902, when I last saw her.

On examination, the tissue removed, in a recent state, had a fibrous appearance, containing numerous vessels, some of which were of large size. It presented microscopically many thin-walled blood channels, lying in a stroma of spindle-shaped cells, among which could be discerned a few of myeloid type, certainly suggestive of mild sarcomatous malignancy.

A CASE OF MYIASIS AURILUM.

RY

F. J. CHRISTIE, M.D., Minnewaukan, N.D.

While in Leeds, N.D., acting as *locum tenens* for a practitioner of that place, the following case came under my notice, and is, I think, worth being put on record.

X., male, aged 15 years, had had scarlet fever at the age of three years, followed by a double otitis media, which became chronic, with acute exacerbations, at irregular intervals. For the past twelve years the disease has been neglected.

On the night of July 10, 1902, he suffered severely from pain in the right ear, and in the morning noticed some bloody discharge on the pillow. The pain continued throughout the forenoon, and in the afternoon I was called to see him.

On examination, his hearing was found very much impaired, so much so that he could hear a watch tick only when it was pressed against his ear. A little thin, yellow pus oozed from the left ear, while more, which was bloody, came from the right ear. Both drum membranes were perforated, and in behind the right drum I could see something moving. With considerable difficulty, using hydrogen peroxide and boracic acid solution, I succeeded in removing several larvæ measuring from $\frac{3}{8}$ to $\frac{5}{8}$ of an inch in length.

I kept up the daily use of hydrogen peroxide and boracic acid solution, and when I last saw the patient his hearing was so improved that he could hear the watch ticking at six inches. His hearing was much better than it had been during the previous six years.

RETROSPECT OF CURRENT LITERATURE.

Medicine.

UNDER THE CHARGE OF JAMES STEWART.

Tubercular Peritonitis.

FREDERICK C. SHATTUCK, M.D. "The Prognosis and Treatment of Tubercular Peritonitis." *Amer. Jour. of the Medical Sciences*, July, 1902.

Dr. Shattuck's paper is based upon 98 cases observed in the Massachusetts General Hospital. It is a valuable contribution to this subject and serves to emphasize the fact that what was not long since regarded as a fatal disease may now be considered hopeful, ending as it does in a fair percentage of cases in recovery.

The writer's conclusions are that "the mortality, when based on the condition of the patients at discharge, is 13.2 per cent. The mortality of the same series of cases after a period of from two to eleven years is 47.3 per cent. The ultimate mortality of patients in this series under medical treatment is 68 per cent., under surgical treatment, 37.5 per cent. Two patients have had recurrence but are now well. None of the other patients at present report themselves as suffering from the disease."

Dr. Shattuck states the main therapeutic lessons derived from the analysis under the following heads:—

(1) Tubercular peritonitis may be followed by apparently complete recovery even if complicated by tuberculosis elsewhere, either under (a) purely medical treatment, (b) tapping, (c) incision.

(2) As in other forms of internal tuberculosis, the best obtainable hygienic surroundings are all-important. Consequently no patient should be kept in hospital longer than is necessary, especially if more and better air can be secured outside with proper care and food.

(3) We are warranted in trying medical treatment for a time especially under first rate hygienic conditions, tapping the abdomen if there is sufficient fluid to cause discomfort.

(4) If the patient, under a month or six weeks' medical treatment, fails to improve, or in even less time, if he seems to be losing ground, surgical treatment should be advised.

Pneumococcus Arthritis.

HERRICK, JAS. B. "Pneumococcus Arthritis." *Amer. Jour., Med. Sciences, July, 1902.*

The conclusions of this paper are so comprehensive that they are here reproduced verbatim.

(1) Pneumococcus arthritis is a rare affection found oftener in men and sparing no age.

(2) It appears oftenest during or shortly after croupous pneumonia, sometimes as late as the third week after the crisis.

(3) It may be primary in the joint, and severe and even fatal constitutional symptoms may result from the toxæmia thus induced. In these cases of primary pneumococcus arthritis, pulmonary localization may or may not occur.

(4) Previous damage to a joint, as by trauma, rheumatism or gout favours the localization.

(5) The lesions may be limited to the synovia or may be more extensive, involving the cartilages and bones. The periarticular structures may be involved. The subacute cases are sometimes highly destructive to the joint, and the same is true of some of the acuter ones.

(6) The lesions are usually mono-articular (61.5 per cent.), the larger joints being oftenest involved. The knee is the joint most frequently affected. The joints of the upper extremity are affected a little oftener than those of the lower, but the difference is insignificant.

(7) The condition is recognized by the ordinary signs of an acute or chronic inflammation of a joint. Exploratory aspiration with bacteriological examination of the fluid is the only means of recognizing the pneumococcic nature of the inflammation. The gonorrhœal arthritis and peri-arthritis have to be carefully excluded as well as the arthralgias following pneumonia.

(8) The prognosis is grave (mortality 65 per cent.) largely because of the accompanying bacteriæmia and involvement of the more vital parts of the body (meninges, pleura, pericardium, etc.). Yet spontaneous recovery occasionally follows even where there is purulent exudate.

(9) The cases of suppurative pneumococcus arthritis should be treated by immediate incision and drainage. Serous arthritis may often be healed by aspiration, rest and compression.

Treatment of Pneumonia.

WILCOX, REYNOLD WEBB, M.D. "The Treatment of Pneumonia."
Ibid, Sept., 1902.

In addition to pertinent remarks upon the therapeutic agents in common use in combatting pneumonia, Dr. Wilcox refers to the administration of fairly large doses of creosote carbonate, as recommended by Cassoute and Corgier, who claimed that relapses and sequelæ so frequently seen under other methods were entirely absent. Upon the whole this method has been followed by good results; for, from the evidence brought forward, it appears that creosote carbonate cuts short or aborts a large percentage, mitigates almost all the rest, and in a small percentage of cases produces no results.

Dr. Wilcox's experience includes 33 cases with no deaths, 24 of which terminated with a crisis. Creosote is regarded as nullifying bacterial activity and its results. In summary, the writer presents the present status of the treatment of pneumonia.

(1) Continuous, persistent and generous administration of creosote carbonate.

(2) Careful adjustment of mechanical conditions.

(3) Thorough evacuation of toxins by all possible ways.

(4) Temporary supplemental oxygen by inhalation.

(5) Liquid diet until physical signs disappear.

Spontaneous Non-Tuberculous Pneumothorax.

FUSSELL AND RIESMAN. "Spontaneous Nontuberculous Pneumothorax." *Ibid*, Aug., 1902.

Spontaneous non-tuberculous pneumothorax is here defined as "pneumothorax occurring suddenly in individuals without the cause being discoverable by physical examination or by the history of the case, and in which there is rarely formation of liquid."

In the statistics showing the etiology of pneumothorax, tuberculosis stands far ahead of all other causes put together, being present in from 80 to 90 per cent. In the oft-quoted table of Biach, published in 1880, out of 918 cases, 14 are uncertain as to cause, and among these there are a few so-called spontaneous cases. Even these have been thought to belong to those due to tuberculosis. Post-mortem examination of some of these cases, however, shows that tuberculosis is not present. Then, the tuberculin test in three other cases failed to give any reaction, and hence they were classed as non-tuberculous. To these are added the two cases given in detail in this article.

In the first, previous good health, normal temperature throughout the attack, the negative finding in the organs, and the prompt healing

of the condition with seven years of subsequent good health, warrant the belief that the case was non-tuberculous.

In the second case, pneumothorax occurred apparently during a violent fit of coughing, during which he experienced severe pain in the right side. He was a teamster who drank considerably and was exposed to bad weather, and for a month previous to the fit of coughing just mentioned, he had been the subject of cough. He presented unmistakable signs of pneumothorax. After remaining a week in the hospital he went out improved, and when examined three months afterwards he was "entirely well, the breath sounds being normal and equal over both lungs."

The writers of this article have collected from the literature 56 cases which appear to belong to the class of spontaneous non-tuberculous pneumothorax.

Among many interesting points which a study of these cases has brought out, a few may be mentioned. Men are more frequently affected than women, and those between twenty and forty years of age. The duration of the condition varies from a few days to three years, the average being from six to eight weeks. It is probable that violent exertion is the usual exciting cause. Recurrence took place in six of the cases tabulated. In one of these cases the opposite side was involved in the recurrent attack. In one case there were three recurrences, thus four attacks at intervals of six, two, and six years.

In discussing the cause of these non-tuberculous cases of pneumothorax, the reasonable view advanced is that the rupture of the lung occurs through an emphysematous vesicle, and this in a lung which is practically healthy. A strong point in favour of the view that these cases are not tuberculous is the fact that fluid is rarely formed, they are simple cases; whereas the tuberculous cases in the large majority promptly show some signs of fluid in the pleural cavity.

Rest and strapping of the side, and in urgent cases, aspiration, are recommended. Nine cases were aspirated. Only one case in the series died, and in this the autopsy revealed the condition.

Conclusions:—(1) Spontaneous non-tuberculous pneumothorax occurs in healthy individuals. It is rare. It is most common in young men.

(2) The pneumothorax is simple, *i.e.*, there is no formation of fluid.

(3) There is rarely any febrile reaction except, perhaps, in the very beginning.

(4) There is probably a moderate amount of emphysema in the lungs which is not recognized during life and is not incompatible with health.

(5) Aspiration is a certain and safe means of relief, and should be resorted to in severe and prolonged attacks.

(6) This form of pneumothorax is benign.

W. F. Hamilton.

Canadian Medical Literature.

UNDER THE CHARGE OF KENNETH CAMERON.

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

(Received up to September 10th, 1902.)

Canada Medical Record (Montreal).

April, 1902.

1. Retrospect of Laryngology. GEO. T. ROSS.
2. Notes from the Case-Book of a General Practitioner. F. W. CAMPBELL.
3. Procedure in Post-Mortem Medico-Legal Examinations. C. A. HEBBERT.

May, 1902.

4. Some Medical Fallacies. W. R. FAIRFIELD.

The Canada Lancet (Toronto).

May, 1902.

1. Gastro-Jejunostomy. J. A. GRANT.
2. Diphtheria of External Ear. G. H. CARVETH.
3. Treatment of Chronic Prostatic Enlargement. J. W. SHAW.
4. The Skill of a Paget. H. S. HUTCHISON.

June, 1902.

5. An Important Malpractice Decision. HON. JUSTICE FALCONBRIDGE.
6. Practical Points in Life Insurance Examinations. S. M. HAY.
7. A Case of Acute Nephritis. JOHN HUNTER.
8. Acute Insanity. ERNEST HALL.
9. Surgical Treatment of Empyema. J. L. TURNBULL.
10. Hysterectomy for Uterine Fibroids. W. E. MCKAY.

July, 1902.

11. Management of Nasal Obstruction. PERRY G. GOLDSMITH.
12. Treatment of Results of Infantile Spinal Paralysis. C. L. STARR.
13. Fractures of Shaft of Femur. HADLEY WILLIAMS.
14. Malignant Oedema of Hands. M. CHISHOLM.

August, 1902.

15. A Case of Tetanus. THOMAS WYLLIE.
16. The Treatment of Pneumonia. J. C. MITCHELL.
17. Cancer of the Breast. T. K. HOLMES.
18. Kempffer v. Conerty. HON. JUSTICE MACMAHON.
19. Education and Self-Control. W. H. HATTIE.
20. Nasal Obstructions. PERRY G. GOLDSMITH.

September, 1902.

21. Chronic Intestinal Obstructions from Appendicitis. A. PRIMROSE.
22. Cæsarian Section, Gastrohysterotomy. N. E. MACKAY.
23. Hernia of the Bladder. E. R. SECORD.
24. Lymburner v. Clark and Hopkins. HON. JUSTICE FERGUSON.
25. Appendicitis, a Plea for the Surgical Treatment. D. C. VANWART.

1. GRANT relates the history of a man upon whom he had performed gastro-jejunosomy for extensive cancer of the pylorus.

2. CARVETH reports the case of a man who had diphtheria of the external ear. The patient had had a scratch on the ear and a piece of skin torn off. Four days later there was considerable swelling, and the appearance was that of erysipelas. On a swab taken from the ear diphtheria bacilli were found, but none were found on a swab taken from the throat. Bacilli were still present at the end of the twenty-fifth day, but not on the twenty-seventh day. Ulceration and membrane formation were both present. The treatment consisted in isolation, the ear being washed in a solution of bi-chloride of mercury, 1-1000, and tied up in a carbolic acid solution, 1-40.

3. SHAW considers that in ordinary cases of prostatic enlargement, in which obstruction is not great and the power of the bladder is fair, and there is not an excess of residual urine, or if the use of the catheter is easy and painless, and the cystitis is not severe, but controllable with antiseptic washing, operative treatment is not indicated. But in cases that are not so governed operation is essential, and he considers that the complete enucleation is the operation of choice. He proceeds in the following manner: the patient is placed in the extra lithotomy position; the middle finger of the left hand is placed in the rectum and pressed against the urethra at the membranous portion. An incision is made in the median line through the raphe to apex of the prostate. The capsule is opened and kept open with retractors, which force the gland forwards. The organ is then pulled out with the fingers and removed piece by piece with a gouge, similar to that used in post-nasal growths. The entire prostate is removed in this manner, a drainage-tube covered with gauze is inserted for three or four days, after which the parts are kept perfectly clean. His results with this method have been excellent.

8. HALL relates the history of a woman who had an attack of acute mania associated with badly decayed teeth and an alveolar abscess. Chloroform was administered and the teeth removed, and upon recovering from the anæsthetic the patient was rational for the first time in weeks. After six hours the delirium returned, but disappeared under forced sleep, again to appear for a few hours on each of four successive days. The mind became normal with the healing of the gums.

10. MACKAY relates the history of a woman upon whom he performed hysterectomy for two large uterine fibroids.

11. 20. GOLDSMITH describes the various forms of obstruction that are met with in the nasal passages, and the methods of treating them.

12. STARR considers under four heads the treatment of the deformities and disabilities resulting from infantile spinal paralysis. (1) Cases which may be treated by mechanical supports; (2) cases where mechanical supports may be employed advantageously only after tenotomy; (3) cases where the attachment of active muscles may be transposed, so as to allow them to act to better mechanical advantage; (4) cases where so little muscular tissue is left as to be useless for support and where supports are not advisable.

13. WILLIAMS, in answering the question, "What constitutes a good result in fractures of the thigh, in the opinion of the expert called to the witness-box in cases of malpractice?" after leaving out extraordinary conditions, following compound cases with suppuration, concludes:—"That more or less shortening is uniformly the result even in the most favourable cases; that as overlapping of the fragments is nearly always inevitable, one inch constitutes a good result, less than one inch excellent; that slight limping shows shortening of about an inch due to tilting of the pelvis to the injured side, is not to be considered unfavourable as a result of oblique fractures: that slight stiffness of the joints and atrophy are inevitable in most cases, and are of minor importance when bony union has occurred without deformity; that a labouring man will lose forty per cent. of his working power to the end of twelve months, and twenty-five to thirty per cent. for the rest of his life; that slight eversion deformity, if present with good bony union and the ability to walk, are inevitable in some cases, no matter how carefully treated; that age is a great factor in giving an opinion, for under 18 years a better result may be expected than in strong muscular adults; and, that a final judgment should not be given for twelve months. The surgeon himself should be prepared to state that he has used some approved method of extension and counter-extension; that side splints or a cast have been used to prevent lateral movement of the fragments;

that some method has been adopted to correct eversion and external rotation of the limb; that measurements were applied at the time of the injury and repeated at frequent intervals up to the end of the twenty-fifth day by tape or steel, or by the correct surgical methods; that he was careful in recognizing and considering the constitutional condition of the patient, as bearing upon the results, during the treatment; and, finally, he should give a guarded prognosis at the time of the injury, keeping in mind the tendency to non-union, shortening, deformity and loss of working power, in all oblique fractures of the thigh.

14. CHISOLM relates the history of a case of malignant œdema of both hands. The man's hands were saved by free incisions into the œdematous swellings and the constant application of acetozone, which is a most powerful hyper-oxide and germicide. The pathologist's report shows that a bacillus that was isolated from among others was that of malignant œdema.

15. WYLIE tells of a girl of fourteen who wounded her foot with a rake, and who twenty-one days later presented the symptoms of tetanus. She was placed in an open tent, and 10 c.c. of anti-tetanic serum was administered on three occasions. Chloral hydrate, in 30 gr. doses every four hours was given until the spasms became less frequent and severe. The result was entirely satisfactory.

17. HOLMES reports three cases of cancer of the breast, the first of which shows that even in an advanced stage a cure may be possible, and in the other two cases the influence, negative and positive, of removal of the ovaries upon the disease.

21. That chronic intestinal obstruction may be caused by bands of adhesions following appendicitis is illustrated by a case, the history of which is related by PRIMROSE. A child of ten years old had symptoms of general peritonitis and acute obstruction, the origin of which was obscure. Appendix trouble was suspected, but no certain diagnosis was made. She recovered from the attack without the operation, but subsequently developed symptoms of chronic intestinal obstruction, which occasionally gave rise to alarming conditions, during which the obstruction threatens to become complete. During these occasional seizures she suffered intense pain, the abdomen became distended, and she only obtained relief after a free action of the bowels. These occasional attacks were considered sufficiently serious to warrant operation. The abdomen was opened a few days after the recovery from one of the attacks, and the condition investigated. It was found that there were two kinks in the small intestine and that the appendix was adherent to the point of attachment of the peritoneal adhesions, which were the

cause of the kinking. The intestine was freed and the appendix removed, after which the patient made a good recovery and subsequently the symptoms of obstruction no longer manifested themselves.

22. MACKAY reports the history of a woman upon whom he performed Cesarean section for contracted pelvis. The patient died three days after the operation evidently from intestinal obstruction.

23. SECORD reports the history of a man of seventy-three years of age who has suffered from a hernia for forty years. It had become strangulated, and the mass, on the right side, was large, very tense, exceedingly painful, and resisted every effort at reduction. Upon opening the sac, it was found that the inner wall was composed of two layers, which, with the thumb inside the sac and the fingers outside, could be moved the one over the other. A temporary catgut ligature was placed around the neck of the sac and an incision was made from without inwards towards the two layers, which, when slightly nicked, separated and exposed a cavity lined by pinkish mucous membrane. This cavity was continued downwards on the inner side of the sac for about four inches. The operator feeling that the cavity was the bladder, closed the opening with Lembert's sutures, and completed the operation. The patient made an uneventful recovery.

25. VAN WART, in a paper on appendicitis, strongly advocates early operation, whether the attack is catarrhal or suppurative.

(To be continued.)

Le Bulletin Medicale de Quebec (Quebec).

Avril, 1902.

1. Mémoire Soumis au Gouvernement Fédéral, au Sujet du Bill Roddick, par la Société Médicale de Québec.
2. Comment le Nouveau Bill Roddick n'est qu'un Leurre. D. B.

Mai, 1902.

3. Radiodiagnostic d'un Cas de Périostite Traumatique. CHS. VERGE.
4. Quelques Cas de Pratique Traités par le Saignée. DR. VOISARD.

Juin, 1902.

1. Congrès de Médecine Française de Québec.
2. Adress de l'Association des Médecins à l'Université Laval.
3. Discours prononcé par l'honorable Adélarde Tourgeon.
4. Discours de M. le docteur Brochu.
5. Lutte de la Famille contre Tuberculose.

Juillet, 1902.

6. Contribution à l'étude de la Grossesse Extra-Uterine basée sur 14 observations personnelles. L. COYTEUX PREVOST.
7. Retention Placentaire Prolongé. EUGENE MATHIEU.

6. DR. PREVOST records the following case in his series of uterine pregnancies:—

T.B., aged 33, married eleven years, one child ten years of age, no miscarriages. Menstruation regular until two years ago, when there was suppression of the menses for four months. There were no signs of pregnancy during this time, but she suffered considerably from abdominal pain, with a feeling of weight in the vagina and leucorrhœa. At the end of the fourth month the menses reappeared without any symptom of miscarriage, and continued regularly. She suffered more or less pain, however, in the region of the left ovary. Two years later she missed her period in September, and towards the middle of October she began to suffer from abdominal pain, which became so severe that she had to take to bed at the beginning of November. The pain was felt principally on the right side.

Examination per vaginam revealed a tumour occupying Douglas' pouch and lying to the right. A smaller tumour could be felt on the left side higher up. On opening the abdomen a lithopedion of two inches in length was found lying free in the abdominal cavity attached by a few adhesions to the intestines. In the left tube a small yellow mass was seen, evidently the site of the growth of the ovum.

The large tumour proved to be a second extra uterine foetation, lying between the layers of the broad ligament. Rupture of this tumour gave exit to a large quantity of blood clot. The ovum was lying in the mass of clot, and rupture of a smaller sac allowed of the escape of a small amount of amniotic fluid, and a foetus four inches in length which was evidently living.

The author states that he has been able to find only one other similar case recorded,—G. H. Ferguson, *Edinburgh Medical Journal*, February, 1899.

La Revue Medicale du Canada (Montreal).

2, 9 Avril, 1902.

1. Les Perforations Intestinales et leur Traitement. HENRI LASNIER.

16 Avril, 1902.

2. Quelques Notes sur l'Hydrothérapie. CHAS. DEBLOIS.

23, 30 Avril; 7 Mai, 1902.

3. Des Ulcérations Vésicales et en Particulier de l'Ulçère Simple de la Vessie. RENE LE FUR.

14 Mai, 1902.

4. La Fumée de Tabac en Bactériologie. G. DESPREZ.

21 Mai, 1902.

Correspondance Parisienne.

28 Mai, 1902.

5. De l'Emploi de l'Ophthalmomètre dans le Diagnostic des Erreurs de Réfraction. ST. JOHN ROOSA.

4, 11, 18 Juin, 1902.

6. Faut-il Former les Jeunes Gens qui se Destinent aux Professions Libérales par l'Etude des Humanités ou par l'Etude des Sciences. L. E. FORTIER.

2 Juillet, 1902.

1. D'importance qu'il y a de donner aux élèves en médecine un enseignement pratique sur les différentes méthodes d'anesthésie. M. T. BRENNAN.

9 Juillet, 1902.

2. Notes sur la transmission des maladies vénériennes par les sièges des latrines. M. T. BRENNAN.

16 Juillet, 1902.

3. La mouche comme agent de propagation des maladies et comme milieu de métamorphose microbienne. M. T. BRENNAN.

23 juillet 1902.

4. Le médecin affilié aux loges et aux associations de secours mutuel, de ses méthodes et de son influence sur la pratique de la médecine. J. C. S. GAUTHIER.

30 Juillet, 1902.

5. Un cas de prolapsus génital total irréductible. DR. RHEAUME.

L'Union Médicale du Canada (Montreal.)

Mai, 1902.

1. L'odyssée d'un typhoïdique. J. A. LESAGE.
 2. Rein flottant, foie flottant par lithiase biliaire. O. MERCIER.
 3. Deux cas de fracture de la colonne vertébrale. A. MERCIER.

4. Etude critique sur l'emploi du sérum antistreptococcique dans l'infection puerpérale. (*Suite.*) E. A. R. DECOTRET.
5. Une observation de hernie étranglée. E. MONTPETIT.

Juin, 1902.

6. Volumineuse hernie inguinale gauche infectée par la présence d'une grosse arête de poisson. A. MARIEN.
7. Un cas d'empoisonnement par le chlorate de potasse. A. MERCIER.
8. Traitement de la rétention urinaire. E. ST-JACQUES.
9. Etude critique sur l'emploi du sérum antistreptococcique dans l'infection puerpérale. (*Suite.*) E. A. R. DECOTRET.

Juillet, 1902.

1. Les progrès de l'hygiène moderne. E. P. LACHAPELLE.
2. Variété spéciale des cholécystites aiguës suppurées, leur traitement chirurgical. MARIEN.
3. Thérapeutique infantile. S. LACHAPELLE.
4. Traitement de la rétention urinaire. ST-JACQUES.
5. Etude critique sur l'emploi du sérum antistreptococcique dans l'infection puerpérale. (*Suite.*) DECOTRET.

2. The author reports a case of nephorrhaphy for right floating kidney. Some days after operation a movable tumour was discovered in the abdomen, occupying the region where the kidney had been most easily palpated. Further operation revealed a large gall bladder which contained a large quantity of viscid bile and 37 gall stones. The liver was dislocated downwards. The gall bladder was emptied of its contents, including a small stone which had obstructed the cystic duct, and then sutured to the edges of the abdominal incision. The patient made a good recovery, the liver remaining in its normal situation. The various symptoms of which she had complained, dyspepsia, etc., disappeared completely.

6. The patient, a man aged 55, had had an inguinal hernia for many years without suffering any ill-effects from it. The author was called to attend him after he had been suffering for four days from symptoms which pointed to strangulation. Upon cutting into the hernial sac about 50 grammes of sero-purulent fluid escaped. The large bowel was found to be adherent to the sac wall; it was œdematous and was separated with difficulty. In the lower part of the sac a large fish-bone was found, which had evidently escaped from the bowel and which had led to the symptoms of strangulation without its being present in reality. The bowel was returned into the abdomen after it had been thoroughly

cleansed, the hernial tract was obliterated, and the patient made a good recovery.

The patient had never been in the habit of wearing a truss, so that the hernia was nearly always down. This explains the presence of the fish bone in the sac, as it probably perforated and escaped from the bowel *in situ*.

7. A child of three years of age having complained of sore throat, its mother gave it a pinch or two of chlorate of potash in half a tumbler of water. Almost immediately after taking it the child became breathless, with swelling of the face and neck, lost consciousness, and died 18 hours after having taken the drug.

The autopsy revealed little beyond the prune juice appearance of the blood and of the bone marrow. The bladder contained 50 grammes of dark brown urine. A spectroscopic examination of the blood gave the methæmoglobin test. It was impossible to determine how much of the drug the child had taken, but from the rapidity of the onset of the symptoms the quantity must have been considerable.

Reviews and Notices of Books.

TRANSACTIONS OF THE AMERICAN CLIMATOLOGICAL SOCIETY. Vol. 17.
1901.

These transactions contain a number of papers on climatic conditions in various parts of this continent.

Puerto Rico, its climate and diseases, is described by Dr. C. H. Alden, and includes a short account of the stamping out of smallpox by general vaccination, an achievement reflecting the greatest credit on the American authorities, and forming one of the best recent examples of the efficacy of this procedure. Social conditions apparently offer as much room for reform as sanitary ones, about one-half of the births being illegitimate.

The climates of Augusta, Newport, Nantucket, New England and Southern California are the subjects of papers, and supply much valuable information not readily obtainable elsewhere.

The remainder of the volume is devoted to papers, for the most part referring to diseases of the chest.

These transactions will well repay perusal by those interested in climatology and thoracic disease.

F. G. F.

ELEMENTS OF PRACTICAL MEDICINE. By ALFRED H. CARTER, M.D.,
M.Sc. Eighth Edition. H. K. Lewis, London.

The foregoing book is a quarto of 580 pages, designed as a compendium of internal medicine for the use of students, and including chapters on general pathology and skin diseases. The fact that it is now in its eighth edition, the first having been issued twenty years ago, indicates a solid if not enthusiastic popularity.

Perhaps the main care on the part of a reviewer of an eighth edition is to see if it has been brought up to date. In the case of the present volume this seems to have been on the whole well done. Nevertheless, the feeling of an older school than the present persists in places. For instance, the treatment of cancer of the stomach and bowel is summarily disposed of thus:—"Treatment is purely symptomatic and palliative." And this in the face of the encouraging statistics of Mikulicz and Kraske, not to mention others. It is seen again in the recommendation of opium in "colic" and in appendicitis of "leeches to the iliac region" and further the remark that operation for appen-

dicitis apart from evidence of sudden perforation and general peritonitis is rarely justifiable earlier than the fourth day.

There are sins of omission as well as of commission. In typhoid fever there is not a word concerning the Widal test, nor concerning operation for perforation. The cold bath treatment is barely mentioned, while "intestinal antiseptics" are strongly recommended. No mention is made of the tuberculin test in the diagnosis of obscure tuberculous lesions, none of the amœbæ in the causation of liver abscesses. The Plague, so important of late years even in Britain, gets but a paragraph or two.

In the reviewer's opinion the chapter on diseases of the skin and on general pathology are both out of place and of minimal use in a compendium, and the space might more profitably be devoted to such questions as those above mentioned.

With these exceptions the book as a whole must be praised. While not neglecting a proper amount of detail it treats of disease in a fairly broad way rarely seen in compendia, and general principles are satisfactorily emphasized. On these grounds it may be cordially recommended to students beginning their courses in clinical medicine.

E. W. A.

THE DIAGNOSIS OF SURGICAL DISEASES. By DR. E. ALBERT, late Director and Professor of the First Surgical Clinic at the University of Vienna. Authorized Translation from the Eighth Enlarged and Revised Edition by Robert T. Frank, A.M., M.D., with 53 illustrations. New York, D. Appleton and Company, 1902.

Although works on medical diagnosis are published from time to time, the subject of the diagnosis of surgical diseases is for the most part treated only in surgical text-books. As the translator states in his preface "this volume presents to the practitioner and to the student the problems of diagnosis which confront them at the bedside . . . diseases are grouped according to similarity of symptoms and points of resemblance . . . conditions which in practice render their differentiation difficult."

It is obvious that all subjects cannot receive attention in a book of 407 pages, the author has nevertheless dealt with many large fields as only a man of large experience could do. Albert's opportunities for clinical observation were exceptionally great, and he ranked high as a clinical teacher.

In the first part of the book is a most satisfactory chapter on the "causes of abnormal positions of the head," followed by the differen-

tial points of diagnosis between the various lesions involving the head and upper cervical regions. A chapter is devoted to diseases of the mouth and pharynx and to the injuries to the shoulder and elbow joint. Many points of practical value are brought forward and properly emphasized. The chapter on the differentiation of abdominal tumours is also interesting.

The volume is one that men in active practice will find most useful. A correct diagnosis is of such importance that any aid should be gladly welcomed.

INTERNATIONAL CLINICS: A Quarterly of Illustrated Clinical Lectures and Specially-prepared Articles on Medicine, Neurology, Surgery, etc., etc. By leading members of the Medical Profession throughout the world. Edited by HENRY W. CATTELL, A.M., M.D. Vol. II., Twelfth Series, 1902. Philadelphia. J. B. Lippincott Company.

While we cannot begin to notice all the excellent articles appearing in the current number of the *International Clinics*, the following may be referred to as more particularly of interest on account of the notice now accorded the subjects by writers in the journals. "Gersuny's Method of Prothesis by Subcutaneous and Submucous Injections of Vaseline" is the title of an article by R. Romme, of Paris, in which he discusses both the tissue changes that follow the method and the conditions calling for its use. Professor Lucas-Championnière furnishes a paper on passive movements and massage for the treatment of fractures. He concludes that the old traditions regarding the treatment of fractures are only adhered to because of the surgeon's fear of being blamed in the event of bad results from what the author calls the only rational method. Albert Robin, of Paris, in an article dealing very fully with simple ulcer of the stomach, believes the following rules should guide in the matter of surgical interference. In simple ulcer without complications, never advise operation. With copious hæmorrhage use medical treatment, and with slight, persistent hæmorrhage resort to surgery. Other complications, such as perforation, subphrenic abscess, etc., require surgical treatment. P. L. Daniel, of London, gives the history of two cases of pancreatic cyst occurring in the Charing Cross Hospital, and which were treated surgically.

Resection of the cervical sympathetic on both sides for the treatment of Graves' disease, epilepsy, glaucoma, etc., is discussed in a copiously illustrated article by Professor Thomas Jonnesco, of the University of Bucharest, who has performed the operation 130 times in the last five years. The diminution in exophthalmos is well represented by the illustrations, and the other cardinal symptoms of Graves' disease are

reported to have been in most cases equally benefitted. His experience shows that no serious sequelæ follow this procedure.

SYPHILIS: A SYMPOSIUM. Special contributions by seventeen different authors. E. B. Treat & Co., New York, 1902.

This book comprises a series of articles on syphilis which appeared in the *International Medical Magazine*, and were written by request. Perhaps the most interesting part of the book is the answers to questions propounded by the editor of the magazine to syphilographers, five of whom replied. After reading, and we presume for the purpose of increasing his knowledge, the series of articles on syphilis of the various systems of the body, the reader is rather astounded, on turning to the "Answers," to see the difference thus shown, and may well wonder whether, had they all written on the same subject, would the same diversity have been evident. Question 2 is, "Has the range of remedies in syphilis increased in recent years?" the answers to which are: "Yes," "No," "No," "Not materially," "Yes." Apart from these rather unfortunate discrepancies, the book contains many sensible chapters on various phases of syphilis.

TRANSACTIONS OF THE AMERICAN DERMATOLOGICAL ASSOCIATION at the Twenty-fifth Annual Meeting held at Chicago, May 30, 31, and June 1, 1902. Official Report of the Proceedings, by FRANK HUGH MONTGOMERY, M.D., Secretary. New York. Rooney & Otten Printing Co., 1902.

The transactions for this year form a volume of 216 pages, containing many interesting papers, many of them illustrated with black-and-white plates depicting the skin conditions described. Among the interesting papers are:—A discussion on diseases of the nails; several reports of cases of blastomycetic dermatitis, one by Dr. F. J. Shepherd, the President, of two of his Montreal cases. Dr. G. W. Wende describes a case of lymphatic leukaemia developing under observation, and showing pigmentation and leukaemic lesions of the skin. Dr. W. A. Pusey gives some interesting information regarding the treatment of skin lesions by means of X-rays; Dr. Stelwagon reports an extraordinary case of susceptibility to quinine. The volume is neatly bound in boards and the publishers' work is well done.

DOSE-BOOK AND MANUAL OF PRESCRIPTION WRITING. By E. Q. THORNTON, M.D., Ph.G. Second edition, revised and enlarged. Philadelphia and London, W. B. Saunders & Company, 1901. Canadian Agents, J. A. Carveth & Co., Toronto. Price, \$2.00.

This work is intended for the student of medicine. In the revision, addition has been made to the chapters on prescription writing and

incompatibilities, and references have been introduced in the text to the newer curative sera, organic extracts, synthetical compounds and vegetable drugs. With many of these one wishes that the author could prophesy how long they would be likely to be considered of sufficient importance, to be retained in a work of this kind. As the title indicates, there is no attempt at any reference to therapeutic action.

TRANSACTIONS OF THE ASSOCIATION OF AMERICAN PHYSICIANS. Sixteenth Session, held at Washington, D.C., April 30, and May 1 and 2, 1901. Vol. XVI. Philadelphia, Printed for the Association, 1901.

The sixteenth volume of the Transactions of the Association of American Physicians contains more than the usual number of pages, and the papers are of extremely high quality. It is quite impossible to attempt a review of some fifty papers, many of which are of great interest as marking new discoveries in the subjects to which they are devoted. As would be expected, the volume contains papers on almost every department connected with medicine, from experimental researches on the causes of some of the least known diseases to discussions of treatment. The book is well illustrated with coloured and black-and-white plates.

THE AMERICAN YEAR-BOOK OF MEDICINE AND SURGERY FOR 1902.

Arranged with critical editorial comments by eminent American specialists, under the editorial charge of GEORGE M. GOULD, A.M., M.D. Vol. I., General Medicine; Vol. II., General Surgery. Philadelphia and London, W. B. Saunders & Company; Canadian Agents, J. A. Carveth & Co., Toronto.

This year-book continues to furnish in compact form a short summary of the most valuable contributions to medical literature of each year. Besides this, it has the added value of containing criticisms by competent men on the various departments of medicine. The volumes are sold separately in order to give the practitioner interested in only one of the two great divisions of medicine an opportunity to obtain the work without adding useless bulk to his library.

GONORRHOEAL ARTHRITIS: ITS PATHOLOGY, SYMPTOMS AND TREATMENT. By L. VERNON JONES, M.D. London, H. K. Lewis, 1901. Price, 2s. 6d.

This small pamphlet of fifty pages was written by the author on account of his inability to find any information in existing works on the course and treatment of the disease. While not agreeing with the author in his statement regarding the paucity of literature on this subject, we recognize that he has given us a valuable, short, concise account of this important affection.

Society Proceedings.

CANADIAN MEDICAL ASSOCIATION.

The thirty-fifth annual meeting of the Canadian Medical Association was held in the city of Montreal on the 16th, 17th and 18th of September, under the presidency of Dr. Francis J. Shepherd.

As an evidence of the great success which attended this meeting, the fact that more physicians registered on the first day than for the whole of any previous meeting, speaks volumes.

At the morning general session of the first day a resolution of regret at the recent death of Professor Virchow, which was at the same time one of appreciation for the great work of this eminent pathologist, was proposed by Professor Adami, seconded by Dr. Gardner, Montreal, and carried unanimously.

The meeting divided into sections, Dr. McPhedran, Toronto, taking the chair at the medical section; while Dr. O. M. Jones, Victoria, B.C., looked after the surgical section.

MEDICAL SECTION.

THE FORENOON OF FIRST DAY.

Living Case, Splenic Anæmia.

DR. H. A. LAFLEUR, Montreal, presented patient, a man in middle life. There was a tumor—a movable mass about midway between the lower ribs on the left side and the crest of the ilium, with pulsation, but not expansile, over the tumor. The first blood count, made in March, showed 75 per cent. hæmoglobin, the red corpuscles 5,000,000; the white 6,400. A blood count was made again on the 15th Sept., 1902, showing 4,000,000 and 5,800 respectively.

The tumor changed according to degree and distension of the stomach. There was absence of mobility.

DR. OSLER referred to the difficulty in the lack of complete mobility in diagnosing this case and of enlarged spleen being often clinically mistaken for something else. This was just one of those cases in which the diagnosis was more surgical than clinical.

Some Further Results in the Treatment of Tuberculosis.

DR. J. H. ELLIOTT, of the Gravenhurst Sanatorium, contributed this paper:—

At a meeting of this Association in Toronto in 1899, a report was

made upon 155 cases of pulmonary tuberculosis under sanatorium treatment. This paper is a further contribution covering some 400 additional cases treated during the past three years. The nomenclature used in the classification of discharged patients is that adopted by Trudeau: "Apparently cured"; "Disease arrested"; "Much improved"; "Stationary"; and "Failed."

Five years' experience has shown that almost all of the patients discharged "apparently cured" remain perfectly well; of those with "disease arrested" many have progressed to good health at home by following the rules of life learned at the sanatorium, renewed activity of the disease, when occurring, having been as a rule due to unfavourable surroundings, or the necessity of again taking up unsuitable work.

Not the least important part of the work of a sanatorium is its educative influence. Each patient who returns home is a teacher of the value and importance of a hygienic life, to those who wish to retain their health, as well as those who are not strong. Experience is demonstrating the immense amount of influence for good which results from a properly equipped and conducted sanatorium. It is unfortunate that there are not more of them. It is hoped that the attention of our philanthropists will be drawn to the crying need of such institutions, and that ere long we shall have a number of them in the various provinces of Canada.

DR. OSLER congratulated Dr. Elliott on the promising results which he has obtained. Two important points should be kept well in mind: first, early diagnosis; and, second, getting patient as soon as possible under proper professional control.

DR. T. V. WALKER, St. John, N.B., referred to the control the physician in the sanatorium had over the patient.

DR. JOHN FERGUSON, Toronto, spoke of the positive advances that have been made along the line of the curability of pulmonary tuberculosis.

DR. MCPHEDRAN, Toronto, emphasized training patients how to care for themselves at home. He believes, too, that it is true that the neighbourhoods of sanatoria are always areas where tuberculosis is always diminishing.

Pleurisy as Associated with Tuberculosis.

DR. JOHN HUNTER, Toronto, read this paper. He first referred to the manner in which bacilli reached the visceral and parietal pleuræ through the sub-pleural, bronchial or tracheal lymphatic glands, and from the cervical, mediastinal and peritoneal lymphatics; also from the tonsils. In arriving at a diagnosis of pleurisy, a vigilant search should be made for a possible tuberculous origin. One should not always con-

sider the outlook gloomy, as with properly carried out treatment, the progress is much more favourable than in pulmonary tuberculosis. In at least two-thirds of tubercular pleurisy it is a curable affection. The rapidity of the filling of the pleural cavity is especially characteristic of tubercular cases.

Dwelling upon treatment, during convalescence, deep breathing should be practised very assiduously, and inflation with rubber bags is a valuable exercise. Then change to a suitable climate should be insisted on if the progress towards recovery be retarded.

Clinical Notes on Blood Pressure in Diseased Conditions.

DR. A. E. ORR, Montreal. A Gærtner's tonometer was shown, and the manner of its use demonstrated. Four hundred patients at the Royal Victoria Hospital, Montreal, were experimented on. The normal pressure was found to be 110 to 120. Seventy cases of typhoid fever were recorded in different stages, showing an average blood pressure of 104.5 m.m. It was highest, but still sub-normal, in the first week. There was only one death, which took place in a man of 35 years, when pressure was 105 on tenth day, 110 on twenty-first day; then three hæmorrhages, and on the twenty-fourth day a fatal hæmorrhage. A large proportion of these had cold baths or cold sponging.

Nineteen cases of chronic nephritis were recorded. Of this group the highest was 260; average 208.5. Of acute nephritis there were seven cases; only three of these showed high pressure. Of arterio-sclerosis, 27 cases were recorded; highest, 110, 16 being 130 and over; 4 from 130 to 145; 3 from 110 to 125; 4 sub-normal. The highest was in a man of 72; glycosuria, no albumen.

Valvular diseases of heart, 48 cases, including 11 cases of mitral regurgitation. In mitral stenosis 8 cases were recorded, 6 being normal. Mitral stenosis with mitral regurgitation, 14 cases. Eleven had practically normal tension. Aortic insufficiency, 3 cases. Myocarditis, 4 cases, one, man, aged 60, having pressure of 80. Hypertrophy and dilatation of heart of unknown causation, 2 cases, 120 and 110 respectively. There were 18 cases with acute lobar pneumonia, with an average for the series of 92.7; only one death. Pleurisy, 16 cases. Neurasthenia, 18 cases, 13 having normal pressure; 3 from 135 to 140; one of 160. In malignant disease, cancer of viscera, there were no high readings. Anæmia, 6 cases, all being normal. Addison's disease, both in early stage; both normal. Purpura hæmorrhagica, one case; normal. Puerperal septicæmia, one prolonged case, ending in recovery; had extremely low blood count, 930,000; above normal. One gall bladder case with suppuration, a blood pressure of only 50 ten days before death.

One lead poisoning, 3 of jaundice, 1 of tubercular meningitis; 2 of diabetes; 2 of exophthalmic goitre; 8 of acute articular rheumatism, heart not affected; chronic articular rheumatism, 4 cases, all normal: gonorrhœal rheumatism, 8 cases, 6 normal: rheumatoid arthritis, 16 cases, 6 normal; gout, 4 cases.

There was one case of hemiplegia and 14 of tabes dorsalis, 11 normal pressure; cerebral tumor, 8 cases; general paralysis of insane, 1 case; Friedreich's ataxia, one with albuminuria, 140; one acute ascending paralysis, 140; 2 cases of tic douloureux, one 130 during the attack. There was one case of epidemic influenza and 36 miscellaneous cases.

In discussing this paper, Dr. OSLER considered it to be the best contributed article on the subject.

On the Technique of Recording the Venus Pulse.

Dr. W. S. MORROW, Montreal, gave a practical demonstration on the blackboard, and presented a living subject on this topic.

SURGICAL SECTION.

FIRST DAY—MORNING SESSION.

Amputation of the Upper Extremity for Sarcoma of the Shoulder Joint—Living Case.

Dr. J. ALEX. HUTCHISON, Montreal. The patient, a young woman, gave a history of previous injury to the shoulder, followed by the development of a growth in the head of the humerus, accompanied by intense pain. An X-ray of the parts revealed the presence of a large growth which invaded the joint, and involved the scapula. The patient was in an extremely unsatisfactory condition for operation, and presented evidences of marked cardiac disease. The incision extended from the middle of the clavicle in front down over the pectoral regions to the lower part of the axilla, and behind, passed over the scapula down to meet the anterior incision.

After severing the middle of the clavicle, the great vessels were ligated, the brachial nerves divided high up, the muscles divided and the scapula freed from its attachments. There was little hæmorrhage, and the wound healed readily. Microscopic examination of the growth showed it to be a mixed spindle, and round-celled myeloid sarcoma.

A Fatal Case of Secondary Hæmorrhage four days following the Removal of Adenoids.

Dr. PERRY G. GOLDSMITH, Belleville, Ont. This paper deals with the case of a child operated on by Dr. Goldsmith for obstructive deafness due to enlarged faucial tonsils. The operation was not unusual, and the condition of the patient, on the second and third day after the

operation, was apparently satisfactory ; on the fourth day, however, repeated and alarming attacks of hæmorrhage set in, resulting fatally in a few hours. There was no history of hæmophilia. The patient was under the care of the family physician at the time of death, and as no post-mortem could be obtained, the cause of the hæmorrhage remained unknown.

Occlusion of Posterior Naris.

DR. H. D. HAMILTON, Montreal. The patient was a young man, aged 17, who complained of constant discharge from right naris, with complete obstruction of the same side. Duration of the condition, about twelve months. On examination, the patient presented a complete bony partition occluding the right choana. Family and personal history was negative. Treatment: The bony wall was perforated, and the opening further enlarged by graduated bougies.

On the Use of the Subcutaneous Injections of Paraffin for Correcting Deformities of the Nose.

DR. G. GRIMMER, Montreal, spoke briefly of various other deformities which had been corrected in this manner. In the preparation of the paraffin, it is first sterilized by subjecting it to high temperature. It is then injected by means of a sterilized syringe. In the case of the nose, the inner canthi of the eyes should be protected from the spreading of the paraffin, by firm pressure applied to the sides of the nose by an assistant's fingers. After injection, the parts are moulded by the operator as required.

After-treatment: Collodion is to be applied to the needle puncture, and cold compresses, to control œdema of the nose and eyelids. Some possible dangers from the treatment are: paraffin embolism, and necrosis of the skin over the parts.

Dr. Grimmer exhibited two patients successfully treated in this manner; also two rabbits which had been subjected to similar injections.

The Telephonic Properties of the Inflamed Abdomen ; a sign not hitherto described, due to Paralysis of the Bowel in Peritonitis.

DR. GEO. A. PETERS, Toronto. In auscultating the abdomen with a view to ascertaining whether there was paralysis of the bowel in cases of appendicitis, typhoid perforations, traumatism, and other conditions which stand in a causative relation to peritonitis, Dr. Peters has observed that where the gurgling sounds due to the passage of gas and liquid in the bowel are absent from paralysis, the heart sounds are invariably very plainly present over the whole abdomen. In intense cases, particularly in children, both inspiratory and expiratory breath sounds

may be heard. Dr. Peters' explanation of the phenomena is: unlike the healthy bowel—where the gas is retained in certain well-defined and circumscribed compartments, each constituting a complete retainer in itself, with vital walls possessing a muscular tonicity under nervous control—the paralyzed bowel, by reason of its flaccid and atonic condition, permits an entire change in the disposition of the contained gas; the entire distended abdomen becomes practically and acoustically considered, a continuous column of air or gas, of the precise principle of the stethoscope. The effect of this is further heightened by the rigid abdominal wall, which acts as a sounding board. The prognostic significance would seem to indicate an unfavourable termination in those cases where the sign is very well marked in cases of septic origin.

A Case of Filariasis in Man Cured by Operation.

DR. A. PRIMROSE, Toronto. A man from the West Indies suffering from lymph scrotum presented himself for treatment, and gave a history of attacks of fever which suggested the presence of filariæ. On examination of the blood one found the embryos present in large numbers. The embryo filariæ were found in large numbers at night, but disappeared from the blood during the day. An operation was performed and a large portion of the scrotum removed. The excised tissue was carefully examined by teasing it in salt solution, and a parent worm was discovered and removed alive. This proved to be a female, and it was subsequently fixed and mounted in a suitable manner for microscopic examination. Subsequent to the operation the filaria embryos entirely disappeared from the blood, and the inference was that the parent producing the embryos had been removed by operation.

The parent worm was afterwards carefully studied by Dr. J. H. Elliott, M.D., Toronto (late of the Malaria Expedition to Nigeria from Liverpool School of Tropical Medicine), and a report of his investigations, with drawings of the worm, formed a part of the paper as communicated by Dr. Primrose.

GENERAL SESSION.

FIRST DAY—AFTERNOON.

Address in Surgery—The Contribution of Pathology to Surgery.*

DR. JOHN STEWART, Halifax, N.S. Owing to the unavoidable absence of Dr. Stewart, this paper was read by Dr. J. W. Stirling, Montreal. In this able address, Dr. Stewart, in commencing, compared the struggles of the early surgeons for a scientific knowledge of their craft, to the daring exploits of the early navigators of the fifteenth and

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sixteenth centuries—a parallel not altogether fanciful might be drawn between those pioneers of ocean travel and the early masters of our craft. They worked on two lines, the long, weary, and often fallacious track of Empiricism, and the ample, but often disconnected road constructed by those whose chief aim was, in the words of him who led the vanguard, to “study and search out the secrets of Nature.”

The first advance came with the anatomist, Vesalius, “and day dawned with William Harvey, the Columbus of modern medicine,” when he instituted the application of experimental methods to biological questions.

Finally came John Hunter, “the Father of Scientific Surgery,” of whom Billroth says: “From the time of Hunter to the present, English surgery has had something of grandeur and style about it.”

But a great advance came from the study of plant life, and the researches of Schwann and Schleiden paved the way for the cellular pathology of Virchow, the basis of our present system of pathology. “And,” said Dr. Stewart, “a shadow falls upon us gathered here, as we realize that the veteran master, the undisputed leader of pathological thought and progress for over fifty years, has fallen, and we unite in the desire to lay our spray of cypress on the tomb of him whom we all considered the greatest German of our time.”

While with all these new acquisitions the pathologist went on his way rejoicing, the surgeon still lingered with anxious mind and heavy heart, for the question of questions to him was still unanswered,—the healing of wounds was the enigma of surgery.

By the close of the eighteenth century, many scientific workers were satisfied the solution of this problem lay in the existence of pathogenic microbes, but it was reserved for Schonlein to prove in 1839 that tinea was due to the growth of a fungus. Later came Davaine and Chaveau, with their demonstration of the bacillus of anthrax.

And finally came Lister. “And,” said Dr. Stewart, “the dark hemisphere rolled in one grand movement from its age-long penumbra into noon-day. Surgery, modern surgery, was born. In the chronology of our craft, time is divided into Before and After Lister.”

Lister, like Hunter, united in himself the pathologist and the surgeon, and, like him, worked on the lines of experimental pathology.

President's Address.*

On the evening of the first day, in the Arts Museum, DR. FRANCIS J. SHEPHERD, of Montreal, delivered the annual presidential address.

* Published in the September number.

SECOND DAY—FORENOON.

*General Meeting.***Discussion on Diseases of the Gall Bladder and Bile Duct.**

DR. ALEX. MCPHEDRAN, Toronto, introduced the *Medical Diagnosis* in this discussion. He mentioned the fact that the gall ducts are narrower at their entrance to the bowel than in other parts of their lumen, and as they lie nearly horizontally, the outflow of bile is easily retarded or obstructed. The ducts are much exposed to infection from the intestinal tract. Of the cardinal symptoms in these cases, Dr. McPhedran considered jaundice the most common, while pain varies but is generally intense. The attendant fever is generally due to toxic absorption. The main diseases to be considered in differential diagnosis, are, catarrhal and suppurative cholangitis and acute yellow atrophy. Most catarrhal conditions are infective, but the chills and fever may occur without pus formation. The most common germ present is the common colon bacillus. In the gangrenous cases the symptoms are often ill defined. A most characteristic sign of gall stones is the recurrence of the attack.

DR. A. D. BLACKADER, of Montreal, in discussing the *Treatment* of gall bladder affections, said he would confine himself principally to the catarrhal forms of the disease. He considers the condition more commonly due to altered secretion of the bile ducts, the altered mucus causing inspissation of the bile. Infection of bile he thought takes place in two ways, through the bile ducts and through the portal circulation. In the matter of treatment he considers that no drugs stimulate the flow of bile to the same extent as the bile salts. The flow is increased by exercise and deep breathing. Diet should be carefully considered, should be simple, and, as far as possible, should contain a large amount of fat. Such patients should drink plenty of pure or mineral water. The patient should also have due regard to a proper method of dress, no corsets or constricting clothing should be worn.

Surgical Diagnosis was introduced by DR. JAMES BELL, of Montreal. He said it was common to find early vague signs of gastro-intestinal indigestion, which were often found to be present for a long time before an acute attack was precipitated. He spoke of the colon and typhoid bacilli as common causes of infective conditions.

The subject of *Surgical Treatment* was introduced by DR. J. F. W. ROSS, of Toronto. In commencing his paper, Dr. Ross expressed a certain lack of faith in the so-called medical treatment, of gall-stones. Speaking of some details of gall-stone operations, Dr. Ross advocated drainage through Morrison's pouch. He laid great stress on the free

use of gauze packing to prevent leakage into the peritoneal cavity. In gangrene and empyema of the gall-bladder, he does not advise removal of the gall-bladder, but prefers opening, flushing and draining. In many cases of cystic enlargement of the gall-bladder, however, he advised entire removal of the viscus. It is well to remember, after removal of the gall-bladder, that gall-stones may form in the liver and may pass out into the intestines. He considers mucous fistulæ, which occasionally follow operation, as the most troublesome, and said the evil should as far as possible be prevented by the use of a small drainage tube. He also drew attention to the importance of being sure that the drainage tubes did not become blocked.

The discussion of the surgical treatment was led by DR. G. E. ARMSTRONG, Montreal, who recognizes and recommends the employment of medicinal treatment first in gall-stones, etc. He does not advise removal of the gall-bladder, for stone in the cystic duct. He recommends lavage of the stomach before operating on all gall-bladder cases, and as it is difficult to know what the surgeon may encounter on opening the abdomen, he advises the administration of calcium chloride before and after operation to prevent possible hæmorrhage.

DR. DUDLEY ALLAN, of Cleveland, Ohio, next spoke "*On the Importance of Early Operation on the Gall-Bladder.*" He considers, in view of the fact that an accurate diagnosis is often impossible, an exploratory incision at least should generally be made early, when, he claims, it is often found that many obscure cases are quite amenable to surgical treatment, and, in fact, would fail to recover if we were to temporize. He recited a number of cases where the diagnosis was uncertain, where he had made an exploratory incision, and had often been gratified with the results.

The subject was further discussed by SIR WILLIAM HINGSTON, of Montreal, and DR. ALEX. H. FERGUSON, of Chicago.

On Foreign Bodies in the Vermiform Appendix.

DR. JAMES BELL, of Montreal. In this paper the writer expresses his opinion that appendicitis never depends on the presence of foreign bodies in the lumen of the appendix. There is little doubt, however, that when foreign bodies gain entrance accidentally into the appendix, they aggravate an otherwise septic infection. Among the foreign bodies which he has found in the appendix are,—in two cases pins, in two cases seeds, in one case wood fibre, in one case gall-stones and in another case a fish bone.

Dr. Bell's paper was further discussed by MR. IRVING CAMERON, of Toronto.

MEDICAL SECTION.

SECOND DAY—AFTERNOON.

Kernig's Sign—The Frequency of Occurrence—Causation and Clinical Significance.

DR. R. D. RUDOLF, Toronto. This paper contained the results of an investigation carried out in the different hospitals of Toronto. A large number of patients of all ages were examined, suffering from divers troubles, and the angles at the hip and knee accurately measured in over 300 of them. In 162 Kernig's sign was present in 97, that is, in over 60 per cent. It was always absent in perfectly healthy children. Dr. Rudolf considers that a more convenient plan is to extend the knee and then flex the hip as far as possible. Sometimes there is more than the usual degree of stretching of the ham strings possible, and this extra flexion can, by the writer's method, be exactly measured when Kernig's sign could not show it. Out of the 97 cases in which Kernig's sign was present, in 59 an angle of less than 165° at the knee could only be obtained, and of these in 10 cases the angle was 135° or less, showing a very marked degree of the sign. These 59 cases were of all kinds, and only one of them was meningitis. Dr. Rudolf then went on to state that none of the theories of explanation of Kernig's sign were satisfactory as to its occurrence in meningitis.

Multiple Sarcoma—Report of a Case.

DRS. F. N. G. STARR and J. J. MACKENZIE, of Toronto. Mr. MacKenzie read the notes on the case. No autopsy could be made. The patient was a female, 38 years of age, a seamstress. The personal or family history had no bearing on the case. For a number of years before 1901, the patient had a goitre, which, under treatment, almost disappeared in the winter of 1901. In April of this year a lump about the size of a pea was noticed slightly to the left of the middle line of the abdomen, near the symphysis pubis, hard but painless and subcutaneous. In May two or three appeared in the middle line, an inch above the umbilicus, then two or three were discovered in the back. In June two others appeared to the right of the middle line of the abdomen. In July several additional lumps were discovered in the right breast, in size from a pea to a bean. Loss of weight occurred. In August the liver was noticed to be enlarging. Commenced taking arsenic in September. In October a large tumor appeared in the left breast, and a small one was also noticed in the left thigh. Patient began to suffer from rheumatic pains. In November and December the tumors appeared in enormous numbers over the chest and back abdomen, thighs, and arms above elbows, neck and over back, sides and

top of head. In January, 1902, chains of tumors, bean-sized, were noticed in the cervical region, submaxillary and suboccipital regions. By March the 8th she had thousands of tumors, most quite hard. Excisions were made and microscopic examination revealed a type of spindle-celled sarcoma, in which the prevailing cell was very long. As regards treatment, the patient took arsenic with no influence on the condition. Thyroid extract produced slight diminution in the size of the tumors. The patient died. Without autopsy one cannot say where the primary seat of the disease was, although from the great involvement of the liver, that might be the source of the disease.

On Some Points in Cerebral Localization. Illustrated by a Series of Morbid Specimens and Some Living Cases.

At an early morning session held at the Royal Victoria Hospital, Dr. JAMES STEWART conducted this clinic.

On the Asylum, the Hospital for the Insane, and the Study of Psychiatry.

Dr. STUART PATON, Baltimore, Md., advocated hospitals or wards in insane asylums, for proper treatment of acute cases. He also pointed out the benefits to be derived from having medical men to form a consulting staff to an asylum.

Anæsthetic Leprosy.

Two very interesting patients, father and son, were presented by Dr. C. N. VALIN, Montreal, according to whom they proved to a certainty the contagiousness of this disease. From the way they had progressed under treatment, Dr. Valin considered the cases hopeful.

SURGICAL SECTION.

SECOND DAY—AFTERNOON.

Report of Three Cases of Congenital Dislocation of the Hip.

Dr. A. E. GARROW, Montreal. The etiology of this condition is not well established, but heredity seems to play a part. Dr. Garrow speaks of two methods of reduction, (a) bloodless method, (b) through an incision. The chief obstacle to reduction is generally due to fibrous stricture of the lower part of the capsule. Dr. Garrow's experience has been mainly by the open method.

This paper was further discussed by Dr. SHEPHERD, of Montreal.

The Operative Treatment of Goitre with a Report of Cases.

Dr. INGERSOL OLMSTEED, Hamilton, Ont. As the medical treatment of goitre is very unsatisfactory, an operation is recommended in the following conditions:—1st, as soon as a goitre becomes dangerous, that

is, when attacks of dyspnoea occur, or inflammatory changes occur, or there is the slightest suspicion of a malignant degeneration; 2nd, all enlarged thyroids having a tendency to grow towards the aperture of the thorax, even if they are movable; 3rd, goitres that have reached considerable development from the formation of single large colloid nodes; 4th, when with a moderate goitre symptoms like those of Basedow's disease appear, accompanied with an increased development of the goitre. The operation advised is the one usually performed by Kocher and is done under cocaine anæsthesia. It consists of a transverse symmetrically bowed incision, with its convexity downwards, from the outer surface of one sterno-mastoid muscle to the other, higher or lower, according to the position of the goitre. The skin, underlying platysma and fascia of the sterno-hyoid and sterno-thyroid muscles are reflected upwards. The fascia joining the muscles in the median line of the neck is then divided, as well as the outer fibrous capsule of the gland. The half of the gland which is most involved, is then shelled out of its capsule, the superior and inferior thyroid arteries tied and the isthmus cut with goitre clamp and ligated. The remaining attachments are then ligated and portion removed. The wound is closed with a sub-cuticular wire suture without drainage.

Twelve cases operated on during the past year were reported. The average stay in the hospital was seven days. The resulting scar was very slight and little or no pain was complained of during the operation.

The Pathologic Prostate and its Removal through the Perineum.

DR. ALEX. H. FERGUSON, Chicago, Ill. In the opening of his paper, Dr. Ferguson said he proposed to discuss more particularly hypertrophy of the prostate. Some of the macroscopic changes in the hypertrophied prostate are: 1st, increased weight—may be up to eight or nine ounces; 2nd, greater size; 3rd, any part or the whole of the gland may be involved. Shape varies very much. Microscopically, Dr. Ferguson found all hypertrophied prostates were benign in character. He also found frequent evidences of inflammatory changes. The effects produced may be stated as: 1st, the prostatic urethra is contracted and elongated; 2nd, the vesical meatus is often rendered patulous and sometimes obliterated; 3rd, the ejaculatory ducts are also often patulous, allowing regurgitation of the semen into the bladder, and they are also often obstructed. The effects of obstruction on the kidneys and bladder are too well known to require discussion. *Treatment*: Dr. Ferguson's method of removal is by the perineal route. He uses a prostatic depressor introduced into the urethra, then elevated in such a manner as to press the prostate down in the perineum. The fingers of the left hand

are passed into the rectum as a guide, and then he makes one bold incision through the perineum down to the prostatic capsule. Dr. Ferguson exhibited some special instruments devised and used by himself in this operation.

The Surgical Treatment of Enlarged Prostate.

Dr. G. E. ARMSTRONG, Montreal, exhibited a specially constructed suprapubic vesical speculum, devised by himself, with a lateral opening which allows the prostate alone to come well in view in the speculum. The speculum can be packed around with gauze to protect the parts from possible burning, the offensive lobe or lobes are then cauterized with the thermo-cautery. Dr. Armstrong reported seven cases successfully operated upon. One point of advantage in this operation lies in the fact that the cauterized surface does not admit of septic absorption. He urges this method in the early stages of prostatic hypertrophy.

The paper by Dr. Ferguson, and also that of Dr. Armstrong, was discussed by Dr. James Bell, Montreal, Sir William Hingston, Montreal; Mr. Irving Cameron, Toronto; and Dr. Elder, Montreal.

Address in Medicine.*

At the evening session of the second day, the "Address in Medicine" was delivered by Dr. William Osler, Baltimore, Md.

The X-Ray as a Therapeutic Agent.

Dr. C. R. DICKSON, of Toronto, said the explanation of the *rationale* of the X-ray is at best as yet but a hypothesis. Fortunately, we have a practical proof of its utility as a therapeutic agent in many conditions. Dr. Dickson has used it successfully in the following cases:—Nævus, lupus vulgaris, tubercular joints, scleroderma, subacute articular rheumatism (it relieved pain in many cases), neurasthenia, carcinoma of the stomach (this patient gained weight), and in carcinoma of the rectum, which case is also improving.

Dr. G. P. GIRDWOOD, Montreal, read a paper (*X-Rays, Diagnostic and Therapeutic*), and exhibited a number of photographs.

The X-Ray in Cancer was the title of a paper by Dr. A. R. ROBINSON, of New York. A strong plea is that the X-ray largely does away with the knife, and leaves little scar. It is probable that all superficial cancers can be removed by the X-ray if seen early. In a delicate locality, such as the eyelid, the rays should always be used, as paste or the knife will do more harm. When malignant growths have spread deeply, the X-ray may be considered our best treatment.

* Published in the September number.

SURGICAL SECTION.

THIRD DAY—FORENOON.

Cases Exhibited by Dr. Bell at the Surgical Demonstration in the Royal Victoria Hospital.

1. Patient, *æt.* 68 years. Larynx had been removed on the 5th of March, 1900, and he is now in perfect health and showing no signs of recurrence, although at the time of operation the pathological examination of the part removed seemed to show that a portion of the disease had been left behind in the tissues of the neck.

This patient had begun to suffer from hoarseness and difficulty in breathing in the autumn of 1899, and an emergency tracheotomy had been done on the 1st of January, 1900. He was admitted to the hospital on the 25th of February with threatened asphyxia from encroachment of the disease upon the tracheal opening and much infiltration of the tissues of the neck. The operation had been done at his urgent solicitation in order to avert asphyxia and with no hope that a permanent cure could be effected. He can now make himself understood fairly well by a form of speech, although there is no communication between the air passages and the pharynx.

2. Patient, *æt.* 45, had been admitted to the hospital on the 11th of September, 1901, with recurrent sarcoma which had originated in the spine of the right scapula. It had been twice removed before his coming to the hospital.

On the 18th of November, 1901, the whole extremity was removed by an intra-scapulo-thoracic amputation. The patient made an excellent recovery and is still quite well.

3. A girl, *æt.* 18, had received a blow upon the right shoulder in August, 1901, by a heavy swinging door. The shoulder was swollen and painful for a week. On the first of February, 1902, she slipped on the ice and fell, striking the shoulder again; pain and swelling followed, the swelling subsiding in ten days, but the pain persisted. Enlargement of the shoulder was first noticed March 1st.

She was admitted on the 23rd of April, and the extremity removed by an intra-scapulo-thoracic amputation on the 8th of May. On the 18th she contracted measles, and on the 10th of June was returned to the surgical ward and discharged on the 14th with the wound quite healed, and no evidence of recurrence of the disease. The day after her return home she began to suffer from pain in her side, and on the 27th of June she died from sarcoma of the pleura.

4. A man, *æt.* 38, had had a mole on the top of the right shoulder over the spine of the scapula, from childhood. In February, 1902, it

began to enlarge, and in May it had reached the size of a walnut, and was removed. About the first of July he noticed enlargement of the gland in the axilla, and was admitted on the 28th of July, when spots of melanotic epithelioma were found in the cicatrix and surrounding skin for a considerable area, with very great enlargement of the axillary glands and great swelling about the shoulder joint.

He suffered extremely, and amputation was undertaken for the relief of pain rather than with any hope of affecting a cure. Intra-scapulo-thoracic amputation was done on the 18th of August, a very large area of skin removed, and the patient is now quite well with the exception of a granulating area which had been left uncovered by skin. He is now being treated by X-ray method as a prophylactic against recurrence.

The organs were shewn of:—

1. A man, æt. 55, who had died of chronic glanders. He was a farmer, and had had glanders among his horses for three years, and finally had them shot. The disease dated back to November, 1900, and he died on the 1st of September, 1902. The lesions had been intermittent and acute, and generally in the lymphatic glands or subcutaneous, with the exception of a lesion of the cranium in the occipital lesion, and from each of the acute lesions the bacillus was easily found, and inoculation of guinea pigs produced the usual results.

2. The kidneys of a man, æt. 65, in whom simultaneous obstruction of both ureters had occurred, causing complete suppression of urine for nine days, with a copious flow on the tenth day, when the patient was in articulo mortis.

3. A series of kidney stones and gall stones was also shewn.

The first paper was

Remarks on the Sympathetic Ophthalmia.

by DR. G. HERBERT BURNHAM, Toronto, followed by a paper on the

Ocular Manifestations of Systemic Gonorrhœa.

by DR. W. GORDON M. BYERS, Montreal.

Excision of the Cæcum.

DR. O. M. JONES, Victoria, B.C., cited four cases operated on. The first died about two years after. A post-mortem proved that the cancerous growth had not recurred at the point of the original operation. Symptoms in all cases were: griping pains in the abdomen, loss of weight and irregular action of the bowels, together with the presence of a mass in the region of the cæcum.

On Three Cases of Perforating Typhoid Ulcer, Successfully Operated On.

DR. J. F. SHEPHERD, Montreal, reported these cases. First, as to technique: Dr. Shepherd has always made use of the lateral incision, and has usually found the perforation near the ilco-cæcal valve. By this incision the site of the perforation is more easily found than by the median. He has always closed the incision by turning in the bowel and making use of a continuous Lembert suture, employing fine silk. Other ulcerations in the neighbourhood are treated in the same way. Rubber drainage is employed. There is always suppuration in these cases and usually a hernia as a result. General anaesthesia is always used in these cases. Early and rapid operation, seeing that there are no others likely to perforate, are important points. The first case was a woman of 30, with ambulatory form; the second was a woman of 28, admitted on the 8th day. It is of interest in this case that although perforation had taken place, there was no leucocytosis. The third was a male, æt. 30, in the third week, seized with severe pain and one hour after there was obliteration of liver dulness and marked leucocytosis. All are quite well with the exception of herniæ.

A Case of Total Extirpation of the Urinary Bladder for Cancer.

DR. LAPHORN SMITH, Montreal, presented this paper. After reviewing the great advances which had been made in the surgery of the bladder in recent years, especially in the management of fistulæ and injuries to the ureters, the author took up the subject of removal of the bladder. He gave a brief historical outline of one hundred published cases, from which it appeared that when the operation of removal of the bladder was done for malignant disease the death rate was over 50 per cent, while in cases of exstrophy and other non-malignant conditions, the death rate was only 19 per cent. He was strongly of the opinion that with greater experience in technique the mortality of the non-malignant cases would fall much below nineteen, while in the malignant ones, when the disease was recognized and removed much earlier, the high death rate of over fifty per cent. would be reduced to less than twenty-five, just as it had been in hysterectomy for cancer, which was 75 per cent. twenty-five years ago, but was now less than five. He therefore urged all practitioners to look out for this disease, the cystitis and hæmorrhages being among the early symptoms, and not to lose precious time in unavailing local and medicinal treatment. His own case was misleading, because she had a fibroid tumor the size of an orange pressing on the bladder, for which the patient was taken into hospital and the tumor was easily removed by myomectomy. Her bladder symptoms

not being relieved, a button-hole was made and the bladder explored by the finger, when the cancer was found occupying the trigone. Two week later abdomen was opened, peritoneum pushed back, ureters cut off and attached to vagina and bladder removed, together with enlarged pelvic glands. Patient rallied well and was making good recovery until sixth day, when she rapidly collapsed and died. She was sixty-five years of age and in poor condition, and the disease was too far advanced.

GENERAL.

THIRD DAY—MORNING SESSION.

Election of Officers.—Dr. T. G. Roddick, M.P., Chairman of Nominating Committee, presented the report of this committee. London, Ont., was selected as the next place of meeting.

President—Dr. W. H. Moorhouse, London, Ont.

Vice-Presidents—Prince Edward Island—James Warburton.

Nova Scotia—John Stewart, Halifax.

New Brunswick—W. C. Crockett, Fredericton.

Quebec—Dr. Mercier, Montreal.

Ontario—W. P. Caven, Toronto.

Manitoba—Dr. McConnell, Morden.

North-West Territories—J. D. Lafferty, Calgary.

British Columbia—C. J. Fagan, Victoria.

Local Secretaries—Prince Edward Island—C. A. MacPhail, Summerside.

Nova Scotia—Dr. Morse, Digby.

New Brunswick—J. R. McIntosh, St. John.

Quebec—R. Tait McKenzie, Montreal.

Ontario—Hadley D. Williams, London.

Manitoba—J. T. Lamont, Trehern.

North-West Territories—D. Low, Regina.

British Columbia—L. H. McKechnie.

General Secretary—George Elliott, 129 John Street, Toronto, Ont.

Treasurer—H. B. Small, Ottawa, Ont.

Executive Council—Drs. Moore, Eccles and Wishart, London, Ont.

Dominion Health Bureau.

DR. E. P. LACHAPPELLE, Secretary of the Board of Health of the Province of Quebec, moved the following resolution, seconded by DR. J. M. JONES, Winnipeg, which was carried unanimously:—

“Whereas public health, with all that is comprised in the term, Sanitary Science, has acquired great prominence in all civilized countries; and

“Whereas enormously practical results have been secured to the com-

munity at large by the creation of health departments under governmental supervision and control; and

"Whereas greater authority and usefulness are given to health regulations and suggestions when they emanate from an acknowledged Government Department;

"Therefore, be it resolved, that in the opinion of the Canadian Medical Association, now in session, the time is opportune for the Dominion Government to earnestly consider the expediency of creating a separate department of public health, under one of the existing ministers, so that regulations, suggestions and correspondence on such health matters as fall within the jurisdiction of the Federal Government, may be issued with the authority of a department of public health.

..That copies of this resolution be sent by the General Secretary to the Governor-General-in-Council and to the Honorable the Minister of Agriculture."

Treasurer's Report.

Dr. H. B. Small presented his report. 317 members had been in attendance, nearly 100 larger than any other previous meeting. All outstanding indebtedness had been paid, and there was in the treasury \$325 to the good of the Association.

Voices of thanks were passed to Mr. and Mrs. James Ross, of Montreal, in whose handsome grounds had been tendered a garden party on the afternoon of the first day; to the Local Committee and Transportation Committee, special reference being made to Drs. C. F. Martin and J. Alex. Hutchison, for their indefatigable efforts for the success of the meeting; to the Treasurer, to the President, and the profession generally for their hospitality.

Thus was closed the greatest meeting of the 35 years of the Association, and it is to be hoped that the profession throughout Canada will still further take an active interest in this national organization.

THE

Montreal Medical Journal.

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

EDITED BY

JAMES STEWART,
A. D. BLACKADER,
G. GORDON CAMPBELL,
FRANK BULLER,
H. A. LAFLEUR,

GEO. E. ARMSTRONG,
J. GEORGE ADAMI,
WILLIAM GARDNER,
F. G. FINLEY,
F. J. SHEPHERD,

WITH THE COLLABORATION OF

C. F. MARTIN,
J. M. ELDER,
D. J. EVANS,
A. E. GARROW,
T. J. W. BURGESS,

J. W. STIRLING,
F. A. L. LOCKHART,
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KENNETH CAMERON,
C. W. WILSON,
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W. W. CHIPMAN.

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No. 10.

THE PROVINCIAL MEDICAL BOARD AND PRELIMINARY EDUCATION TO THE STUDY OF MEDICINE.

At the last semi-annual meeting of the College of Physicians and Surgeons of the Province of Quebec, held in the city of Quebec on September 24, 1902, a resolution was adopted, after a somewhat prolonged and heated discussion, to the effect that every candidate presenting himself for the entrance examination of the Board—the “brevet,” as it is called among the French—should furnish credentials of having taken a “cours classique complet,” which, translated literally, means a complete classical course. Failing this, the candidate should not be allowed to present himself for examination. The ostensible purpose of the foregoing resolution was the elimination of a number of uneducated candidates, who, either unwilling to devote the time and expense involved in taking a “cours classique complet,” or intellectually unfit for the same, had, with the assistance of a professional “coach,” crammed during a period of a few months in order to pass the examination for entrance prescribed by the Board. In this category would also be included “pluck-

ees" (*ratés*) of the "collèges classiques," who should attempt by the same short cut to join their more successful companions on the threshold of their professional studies.

In the abstract the new regulation appears admirable and calculated to raise the level of preliminary education in certain quarters where it is most needed. The practical application of it, however, to intending candidates as a body is by no means so simple as imagined by its promoters, if the interests of all parties concerned are fairly taken into consideration—the examiners, the candidates, the Board, and the members of the medical profession generally. It does not seem to have dawned on the Board that the new regulation casts a reflexion on the examiners in the preliminary examination. Either the examiners are competent to judge of the educational qualifications of the candidates, as shown by their answers, or they are not. If they are—why not let well alone? If they are not—why not change the examiners? No one with a moderate acquaintance with examinations or examiners will doubt that a practised and competent examiner can tell the trained scholar from the stuffed goose variety.

But the *crux* of the question concerns the candidate chiefly. What constitutes a "cours classique complet"? It is obvious that the framers of the resolution had in mind such a course as is given in the several French and English Catholic "colleges" distributed in various parts of the Province of Quebec. That the courses of study in these colleges are thorough, the quality of teaching of a high order, and that they subserve the needs of their pupils, no one will deny. But what of the French and English Protestant "colleges," academies, and high schools (the universities are not in question) where an equally thorough training is afforded, though modelled on very different lines of study? What is the equivalent, or is there any, in Protestant educational institutions, of the "cours classique complet"? That is the question that the members of the Board who voted for the new regulation did not take into account in legislating for the majority. We do not say that they did so knowingly, but nevertheless the result is the same—a discrimination against a minority that is unable to comply with an inelastic requirement. That this is not an imaginary but a real grievance is evident when one compares the courses of study in Catholic and Protestant educational institutions of the same grade. To take but one instance out of many—philosophy, which forms an integral and important part of the curriculum in the former, is not taught in the latter, its place being taken by other subjects, which in the opinion of Protestant educationists are of equal importance.

The fact is that the two systems of education are utterly dissimilar.

and irreconcilable, and this is evidenced by the existence of separate educational boards for even primary education. That the dissimilarity should extend to, and be intensified in the sphere of secondary or higher education is a foregone conclusion, and any attempt to favour one system necessarily involves an injustice to the other. It is true that the supporters of this measure disclaim any intention of putting difficulties in the way of candidates trained in Protestant educational institutions—that they say they have a high opinion of the education given in these institutions—but the fact remains that the regulation calls for a course of study that is not paralleled in Protestant “colleges,” academies or schools.

Practically, if interpreted in the literal sense, it means the rejection of all candidates who cannot show evidence of having followed the schedule of studies required by candidates entering the notarial profession, which is the model upon which the new regulation of the College of Physicians and Surgeons is based. The only alternative for the candidate would be to study four years at one of the universities and obtain the B.A. degree, which would admit him to the study of medicine without further examination. Such an alternative is most unfair to the minority, for while no one will deny that the additional training implied in the acquirement of a B.A. degree is in itself a desirable thing, such a requirement under present educational conditions in the Province of Quebec ought not to be forced upon anyone who is prepared to pass the prescribed examination.

It remains to be seen what course will be taken by the legislature, to which this amendment to the charter of the College must be submitted before it becomes law. The most satisfactory solution of the difficulty would be to obtain legislation establishing the same dichotomy in professional as exists in general education in the province.

INTERNATIONAL CATALOGUE OF SCIENTIFIC LITERATURE.

It is now close upon fifty years ago that Prof. Henry, of Washington, D.C., at a meeting of the British Association for the Advancement of Science, at Glasgow, urged the necessity for a proper cataloguing of scientific literature, that should be, not merely national, but universal. The seed thus sown, took growth, and the projected scheme was eventually taken up by the Royal Society of London, which, in 1867, published its first volume of the *Catalogue of Scientific Papers*. Of this Royal Society Catalogue, twelve large quarto volumes have been printed, covering the papers which have appeared dealing with certain of the

sciences between 1800 and 1883. A catalogue dealing with the period 1884 to 1900, is now under way. But these Royal Society Catalogues make no pretension to completeness. It was soon evident that the work was beyond the resources of the Society or indeed of any single body. The catalogue also was purely an author catalogue, giving the names of the different workers, with the titles of their contributions, add to which it appeared at relatively long intervals, and so was only of partial value. For what is of special importance to workers in various branches of science is that they should be kept fully and quickly informed of all new discoveries by means of complete subject indexes.

In 1895, if we mistake not, Sir Michael Foster, one of the secretaries of the Royal Society, took the matter up, and at an international scientific gathering held at Rome, and elsewhere, urged powerfully the necessity for international co-operation in the work. The result of the labours of himself and his co-workers was that in 1896, an international conference took place in London, which was attended by official delegates from twenty-one different States, Canada and other British possessions being represented, and even countries like Norway, Japan and Mexico showing their interest in the work. The result of their conference was that a combined scheme was determined upon.

Organization, of necessity, has taken many years. Methods of classification had to be determined upon, methods of collecting titles, the scope of the proposed catalogue, the organization of national committees or bureaus, as also the financial arrangements. Eventually the schedules for seventeen branches of science to be included in the catalogue were drawn up and adopted, and it was finally resolved to recommend that the Royal Society be requested to organize the Central Bureau, so that the preparation of the catalogue might be commenced with the first year of the new century. With great public spirit, the Royal Society undertook to act as publishers of the catalogue on behalf of the International Council, and to advance the capital required to start the enterprise, on the understanding that this should be repaid during the ensuing five years.

The branches to be included in the catalogue are as follows:—

A—Mathematics. B—Mechanics. C—Physics. D—Chemistry. E—Astronomy. F—Meteorology (including Terrestrial Magnetism). G—Mineralogy (including Petrology and Crystallography). H—Geology. I—Geography (Mathematical and Physical). K—Palæontology. L—General Biology. M—Botany. N—Zoology. O—Human Anatomy. P—Physical Anthropology. Q—Physiology (including Experimental Psychology, Pharmacology and Experimental Pathology). R—Bacteriology.

How extensive is the undertaking must be gathered from the fact that the first two volumes, being the first parts of the catalogues in chemistry and botany respectively, for the year 1901, consisting of lists both of authors and subjects and with indexes of organic substances and species respectively, form volumes each of close upon 500 pages of the ordinary quarto size, the titles being given in the language of publication, and where these languages are out of the common. Polish, Swedish, Dutch, etc., the title is translated into English, French or German.

The enormous value of such a compilation to all serious workers is readily understood. Our own feeling of loss, now that the *Index Medicus* has ceased to appear, is an illustration of the value of such a work.

It is true that medicine proper is not included. Notwithstanding the more scientific branches receive full attention, Human Anatomy and Bacteriology being afforded separate volumes, and Experimental Psychology and Pathology being indexed along with normal Physiology. The parts upon Botany, Zoology, and General Biology are, however, all of importance to the medical worker.

As already noted, Canada participates in the scheme, and our Government has subscribed for seven complete copies of the annual issue of seventeen volumes. Beyond this, unfortunately, the Government has not seen its way to proceed, and the Regional Bureau, formed of those undertaking to index Canadian titles, has to find its fund as well as it may. So far such funds are *nil*, and the indexing is a voluntary affair on the part of a few active workers in the different branches of science, who can scarce be expected to subscribe for and obtain possession of all the Canadian literature upon their particular subjects.

Here it might be noted that it will materially aid in the due notification of Canadian work if those writing papers on Human Anatomy send copies or reprints of the same to Prof. Primrose, Biological Building, University of Toronto; if physiological papers be similarly sent to Prof. A. B. MacCallum, at the same address, and if papers containing original notes in Pharmacology, Experimental Pathology and Bacteriology, be forwarded to Prof. Adami, McGill Medical College. Prof. Penhallow (McGill) has similarly undertaken to catalogue Botanical works, and Prof. McBride (McGill), Zoological.

Thus enough has been said to show that these catalogues are absolutely essential to the full equipment of every scientific library.

These first two volumes are well printed on good paper and in clear, readable type. So far as we have been able to study them, they leave little to be desired. It is true that at first it is a little difficult to find one's way about in them—but a little study of the scheme of classification makes matters clear. Time will show whether so large an under-

taking, requiring, as it does, the hearty co-operation of workers in many lands, can be successfully carried on for years to come. These two volumes have, however, a most promising appearance. They show that international cataloguing is possible, and if possible, then it should be persevered with.

THE EDITORIAL STAFF OF THE "JOURNAL."

The vacancy in our Editorial Board occurring through the retirement of Dr. T. G. Roddick, M.P., on his accepting the position of Dean of the Medical Faculty of McGill University, has been filled by the appointment of Dr. Francis J. Shepherd, Professor of Anatomy of the Faculty of Medicine of McGill University.

APPOINTMENTS AT MCGILL UNIVERSITY MEDICAL FACULTY.

Dr. E. M. von Eberts, late Medical Superintendent of the Montreal General Hospital, has been appointed Registrar of the Faculty. Dr. Ruttan becoming Professor of Chemistry.

Dr. H. Wolferstan Thomas, who graduated in 1897, has been appointed Fellow in Pathology. Dr. Thomas has spent the past three years in Germany in the study of Pathology and Comparative Pathology.

THE MEDICAL COUNCIL OF THE YUKON TERRITORY.

The election of members for the Medical Council of the Yukon Territory took place in July last. After a keen and close contest the following were elected officers:—

President—Mr. McLeod.

Vice-President—Dr. Barrett.

Registrar and Secretary—Dr. Edwards.

Executive—Drs. Barrett, Sutherland and Alfred Thompson, with the President and Registrar (*ex-officio*).

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