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Original Articles

TREATMENT OF DIFFUSE SEPTIC PERITONITIS*

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In 1880 Mikulicz[1] operated for the first time upon a perforating gastric ulcer, and suggested the possibility that laparotomy might be beneficial in diffuse perforative peritonitis. Lawson Tait[2], in 1883, and Leyden[3], in 1884, also recommended operative treatment, but in spite of this Schlange[4], von Bergmann's assistant, in a paper published in 1884, strongly emphasizes the inadvisability of laparotomy in the treatment of the condition. In 1886 Krönlein[5] advised immediate operation in perforation peritonitis, and expressed the opinion that, in view of the uniformly unsatisfactory results of medical treatment, recovery in one case out of many would warrant the adoption of surgical measures, but the first statistics of operative treatment of peritonitis were published in 1890, when Stühler[6], of Strasburg, collected 78 cases of drainage of the peritoneum.

A little more than twenty years ago recovery from diffuse septic peritonitis occurred only in exceptional cases, a diagnosis of peritonitis was practically equivalent to a sentence of death, and as a rule operation only accelerated the fatal termination. Scarcely any other disease can be mentioned, the mortality of which has been so greatly reduced by changes in treatment, and there is no doubt that great progress has been made in the treatment of all forms of peritonitis, more especially during the last ten years. Ten or fifteen

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years ago operation was undertaken only in cases of diffuse peritonitis in a very advanced stage, already complicated by toxemia, in which the prognosis was therefore practically hopeless. Improvement in methods of diagnosis has resulted in patients coming under the observation of the surgeon at an earlier stage of the disease, in many cases within a few hours after the onset of the symptoms. The extensive experience of a large number of surgeons has conclusively proved that a rational operation, undertaken at an early stage, when the condition is still comparatively localized, will save many lives. There is up to the present no effective medical treatment of diffuse peritonitis, and the general reduction in mortality shown by recent statistics indicates that the advances in modern surgery have rendered recovery possible in a condition which was formerly regarded as practically incurable.

The most common form of septic peritonitis is that associated with disease of the vermiform appendix, and the increase in the knowledge of the pathological anatomy and symptomatology of appendicitis has therefore greatly contributed to the reduction in mortality. The next cause in order of frequency is perforation of ulcer of the stomach or duodenum, the prognosis of operation in both these and the appendicular cases being fairly good. Other conditions which may result in peritonitis are perforation of the intestines or gall bladder, typhoid perforation, wounds of the abdomen involving the digestive tract, and infection extending to the peritoneum through the Fallopian tubes.

The most severe forms of peritonitis are that associated with spontaneous or traumatic perforation of an abdominal viscus, and that originating from the appendix, both of which rapidly become generalized. In regard to gonorrheal peritonitis a distinction should be made between that due to rupture of or leakage from a sterile pyosalpinx, and that due to rupture of a pyosalpinx containing active gonococci or streptococci. We then have an acute, virulent, diffuse peritonitis, due to leakage from a tube recently infected by the gonococcus. This variety of gonorrheal peritonitis is illustrated in the case of a patient who came under my observation some years ago.

She was a young married woman of twenty-six, who was infected by her husband. Two weeks after infection she developed a pelvic peritonitis, which in four days had become diffused throughout the abdomen. On the fifth day she was acutely ill with rigidity of the entire abdomen, the temperature was 105 degrees F., and the pulse 140. The abdomen was opened and drained. Her symptoms were septicemic, and she died three days later.

If in a case of acute gonorrheal peritonitis there is no improvement in the general and local conditions in the course of a few hours, operation should be undertaken without delay.

In considering the prognosis of peritonitis resulting from perforation of the gall bladder, which is usually assumed to be extremely grave, a similar distinction should be made between that due to perforation of a gall bladder, the contents of which may be regarded as sterile, and that originating from perforation of a gall bladder containing pus. The former is comparatively benign, whilst the latter is an extremely malignant and dangerous condition. Another factor which influences the prognosis is the fact that the bile appears to exert an unfavorable influence upon the serosa, considerably reducing its capacity for resistance to the invading micro-organisms. The same may be said of the contents of the small intestine, after perforation of which the peritoneal serosa exhibits severe changes.

In 1910 Clairmont and von Haberer[6] published a case in which peritonitis supervened without perforation of the gall bladder. A similar case was subsequently reported by Schievelbein[7], and Doberauer[8] has recently reported two further cases. They attribute the condition to an abnormality in the macroscopically normal walls of the biliary duct, in one case apparently due to old biliary stasis, in one to gangrene of the bladder, in one to non-perforating traumatism, and in the fourth case to infection.

Surgery is the only treatment for typhoid perforation peritonitis. Unfortunately the diagnosis can very rarely be made before operation, but an operation at the earliest possible moment after its occurrence will save the lives of many patients. Forbes Hawkes[9] is of opinion that mortality would be considerably reduced if operation could invariably be undertaken within two hours after perforation, and that recovery would probably result in at least 50% of cases, provided toxemia was not present. Operation is indicated by slight muscular rigidity and tenderness in the right iliac fossa or around the umbilicus. Some years ago I reported recovery following operation eighteen hours after perforation in a case of typhoid.

As regards the peritonitis due to wounds of the abdomen involving the digestive tract, Siegel[10] states that operations done within the first four hours have a mortality of 15.2 per cent., in from five to eight hours 44 per cent., in from nine to twelve hours 63 per cent., and after twelve hours 70 per cent.

I should like to refer briefly to pneumococcal peritonitis, which is a very rare condition, and may be primary or secondary. Net-

ter[11], who examined 140 cases bacteriologically, found the pneumococcus in two cases only. In this variety of peritonitis it is advisable to delay operation until an abscess has formed, as fatal results have frequently followed operation in an early stage. The treatment then consists of incision and drainage.

The variations in the application of the term "diffuse septic peritonitis" have led to much confusion. The results of pathological investigations indicate that in acute infection of the peritoneum general diffusion of the exudation throughout the peritoneal cavity rarely occurs, and that in such cases, more especially those associated with perforative appendicitis, the internal organs, with their ligaments and mesenteric attachments, tend to prevent and delay extension.

In regard to peritoneal infections after perforative appendicitis, Kron[12] distinguishes diffuse pelvic peritonitis, diffuse unilateral peritonitis, unilocular peritonitis and multilocular peritonitis. Rauenbusch[13] distinguishes a supra-omental and infra-omental form, extension occurring from above downwards and from below upwards respectively. The most common form is that limited to the portion of the peritoneal cavity below the transverse colon.

Formerly, we were accustomed to hear of post-operative peritonitis, but this should never be allowed to occur. Scrupulous attention to technique, and above all, the covering of the hands of the operator by rubber gloves during operation, has added greatly to the safety of peritoneal operations. By substituting asepsis for antisepsis the defences of the serosa are preserved in their integrity. The perfection to which technique has now been brought prevents the entrance into the peritoneal cavity of germs from the digestive tract, the gall bladder, the tubes or the ovaries. This includes the carrying out of the greater part of the operation before the opening of the septic cavities, reduction to a minimum of the time during which they are open, and exact limitation of the field of operation.

It may be interesting here to mention that De Paoli and Callisti[14] claim that they have considerably improved their operative statistics by the injection of nuclein of soda thirty-six to forty-eight hours before the performance of laparotomy, and that in a series of more than two hundred laparotomies for various abdominal conditions they have had one death only from septic peritonitis. Arcangelo[15] reports thirty laparotomies in which he has employed the same method, without a single case of post-operative infection.

To prove that this is unnecessary, I may say that I can give a series of more than three hundred laparotomies done for various

abdominal conditions, exclusive of disease involving the gastro-intestinal tract, without a death, and without any precautions other than careful attention to technique.

They claim, also, that these injections are useful as a test of individual resistance to infection. A violent reaction with toxic symptoms, and with only slight leucocytosis or no leucocytosis at all, indicates that resistance has been reduced to a minimum, whilst a moderate general reaction and marked leucocytosis indicates that the defences are powerful, and that operation may therefore be undertaken with a favorable prognosis. Their investigations have shown that the injections increase the bactericidal properties of the serum in regard to the colon bacillus, but have no influence on the streptococcus and staphylococcus.

Mortality has recently been very much reduced by the early recognition of appendicitis, which is the most common cause of peritonitis, and the removal of the appendix before the inflammation has extended to the peritoneum. In the rare cases in which the onset of peritonitis is coincident with perforation of the diseased appendix, disease of which has previously been latent as regards the production of symptoms, operation should be undertaken before inflammation of the serosa becomes very severe and extensive. I should like here again to emphasize the importance of a very rapidly performed operation. A diagnosis of the probable cause of the peritonitis should be made before the commencement of the operation, and during the operation it should be removed as promptly as possible.

All surgeons and the majority of physicians are now agreed that operation is invariably indicated in all cases of diffuse peritonitis. The only exception to this rule is pneumococcal peritonitis, in which, as previously stated, it is advisable to wait for the formation of an abscess. If no contra-indication is present laparotomy should be undertaken without delay in all cases in which diffuse peritonitis is suspected, even if pus cannot be demonstrated. Early operation has frequently revealed the presence of advanced peritoneal inflammation and purulent exudation in cases in which the only symptoms were localized pain and rigidity. If, in such cases, measures for the relief of pain only had been adopted, the condition would probably have become so advanced that little benefit could have been expected from operation. Up to the present, the so-called "muscular defence" is the only generally recognized early symptom, but the general condition of the patient may be of assistance in early diagnosis.

A very important factor in the prognosis after surgical intervention is the defensive reaction of the peritoneal serosa, which renders it possible for it to deal with a considerable amount of septic material. Prognosis is also obviously more favorable if operation is undertaken before the onset of toxemia, and before the resistance of the patient is seriously impaired. Rutherford Morison[16] states that the prognosis is good if the heart is strong, the pulse of good volume and not over 100, but that it is invariably bad if cyanosis is present, the extremities are cold, and the pulse is over 120.

There has recently been a considerable amount of discussion as to whether all cases of peritonitis, without exception, should be operated upon or not. Some are of opinion that if there is little or no hope of saving the life of the patient relief of pain only should be attempted, whilst others maintain that it is absolutely impossible to be certain that recovery may not follow operation, even when a patient is apparently moribund. It must be said that there are cases of ultra-septic infection of the peritoneum in which operation is practically useless. These cases run a rapid course, and the defensive reaction of the peritoneum is so slight that they may be described as septicemia rather than peritonitis. Even in these desperate cases, however, operation is indicated if it represents the only chance for the patient, in spite of its almost invariably fatal results, and in some of these cases, operated upon by me when the patient was practically *in extremis,* recovery has resulted. It cannot be too strongly emphasized that delay in operation is most frequently responsible for the fatalities which occur. In cases which are too far advanced to allow of removal of the cause of the peritonitis, a certain amount of relief may follow drainage of the abdomen by means of one or two small incisions.

Increased simplicity and rapidity in operation have undoubtedly greatly contributed to the reduction in mortality. Twenty years ago extensive flushing and evisceration were practised, the mortality being from 40 to 50 per cent., but it is now unanimously agreed that these severe methods of treatment have had their day, and are contra-indicated.

Technique.—As regards the incision, if a diagnosis has been made, it is of course made over the site of the primary lesion. In doubtful cases it should be made in the middle line, immediately below the umbilicus. If this reveals no lesion, it is easily prolonged in an upward direction, so as to expose the stomach, duodenum and gall bladder. In doubtful cases, Rutherford Morison excises the umbilicus by an elliptical incision, opening the abdomen in the

centre. During operation the patient should be kept warm, and unnecessary manipulation of the intestines avoided. The details of the technique are of far less importance in relation to the results than the time which has elapsed since the onset of the symptoms.

Amongst the most important factors in the improvement of the results of operation are:

1. The general adoption of Fowler's semi-sitting position, which facilitates drainage of the peritoneal cavity.
2. The injection of large quantities of saline solution, either by the subcutaneous or transrectal method.
3. Lavage of the stomach.
4. Reduction of the duration of the operation to a minimum.

The objects of the operation are: (1) Removal of the primary focus of the disease, from which the peritonitis has originated, e.g., a gangrenous or perforated appendix, or closure of a perforation; (2) to provide for drainage. The latter tends to prevent the further resorption of infective material into the blood, whilst the reduction of intra-abdominal pressure facilitates respiration and circulation. With the object of increasing the rapidity and simplicity of the operation, some writers have recently recommended that, under certain circumstances, the removal of the cause of the peritonitis should be abandoned, but it is still the general opinion, in which I concur, that the appendix should be removed in practically every case of appendicular peritonitis, and all pus pockets broken up, the operation being carried out with the least possible manipulation of the peritoneum.

The question as to how the exudation shall be dealt with after the cause of the peritonitis is removed has given rise to a considerable amount of discussion, the alternatives suggested being as follows:

1. That it should be left in the peritoneal cavity.
2. That it should be flushed out.
3. That it should be mopped out.
4. That flushing should be practised in some cases, mopping in others.

The answer to this question is obviously dependent upon the importance which is attached to the thorough cleansing of the peritoneal cavity from the septic products present in it.

In deciding as to the respective merits of the moist and dry methods of cleansing the peritoneal cavity, it is of the utmost importance that the characteristics of the normal and pathological serosa should be fully appreciated. Von Haberer and Clairmont[16]

have shown that the peritoneal serosa manifests the greatest capacity for resorption at the level of the sub-diaphragmatic spaces, and Noetzel[17] has demonstrated its defensive reaction in regard to infection. The great omentum, which is very movable and is supplied abundantly with lymphatics, plays an important rôle in the defence of the peritoneum, as does also the natural tendency, which is present in many instances, for the inflammation to become encysted. One of the great advantages of the dry method, as compared with that of flushing out the peritoneal cavity, is that it occupies much less time, and thus tends to minimize shock.

Murphy and other American surgeons are of opinion that the one essential point is that the primary cause of the condition should be removed with as little delay and injury to the peritoneum as possible, and with a minimum amount of narcosis. As the exudation itself possesses bactericidal properties, and is therefore an important factor in defence, it appears inadvisable to attempt thorough cleansing of the peritoneal cavity. Murphy has accordingly abandoned both flushing and mopping, believing that these measures tend to reduce the protective forces of the serosa, as represented by the leucocytes, and leaves the toxic material which still remains in the cavity to be dealt with by the natural resistance of the serosa. Bauer[18] recommends that the fibrinous or fibrinopurulent deposits, which are observed on the intestines in some cases, should also not be interfered with.

As opposed to Murphy's opinion, some surgeons, including Körte, Kochler[19], Lennander[20], Von Eiselsberg[21], Bruns[22], Kümmell[23], Rehn and Noetzel[17], still maintain that great service is rendered to the organism by removal of as much of the septic material as possible, and that whilst flushing is suitable in some cases, mopping is preferable in others. Rutherford Morison reserves cleansing the peritoneum for cases in which operation has been done at an early stage, and there has been extensive extravasation into the peritoneal cavity, as in rupture of a viscus.

Some surgeons, including Bond[24] and Blake[25], whilst not in favor of flushing as a routine procedure, recommend it in cases in which foreign material other than pus is present, such as particles of food and feces.

I am personally thoroughly in accord with Murphy's opinion in this regard, and abandoned the practice of flushing out the abdomen many years ago. Neither am I in the habit of mopping out the pus; but my object in these cases is, first of all, to remove the cause of the peritonitis, and secondly to provide drainage.

Since adopting this method my results have been infinitely better than they were when I wasted time in flushing out the abdomen.

In regard to drainage, Lücke[26] was the first to insert a large drainage tube in Douglas' pouch in a case of peritonitis. The majority of surgeons are of opinion that it is advisable to make provision for the escape of the septic products left in the peritoneal cavity and of any exudation which may subsequently form, but that the arrangements for drainage should be as simple as possible, consisting of one drainage tube in the area of primary infection, and another in Douglas' pouch. Cigarette drains are preferable to unprotected rubber tubes. Murphy, however, insists on the importance of tubular drainage. At the meeting of the British Medical Association in 1911, Mr. Leonard Bidwell[27] recommended rectal drainage, which I consider very objectionable.

The general rule that drainage tubes should be left in position until secretion ceases, or has at least appreciably diminished in quantity, is not applicable to diffuse peritonitis. It is a difficult question to decide how long drainage should be continued in any given case, owing to the fact that purulent secretion persists almost as long as the drain remains *in situ*, indicating a possibility that its presence may contribute to the continuance of the suppuration. Noetzel recommends that the drainage tubes should be frequently changed, the tube inserted on each successive occasion being of smaller calibre than the one preceding it. He believes that in this way secretion is gradually reduced without mechanical irritation, and that contraction of the granulation canal is rendered possible, without sudden occlusion of its orifice.

According to Hartmann[28], the chief indication for drainage is the presence of non-resorbable particles, such as gangrenous serosa in contact with a gangrenous appendix. Blake[29] gives the following indications:

1. Drainage should be employed only in the presence of necrotic material, which may form a nucleus for infection.

2. If drainage is necessary, a large drainage tube should be used.

3. The drainage tubes should remain in position until all necrotic material has escaped, and then promptly removed.

Gauze tamponnage is contra-indicated in these cases. The softening effects, together with the increase of inflammatory reaction and of secretion, which are so beneficial in phlegmonous processes, are injurious in septic peritonitis. Another harmful result is the compression of the intestinal coils necessitated by the space which it occupies.

In certain rare cases drainage may be unnecessary, and some have gone so far as to practise complete closure of the wound in cases in which the peritonitis is not very far advanced, and the septic contents of the cavity are not very toxic in character.

Amongst those who are in favor of primary closure of the wound are Bauer[18], Rotter[30], and Grant Andrew[31]. Hartmann and Blake[29] also report good results from it in cases operated upon at a very early stage. Bauer, who removes the pus either by flushing or mopping, uses the method almost exclusively in cases in which the pus is entirely free and encapsulation has not occurred. He states that in his experience it has the following advantages:

1. Intestinal peristalsis returns much more rapidly.
2. Attacks of vomiting are rare and soon cease altogether.
3. Convalescence is shortened, and the patient is therefore able to resume his occupation more quickly.

Rotter also has abandoned drainage, with the following exceptions:

1. Cases in which there is a bleeding point which cannot be arrested.
2. When there is loss of peritoneal substance.
3. When the peritoneum is purulent and necrotic.
4. When there are budding surfaces covered by granulations.

The operators mentioned above practise either flushing or mopping out of the exudation from the peritoneal cavity in cases in which drainage is not employed.

My own practice is to use a combination of cigarette drains and rubber tubes. When operating in a case of septic peritonitis due to appendicitis, I put a cigarette drain down to the site of the appendix, and then make a small suprapubic opening, and insert a split rubber tube, containing a small piece of iodoform gauze, into Douglas' pouch. In early cases I have frequently passed a cigarette drain down from the inguinal wound, along the side of the pelvis, and into Douglas' pouch, without making a second incision. This method is undoubtedly sufficient in many cases, and drainage introduced in this way should give less likelihood of troublesome adhesions.

(*To be continued.*)

STERILIZATION AND OTHER INTERESTS

By James S. Sprague, M.D., Perth, Ont.

In this, our Province, which we claim as the ideal, the banner Province of our Dominion, we must admit that we, although loyal to the traditions, history and institutions of the mother country, are principally the copyists of our republican and near cousins, even more so than they are copyists of the same mother land. The lessons afforded us by our neighbors' failures and successes in education, and especially in interests which relate to our profession, are worth much study, and the Carnegie Bulletin literature is very faithful in criticism, praise and censure. The indifference with which our profession exercised itself when Still's cult was heralded and allowed to assume a name, is now being realized by the regular profession, and it is apparent, evidently so, that Flexner has had to mark *commercialism* on the walls of its colleges. Yet we, in our fair Province, not heeding this lesson, are, through the indifference and ignorance of our lawgivers, allowing this cult and its first cousin (which it is needless to designate) an existence.

If one learns, as he should, to avoid blunders by the mistakes of another, our Province and our Dominion have in such cheap cults learned, or should learn, many lessons, unless education is a burlesque.

I may state that, during practice—commencing in 1869—it has been my sad duty to be present on three different occasion in the capacity of accoucheur-in-chief for three idiotic unfortunates. It has been much more grievous for me during many long years to meet such fruit of the womb, who have been, and ever will be, a burden to their keepers, and who, no doubt, will be the propagators or passive factors in the reproductive acts in furnishing inmates for our Houses of Refuge and other safe receptacles for undesirables. From *Med. Summary* (of which journal I am a regular contributor) I present a late contribution:

> At least eight States now have laws providing for the sterilization of feeble-minded and certain criminal types. Many other States are preparing to adopt laws to this effect. Indiana was the pioneer in this movement, and has given it a pretty thorough try-out. The operation of vasectomy is almost painless and does not deprive the individual of his desire or capacity for sexual congress; it only inhibits his ability to procreate.

> When the whole subject is viewed from a practical point of view the arguments for sterilization of the mentally defective seem greatly to outweigh the sentimental reasons advanced against it. Many inmates of institutions for the feeble-minded could be kept safely at their homes and help to earn their own living were it not for the opportunity to reproduce their own kind which such liberty would give them. Considered in all its various aspects, it would seem that the most practical plan for the elimination of the feeble-minded strains should judiciously combine the methods of sterilization and segregation.

Yet our newspapers tell us, when a fair representation of women waited on Sir James Whitney—and their petition favored the interests above named (if my recollection of the item is correct)—the deputation did not secure the promise that "the subject would be taken into deep consideration and interest." Oh, no!

It is our belief that the Holstein Breeders' Association delegates would have been more knightly received, and promises and pledges would have been given. It is plainly the duty of us, learned in Medicine and in the interests of Public Health—the greatest of all interests—that we educate, yes, teach, those of our legislators who are ignorant in regard to such great movements, that these movements tend to lessen the supply for our asylums, prisons, criminal courts and refuges for the weaklings and undesirables. To me—and to any observer who takes time to think—the immense and ever-increasing demand for asylums for the degenerate class, which is rapidly multiplying, is a sad reflection on our national education in laws of health—in brief, our National Boards of Public Health. It is needless for me to refer to statistics, in fact, to an illustration with which, no doubt, you are well acquainted. I refer to a Pennsylvania marriage, which dates from a period nearly one century ago, and the result of this marriage of two outcasts has cost the commonwealth many thousands in money; has filled many jails, asylums, and not one cent in taxes have their progeny given to the treasury or added to the wealth of the nation.

Not long since there died in this Province a man whose merits as a public servant we knew, whose merits our papers justly named. Yet he, whose history I knew, was wise, inasmuch as he, evidently knowing certain mental weaknesses as characteristic of his family, declined to let our country have or to leave any possible degenerates to bring dishonor on his hallowed name.

In any municipality within this Province there can be segre-

gated a more or less closely related body of imbeciles or weaklings, to whose numbers there are made from the outside communities many additions, which, as regards breeding capacity, are not eclipsed by the ringleaders of the original pack. I have, in different communities, seen groups of these half-civilized and demented creatures, harmless, wandering and brainless, and well considered as outcasts, whose survival is a mystery, and to whom education would prove as encouraging as to the Hottentot; and yet, like rabbits, they propagate, and it is no one's business if they do—so says the law.

The petition herein referred to—presented by women principally—considered the advisability of the requiring of the certificate of health and freedom from sexual disorders, not forgetful of hereditary troubles, to be furnished by a regular practitioner in medicine, to the contracting parties in marriage. It is needless to state that this petition, embodying in a sense that heretofore named, was not considered, although several States require such certificates, and the Church, too, is arousing itself, even announcing the great necessity of such certificates, if we want to preserve mankind and keep sanity and health in the supremacy. It is honesty and not pedantry that prompts when one who has witnessed struggles and conditions tells his story, especially so when our country's interests are in the balance and our legislators are not versed in these vital interests and need our teachings.

Gellius, in his *Noctes Atticæ*, tells us very truly, and with the apology my writings are submitted: *Earum proprie rerum sit historia, quibus rebus gerendis interfuerit is qui narret.*

The considerations and interests, national, herein named are those calling for more than passing notice, and are promulgated by our fellows in practice for no selfish ends, and the necessity for action is no greater than in the past. One belief is to the effect that there will arise, at an early date, public concern which will arouse those in office, and who frame our laws, to do the right thing at the right moment, resting assured with the fidelity of our profession in the work,

"Festinare nocet, nocet et cunctatio sæpe,
Tempore quæque suo qui facit, ille sapit."

"None but the pure in blood should be allowed to propagate" should be in large type, and should be named in the statutes of every civilized land. It is an opinion of careful observers—better still, a belief after careful and prolonged study—that every man who has gonorrhea should be castrated. Why? Because statistics

tell us that nearly 85 per cent. of abdominal operations in women are due to the infliction from some "ovary"-caused disease, and no man so diseased has any right, says Heffner of Bellefontaine, Ohio, to endanger the life of your daughter or mine, nor her health. The laws of a few States require gonorrhea cases to be designated "communicable," and every doctor to report such cases to the nearest public health officer.

"He that sinneth let him fall into the hands of the physician," says the apocryphal Ecclesiastes, for "there is a time in their hands there is good success," and he "whose blood—which is his life—is touched corruptly, or even his own pure brain—which some have vainly supposed was the soul's frail resting-place"—must learn that "He has given men skill that He might be honored in His marvellous works." Wouldst those eyes, Oh, young man, made to behold, unabashed, God's works, God-like as thou art, born in purity, but behold thyself, defamed, polluted, when ensnared by her on whose form thou hast fed, whose wilful moods will change into, and as do the beasts of the jungle?

Wilts thou have thy bones gnarled, pitted, pierced and twisted? If not, remember "that violent delights have, too often, violent ends, and in their triumph die; like fire and powder, which, as they meet, consume" soul and body.

In the Montreal address of Dr. Abram Jacobi, of New York, (made in 1905), we find these words: "Wutzer was, like Fournier and Erb after him—perhaps even more so than they—a great believer in the ubiquity of syphilis. With his twinkling eyes, he would look up to us, suggesting that 'everybody is a little syphilitic,' and many there are of similar credence."

Libera nos e malis et morbis ossium.

Hodgkin's Disease. —James Dudley Morgan (*Medical Record*) says as to the treatment of this disease that permanent improvement, either from surgery or medicine, cannot be looked for. The complete removal of the glands or their enucleation is invariably followed by recurrence, either at the former site or in some other region. The giving of arsenic in gradually increasing doses, as recommended by Nélaton and endorsed in the writings of Billroth, is still the practice of to-day, and is one of the very few remedies showing any actual benefit. The X-rays should always be tried, as they reduce the swelling and retard new developments; unfortunately, on cessation of the treatment, the growths recur, and treatment has to be again instituted.

THERAPEUTIC NOTES

Fractures.—W. Bartlett (*Boston Med. and Surg. Jour.*) gives the following indications for the open treatment of fractures: 1. When a leg case must be gotten out of bed early; (2) old cases of non-union or *extreme* malunion. (3) This treatment is desirable in all fresh, widely-open fractures if shock be past. (4) Chronically infected cases, in which the bones lie bare. He further states all compound wounds, whether suppurating or not, are to be packed and allowed to granulate. The patient must be a good surgical risk.

Typhoid Fever.—W. N. Johnson and C. C. Watt (*N. Y. M. J.*) treated sixty-five cases of typhoid fever during the recent epidemic in Germantown, Pa., by the milk-free method. The diet treatment consisted of broths, soups, gruels, gelatin, eggs, sugar of milk, and butter. In the opinion of the authors, this treatment was the cause of the low percentage of cases with diarrhea, distension, hemorrhages, and the absence of perforations. Milk was only administered in the convalescent stage, and great reliance was placed on gelatin given *ad lib.* Gelatin lessens the tendency to hemorrhage, and should be immediately stopped if venous thrombosis occurs. Out of the sixty-five cases treated, there were only four deaths, a mortality a trifle above six per cent.

Inoperable Cancer.—Sir A. Pearce Gould (*The Lancet*) discusses this under two headings: (1) The general treatment of cases of inoperable cancer; (2) the special treatment of cancer other than by operation for its removal. Physical and mental rest in the first is emphasized, and strict cleanliness is to be observed. Simple diet, easily digestible, varied, and total abstinence from all alcoholic liquors are essential, as well as regular action of the bowels. After referring to palliative operations, the author says of X-rays that by the use of these he has seen foul ulcers cleaned, and some healed entirely. To the action of radium the following have responded favorably: Adenocarcinoma of the abdominal wall, malignant growth of the superior maxilla, tumor of the parotid gland, sarcoma of the femur, and a malignant growth in the right groin.

Oral Treatment in Infectious Diseases.—C. Everest Field (*Medical Record*) calls attention to the neglect of oral treatment in infectious diseases, and emphasizes the importance of seeing that the minutest instructions as to the care of the mouth are carried out. At least twice daily the nurse should cleanse the teeth, and rinse or swab out the mouth before and after feeding, with a stimulating alkaline antiseptic solution. The complications will be fewer, less self-infection, and the patient will feel grateful because the food will taste better and the appetite will continue to be good. The mouth may be laden with millions of bacteria, and it does not seem rational treatment to carefully select the food, and pasteurize the milk when it has to pass through a mouth which is allowed to remain dirty.

Pelvic Inflammations.—H. Chapple (*The Lancet*) has applied the autoinoculation treatment in cases of bilateral chronic salpingo-oöphoritis with a very definite history of gonococcal infection. This procedure is along the lines of the now generally accepted theory that an increased blood supply to an infected area causes the liberation of an increased quantity of toxins into the general circulation, thus producing an autoinoculation with the product of the actual offending organisms. The desired pelvic congestion can easily be produced by electric lamps suspended from a cradle surrounding the patient's pelvis only. By this means the temperature can be raised gradually to what the patient can bear; and in a few days it can be brought to 180°, when the patient is submitted to this for a half hour.

Pernicious Anemia.—Crofton, Chicago, knowing these patients suffer with achylia, believes the HCl treatment is pure substitute therapy. He administers 15 drops of the strong acid each meal. In three cases cured the achylia persisted; therefore, HCl must be taken off and on. In fourteen cases treated, he has noted marked improvement. In Europe, Hess has published good results from HCl and high protein feeding.

Hemoptysis.—Samuel Blumenfeld (*Merck's Archives*) considers hemoptysis is a symptom indicating some bronchial (especially the smaller bronchi) blood dyscrasia, pulmonary or cardiac disease. After the cause has been ascertained, where possible, the

treatment should aim first to stop the bleeding, and if severe, the patient must be kept as quiet as possible. Rest is of prime importance. If the patient is frightened the fears should be allayed. Talking should be prohibited, and the patient put to bed with head and shoulders elevated, and this position maintained. In severe hemorrhage, with restlessness, a hypodermic injection of 1/4 grain of morphia, and atropia 1/100 grain, should be given. In many cases this will check the hemorrhage almost instantly. An ice-bag applied over the precordia lessens the rapidity of the heart and lowers blood pressure. Ice is prescribed if hemorrhage recurs after the doctor leaves the bedside. Blumenfeld finds calcii lactatis ʒijss in xx powders every three hours of value. Also the following: Stypticini, grs. x.; plumbi acetatis, grs. xx.; pulv. digitalis, grs. x.; pulv. opii, grs. v., divided in ten pills—one pill every three hours. When vomiting occurs, he prescribes anesthetin, grs. three, with calcium lactate, grs. vii. Food should be cool, nourishing and non-stimulating.

Syphilis.—Lancelot Kilroy (*The Lancet*) gives his experience in 1,000 cases of syphilis with Salvarsan, in the Royal Naval Hospital at Plymouth. Mercurial treatment is carried out in this hospital during the whole time the patient is an inmate. The only days on which mercury is not given are those on which the patients receive their injection of Salvarsan. No Salvarsan is given in cases of heart disease, albuminuria, diabetes, advanced tabes and general paralysis of the insane. Two doses are given in all cases unless contra-indicated; and a third, and more rarely, a fourth, in resistant cases. Injections were given 2,147 times. No deaths occurred; 17 cases received only one injection; 865 cases, two; 75, three; 40, four; three, five injections. The reactions on the whole were mild, the great majority showing no rise of temperature. Vomiting was fairly common, but rigors were rare. It was noticed the moister the lesion the more rapid was the effect. The patients were prepared for Salvarsan as for an operation—diet, aperient, enema, etc.—no food three hours before and none for four hours after operation. The method of administering the Salvarsan was with Emery's apparatus, with special needle made of tantalum fixed in a modified McDonagh's holder, supplied by Allen and Hanbury. So far about 50 per cent. of the cases that have been examined three months after operation have been negative. It is too early for precise details.

Fractures.—James B. Maunell (*The Lancet*) read a paper on "Mobilization and Massage" in the treatment of fractures before the Medical Society of London, England, January 13th. Lucas-Championnière was the pioneer in this method of treatment. His book was reviewed in these pages some months ago. His methods have been developed by others to include other forms of recent injury, accidental and post-operative, to almost every form of case in which massage forms an integral part of treatment. The massage consists of slow, light, rhythmical stroking in the neighborhood of the injury, the movement being a caressing one—a mesmeric pass—avoiding scrupulously the actual site of the injury. The dose of mobilization must be meted out with care and accuracy, and it consists of two elements—passive movement and active movement—actively relaxing the part when the dose of passive movement is being administered. "Movement is life" is the axiom underlying this treatment. This massage attempts, through reflex action through the nervous system, to restore the tone of the vaso-motor system. Pain and spasm disappear. A severe Colles' fracture has been restored to perfect movement ten days after injury, but, of course, not to perfect strength. A ballet-girl, after fracture of the surgical neck of the humerus, has taken part in rehearsals in three weeks. By this method, Mennell says, a fortnight should suffice for the restoration of a patient who has dislocated his shoulder. As a cure for insomnia, the stroking massage is unrivalled. In neurasthenia, its success is most striking.

Ocular Headaches.—Aaron Bray (*N. Y. M. J.*) says that headache is the most common ill that human flesh is heir to. These patients soon learn how to treat themselves; and as most of the headache preparations on the market have for their basic constituent some coal tar product, temporary relief is soon secured if taken in sufficient quantities. The effect is soon transferred to the nervous system, and in time weakening the cardiac musculature. The physician, when consulted by these patients, generally adopts this usual mode of treatment, at least in ninety per cent. of the cases. Of course, under the physician's care, the danger of overdose is somewhat lessened. Bray claims the physician does not often think of an error of refraction, or eye-strain that requires correction. Then the patient drifts to the optician, who is absolutely unable to cope with the situation, as it is not only essential to correct any existing error of refraction, but it is of the utmost importance that the equilibrium of the muscular apparatus be estab-

lished wherever any disturbance exists. Bray's study of several thousand cases teaches him that fully 80 per cent. of chronic sufferers from headache can attribute their trouble to some faulty optical condition that can be corrected by the man who is efficient in that work. After the optical error has been corrected, if the sequelae of a protracted headache are still present, hygienic, dietetic, and tonic measures must engage the physician's attention. The moral is that physicians should send these cases to the oculist early.

Defects in Urethra.—Muller (*Deut. Med. Wochen.*) has obtained good and satisfactory results in one case of traumatic and four cases of gonorrheal strictures by extirpation and transplantation. He covered the defect by a Thiersch skin flap, thus forming a new urethra by suturing the edges over a thick Nelaton's catheter. In two of the cases a small fistula formed.

Fever of Tuberculosis.—W. Nieveling (*Deut. Med. Wochen.*) uses hydropyrin Grifa, a watery solution of lithium salts of acetylsalicylic acid, substituted for the sodium salicylate, in the Hoedemaker pills, in the treatment of the fever of tuberculosis. He finds it reduces the fever gradually within three weeks without harmful side actions. About 250 pills are necessary to produce the desired effect—three to four pills three times a day. They are given one to one and a half hours after meals.

Ozena.—G. Mahn (*Presse Medicale*) says paraffin yields benefit by compressing the glands of the mucosa, thus preventing them from secreting the purulent and fetid fluid generally found, and not by diminishing the excessive air spaces in the nasal cavities. Nasal lavage should be followed by spraying with an antiseptic solution of lactic ferments. Paraffin injections should be practised in all cases except where atrophy of the mucosa has reached its last stages. It should be limited to the inferior turbinates and the floor of the nasal cavities. Injections into the septum have caused unpleasant results. Any general infection or sinusitis must be overcome before these injections are used. Avoid injecting into the head of the inferior turbinate at first; begin farther back. The injection should be controlled by visual observation of the mucosa. The amounts injected should not exceed 0.5 c.c., and frequent treatments given. The paraffin should be friable and the instrument heated.

Reviews

The Principles and Practice of Obstetrics. By JOSEPH B. DELEE, M.A., M.D.; Professor of Obstetrics at the Northwestern University Medical School; Obstetrician to the Chicago Lying-in Hospital, etc. With 913 illustrations, 150 in colors. $8.00. W. B. Saunders, Philadelphia and London; J. F. Hartz & Co., Toronto.

This book is without doubt one of the best books ever published in America on Obstetrics. The needs of the student, and more especially the general practitioner, are carefully kept in mind. Sufficient of the scientific side of the subject is given, and sufficient references to the recent literature of the subject is provided. The subject matter of the book has been divided into four parts:

1. The Physiology of Pregnancy, Labor and the Puerperium.
2. The Conduct of Pregnancy, Labor and the Puerperium.
3. The Pathology of Pregnancy, Labor and the Puerperium.
4. Operative Obstetrics.

The discussion of division one is clear and concise, with just enough of the scientific side touched upon. In division two the conduct of labor, etc., the proper use of the anesthetic is discussed in a most thoughtful manner. The author prefers ether.

On the preservation of the perineum the author also shows his great good sense when he suggests the thought whether one should be so solicitous about the preservation of the perineum at the risk of injury to the child's brain from unduly prolonged delay at this stage. The author very properly states that the pelvic diaphragm and not the pelvic floor is the thing to preserve, save the levator ani muscle.

The operation of episiotomy is advised to avoid great tearing of the pelvic floor.

In the management of the third stage the author advises against too great haste in expelling the placenta from the uterus. The separation should be allowed to go on naturally without much massage of the uterus, unless hemorrhage is taking place. This prevents much bleeding later. This is good advice.

As to the toxemias, the author, I am glad to note, says that marked albuminuria, plus casts and blood, are the rule in true eclampsia; to the reviewer's mind this is the best test for the general practitioner, the so-called refined tests of the urine for amount of urea, etc., are useless.

Then as to the management of placenta previa, for the general

practitioner there is really only one safe procedure, Braxton Hicks method of version; all other methods, such as metreurysis, Cesarean section, etc., should be left to hospitals.

As to puerperal infection some excellent advice is given. The danger of air infection as stated by Mackenrodt is emphasized. Also the husband as a source of infection. The author suggests a division of the cases into three groups, viz.: 1, those of toxinemia; 2, those of bacteriemia; and 3, those of metastatic bacteriemia, or pyemia.

As to treatment the author advises against all local treatment, such as intra-uterine douching, digital removal or curettage, unless the patient is having uterine hemorrhage, when he packs with iodoform gauze. Only when the temperature has been normal for say 10 days does he explore the uterus.

This, though radical, is sound advice.

Operative obstetrics is also dealt with in the same thoughtful manner, and the methods suggested or advised are described in the same clear style. The illustrations are original, in many instances, helpful and well executed. The book is well printed on good paper, and reflects great credit on the publishers. Altogether the book should be more valuable both to the senior student and the general practitioner. A. C. H.

International Clinics. Vol. 4. Series 22. 1912. J. B. Lippincott Co.

To discuss all of the twenty-seven papers in this edition of the clinics would be difficult, if justice were to be done equally to all, but it is necessary to refer to the most valuable papers.

Steinhardt describes in detail his methods of treating weak feet by strapping, exercises, manipulation, boots and apparatus. He gives a classification and includes the diagnosis and furnishes from every standpoint a most excellent paper.

Wilkie, of Edinburgh, writes on "The Prognostic Value of an Immediate Examination of Peritonitic Exudates." He shows by plates and in descriptive language how it is possible to judge from smears made during an operation as to whether the prognosis is favorable or not so. This is easily arrived at by noting the relative numbers of leucocytes, microphages and germs present in the stained smear.

Berkeley, of New York, treats "Paralysis Agitans by Parathyroid Gland." He believes the defective secretion from these glands are the cause of the disease, and he alludes to tetany as another parathyroid disease. His proofs for his contention are five: (1) The disease has the marks of being a chronic chemical poison-

ing. (2) Animals from which the gland is removed may show similar symptoms. (3) Thyroid gland diseases may be complicated by paraiysis agitano. (4) Autopsy results, and (5) Success in treatment.

Anderson, of Toronto, discusses "The Treatment of Diabetes." He believes in the glucose test by the urine as a valuable one, and divides his cases into mild, moderately severe and severe according to their reaction to a definite diet. Diet is the basis of treatment, and the urine must be freed from sugar and kept so—if possible.

Baumann, of Chicago, on "The Wassermann Test" says: Salvarsan given to a case with primary lesion and negative Wassermann shortens the time for a positive reaction. This is due to it injuring the individual. Salvarsan causes fatty degeneration in cases, and syphilitic cases of an uncured nature will increase in the next decade.

A brief reference to the other papers will now be given, showing the main detail in each article.

Abrams, of San Francisco, treats his exopthalmic goitre cases by percussion on the seventh cervical spine.

High blood pressure is relieved by pot.-iodide according to Dr. Russell, of Edinburgh.

Humner, of Baltimore, extols washing out the pelvis in pyelitis, while Burnet, of Edinburgh, a more conservative physician, abides by pot.-citrate as a rule and in preference to urotropine.

Green, of Louisville, concentrates our attention on gonorrheal proctitis, while laying stress also on the general infection that may follow this germ.

Gangloff writes on Dulcamara poisoning.

Brown, of Johns Hopkins, writes a short paper, on achylia gastrica, duodenal ulcer and chronic appendicitis as causes of indigestion, and remarks on the abdominal visceral ptosis, temperature elevations, leucocytosis, effect of exercise, taché appendiculaire, coxalyia, pain or sluggishness on urination, as signs of the chronic disease.

Walsh, of New York, discusses a case of occupation as a cause of nervous exhaustion, while Irwell, of Buffalo, believes that the cure of tuberculosis lies in prevention of descendants from those infected.

Bergonignan of Evians les Bains, discusses unusual signs in normal hearts, referring to the work of Huchard.

Eves, of Philadelphia, describes how he enucleates tonsils and removes adenoids, and calls attention to the pharyngeal tonsil as a sign frequently mistaken for hysteria.

A few additional papers conclude the issue, one of which is occupied by a full and interesting account of the Rockefeller Institute.

Brain and Spinal Cord. By Dr. Med. Emil Villiger. Translated By George A. Piersol, M.D., ScD. J. B. Lippincott Co.

This well-known work by Villiger is one of the most compact and well arranged anatomies which is devoted to the nervous system.

Part I is devoted to the examination of the Brain and Cord as to general configuration, and gross anatomy. In doing this, the author has used great skill in making every part described easily identified by the reader.

Part II takes up the Fibre Tracts and is equally well written.

Part III is pictorial, and takes up serial sections of the Brain Stern.

The whole book is a splendid addition to the general works on anatomy, and is suitable for students as well as physicians.

Chloride of Lime in Sanitation. By Albert H. Hooker, Technical Director Hooker Electrochemical Company, Niagara Falls, N.Y. New York: John Wiley & Sons.

Within recent years the employment of chloride of lime in sanitation has advanced to such a degree that a book founded upon exact data bearing upon its uses would seem to be the logical outcome of the widely distributed and important information which could be collected upon the subject. Mr. Hooker, having undertaken this task, has brought together a large and valuable lot of information which sanitary scientists and health authorities will assuredly appreciate. Physicians who are local health officers will find this book of inestimable value.

Modern Wound Treatment and the Conduct of An Operation. By Sir George T. Beatson, K.C.B., B.A. (Cantab.), M.D. (*Edin.*), Surgeon Western Infirmary, Glasgow, Senior Surgeon, Glasgow Royal Cancer Hospital. Price, 2 shillings. Edinburgh: E. & S. Livingstone.

This is a small book of 106 pages, written in gratitude, reverence and indebtedness to the great benefactor of the human race, Lord Lister, whose portrait adorns the first page. There is an appreciative chapter outlining the life, personality and work of the great surgeon. The balance of the book is made up of three chapters as follows: Principles of Wound Treatment, Asepsis and Antisepsis in Surgery, Treatment of Accidental Wounds and the Conduct of an Operation. Surgeons and others will find that it has embodied essential facts commensurate with the modern advances in bacteriological science.

Cardio-Vascular Diseases. Recent advances in their Anatomy, Physiology, Pathology, Diagnosis and Treatment. By THOMAS E. SATTERTHWAITE, A.B., M.D., LL.D., Sc.D., Consulting Physician to Post-Graduate and other hospitals in New York. New York: Lemcke and Buechner, 32 West 27th Street.

This book may be considered as an up-to-date supplement of the author's well-known "Diseases of the Heart and Aorta," first issued in 1905. It consists of a series of monographs issued subsequently to 1905, now thoroughly revised and presented in book form. A good deal of space is devoted to modern sphygmomanometry, which will commend the book to physicians who have already adopted, or wish to adopt, this new and essential feature in diagnosis.

Muscle Training in the Treatment of Infantile Paralysis. By WILHELMINE G. WRIGHT, Boston Normal School of Gymnastics. Price, 25 cents. Boston, 101 Tremont St., W. M. Leonard.

This booklet or thirty-two page reprint was originally published in *The Boston Medical and Surgical Journal,* October 24th, 1912, and so great has been the demand for copies of that issue that it was decided to publish it in booklet form at the nominal charge of twenty-five cents. The explicit details make it of the utmost value, and no one who has had or who now has any of these cases should be without it. It is practically the only set of definite directions in the treatment by exercise of the conditions following paralysis.

Psychanalysis: Its Theories and Practical Application. By A. A. BRILL, Ph. B., M.D., New York. Philadelphia and London: W. B. Saunders Co. Canadian Agents: The J. F. Hartz Company, Toronto.

So widespread is the interest in the understanding of hysteria, neurasthenia and allied border line manifestations, and so different are the opinions held in the medical profession with regard to them that a book which goes into the subject as thoroughly as this of Dr. Brill deserves a good reception at the hands of the profession. Whether the author as does the originator of the sexual repression idea, Freud, places too much emphasis thereon as the essential causative factor in these conditions can only be determined by those who have large numbers of these cases to study and observe. The chapters on dreams and wit will prove especially interesting.

Dominion Medical Monthly

And Ontario Medical Journal

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COMMENT FROM MONTH TO MONTH

The Canadian Medical Protective Association has sought incorporation on Bill known as No. 89. This came up for its second reading on Monday, February 24th, when a discussion took place which required twenty-two double-column pages of Hansard to report it. With some slight alterations the Bill was reported and read the second time.

The discussion was illuminating, but a careful reading of the report would not warrant the shrieking editorial which appeared in *The Globe* of recent date. It served, however, to uncover the obsequious demeanor of *The Globe*, and to give opening to another unwarranted, wholly vicious and officious attack upon the Ontario Medical Council. Being a federal measure, applying to each and every province, *The Globe* simply went out of its way to single out and jab any particular medical council. It was an exhibition of obstinate sulkiness unparalleled.

The Canadian Medical Protective Association has now been in existence since 1901 and practically the cream of the medical profession of Canada is enrolled in its membership. Its portals are so guarded that no one but he who conducts himself as an honorable man could gain admittance.

Why this unseemly and savage attack by *The Globe* on such a

high-minded body of men, wholly unwarranted from the discussion in Parliament?

Mr. Burnham accepted the Bill if it applied to the members of the Association incorporated.

Dr. Chabot, Ottawa, the sponsor of the Bill, early gave that assurance.

Mr. Emmerson opposed it simply on the grounds that it was purely a provincial matter.

The storm arose over the clause: "To encourage honorable practice and assist in the suppression and prosecution of unauthorized practice."

This was taken to mean the osteopath in particular.

Mr. Emmerson stated he was not competent to discuss osteopathic treatment.

Mr. Henderson also took exception to the word "unauthorized," although he stated he was led to believe osteopathy was not an authorized practice in Ontario. As he said: "*In the small county that I have the honor to represent, in one small section of it there are a number who protest very strongly against the provision of this Bill.*" The reader may contrast this number in a small section in a small county with 800 to 900 medical men, some with world-wide, international, national, and practically all with good local reputations. Mr. Henderson does not believe that the giving of drugs is unscientific.

Mr. Hazen could not see that the Bill aimed at either osteopath or homoeopath and considered it would be an injustice not to grant the incorporation.

Mr. Knowles opposed the Bill in strong language. He said: "There is no member of this House who has not the utmost respect for an honorable practitioner, but I do not know of any field where there is more room for a dishonorable man than in medical practice. . . . I am not attacking the medical profession, not in the slightest."

Mr. Nickle suggested "illegal" for "unauthorized." His association with medical men has been of the best.

Mr. Henderson replied: "Unauthorized practice and illegal practice are two very different things. I do not think that the osteopath is practising illegally, but his practising is not authorized."

Mr. Nickle returned: "I feel sure none of us want to give countenance to that which is improper or illegal."

No rejoinder to this. Would "unauthorized" be improper?

Mr. Knowles explained: "Every member of the medical profession with whom I had to do has been above suspicion."

Mr. Emmerson: "The very first by-law says that the object of this association is to protect its members from prosecution where such action appears to the counsel and solicitor, as well as to the committee in charge, to be unjust, harassing or frivolous."

Mr. Edwards: "This is exactly the object of the Bill."

Mr. Emmerson: "I am not assailing the medical profession, but I would not give to any body of men in Christendom the powers that are sought to be given here."

Mr. Thompson (Yukon): "Then it does not conflict with any existing provincial legislation?"

Mr. Emmerson: "Not that I am aware of."

Mr. Edwards: "Would it be proper legislation for a provincial legislature to pass?"

Mr. Emmerson: "Yes, within the province itself." Mr. Emmerson subsequently explained it was proper legislation to go before a provincial parliament.

Mr. Edwards: "I do not think any one would argue that it is advisable to have unauthorized practice going on in the country, nor do I think any one should contend that there can be anything wrong in a body of men joining together for mutual protection when proceedings are brought against them unjustly. We have the right to assume that if this association is incorporated, the members shall place on that committee, not humble or inferior members of the profession, but men who have made their mark, men who have a reputation."

Mr. Thompson (Yukon): "I desire to resent the imputation my honorable friend (Mr. Knowles) made as against the medical profession of Canada in his remarks this afternoon. I venture to say that the medical profession of Canada stands as high as any other profession in this country. It has done its share in the development of the country, especially in caring for the health of the people and establishing the hygienic conditions existing . . . throughout many of the cities of Canada."

Mr. Knowles: "I did not impute any improper motives. I spoke highly of the medical profession, the members of which do not need any defence from the honorable member."

Mr. Doherty: "I cannot see the force of the contention of the honorable gentleman (Mr. Emmerson) that this is a purely local and private matter within the province. The power of incorporation generally rests with the Parliament of Canada save in exceptional cases where the objects of an association are purely provincial in nature. . . . I would be disposed to hold that the legislation was within the constitutional power of this Parliament."

Enough of this discussion has now been given to show that all members of the House of Commons who opposed it did not, as *The Globe puts it* "with a plainness of speech, almost brutal in its disregard for the dignities of the medical profession, Parliamentarians on both sides joined in the attack, scattering phrases of rebuke and reprobation which the defenders of the profession seemed powerless to turn aside."

This stands out clearly that if either *The Globe* or members of Parliament know of any man in the medical profession of Canada who is guilty of "infamous and disgraceful conduct" they should speak out and name that man and not make these wholesale onslaughts upon the character of the Canadian medical profession in general.

It is not claimed that every member of the medical profession is above reproach, but it would be interesting to know in what interests this devilish, quill-driving, obtrusive venality on the part of a newspaper, is so persistently displayed and exerted.

THE HOSPITAL TRAIN

Upon the Atlantic Coast Line, Dr. Ch. Wardel Stiles, Hygienic Laboratory, United States Public Health Service, has recently been conducting experimental work of a rather unique character. Appreciating the advantages of out-door clinics and dispensaries as well as hospitals in cities to the poor, and knowing the disadvantages the poor in country places labored under in these respects, he thought out a plan of carrying these facilities as far as possible into the country districts. The railroad kindly reserved for him a two-compartment car, outfitted as a travelling hospital and laboratory. With one or two assistants and a nurse, Dr. Stiles carried on his work for two months. He covered a territory of seven county schools in one county, the children coming at 4.30 p.m. and remaining under observation until 1 to 4 o'clock the next afternoon. Although this experimental work was carried on along a particular line of work, people came from miles around seeking other medical and surgical aid. Dr. Stiles considers it feasible to send hospital trains into those localities which are not supplied with specialists on the eye, ear, nose, throat and gynecology. The great mass of poor country people will never have proper medical or surgical relief unless it is taken to them.

Editorial Notes

THE FRIEDMANN CONTROVERSY

There has been considerable discussion recently in the lay press and to a certain extent in current medical literature, about the new vaccine cure for tuberculosis originated by Dr. Friedmann of Berlin. Judging from the comments of those who are properly qualified to express an opinion regarding the intrinsic merits of the treatment, it must be concluded that the burden of proof still rests with Dr. Friedmann. As it often happens in matters of this kind an individual may, in the excitement of the moment, make statements and claims which are difficult to substantiate as time goes on. This has been the course of events in only too many therapeutic measures which have at first been heralded with great acclaim. No person, realizing the possibilities of modern science, would be so bold as to state that a cure for tuberculosis cannot be found; but knowing what we do of this disease and the history of its therapy it is only reasonable that we should maintain an attitude of more or less skepticism toward any remedy which has not undergone a thorough and prolonged trial. In tuberculosis the element of time is a highly important factor in determining the efficacy of treatment, as many cases improve temporarily only to suffer a recurrence at a later date.

Undoubtedly Friedmann's work awaits confirmation or refutation by other investigators and it is fortunate that he is in a country whose medical men are quite competent to analyze his data, repeat his experiments and pass judgment thereon.

Friedmann's original article appeared in the *Berliner Klinische Wochenschrift* of November 18, 1912, and apparently was in the nature of a preliminary report.—*The Post-Graduate.*

The following will be of interest in this connection:

"Like most investigators who have sought vaccines for bacterial infections, Friedmann came to the conviction that the most potent curative and immunizing powers lie in the living bacterial organism itself, and not in the dead organism as used in the method of Wright and his school. Furthermore it is obvious that such a living vaccine must be avirulent. After many years of observation and experiment, Friedmann finally obtained a stock of tubercle bacilli, which, by repeated culture and passage through animals, became entirely avirulent for the human organism. Under pressure, Friedmann ad-

mitted in the discussion that his bacillus was derived from one of the cold-blooded animals, the turtle.

After demonstrating by injections into animals and even into himself that living vaccines derived from this bacillus were entirely harmless, he began to inject these vaccines into patients afflicted with various forms of tuberculosis. After trying various ways of injection, Friedmann finally concluded that the best results were obtained by what he calls: 'Simultaneous injection'—*i.e.*, one dose injected directly into the veins at the elbow, the other intramuscularly. The intravenous injection is not followed by any local manifestation, but the intramuscular injection, *in favorable cases,* is followed by a local induration which slowly disappears. These injections are repeated at intervals of a few weeks, as many as half a dozen being sometimes administered. In advanced cases of tuberculosis, the induration disappears rapidly. Such a rapid disappearance is regarded by Friedmann as an unfavorable omen.

The remedy has now been used by Friedmann and his workers the past year or two in 1,182 cases of pulmonary and surgical tuberculosis. Friedmann offers no statistics, he merely states that after one, two or more injections, all cases of tuberculosis except those far advanced are completely cured. As proof of his claims, he merely contented himself by presenting in the course of his address a number of cured cases, the recital of which is highly impressive. For instance, he reports a case of knee tuberculosis in the advanced stage, with fungous granulations and six deep fistulæ, completely healed after two injections. He showed cases of laryngeal tuberculosis completely healed after three injections. He demonstrated various other cases of tuberculosis of the lungs, genito-urinary tract, lymphatic system, eye, skin, etc.; many cured; all favorably influenced.

It is only a short step from cure to immunization, and Friedmann has already started on this problem on an extensive scale. He has thus far vaccinated 335 children, ranging from the newly born to the age of three years. Most of these children had tuberculous surroundings, and although some of the children were injected over a year ago, in not one has tuberculosis developed. Manifestly, no definite conclusion can be drawn from this as to the immunizing power of Friedmann's remedy. One thing was surely demonstrated by these observations, both of Friedmann and his co-workers, namely, that the injection of the avirulent living bacilli was entirely harmless.

Friedmann's address is naturally tinged by copious optimism and enthusiasm and affords very little opportunity for a well balan-

ced judgment of his work. That is why we followed the discussion of his paper with perhaps greater interest than his original thesis. The expressions of those who took part in the discussion may be grouped in four classes: first, the enthusiastic; second, praising with reservations; third, mildly critical; fourth, expectantly conservative. It is interesting to note that, with one or two exceptions, those who praised the remedy were those who had actually used it. No one deliberately said that the remedy was of no avail. The largest part of the criticism came from the laboratory workers, such as Citron. These directed their main attacks upon, what to us seems the weakest part of the exposition, the admission by Friedmann that animals immunized by his vaccine did not recover, as was to be expected, although they lived more than twice as long as those that were not immunized. Others criticized Friedmann, some rather bitterly, because he refused to divulge the details of his remedy and his methods. To our mind Friedmann was fully justified in his course. Had he reserved the remedy to his own use the case would be different. He freely gave the remedy, however, to a large number of clinicians in Berlin. We need only think of the possibilities of injudicious preparation and administration by both well-meaning and unprincipled persons to appreciate that Friedmann is perfectly right in keeping the secret to himself until his method is placed on a surer footing. Ehrlich keeps the preparation of Salvarsan a secret, but we have heard of no criticism of his action. At all events, Friedmann promises a detailed publication in the near future."—*American Jour. of Surgery*, Feb., 1913.

HISTORICAL MEDICAL EXHIBITION, LONDON, 1913

Among other historical medical objects of exceptional interest that have been secured for the Historical Medical Exhibition, organized by Mr. Henry S. Wellcome, and which will be opened in London during the meeting of the International Medical Congress in the coming summer, are many personal relics of Dr. Edward Jenner, the discoverer of vaccination. These include the original lancets and scarifiers he employed during his first experiments, his case and account books, his snuff box, medicine chest and many other interesting articles. A large collection of autograph letters of Jenner's, some of unique interest have also been loaned, together with the armchair from his study and in which he died. Other objects connected with the life of Jenner are also to be exhibited including many valuable portraits of himself and family, painted at different

periods, the illuminated addresses presented to him together with the freedoms of the cities of London and Dublin, also medals, and other documents of special interest.

Concerning the history of anesthesia, many interesting relics are to be exhibited beginning with the original autograph journal and manuscripts of Henry Hill Hickman, F.R.C.S., the discoverer of the application of the principle of anesthesia by inhalation for surgical operations, which he proved by actual experiments on animals in 1823. Personal relics of Sir James Simpson, and some of the earliest forms of apparatus for administering chloroform and ether will constitute an exhibit of more than usual interest.

Those who may possess any objects of a similar character connected with the history of medicine and the allied sciences, and who would be willing to loan the same, should communicate with the Secretary, 54A, Wigmore Street, London W., who will be pleased to forward a complete illustrated catalogue to anyone interested.

ELECTIONEERING SPEECH ON VACCINATION BY SIR VICTOR HORSLEY

The *Leicester Daily Mercury*, February 1st, gives an extended report of a speech delivered on December 31st by Sir Victor Horsley, at Wigston. The report contains this reference to his remarks on vaccination. Needless to add, Sir Victor is candidate for Parliament in the division in which Wigston is situated:—

"Sir Victor proceeded to deal with the question of smallpox. Smallpox was personally communicated: it could not be carried in the air. The system of vaccination had been handicapped from the first, because it did not include re-vaccination. But a large proportion of the population now was not vaccinated. Yet smallpox was dying out. Why? Because they had such an efficient public medical service. Of half a million people who died, only 10 died of smallpox. So that the disease practically did not exist. Perhaps Dr. Millard's work in Leicester had been more striking than anyone else's. (Hear, hear.) If a case occurred all the medical officers were communicated with in the vicinity, and the disease was thus prevented from spreading. Each sanitary authority arranged that possible subjects should be medically visited at home. Now, as soon as a man felt unwell he would call in his medical man. The doctor would recognize the symptoms and then the disease would be kept from spreading. No vaccination method of protec-

tion was therefore now necessary. (Loud applause.) He could not understand all this bother about vaccination. It was clear that the Insurance Act, by providing for the visits of a doctor to the homes of the patients, had taken a great step towards the prevention of these scourges. Pneumonia, smallpox, and all these things would be stopped right at the beginning, because the doctor would be in attendance at the first."—*The Medical Officer.*

TOBACCO SMOKE

It seems to be now pretty well established that tobacco smoke has germicidal properties, possibly due to the pyridin it contains. This has been shown to be a powerful germicide. It is said in particular to have a rapidly destroying effect upon one germ, the comma bacillus. Pyridin is official in the French Pharmacopeia and is used in such conditions as asthma, emphysema, and angina pectoris, as an inhalation. It is also used in combination with peppermint in diphtheria. Experiments have also been made upon the bacillus of pneumonia which it is said to destroy. Excessive smoking, however, will produce constitutional weakening, a condition favoring most infections.

A NEW MEDICAL DEPARTURE

The apparent failure or surrender of the British Medical Association to the Lloyd George Insurance scheme has resulted in a cleaving process in the ranks of solid medicine in Great Britain. One result is the organization and creation of new bodies in different parts of the Kingdom. In one place—Reading—the news is that several medical men have formed themselves into a joint stock company to provide medical attendance, advice and drugs to residents of Reading who shall patronize this new joint stock medical association. This is, certainly, a startling innovation in the medical world, and demonstrates the growing tendency to commercialism in a profession which is being eaten up by charity. But what can the medical profession expect from the state which licenses them and then permits all sorts of quacks and patent medicine vendors who choose to exploit the people?

News Items

Dr. J. B. Coleridge has been elected Mayor of Ingersoll.

Dr. R. E. Davis; Ivy, Ont., has located in Horning's Mills.

Dr. Charles O'Reilly, Toronto, has sailed for Ireland.

Dr. Geo. R. McDonagh, Toronto, is on a trip to Australia and New Zealand.

The death is announced of Dr. J. Barclay, Cowansville, P.Q., at the age of 38 years.

Dr. McKay, M. O. H., Saskatoon, will travel for one year studying health matters.

Dr. W. T. Connell, Kingston, is mentioned as Medical Officer of Health for Ottawa.

Dr. Edward Ryan, Kingston, is mentioned for Senator to succeed Hon. Mr. Sullivan, M.D.

London, Ont., lost a prominent young practitioner recently in the death of Dr. E. Pardee Bucke.

Drs. J. A. Robertson and Lorne Robertson, Stratford, Ontario, have sailed for Egypt and the Adriatic.

Dr. Chas. J. Hastings, M. O. H., Toronto, has been elected President of the Great Lakes Pure Water Association.

Dr. Horace Bascom, Uxbridge, Ontario, has been appointed Clerk for the County of Ontario. He practised in Uxbridge for twenty years.

Dr. Emerson J. Trow, late Senior Resident Physician New York Skin and Cancer Hospital, desires to announce that he will begin the practice of diseases of the skin, 21 Wellesley Street, Toronto.

The following are the officers of the Kingston Medical and Surgical Society: President, Dr. W. G. Anglin; Vice-President, Dr. R. J. Gardiner; Secretary, Dr. W. T. Connell; Treasurer, Dr. G. W. Wylks.

A teacher of physiology, chemistry, physics, biology and bacteriology is needed to work in connection with the Presbyterian Mission Hospital Medical School and Leper Asylum at Miraj, West India. A man who has a knowledge of X-ray work is preferred. Christian men who wish to investigate this opening should send full particulars regarding their qualifications to Mr. Wilbert B. Smith, 600 Lexington Avenue, New York City.

Under the patronage of Field Marshal, His Royal Highness, the Governor-General, who has graciously consented to attend the first session, the Thirteenth Annual Meeting of the Canadian Association for the Prevention of Tuberculosis was held in the Association Hall, Ottawa, Wednesday and Thursday, 12th and 13th March, 1913, beginning on Wednesday at 10 a.m.

"A well-qualified Christian male physician is required for a new hospital in South China, near Canton, where there is great opportunity for Christian medical work. Other male physicians are needed for Central India, North Korea and North Honan, China. Lady doctors are required also for Korea, India and North Honan. Three nurses are needed for hospital work in these fields. Unlimited opportunity for Christian medical practice is to be found in these fields in the Orient, where the future medical profession is largely in the hands of the medical missionaries. Apply to the Secretaries, Presbyterian Foreign Mission Board, 439 Confederation Life Building, Toronto."

The Association of Officers of the Army Medical Services of Canada met in Ottawa February 25th and 26th and passed a resolution which will be forwarded to the Minister of Militia, asking that when a Lieutenant-Colonel of the Army Medical Corps has served his full five years in command, and is thereby retired, his time on the reserve shall count towards earning the long-service medal.

The reason of this is that an officer can go through all grades of rank in the Army Medical Corps and reach retirement in less than twenty years, thus having no chance of getting the long-service medal.

The meeting selected the following officials for the ensuing year: Honorary President, Hon. Col. Sam Hughes, Minister of Militia; Honorary Vice-President, Col. Eugene E. Fiset, D.S.O., Deputy Minister of Militia, and Col. G. C. Jones, Director-General of Medical Services; President, Lt.-Col. J. T. Fotheringham, Toronto; Vice-Presidents, Lt.-Col. R. Macdonald, Quebec; Major Geo. Campbell, Halifax, and Lt.-Col. H. R. Casgrain, Windsor; Secretary, Major T. H. Leggett, Ottawa; Assistant Secretary, Capt. Neil McLeod, Ottawa; Treasurer, Major McKelvey Bell, Ottawa; Council, Lt.-Col. H. R. Duff, Kingston; Lt.-Col. A. T. Shillington, Ottawa; Major R. L. Gardner, Ottawa; Major R. Law, Ottawa; Major G. Pelletier, Montreal, and Major Wallace Scott, Toronto.

In the afternoon meeting Nursing Sister Margaret Macdonald; Dr. D. Phelan, Kingston, Major Vaux, Lt.-Col. H. R. Casgrain and Major J. T. Clark read papers.

The annual dinner of the Association was held in the Chateau Laurier.

On the Treatment of Syphilis.—By Medical Councillor W. Wechselmann, M.D., Directing Physician of the Dermatological Section in the Rudolph Virchow Hospital, Berlin. As internal remedies, hydrarg, oxydrat, tannat. (01 gramme thrice daily in pill form), or hydrarg. iod. flav. (0.01 gramme to 0.02 gramme thrice daily in pill form), with addition of opium, is to be recommended; and more recently Mergal (hydrarg, cholate with tannin albuminate), in dose of three to six capsules daily. The last mentioned remedy appears to have no disagreeable by-effects, especially on the alimentary canal, and colic, renal irritation or debility do not occur, even when the preparation is continuously administered over a prolonged period. It might be recommended as a mildly acting antisyphilitic remedy, particularly in the slight manifestations, where vigorous treatment does not appear essential. Recent experience is much in its favor.—*Folia Therapeutica,* page 122, October, 1908.