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THE PROSPECTS AND VICISSITUDES OF APPENDICITIS AFTER OPERATION.*

By SIR FREDERICK TREES, BART, K.C.V.O., C.B., LL.D.

Surgeon to His Majesty, the King.

THE matters, Mr. President, which you have done me the honour to discuss arrange themselves under two heads :

1. The degree of imperfect relief, or of imperfect recovery after operation.
2. The complications which may attend operation, and which may be regarded as accidental or independent of the direct surgical results of the case.

I have based the comments upon these two topics, for the most part, on the records in my private case-books. The lamentable deficiencies in these records are, I hope, compensated for by the admirable series of statistics very kindly prepared for me by Mr. Hugh Lett from the registers of the London Hospital. These statistics cover a consecutive period and embrace 1,000 cases of operation for appendicitis. In addition to the colossal labour of transcribing the notes of these cases, Mr. Lett has addressed no less than 797 letters to discharged patients in order that the after history should be, in each instance, complete.

I believe that these particulars, collected with so much patience and care, will form the most important contribution which has yet been made to the statistics of this common malady.

In the account which follows I have kept the records of my own cases distinct from those collected by Mr. Lett, which latter are set out in coherent whole.

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—From *The British Medical Journal*.

I. IMPERFECT RELIEF OR IMPERFECT RECOVERY AFTER OPERATION.

In order that the issues may not be scattered over too wide an area it will be well to consider this question from the point of view of the operation performed during the quiescent period and that carried out for the relief of suppuration during the acute or active stage.

A. Imperfect Results After the Operation of Removing the Appendix During the Quiescent Period.

It is as long ago as 1887 that I ventured to suggest—in a paper read before this Society—that cases of recurrent appendicitis should be treated by removal of the appendix during the period of quiescence. My proposal was not very enthusiastically received at the time, but of later years I have no ground for complaint on this head. The procedure is one of the most common of abdominal operations, and certainly one of the most satisfactory. It is attended with but trifling risk and with but little distress to the patient, while in the vast majority of instances it is followed by a complete and unconditional cure.

I find, however, in my case-books the records of 45 patients who consulted me, and in whom the operation had—from their point of view—more or less completely failed. Had I been the operator in all these examples it would be possible to express the dissatisfied patient in the form of a percentage, but I am responsible for but the minority of them. The collection, therefore, from a statistical point of view, is almost valueless. It is natural that a patient who feels that an operation has failed should pour his woes into the ears of other than the operator. Thus it is that we all have to search for many of our failures without the walls of our own consulting rooms.

The relative frequency of these cases of failure may be gathered from the London Hospital statistics. From these it would appear that among 231 patients in whom the appendix was removed during the quiescent period, no less than 11 complained that since the operation they had “attacks like those they had before it.”

I have excluded from my 45 cases all examples of trouble in the healing of the wound and of ventral hernia. Ventral hernia is comparatively rare, but I have noticed that it does not exempt cases performed by methods which are considered to render a yielding of the scar impossible. I have met with only two instances of persisting sinus after this operation. In both cases the sinus had been open from eight to nine months when I first saw the patients, and in both fragments of silk ligature had escaped. Of one of these operations I have no knowledge, but in the other case it was reported that the procedure had been very difficult, and that a gauze drain was necessary.

TABLE A.

Patients who complained of Imperfect Relief after the Removal of the Appendix in the Quiescent Period.

| | No. of Cases. |
|--|---------------|
| Appendix imperfectly removed... .. | 2 |
| Ovarian trouble coexisting... .. | 9 |
| Persisting or relapsing colitis... .. | 8 |
| Persisting local pain..... .. | 7 |
| Neurasthenia or hypochondriasis..... .. | 5 |
| Continued attacks due to gall stones... .. | 3 |
| " " colic... .. | 2 |
| " " movable kidney... .. | 2 |
| " " stone in kidney... .. | 1 |
| " " an unexplained cause..... .. | 1 |
| Tender mass in the right iliac fossa..... .. | 5 |
| | — |
| | 45 |

The 45 cases of which I have notes represent patients who came complaining that "they were no better for the operation," or that they were nearly as bad as, or perhaps even worse than, they were before." They also include examples in which "attacks" have continued unabated after the removal of the appendix.

As will be seen from the following summary, the degree of failure claimed to be manifest varies greatly.

A man of 50 from South America consulted me for persisting sinuses in the right iliac region with continued pain and discomfort in that part. The trouble had followed upon a large perityphlitic abscess which had been opened five years previously. The sinuses had been dealt with and counter openings made, but without benefit. Finally the abdomen had been opened and the appendix removed. A well-healed scar in the usual situation indicated the site of this operation. Still no improvement followed. Thinking that a loose concretion may have been overlooked I reopened the abdomen. Buried among many adhesions I came upon an undisturbed but diseased appendix, which I removed. In seven months all the sinuses were healed. I have no explanation to offer for this case, beyond recalling the fact that the statements of patients, even when given emphatically and in perfect faith, are not always to be relied upon.

A second case of this kind was in the person of a youth of 20. His appendix had been removed by an eminent surgeon, during the quies-

cent period, after the third attack. The appendix is said to have been strictured, to have contained no pus, and to have been surrounded by few adhesions. The operation was in August. In the following October the patient had another attack of appendicitis with fever and was in bed ten days. In December he had another attack of some gravity. He had hardly recovered from this when he was again laid up for the third time after the operation. The attacks which followed the operation differed in no essential from those which had preceded it, except in this, that in the second of the early attacks a small abscess was evacuated, which gave no further trouble, nor did suppuration supervene in any of the subsequent outbreaks. As soon as the last attack had subsided—now two years ago—I opened the abdomen in the iliac fossa. The stump of the amputated appendix was swollen, hard and tense. It measured $\frac{3}{4}$ in. Its distal end was well closed in by sutures which were still in evidence. The little tube was distended by muco-pus, and it was strictured at the very point where it opened into the caecum. It was removed, and the patient has had no trouble since. This case suggests the wisdom of always removing the appendix close to the caecum. A stricture at the actual caecal orifice is not common. It would appear to be always so placed in mucocele of the appendix—in those strange examples where the organ is translucent and is distended with a perfectly clear white jelly. In connection with this matter I may mention that in one operation after I had removed the appendix—as I thought—close to the caecum I found that the proximal end of the tube had been invaginated into the caput coli. The little intussusception was therefore at once reduced and the appendix re-excised.

Two cases, allied to the above, were found by Mr. Lett among the London Hospital records. In one the appendix was removed after the third attack. It was described as “half an inch long and very adherent.” The patient subsequently had two more attacks. After the second outbreak the remainder of the appendix was discovered and removed. In the other instances an abscess was opened and “the appendix removed.” The patient had another attack with suppuration, when a considerable portion of appendix was found and excised.

I find among the series now under notice no less than 9 cases in which continued trouble after the operation was due to mischief in the right ovary. In some of these examples an inflamed, prolapsed, or adherent ovary had been noted at the time of the operation, but had not been removed. In others a second abdominal section was performed for continued distress, and a diseased ovary discovered and removed. In nearly all these cases the condition before operation would be described as chronic appendicitis supervening on acute or subacute attacks.

The following is a typical example : A married lady, aged 30, had an attack of appendicitis in 1893, for which she was confined to bed for ten days, and a second attack in 1896, which laid her up for three weeks. After this attack she was never well. There was continued pain in the right iliac fossa, tenderness there, occasional fever, irregular bowels, dyspepsia, wasting, and a condition of chronic invalidism. In 1897 her appendix was removed. It was free, was much thickened, and was full of muco-pus. The state of the ovary was not noted. She was practically none the better for the operation; her old symptoms persisted, and she remained a chronic invalid. A year later a second abdominal section was made and an adherent, chronically-inflamed ovary discovered and removed, to the patient's complete relief.

It is needless to point out how close is the anatomical association between the vermiform appendix and the right ovary, especially in the matter of their lymphatic vessels. It is very common indeed to find both organs simultaneously inflamed, and the evidence most usually suggests that the ovary was infected from the appendix. In many instances after the appendix has been removed the ovary recovers, or at least gives the patient no further trouble. The surgeon's prejudice will be, naturally, in favour of leaving the ovary unremoved, but I am sure most operators will agree that there is often great difficulty in deciding when this can be done with the confidence that no further inconvenience will follow.

I hope I am not uttering a heresay when I say that it is often almost impossible to distinguish clinically between chronic appendicitis and chronic ovaritis. I have found the appendix sound and the ovary diseased in instances in which competent authorities have stated beforehand that the ovary had no part in the matter, and I have, on the other hand, found a perfectly healthy ovary accredited with mischief-making for which a diseased appendix was in reality answerable.

In operations upon women I think it is very desirable that the right ovary should be systematically examined when the appendix is being removed. If it be found to be entirely healthy, the knowledge is useful should the patient complain—after the operation—of any persistence of her pains.

The small opening made in the abdomen in that operation in which the muscular fibres are spit and drawn aside has much to commend it, but it has the objection that it is not always easy to examine the ovary through such a gap, nor to remove the organ should it be found to be diseased, adherent, and deeply placed.

Eight patients out of this collection of those who expressed themselves as unbenefited by the operation were the subjects of colitis. The

following is a typical instance : A married lady, aged 27, developed severe colitis during residence in India. This was followed in due course—after her return to England—by an attack of appendicitis, for which the appendix was removed. The colitis much improved for a while. Some little time after the operation this catarrh of the colon returned. The patient became nervous and despondent, and more or less of an invalid. She had persistent discomfort in the right iliac fossa, tenderness in that region, occasional slight rise of temperature, irregular bowels, flatulence, and an inability to do anything. She maintained that she was in no way better for the operation. After many months the trouble in the colon subsided, and the patient made a good recovery.

The association of colitis and appendicitis is common. In certain cases—especially in those which develop in the tropics—I am under the impression that it is the trouble in the colon that leads, by extension, to the inflammation of the appendix. In other cases the relation is reversed, and the colitis seems to be due to chronic appendicitis. The appendix in such instances is little more than a culture tube for bacteria, the contents of which are emptied from time to time into the caecum. Those individuals who have not had really acute attacks of appendicitis are often justified in maintaining that, for a time at least, they appear to be unrelieved by the operation.

Seven patients in the present series complained of the partial failure of the operation on the grounds of persistent pain in the right iliac fossa. For this pain there was no apparent cause. Of the seven patients three were men and four women, and the ages were between 20 and 33. The following cases will serve as illustrations : A lady, aged 33, had her appendix removed during the quiescent period by a distinguished provincial surgeon. I saw her one year and eight months after the operation. She maintained that she was no better. She complained of abiding and severe pain in the right iliac fossa, and was more or less an invalid. She was nervous, irritable, and full of troubles. The wound was perfect, and nothing abnormal could be found in the abdomen. She had very defective teeth, ate much meat, and suffered greatly from dyspepsia and constipation. It is customary to ascribe all obscure abdominal pains after operation to adhesions, but in this case I was assured that there were no adhesions, that the procedure was most simple, and that the ovaries were normal.

The second case is that of a military officer, aged 32. He was the reverse of neurotic, was active, and most eager to be well. His appendix had been removed two and a half years previously. The wound was sound, the abdomen revealed nothing abnormal, and the patient had the

aspect of perfect health. Ever since the operation, however, he had been troubled with pain in the iliac fossa, which varied in intensity, was of neuralgic type, and occasionally rendered him unfit to do his duty. I could suggest no explanation of the trouble, and sought refuge in those vague neuralgias which occasionally follow an operation. After many months the pain entirely left him.

In five cases out of the series the only explanation of the patient's persisting trouble was the inadequate one that they were neurotic. This, I am aware, is no explanation, for the term "neurotic" is little more than a cloak to cover ignorance. Three of the patients were men and two were women. Their ages ranged from 32 to 49. They all were chronic invalids and all maintained that they were none the better for the operation. The chief complaint was of persisting pain in the appendix area and sense of abiding illness. There was not lacking the environment of sympathetic relatives and much pampering. One patient was haunted by the dread of cancer and was sure that his pain was due to it. Another—a gentleman of 43—was exceedingly gouty, and to gout some of his trouble may have been due. One patient had had his abdomen opened twice already and was searching for a surgeon who would open it a third time.

As a typical example may be mentioned the case of a lady of 32, whose appendix had been removed for chronic appendicitis with subacute attacks. Four years later she maintained that she was "as bad as ever." She was severe in her judgment of the surgeon who had operated upon her. She had constant dyspepsia, with flatulence and irregularity of the bowels, constant pain in the appendix region, where she could feel swellings and tumours which were apparent to no other fingers than her own. She was quite an invalid, and had moved from one health resort to another without benefit. Medical treatment, as a rule, made her worse. The simple measures I suggested did her much harm. Finally she fell in with a "Nature cure," which led to her speedy and complete recovery and to the deepening of her contempt for orthodox medicine.

In 9 instances in the present series attacks were reported to have continued without improvement after the operation. The patient in each instance maintained that the attacks which followed the removal of the appendix were identical with those which preceded it. In 3 examples the attacks were proved, in course of time, to be due to gall stones, in 2 to colic, in 2 to movable kidney, and in 1 to renal calculus. In the remaining instance no explanation of the attacks was forthcoming. In this case, during the first five months after the operation, the patient, a spinster of 37, had four attacks of pain, with a temperature of 100 degrees

to 103 degrees F. These attacks laid her up for from three to seven days. They ceased and never reappeared again. From the patient's account it would appear that the operation wound had suppurated.

In the cases of hepatic colic there is no doubt but that gall stones and a diseased appendix coexisted. On two occasions I have removed the appendix and evacuated the gall bladder at one operation, but through two incisions. It is not always easy to diagnose hepatic colic from certain acute disturbances in the appendix. That an operation in certain of these instances may fail to relieve the patient is not improbable. One must remember, also, in connection with these cases what extensive disease may be found in an appendix which has never given the patient the least trouble.

It is easy to imagine a case in which the attacks are due to gall stones, but in which marked tenderness in the iliac fossa leads to the diagnosis of mischief in the appendix. The appendix is removed, its walls are thickened, and its mucous membrane is ulcerated. It has caused no symptoms except the one of local tenderness, and the patient continues to have attacks as badly as before.

The case associated with renal calculus was as follows : A young man of 22 had for two years been liable to attacks of pain in the right iliac fossa, with vomiting and fever. On the last attack, which was one of definite appendicitis, a tender swelling developed in the region of the appendix. The appendix was removed. It was adherent, was bent acutely upon itself, and was full of muco-pus. After the operation, the patient continued to have precisely similar attacks to the number of eight or nine in the year. In these outbreaks there was no fever and no iliac swelling. It was not until these attacks had persisted for four years that the kidney was suspected to be the seat of the trouble. The gland was cut down upon, a calculus discovered and removed. The attacks, which had now lasted for seven years, at once ceased. The two operations were therefore unavoidable.

A case, given by Messrs. Battle and Corner, may here be quoted in illustration of this point : "A boy was said to have had twenty attacks of appendicitis, and when operated on the appendix was normal, but there was an oxalate of lime calculus, the size of a marble, in the pelvis of the right kidney."

In the two examples in which the "attacks" were of the nature of colic, there is little doubt but that the paroxysms of pain were due to adhesions.

In the present series are five cases in which a tender mass appeared in the right iliac fossa some time after the operation. It occasioned

great alarm, and led to the complaint that the patient was none the better for the removal of the appendix. In one instance the mass was simply inflammatory and appeared as a very tender lump, the size of a hen's egg. It was supposed to be due to thickening about a ligature or ligatures. After a few weeks it vanished, but while it lasted the patient was quite an invalid. In three instances the tender lump was a faecal mass, and the patients were so troubled, at the same time, with colic, flatulence and dyspepsia that they maintained that they were no better for the operation. They were both confined to bed for some days. In the fifth example the mass was due to tuberculous glands and there followed upon their appearance tuberculous disease within the abdomen, of which the patient finally died.

B. Imperfect Results after the Evacuation of a Perityphlitic Abscess.

After these operations ventral hernias are quite common, as are also instances of tardy, imperfect, and irregular healing of the wound. Such cases need not now be considered, as they present features of no especial interest.

I find from the records of my case-books that the following imperfect results may follow upon the evacuation of a perityphlitic abscess. They are arranged in percentages, but the figures are of little value, since they do not represent the experience in practice of any one operating surgeon :

TABLE B.

| | |
|---|--------------|
| Persistent sinuses..... | 40 per cent. |
| Recurring abscesses... | 24 " |
| Recurring attacks of appendicitis... | 16 " |
| Faecal fistulae..... | 12 " |
| Inflammatory deposits in the iliac fossa..... | 8 " |

100

With regard to the sinuses, the persistence in the minority of the examples was due to the ordinary conditions which render a sinus obstinate. In some the suppurating tract was long and irregular, or there were many openings, or the main collection of pus was so placed as to be incapable of efficient drainage. In other instances the canal passed through a narrowed strait in a deep fascia or was so placed that it was exposed to constant movement. Many of these sinuses healed spontaneously after many months or yielded to simple treatment. The persisting sinus, in the majority of the examples is due to a diseased appendix, or, as commonly, to a retained concretion.

With the removal of the offending substance the sinus closes. I have seen one instance in which the sinus closed spontaneously, without operation, after it had discharged for seven years; others have closed, under like conditions, after two or three years. To effectually treat the persisting sinus which will not yield to simple measures the area of the appendix must be exposed, that structure removed, and a careful search made for an escaped concretion.

The recurring abscesses show great variation in the manner of their appearing. The original collection of pus is evacuated and drained; the wound heals; after a varying period of time, the patient has pain and tenderness in the part with fever and constipation; a second abscess appears, and is promptly opened.

In a few examples the trouble entirely ends with the healing of the second abscess. In the majority of instances the abscesses are frequently repeated. I have known the abscess appear ten times before the patient was dealt with by a radical operation. The second abscess may appear within a week or so of the first, or, on the other hand, it may not become evident for months.

The following example will show the uncertain progress of these cases. A gentleman, aged 46, had his first attack of appendicitis in June, 1895. An abscess formed and was incised. The wound closed in five months, and the patient made a good recovery. In June, 1896, a second abscess appeared. It was opened, and the wound closed in fourteen days. A third abscess appeared in July, 1897, and here again the incision closed in fourteen days. On no occasion was the appendix or a concretion met with. With the exception of a ventral hernia the patient now remained well and, so far as I know, had no further trouble in the iliac fossa.

There can be little doubt but that the relapsing abscess is due almost without exception to the retention of a diseased appendix or a concretion, and that the condition can only be satisfactorily treated by removing these causes of offence.

In a few instances there is no apparent abscess, but in its place a troublesome inflammatory mass in the iliac fossa or pelvis. One example of this will suffice: A man, aged 28, had his first attack of appendicitis when he was 20. During his second attack, eight years later, a large abscess formed and burst into the rectum. The patient made a good recovery and remained perfectly well for five months. He then began to complain of a dull pain in the right iliac fossa and rectum, with fever and constipation. He became very ill and wasted. The pelvis was found to be almost filled with a hard inflammatory mass. In four weeks this

slowly subsided, and with it the fever vanished. Although a careful look-out was kept, no matter was known to escape per rectum. Three months after the disappearance of the swelling I removed the appendix. It was behind the caecum in the iliac fossa, was very adherent, was bent upon itself, and full of pus. Nothing abnormal was to be discovered in the pelvis or about the rectum.

Into the very wide subject of faecal fistula after the evacuation of a perityphlitic abscess it is impossible to enter on this occasion. I may be allowed to mention the following points which have impressed themselves upon my mind: (1) That while the faecal fistula exists another attack of appendicitis is exceedingly uncommon. (2) That the fistula, unless due to an actual cutting or tearing of the bowel, has a tendency to close spontaneously. This process may involve months, sometimes many months, but healing takes place in the end. (3) That those fistulae which appear some days after the evacuation of the abscess do better than those which are evident at the time of the operation. (4) That a still diseased appendix or a retained concretion is often the cause of the persistence of the fistula.

From the London Hospital statistics it would appear that a faecal fistula may be expected in a little less than 6 per cent. of those cases of abscess which are treated by operation, and that the great majority of such fistulae close spontaneously.

In connection with the sequelae now under discussion the greatest interest attaches to the occurrence of fresh attacks of appendicitis after the abscess has healed. These outbreaks are definite attacks of appendicitis which must be clearly distinguished from those relapsing troubles which may attend an imperfectly-healed abscess cavity. These attacks need not be attended by suppuration, and, indeed, usually are not so associated.

I was at one time disposed to think that the patient who had had a perityphlitic abscess was, ipso facto, cured of his malady, and that although he might have further trouble with the abscess, he need fear no other attack of definite appendicitis. Longer experience has proved that this assumption is not correct. I am of opinion, however, that the number of patients who have definite attacks of appendicitis after a perityphlitic abscess has been evacuated are very few, and that the examples of such relapse in cases in which a concretion is evacuated with the discharge are quite rare. The escape of a concretion is an evidence that the appendix is extensively ruptured. As a result of this rupture it does not necessarily shrink up, as some suppose, but it seldom gives further trouble. Unfortunately, there are cases in which there are two or more concretions, one of which only may be discharged. The patient then has

"attacks" until the remaining substance is evacuated, and an apparent exception is made to what is very nearly a rule.

The interest in this matter centres around the question whether the appendix should be removed during the quiescent period in any case in which an abscess has been opened, but in which the appendix has not been dealt with. Mr. Battle, in his able and interesting work on the Surgery of the Diseases of the Vermiform Appendix, answers this question in the affirmative.

In each such case as has been named he would advise the removal of the appendix. His opinion would appear to be largely based upon the case of a young woman who had an appendix abscess evacuated. Six months later she died of diffused septic peritonitis. The appendix was found to be in a state of acute inflammation and sloughing. There was no concretion present.

Mr. Battle further contends that, even if there be no second attack, the retained appendix may be the seat of chronic trouble and so greatly damage the patient's health.

The first point to be determined in this discussion is the frequency with which further attacks of appendicitis occur in cases of local abscess in which the appendix has not been removed. Dr. Miles Porter considers that such relapses may be expected in 13 per cent. of the cases. Mr. Lett, in his London Hospital statistics, places the number of such relapses at 17.2 per cent. (see Table F). I think that this percentage may be unduly high, since the decision that "the attack since the operation is like that the patient had before the operation" depends, in most cases, solely upon the patient himself. Some of such "attacks" might well be due to trouble associated with an imperfectly-healed abscess.

The appearance of the subsequent attack in these abscess cases shows remarkable variations. For example, among my own cases I notice that in one instance the second attack appeared four weeks after the abscess was evacuated, while in another the patient did not have an attack until two and a half years had elapsed. One individual had only one further attack, while another had five outbreaks in the first eighteen months after the operation. In a third example there were several attacks during the first twelve months, and after that they ceased—or, at least, the patient when he saw me had been free from trouble for five years.

While I think that the appendix should be without doubt removed in any case in which the least trouble is experienced, it appears to me that the following arguments may be urged against the establishment of a rule that in every example of abscess (in which the appendix has been unreduced) it should be excised at the first convenient opportunity.

1. Upon the most liberal estimate it is evident that 83 patients out of every 100 will never have another attack.

2. The risk of a second attack is comparatively small. Thus Mr. Battle, while he places the mortality of the first attack at 25 per cent., gives the mortality of a second attack as 7 per cent., and that of a further attack as 2 per cent.

3. In those cases in which an abscess has formed although the operation is often unexpectedly easy it is often not only very difficult but distinctly dangerous. In certain cases in which the adhesions have proved to be very extensive and dense, and in which the appendix is buried deep in the plevis, I have failed to remove the offending body or even to find it. I cannot help thinking, therefore, that if Mr. Battle's rule became absolute the surgeon would find himself engaged in not a few operations which were attended with considerable risk to life. In the face of the facts above stated,—and keeping in mind the fatal case Mr. Battle mentions—I do not consider that such risk is justified.

4. It may not be unfair to state the belief that the evidence that an abscess has burst into the bowel is not always conclusive. The passage of a quantity of decomposed and long-retained mucus might well give a nurse the impression that pus is being evacuated.

II.—THE COMPLICATIONS WHICH MAY ATTEND OPERATIONS FOR APPENDICITIS.

The length to which this paper has already extended will forbid any but a very superficial discussion of the subject.

With the exception of faecal fistula, intestinal obstruction and the persisting or extending abscess, the principal complications are those only of septic infection. They are such complications as may occur in connection with any septic wound. The fact that the wound is within the range of the portal system permits of the limited blood infection known as pylephlebitis.

With this exception the most conspicuous complications differ in no essential from those which may attend a suppurating stump left after an amputation of the thigh.

Certain of the pleurisies and of the empyemata are due to direct local extension of inflammation from the original seat of infection.

The parotitis is probably due to that septic condition of the mouth which is common in this and in other abdominal disorders.

The common thrombosis of the left femoral vein is not open to a ready explanation. If movement be in any way concerned in this localization it may be noted that while the right thigh is kept at rest the left lower limb is much, and often severely, used in the necessary movements of the patient in bed.

Mr. Lett's statistics (Table E) show the complications which have occurred in 1,000 consecutive cases of operation. In the detailed appendix to that table will be found particulars of the circumstances under

which these complications have occurred, as well as of the period at which they have become manifest. It cannot be claimed that these details reveal any novelty in the familiar history of the infected wound.

STATISTICS COMPILED FROM THE LONDON HOSPITAL RECORDS JULY 1ST, 1900 TO AUGUST 15TH, 1904, BY MR. HUGH LEFT, F.R.C.S., LATE SURGICAL REGISTRAR TO THE HOSPITAL.

TABLE C.—Table showing the Local Condition in 1,000 Cases of Appendicitis at the time of the Operation, compiled from the London Hospital Records July 1st, 1900 to August 15th, 1904.

| Date. | Total number of Cases operated upon. | Operation during quiescent period. | | Operation during attack. Local Peritonitis. No pus. | | Operation in cases with abscess. | | Operation in cases with general Peritonitis with or without abscess. | |
|---------------------------------------|--------------------------------------|------------------------------------|------|---|------|----------------------------------|------|--|------|
| | | Re-covered | Died | Re-covered | Died | Re-covered | Died | Re-covered | Died |
| July 1st to December 31st, 1900 | 86 (males 59, females 27) | 33 | 0 | 0 | 0 | 39 | 1 | 1 | 12 |
| 1901 | 189 (males 130, females 59) | 75 | 2 | 6 | 0 | 60 | 1 | 10 | 35 |
| 1902 | 230 (males 162, females 68) | 75 | 0 | 11 | 3 | 96 | 9 | 8 | 28 |
| 1903 | 299 (males 200, females 99) | 100 | 1 | 12 | 1 | 124 | 20 | 7 | 34 |
| January 1st to August 15th, 1904 | 196 (males 130, females 66) | 77 | 1 | 5 | 1 | 77 | 4 | 13 | 18 |
| Grand total.. | 1,000 | 360 | 4 | 34 | 5 | 396 | 35 | 39 | 127 |

During the above period 290 other patients with appendicitis were admitted into the Hospital, but were not subjected to operation, either because the attacks were so slight or because they declined to submit to surgical measures.

If a patient has several attacks of appendicitis the latter attacks are less severe, and less likely to be accompanied by the formation of an abscess than the earlier ones. This is confirmed by the following table, which includes all the cases of abscess and of general peritonitis in this series. Cases of abscess with general peritonitis are included under the heading of abscess.

TABLE D.—(London Hospital Series.)

| | Number of Cases. | Number of Previous Attacks of Appendicitis. | | | | |
|--|------------------|---|-------|------|------|----------------|
| | | Not Stated | None. | One. | Two. | Three or More. |
| Abscess..... | 499 | 200 | 187 | 67 | 19 | 26 |
| General peritonitis without abscess..... | 101 | 66 | 31 | 3 | 1 | 0 |
| Total..... | 600 | 266 | 218 | 70 | 20 | 26 |

TABLE E.—(*London Hospital Series.*)*Table to show the Complications met with in the 1,000 Cases.*

| Complications. | Number of Cases. |
|-------------------------------------|------------------|
| Fæcal Fistula..... | 49 |
| Thrombosis of the femoral vein..... | 12 |
| Intestinal obstruction..... | 10 |
| Bronchopneumonia..... | 17 |
| Pleurisy with effusion..... | 14 |
| Pleurisy without effusion..... | 2 |
| Empyema..... | 7 |
| Acute Bronchitis..... | 4 |
| Pulmonary embolism..... | 1 |
| Parotitis, non-suppurative..... | 4 |
| Pylephlebitis..... | 4 |
| Residual abscess..... | 11 |
| Secondary abscess..... | 12 |

In six of the 1,000 cases the appendicitis was associated with pregnancy.

Fæcal Fistula.

A faecal fistula developed in 49 cases, or in a little less than 6 per cent. of the cases which recovered. In 35 the fistula closed spontaneously. In 2 cases the fistula was closed by operation after it had persisted for seven months in one case, and two and three-quarter years in the other, and in two it still exists. Of the other 10 cases, 5 died soon after the operation, 4 in twelve days or less, and 1 in three weeks with pylephlebitis. In the majority of the cases in which spontaneous healing took place the sinus closed within two months. In one case the fistula closed spontaneously after eight months. Two fistulae are still open two years and eighteen months respectively after their appearance.

Three of the fistulae appeared in ten, fifteen and twenty-four days respectively after the operation; sixteen others appeared within a week of the operation, and twelve of this number appeared within three days.

Thrombosis of the Femoral Vein.

Of the twelve patients who suffered from this complication, 7 were men and 5 were women. The left vein was affected in 11 cases, the right in one case only.

In 11 of the cases the average date at which evidence of thrombosis appeared was twenty-four days after the beginning of the illness. In the remaining case the appendix was removed thirty-six hours after the onset of the attack, and thrombosis took place eleven days later.

With regard to the circumstances of the operation, the appendix had been removed during a quiescent period in three cases. Two of these healed by first intention, but in the third a faecal fistula developed. Of

the remaining cases there was in one general peritonitis, while in all the others an abscess was present.

The above particulars precisely coincide with my own experience of this complication. I have noticed no common factor in the circumstances of the patients who have become the subjects of thrombosis, nor have I any explanation to offer of the fact that the trouble nearly always occurs in the left vein and not in the right.

Acute Intestinal Obstructions.

Ten patients who were the subjects of appendicitis were operated upon for acute intestinal obstruction; 4 recovered, 6 died.

One patient had been ill for five days, and had had symptoms of obstruction for two days. At the operation the appendix was inflamed and adherent to the mesentery, forming a band which caused the obstruction; 4 in. of gangrenous gut was resected.

Another patient had been ill for 10 days, and had had symptoms of obstruction for four days. At the operation, in addition to an abscess in the right iliac fossa and general peritonitis, 14 in. of paralyzed gut were found and resected.

In the other patients the obstruction was due to adhesions or to kinking of the gut, while in one there was a volvulus of the small intestine.

Pulmonary Complications.

There were 45 cases in which pulmonary complications supervened. In 17 there was broncho-pneumonia, in 14 pleurisy with effusion, in 2 pleurisy without effusion, in 7 there was an empyema, in 4 acute bronchitis, and in 1 pulmonary embolism.

All the examples of broncho-pneumonia occurred in cases of abscess or of general peritonitis, with the exception of 2. In these two the appendix had been removed after the attack had subsided. As these were aseptic cases, and as signs of broncho-pneumonia were present on the day following the operation, they were probably examples of ether-pneumonia.

Pleurisy with effusion occurred in 14 cases. In 2 instances there was pleurisy without effusion. In 11 the right side was affected, in 5 the left. In one case only in this series was the appendix removed during a quiescent period.

Of the 7 cases of empyema 6 were on the right side and 1 on the left. The 1 on the left occurred with a left subdiaphragmatic abscess. Three of those on the right side were associated with a right subdiaphragmatic abscess, 2 with general peritonitis (in one of which the empyema commu-

icated with the general peritoneal cavity through a hole in the diaphragm 1 in. in diameter), and the remaining case appeared four weeks after an abscess in the right iliac fossa had been opened.

There were four cases of acute bronchitis. In 1 instance the patient was admitted with acute bronchitis; in 1 case it appeared six days after an operation for an appendix abscess, and in 2 cases it came on after an interim operation.

Parotitis.

Four cases are noted, in none of which did the gland suppurate. The right side was affected in 3 patients, the left in 1. Two cases occurred one and two days respectively after an interim operation, the third case after a large abscess had been opened, while the fourth case followed a laparotomy for general peritonitis two weeks after an abscess had been evacuated.

Pylephlebitis.

There were four instances of pylephlebitis among the thousand cases. One patient, a man aged 30, had been ill for seventeen days before the operation; he had had no previous attack. The temperature was irregular and varied between 100 degrees and 98 degrees, with very occasional rises to 102 degrees or 103 degrees. The local signs were slight, but

TABLE F.—Table to Show the Frequency of Further "Attacks" after Various Operations for Appendicitis. (London Hospital Series.)

| Year. | Sex. | Abscess or General Peritonitis. | | | | | | Interim Operations. | | | |
|---------|------|---------------------------------|-------------------|-----|--------------|-----|-------------|---------------------|------------------|----|-----|
| | | Number of cases. | Appendix removed. | | Not removed. | | Not stated. | | Number of cases. | + | o |
| | | | + | o | + | o | + | o | | | |
| 1900... | M | 11 | 0 | 4 | 0 | 6 | 0 | 1 | 12 | 1 | 11 |
| 1900... | F | 6 | 0 | 3 | 0 | 3 | 0 | 0 | 5 | 0 | 5 |
| 1901... | M | 23 | 0 | 4 | 1 | 14 | 0 | 4 | 30 | 0 | 30 |
| 1901... | F | 14 | 1 | 2 | 4 | 6 | 0 | 0 | 5 | 0 | 5 |
| 1902... | M | 49 | 0 | 13 | 6 | 29 | 0 | 1 | 30 | 1 | 29 |
| 1902... | F | 16 | 0 | 5 | 0 | 10 | 0 | 1 | 20 | 3 | 17 |
| 1903... | M | 49 | 1 | 23 | 5 | 18 | 0 | 2 | 45 | 3 | 42 |
| 1908... | F | 30 | 1 | 16 | 2 | 11 | 0 | 0 | 32 | 2 | 30 |
| 1904... | M | 41 | 2 | 21 | 1 | 13 | 0 | 4 | 43 | 0 | 43 |
| 1904... | F | 25 | 1 | 9 | 2 | 12 | 0 | 1 | 20 | 1 | 19 |
| Total | | 264 | 6 | 101 | 21 | 122 | 0 | 14 | 242 | 11 | 231 |

The sign + at the head of a column indicates the number of patients who had further "attacks"; the sign o indicates the number of patients who had no further "attacks."

he had several rigors. At the operation the appendix was found to be ulcerated, inflamed, considerably thickened and occupied by an opaque fluid. It was adherent to the caecum and was not perforated. Surgical emphysema developed round the wound. At the *post-mortem* there was pylephlebitis, with many abscesses in the pancreas, and bronchopneumonia in the right lung.

The second case was a woman 25 years old, who was admitted with an abscess in the right iliac fossa. She had had no previous appendix attacks. The abscess was evacuated, and ten days later it was necessary to open up the wound again to let out more pus. An opening was then found in the caecum, from which faeces escaped. Twelve days after the first operation she had an attack of acute intestinal obstruction, for the relief of which an artificial anus was made. Twelve weeks after the first operation the fistula leading to the caecum was explored, and an attempt was made to close it. The artificial anus ceased to discharge on several occasions, but was still open at the time of her death, twenty-one weeks after the primary operation. At the *post-mortem* examination there were signs of early lardaceous disease, pylephlebitis with many abscesses in the liver, and pelvic peritonitis with pus between the coils of the small intestine.

The third case was that of a boy, aged 12, who had been ill four days. The appendix, which was gangrenous, was removed. He died three weeks later. At the *post-mortem* examination there was a little local peritonitis round the caecum, otherwise the peritoneum was healthy. The superior mesenteric and portal veins were thrombosed and filled with pus; the splenic vein contained blood and pus.

The fourth case was that of a man, aged 26. He was admitted with jaundice and an enlarged liver. He had had frequent rigors. At the *post-mortem* examination a loculated perityphlitic abscess was found, together with pylephlebitis and abscesses in the liver.

It is to be noted that none of these patients had had a previous attack of appendicitis.

Abscess.

After an appendix abscess has been opened and drained, other abscesses immediately or remotely connected with the appendix may form in various parts of the abdomen. These arrange themselves into three groups:

1. The residual abscess, in which a reaccumulation of pus takes place underneath or close to the operation scar, in the position of the original abscess. Such reaccumulation of pus is not accompanied by signs of another attack of appendicitis.

2. The secondary abscess, which is the result of the direct extension of the inflammatory process from the primary abscess to other parts of the abdomen.

3. The abscess which accompanies subsequent attacks of appendicitis.

Among the 499 cases of appendix abscess there were 11 cases of residual abscess which were opened at intervals after the operation varying from ten days to seven weeks.

There were 12 cases of secondary abscess. Six of these were sub-diaphragmatic (4 being on the right side and 2 on the left). Two were opened three weeks after the primary abscess had been drained, 3 two weeks after, and 1 nine days after.

Five of the secondary abscesses were situated in the pelvis while the remaining one pointed at the external abdominal ring. These were opened from twelve to twenty-one days after the primary operation, with the exception of one pelvic abscess which was opened seven days after.

Finally, in 14 of the cases in which there were further attacks of appendicitis, the attacks were again accompanied by abscess formation. Three of them returned a third time with another attack of appendicitis and another abscess.

Pregnancy.

Among the 1,000 cases of operation were six women who were pregnant. Of three patients who were operated upon for general peritonitis, two were six months pregnant. Abortion took place three to five days after the operation in each case, and all the patients died; one on the fifth day, one on the thirteenth, and the third on the eighteenth day (after an attack of secondary haemorrhage from a vessel in the pelvis).

Of 3 cases who were admitted with an appendix abscess 2 were six months pregnant, and 1 was four months pregnant. One patient aborted ten days after the operation, and another four and a half weeks after the operation; they both recovered. In the third case pregnancy was undisturbed.

The above table shows the result of the investigation into the frequency of further attacks of reputed appendicitis after abscess formation or general peritonitis. It also gives the number of patients who stated that they had attacks of pain subsequently to the removal of the appendix during the quiescent period, "similar to those they had before the operation."

Letters were sent to 797 patients, and replies were received from 506.

Of 264 cases of abscess or general peritonitis, further "attacks" were complained of in 27 cases, or 10.2 per cent.

Of 242 cases of operation during the quiescent period, further "attacks" were complained of in 4.5 per cent.

It will be seen from the table that, of 107 cases of abscess or general peritonitis in which the appendix was said to have been removed, only 6 complained of further "attacks."

In 122 cases in which the appendix was not removed, 21 patients complained of further "attacks."

Sr. William Broadbent said that the paper by Sir Frederick Treves turned so entirely on surgical questions that he did not see where the physician came in. The consulting physician was in a particularly unfavorable position in regard to this subject. Patients were brought to him, and perhaps the existence of recurrent appendicitis was recognized, whereupon the patient was handed over to some surgeon, and the consulting physician heard later on whether the result was favorable or unfavorable, but was not supplied with any details. At other times the consulting physician was called in to assist in deciding whether an operation for appendicitis was necessary or not. The best advice was given, and the probability was that a surgeon was called in, operation performed, and the consulting physician heard nothing more about the case. For those reasons Sir William Broadbent thought it would be absurd in him to attempt to contribute in any way to the discussion.

Mr. Charters Symonds said that in a series of 72 private cases, as far as he had been able to obtain the information, the following after results had been observed: In one case there was thrombosis of the left femoral vein; in one case there was cardiac embolism with death on the fourth day; in one case there was mild pyrexia for fourteen days followed by slight haemoptysis; in one case there was a pelvic abscess which discharged into the rectum. Of these 72 cases, 71 were known at the present time to remain in perfect health. In another series of 50 cases from his hospital records, there was no case of thrombosis. Concerning the after-history of these 50 cases, he had been able to trace four cases with after-results. In one, the attacks diminished in severity, but still continued, the pain probably being due to a renal cause; in another case, a surgical operation for fixation of the kidney gave relief, and in another recurrent attacks occurred, but he had not been able to secure the subsequent history. In another case death occurred from acute peritonitis. In addition to the four cases he had mentioned, he had had three other cases under his care in which operations had been performed by other surgeons. In one of these three cases the attack recurred before the patient left the nursing home. Subsequently fixation of the kidney was performed, and he hoped the pain would be cured. The second case was a man of 30,

in whom the pain continued after the appendix had been removed; the pain became localized to the region of the loin, and relief was obtained by removing a stone from the kidney. In the third case the patient was neurotic. In his experience, when recurrent abscess occurred, some part of the appendix had been left, or there was some concretion at the bottom of the abscess. In regard to the question of thrombosis, he was interested to hear Sir Frederick Treves state that it was more common on the left side. It occurred in cases where the wound ran a perfectly healthy course. In looking over his cases other than appendicitis, Mr. Symonds said that he found it had occurred after radical cure of hernia in a woman, after suturing a petella, after compound fracture of an ankle in the opposite leg and after fracture of the femur. Thrombosis had taken place in those cases after perfect union had occurred, and some explanation of the disaster must be sought for. In a certain number of cases where there were septic changes in the wound thrombosis was the result of the septic process, but when thrombosis occurred while the wound was running a healthy course he thought there must be a degree of septic poisoning present, although there were no means of measuring it; in other words, a condition of the blood must exist which tended towards thrombosis. No case, however, of a thrombosis of the femoral vein had come under his notice in a child. Some common factor must exist in these conditions, and he submitted that that common factor was the enforced rest which followed all operations on the abdomen. He advocated movement in his abdominal cases, and he dispensed with pillows placed under the knees; in fact, he directed his patients to move their legs after abdominal operations quite freely. In his hospital cases there was no record of thrombosis after appendicitis; it was more common in private practice because of the greater care and the more stringent rest imposed. Referring to the removal of the appendix in acute conditions, he advocated one rule which was perfectly clear, and that was that when the patient was septic, when the temperature was raised, the appendix must be removed, otherwise the source of the infection was left. In cases where there was no septic infection nor elevation of temperature it was justifiable to lay open the abscess, clean it carefully, and drain. The best results were obtained if flushing out was avoided, and the operator contented with dry mopping.

Sir Lauder Brunton observed that in a certain number of cases where pain recurred after the removal of the appendix it was found that the patients were suffering from chronic colitis. In these cases the chronic colitis continued after the removal of the appendix, and the symptoms of discomfort and the pain were so like those produced by appen-

dicitis that the patient usually said that the operation had done little or no good. Many of those cases were benefited, and recovery took place simply by subjecting them to irrigation carried out either at home or at Plombières. Many suffered from a condition of the nervous system which was found commonly associated with colitis; they complained of aches and pains when no definite evidences of anything wrong in the appendix or in the colon could be found. It seemed as if the pain were fixed in their sensorium.

Mr. Pearce Gould said that it was impossible to deal adequately with the mass of statistical matter that had been furnished. He had looked up the records of just over 300 consecutive cases of appendicitis, about half being cases in private practice and about half hospital patients. In the main they conformed very closely indeed to the statements made by Sir Frederick Treves. He could confirm what Sir Frederick Treves said about the difficulty in some cases of removing the appendix and also about the importance of removing the whole of the appendix and how disastrous it might be to leave even a small fragment behind. As to the best course to follow after the patient had recovered from an appendix abscess, whether a second operation should necessarily be advised, he found in his own cases that of 41 hospital cases there was a subsequent return of the disease necessitating an operation in four. Out of 30 private cases he had only known one. If he took the hospital cases, which he thought afforded safer ground on which to make a statement, they showed that just 10 per cent. of cases of abscess that recover after operation were liable to have a return of the disease. Therefore it was better to wait and see if mischief returned before deciding the question of a second operation. In regard to complications, he mentioned that out of over 300 cases there were seven with sinuses, four with faecal fistula, one with femoral thrombosis which affected both veins, and one with thrombosis of the internal saphena vein. Another complication was the formation of a second abscess before the patient had recovered from the first. He had seen eight cases in which that had occurred. He thought that it was an important complication. In one case cerebral softening occurred, the patient being hemiplegic the day after the operation. In one case there was intestinal obstruction, and in another both ovaries had to be removed for suppuration. In two patients he found and dealt with double pyosalpinx at the time of the operation. There were two cases of parotid bubo, one case of acute swelling of the thyroid, three of colitis, and two cases of marked neurasthenia. One point that had struck him was the glib use of the words "the operation for appendicitis," as if there were but one single and simple operation for appendicitis, whereas there

were still three distinct practices. One of these was the removal of the appendix, as in 214 out of his cases. The second was that concerned with the treatment of a localized abscess, of which there were 70 examples in his list. The third was concerned with perforation of the appendix, general infection of the peritoneum, and no limiting adhesions. Studying these three groups separately, he found that among the 214 operations for the removal of the appendix in the quiescent stage, or in the early stages of acute appendicitis, there were three deaths. One death was due to cardiac disease in a patient whom it was known had grave and serious cardiac trouble; he had had three attacks of appendicitis, and still had a swelling over the caecum, and it seemed to those in charge of the case that he should run the risk of having the appendix removed. That patient, however, died from cardiac disease. The second death was in a patient who was suffering from septicaemia at the time of the operation. In the third case acute peritonitis ensued shortly after the operation. In these 214 cases there was a mortality of under two per cent. In the cases of abscess and general peritonitis the mortality was 26 per cent. The statistics of the London Hospital, dealing with a much larger series, gave a mortality of 27 per cent. in cases of abscess and general peritonitis. He emphasized the point that if the case was such that it could be treated by simple removal of the appendix, the mortality was two per cent. But if the patients were allowed to reach the point where an abscess had formed, there was general peritonitis, a mortality of 26 or 27 per cent. was reached. Sir Frederick Treves had referred to the fact that in 1887 he first of all before that society had suggested the removal of the appendix during the quiescent stage. He had mentioned that that proposal was not well received, as Mr. Pearce Gould remembered. If in the treatment of acute appendicitis a general toxaemia was allowed to occur, and if a surgeon was not called in till that had occurred, it ought to be regarded as a reflection on whomever was in charge. Now it was a question whether an abscess of the appendix should be drained, or flushed, or wiped out, and whether the appendix should be removed then or later, but he looked forward to the time when abscess would be prevented, and all would be interested in the more precise diagnosis of appendicitis in the early stages. There was hardly a parallel, so far as the condition was concerned, with what was seen in appendicitis; all agreed to call the disease by that name, and it was in the appendix that the mischief brewed. All were agreed that the appendix could be removed without any detriment to the patient. They were not mutilating their patients by removing the appendix, and the morbid material which led to such grave conditions

was limited at first to the appendix itself. He did not think it was an exaggeration to say that it was as much an error for a surgeon to allow an abscess to develop about a diseased appendix as it was for a dentist to allow an abscess to develop about the fang of a tooth. The mortality of 27 per cent. in the cases of abscess and peritonitis ought to be reduced to the minimum of two per cent. by early operation.

NOTES ON SOME OF THE COMMONER DISEASES OF THE NOSE AND THROAT.

By PERRY G. GOLDSMITH, M.D., C.M., Bellville.

Fellow of the British and American Laryngological Associations, Laryngologist to National Sanitarium Association.

IT is intended in a running article to take up some of the diseases of the nose and throat most usually met with and write briefly on their causation and treatment. It is not intended that the articles will be complete so far as concerns all the usual remedies, but rather that they will be of interest and profit to those who see such cases during the routine of general practice. Some suggestions will be offered as to what may be advantageously done.

THE NOSE.

Eczema.—Under this heading might be included any irritative condition appearing about the anterior nares. There are usually two forms—acute and chronic. The former is usually associated with acute rhinitis, while the latter is generally found in association with defective nasal drainage. In children, in whom this disease is most common, there is found, in a large majority of cases, a mass of adenoids. Occasionally it is associated with a marked thickening of the upper lip. Small ulcers and fissures are frequently discovered just within the vestibule of the nose.

Treatment.—In children attention to the naso-pharynx is very essential. The removal of a mass of adenoids frequently is all that is required, because the rhinitis rapidly subsides and also the dermatitis. Any septic focus within the nose requires attention, also any abnormality interfering with drainage. Ulcers are best treated by cauterization with silver nitrate 10 per cent. or argyrol 50 per cent. It is particularly important to see that every recess of the vestibule is thoroughly cleaned and disinfected. As a local application an ointment of zinc oxide and bismuth sub-nitrate, 20 grains of each to the ounce of vaseline, will be found of value in the acute cases, while the addition of white precipitate and salicylic acid will be of much greater value in chronic cases.

Collapse of Alæ Nasi.—This condition is not by any means rare, though it is often overlooked. It may alone be the sole cause of nasal obstruction, or remain as the cause of failure after the intra-nasal canal has been rendered patent by operative means.

The treatment of these cases is very unsatisfactory. Mechanical appliances, the injection of paraffin and dilator exercises have all been tried, but have not been of very material benefit. The mechanical measures commonly used by Hill, who has devoted considerable attention to the subject, are a short piece of rubber tubing, a small umbrella ring, or a celluloid expander. Divulsion is sometimes practised, but is in no sense curative. When Roughton's band causes obstruction by constricting the orifice, it does not appear that anything permanent is gained by cutting and subsequent divulsion.

Encroachment on the vestibular area, resulting from abnormalities of the internal or septal wall, is probably more common than the forms we have just mentioned. The commonest form is due to displacement of the lower border of the triangular cartilage. A nostril may be converted into a mere slit, which is completely closed on attempting to inhale forcibly through the nose.

The treatment is entirely operative and yields very happy results. It simply consists in making an incision in the mucous membrane and dissecting it off the protrusion, which is then cut away from its posterior attachments with shears. The mucous membrane is then trimmed so as to sit properly. Sutures are not needed, a collodion and iodoform dressing is applied. Cocaine may be used hypodermically to make the operation painless, but a 20 per cent. solution, used with cotton mops, generally answers quite satisfactorily. Adrenalin in oil makes the field quite clear. A good deal of patience is required in dissecting the mucous membrane, otherwise an opening will be made into the other nostril. This, while it may do no harm, is not desirable. A vestibular occlusion may consist of a strong deflection of the entire extremity of the triangular cartilage, presenting what is virtually a large spur about the situation of the limen (Pegler). This protrusion may be readily removed with a knife. Flaps may, or may not, be used. If, however, the flap operation be used, it will make the operation much more prolonged and difficult, and it is doubtful if any more desirable result is gained.

Haematoma and Abscess of the Septum.—A haematoma may be bilateral or unilateral, the latter being the more common. It usually results from an injury, such as a blow on the nose. The condition, which depends on an accumulation of blood between the mucous membrane and the osteo-cartilaginous framework, may be mistaken for a polypus or a gumma. The tumor may be absorbed or result in an abscess of the septum. If

the tumor is incised, great care should be taken to prevent sepsis. Abscess of the septum, however, is not always preceded by hæmatoma, trauma-tism may lead to caries of the bone and cartilage, which may result in perforation and symmetrical suppuration. Evacuation of the pus is then immediately indicated. It is well to bear in mind that the point of least resistance in this case is in the buccal vestibule, inside the upper lip. A knife introduced above the central incisors will readily reach the pus and secure a good drainage.

Perforation of the Septum.—Septal perforations are due to one of two causes: (1) Those following operations, the perforation being effected purposely or inadvertently. They are of little consequence and the patient may not be aware of their presence, unless informed of them. It is best to mention their presence, otherwise, if found out later, great annoyance to both patient and operator may ensue. (2) Those occurring as the result of some dyscrasia are of more importance. Syphilis was formerly considered the usual cause. A perforation due to syphilis is generally accompanied by, or associated with, some necrosis of the ethmoid in addition to the perpendicular plate, and fetor is always present. Strumous people not infrequently have small round perforations confined to the triangular cartilage. Picking the nose to remove accumulations of crusts, or small vestibular or septal spurs often lead to erosions which ultimately perforate. Debilitating illnesses may also cause perforation, such as typhus, smallpox, malignant types of typhoid, diphtheria, etc. Chromic acid and phosphorous poisoning may also be a cause. Sometimes a small round perforation, whose edges do not tend to heal entirely, is found accidentally. Lenox Browne speaks of these as of tropho-neurotic origin. Ill skilled use of the cautery or chromic acid within the nose may produce ulceration, followed by perforation.

Treatment.—Very little can be done for these perforations. They practically never close entirely. Those of constitutional origin require appropriate treatment directed to the underlying disease. Locally, cleansing alkaline and antiseptic sprays, followed by soothing or stimulating ointments, will be found of value. A combination of menthol, gr. i., and bismuth, grs. xxx, in an ounce of vaseline will be found soothing and softens the crusts; while menthol, grs. iv, and oil of cade, m. vi, will be somewhat more stimulating. Resorcine in vaseline is also of value. Care must be taken, that any habit tending to keep up irritation is entirely stopped. It may even be necessary in those cases which show a tendency to progress to gently touch the edges with silver nitrate, gr. xxx, to the ounce or with the galvano-cautery. With reference to the syphilitic cases, it must not be forgotten that these occur as a rule in the tertiary stages and potassium iodide, pushed to its full physiological effect,

is alone indicated. Ten to twenty grains of pyoktanin to the ounce of stearate of zinc is highly spoken of by Kyle as a local application to all forms of septal ulceration.

Epistaxis.—Bleeding from the nose is a common complaint and sometimes taxes all the energies of the physician to control it. It has been said to take place as a symptom, as a disease, and as a physiological process. No attempt will be made here to mention all the causes. Suffice it to say that among the local causative agents, trauma, ulcerations, foreign bodies, and new growths will be found to be the most frequent; while, among the constitutional conditions, are found the hemorrhagic diathesis, hæmophilia, typhoid, diphtheria, pneumonia, various anæmias, specific inflammations, congestive conditions of the mucous membrane due to cardiac lesions and Bright's disease, alcoholic excesses and apoplexy also play a part. The bleeding is not infrequently started by a severe sneeze, cough, or violent blowing of the nose. The point at which the flow begins is generally at the anterior inferior part of the septum.

Treatment.—The patient naturally expects some effort to be made to stop the flow, leaving the discussion of the underlying cause for later consideration. In order to plug the nose with any degree of satisfaction and to get prompt results, it is necessary to see, if possible, the bleeding point. pressure directed to this one spot will usually control the hæmorrhage, and the use of large plugs may not be required, gauze, soaked in hydrocarbon oil, acts much better than gauze or cotton alone. Adrenalin chloride, 1-2000, acts rapidly in most cases, if applied at the site of bleeding. Various astringent applications, such as antipyrin, hydrogen peroxide, tannic acid, etc., are also of value. Care must be taken that the plugs are not inserted so tightly that the pressure will cause subsequent necrosis. A small rubber bag inserted into the nostril and then filled with air is sometimes of value. In all cases tinct. opii. in 5 or 10 minim doses, greatly assists in keeping the patient's feelings under control. It is occasionally necessary to plug the posterior nares. Plugs should not be left in more than 24 hours.

The subsequent management of the case consists in the avoidance of excessive exertion and all habits tending to cause the flow to recur. The cases depending on an altered constitutional state require treatment directed to this end. In hæmophiliacs, packing the nostril may fail to arrest the hæmorrhage, yet sufficient cotton should be put into the nose to prevent nasal breathing; as, sometimes where the oozing is slight, the suction produced by breathing is sufficient to keep up the bleeding. Strychnia nitrate, opium, and lead acetate may be of service.

FORTY YEARS' AND AFTER—A REPLY TO DR. OSLER.

By JOHN FERGOUSON, M.A., M.D.,

Senior Physician Toronto Western Hospital.

Mr. *President and Gentlemen*,—A short time ago I was asked by the President to read a paper on Dr. Osler's recent address, at Johns Hopkins University. At first I declined, stating that some older and more experienced member should be chosen for the discharge of so important a task. The request was, however, renewed and this is my excuse for appearing before you on this occasion.

I.—DR. OSLER'S POSITION.

“ I have two fixed ideas well known to my friends. The first is the comparative uselessness of men above 40 years. This may seem shocking, and yet, read aright, the world's history bears out the statement. Take the sum of human achievement in action, in science, in art, in literature, subtract the work of the men above 40, and, while we should miss great treasures—even priceless treasures—we would practically be where we are to-day.

“ It is difficult to name a great and far-reaching conquest of the mind which has not been given to the world by a man on whose back the sun was still shining. The effective, moving, vitalizing work of the world is done between the ages of 25 and 40, those 15 golden years of plenty, the anabolic or constructive period, in which there is always a balance in the mental bank and the credit is still good.

“ In the science and art of medicine there has not been an advance of the first rank which has not been initiated by young or comparatively young men. Vesalius, Harvey, Hunter, Bichat, Laennec, Virchow, Lister, Koch—the green years were yet upon their heads when their epoch-making studies were made. To modify an old saying, a man is sane morally at 30, rich mentally at 40, wise spiritually at 50 or never. The young men should be encouraged and afforded every possible chance to show what is in them.

“ My second fixed idea is the uselessness of men above 60 years of age and the incalculable benefit it would be in commercial, political and professional life, if, as a matter of course, men stopped work at this age. In that charming novel, *The Fixed Period*, Anthony Trollope discusses the practical advantages in modern life of a return to this ancient usage, and

the plot hinges on the admirable scheme of a college into which at 60 men retired for a year of contemplation before a peaceful departure by chloroform.

“As it can be maintained that all the great advances have come from men under 40, so the history of the world shows that a very large proportion of the evils may be traced to the sexagenarians, nearly all the great mistakes politically and socially, all of the worst poems, most of the bad pictures, a majority of the bad novels, not a few of the bad sermons and speeches.”

Subsequently, Dr. Osler remarked as follows:—

“Nothing in the criticism has shaken my conviction that the telling work of the world has been done, and is done, by men under 40 years of age. The exceptions which have been given only illustrate the rule.

“It would be for the general good if men at 60 were relieved from active work. We would miss the energies of some younger-old men, but on the whole it would be of the greatest service to the sexagenarians themselves.

“I said that man’s best work was done before forty and at sixty he should retire.”

“No man ought to think of writing a book until he is 40. Up to that time he should be engaged upon other and more important things, creating what he intends to write about. That is the way it was with me. I was too busy at forty to write.”

“Take Darwin as an instance. His greatest work was done when he was a young man exploring South America.”

II.—OPINIONS REGARDING DR. OSLER’S VIEWS.

The London *Globe* remarks that “Dr. Osler’s views are disproved by the patent fact that a very large proportion of the men who are doing the best work in the world to-day are over sixty years of age.”

The *St. James Gazette* says: “We know several men over sixty who will refuse to discuss it, yet five years offer such an opportunity for argument that Dr. Osler may be able in 1910 to die a martyr to his own cause.”

President Jas. B. Angell, of the University of Michigan, does not subscribe to the statement that men lose their usefulness when they reach the age of sixty years.

Dr. Henry M. Hurd, President of Johns Hopkins University, says:—

“It was natural that in making an excuse for leaving Johns Hopkins and going to Oxford he should say that he felt that his work for the university had been finished, and that some one should come to take his place—but there he should have stopped.

" I have known Dr. Osler so long that I have become accustomed to his views. When I first met him some sixteen years ago I was not in the first blush of youth. At that time Dr. Osler was not quite forty and he said that he thought a man's work should cease at forty. After a few years he said no man should attempt to do anything after he had reached fifty. Now that he has passed fifty he says that sixty is the limit, and I venture to say that within a few years he will declare that seventy is not a bad time to quit.

Many of us feel that the address was unfortunate. It is safe to say that when man reaches the limit, and not until then, he advertises the fact by poor work."

"Cato learned Greek at eighty; Sophocles
Wrote his grand "Oedipus" and Simonides
Bore off the prize of verse from his compeers
When each had numbered more than four score years.
And Theophrastus, at four score and ten,
Had but begun his "Characters of Men."
Chaucer, at Woodstock, with his nightingales,
At sixty wrote the "Canterbury Tales."
Goethe, at Weimar, toiling to the last,
Completed "Faust" when eighty years had past.
Something remains for us to do or dare;
Even the oldest tree some fruit may bear.
For age is opportunity no less
Than youth itself, though in another dress."

In this fashion did Longfellow anticipate and refute the paradox put forward that men should be laid upon the shelf at the age of sixty.

S. E. Kiser, in the *Chicago Record*, among other things says:—

"There's poor old Tolstoi; how unwise and mean his actions are
Compared with those of Nicholas, the glorious young Czar.
How grand the world might be to-day if Gladstone, Tennyson,
Grim Bismarck and great Hugo all had died at forty-one."

Lord Macaulay said in the House of Commons in 1841: "It is the law of our nature that the mind shall attain its full power by slow degrees; and this is especially true of the most vigorous minds. It would be impossible to name any writer of the first order whose juvenile performances were his best. That all the most valuable books of history, of philology, of physical and metaphysical science, of divinity, of political economy, have been produced by men of mature years, will hardly be disputed. The case may not be quite so clear as respects works of the imagination. And yet I know no work of the imagination of the very highest class that was ever, in any age or country, produced by a man under thirty-five. Whatsoever powers a youth may have received from nature, it is impossible that his taste and judgment can be ripe, that his mind can be richly stored with images, that he can have observed the vicissitudes of life, that he can have studied the nicer shades of character. On the whole, I be-

lieve that I may, without fear of contradiction, affirm this, that of the good books now extant in the world more than nineteen-twentieths were published after the writers had attained the age of forty."

The British Medical Journal of recent date editorially remarks:—"Professor Osler's statement that all the best intellectual work is done by men under forty is not by any means borne out by facts. To Dr. Osler's dogmatic assertion we oppose the above equally positive statement by Macaulay an oracle of at least equal authority. This is in accord with the fact—which can scarcely be denied except by those who love paradox more than sober truth—that the intellectual powers do not reach the stable equilibrium of full and harmonious development till the age of forty or even later."

Victor Hugo, no mean mind, said that "Forty was the old age of youth and fifty the youth of old age."

From Robert Browning, the poet, we have the statement that, "The last of life is that for which the first was made."

The *Medical Age* makes the following comment on the matter: "If Professor Osler cannot give us a 'de Senectute' gospel more elevating than that which would decree the old man's insufficiency to be measured by Dr. Osler's conceptions of utility, he had better not have delivered his message."

While making the above quotations I am not forgetful of the fact that Goethe said we get no new ideas after forty, and that Vierordt says the brain attains its maximum weight at 20. But it should be borne in mind that Goethe's whole life disproved his own theory, and that there is a vast difference between brain weight and brain development.

III.—SCIENTIFICALLY CONSIDERED.

It must, of course, be conceded to Dr. Osler that as no one can live on indefinitely, a period of decline of intellectual and artistic power must sooner or later set in. His error is in fixing the meridian of creative life too early. If he will give this matter more attention from the pathological standpoint, and cease to depend on statistics which may appear to prove anything while establishing nothing, he will probably add ten or even twenty years to the span of creative activity; he may even see cause to prolong it to the proverbial three score and ten. It is not safe to set definite limits to the capacity for development. That of the mind may go on long after the body has ceased to grow, and may still go on while the physical powers are in steady decline. The objects that interest the artist may vary, and his point of view and method of treatment may change, but all this is quite compatible with increasing excellence of artistic product till a period of life far beyond the limit arbitrarily and hurtfully set by Dr. Osler.

The truth probably is that whatever decay in creative power becomes a noticeable concomitant of advancing age is due not to the advance of age so much as to wrong habits of life. Dr. Osler, as a pathologist, knows perfectly well that the vast majority of people, even those who think themselves all right, are in a pathological, not a physiological condition. So long as they injure themselves by over-indulgence in eating, drinking, sleeping and the use of stimulants and narcotics, it is mischievously unfair to attribute to the infirmity of age the decay that is really due to suicidal practices. The wonder in regard to most persons should be not that they survive with decaying powers, but that they survive at all. For those who persist in living to eat, drinking to enjoy, sleeping to enervate and using whiskey or tobacco to exhilarate or narcotize curtailment of creative power is inevitable at any age, and if the impairment becomes more noticeable after the meridian of life is past, that is largely because the mischievous habits have been longer practiced. Some constitutions can stand more bad treatment than others, but none can escape a check in development, even though loss of power may not be positively predicable.

Dr. Osler is much too careful a scientist to seriously pretend that age is the true measure of existence. The standard is arbitrary and, to group men according to the number of years they have been in the world is no more scientific than to group them according to their weight, or their height, or to reckon the world's progress by centuries. Doctors themselves discovered this long ago, and set up the arterial standard. "Man is as old as his arteries," they said. In our everyday wisdom we have the proverb, "A man is as old as he feels, a woman as old as she looks." We hear much about "young old men," and "old young men," paradoxes well understood. Dr. Osler is aware of this, and also of the famous poetical passage which tells us that life is not measured by years, but by deeds, and thoughts, and aspirations. This is sound science and good poetry.

But it seems to us that the radical fallacy of Dr. Osler's doctrine is shown by something that he looks upon as confirming it. He holds that up to the age of forty a man should devote himself to acquiring knowledge as to matters of fact, and that not until after that age should he attempt to generalize. Observation, then according to him, is the proper pursuit of a man at the height of his powers, while deduction is allowable only when he has begun to degenerate; in other words, the acquisition of knowledge calls for mental powers superior to those that suffice for systematizing that knowledge and employing it as a basis for teaching and for the formation of theories. The senses, in other words, are higher than the intellect. There are some of us who think it a higher intellectual function to make the best possible use of recorded observations

than to do actual laboratory work. From this point of view and from that of their tendency to discourage middle-aged men, we think that some of his remarks are to be regretted.

It is a well-known fact that the mind and the body do not always develop simultaneously. Nestor complained that the gods do not bestow the wisdom of years until they have withdrawn the vigor of youth. Along this line there are so many exceptions, however, that in a hundred examples, probably 45 would contradict the evidence offered by the other 55. We can well imagine some one urging that 51 per cent. constitutes a rule, and that 49 per cent. must be reckoned as an exception. Failing to dislodge him from this position, we might be obliged to admit that 51 out of every hundred men are declining at 40 and becoming of reduced economical use at 60.

There are marked differences as to the age at which people attain their mental development. Gladstone, Carlyle, Weierstrass, are instances of the highest types of mental development coming late. They ripened slowly, but remained at their prime a long time. The meaning of this is plain. Some men are at their best at thirty, some at forty, some at fifty, some at sixty and over. And it is not hard to find a reason for this. The laws of heredity and the environments of any person make for great differences in his vigor, development and longevity. Social conditions also play an important role in a man's life-history. Furthermore, we must not forget the remarkable influence of opportunity or circumstances. The country churchyard may contain mute Miltons and unknown Cromwells. Oyama's day came because of Russia's wrongful aggressiveness. So in the world of arts, sciences and letters the finest fruits may not be borne until late in the autumn, because, figuratively, of an unfavorable spring and summer.

IV.—PRACTICALLY CONSIDERED.

There is one aspect of Dr. Osler's address that merits attention and praise, namely, the credit he gives young men for what they are doing and the encouragement thrown out by him to inspire them to even greater achievements. He has always been pre-eminently the young man's friend, and has done much to discover and bring forward many a bright young man. In this regard Dr. Osler's work will remain a precious legacy long after he is gone. A man's influence over others is sometimes of far greater moment than anything he may actually do himself, as in the cases of Thomas Arnold and Edward Thring.

With regard to old men, however, the case is different. There are hundreds of thousands of men in America at and beyond the sixty year period who are still in active life and forced to remain there by inexorable circumstances. Many of them have to fight to keep their place in the

ranks and prevent themselves from being crushed to the wall. They feel that it is a cruel fate that requires even greater exertion of them at a time when they are less able than in early manhood to work. Several men of this class, reading the distorted view presented by Dr. Osler's words, have committed suicide, the connection between their action and the doctor's address being shown by press clippings. Such a case was that of an aged scientist in St. Louis recently, who chloroformed himself after discussing the whole question of the uselessness of old men. Dr. Osler would, we feel sure, be the last person in the world to make more difficult the task of the old man in factory or workshop or at the clerk's desk, toiling for bread for himself and his loved ones. We cannot all retire at sixty. Wisdom comes with age. The old man has earned the right to continue to earn his living. An opinion coming from a physician of such high standing as Dr. Osler is bound to carry much weight with it.

Since David wrote the Psalms the world has passed through the greatest struggles for existence in its history, and every day the struggle is growing more intense. Medical science may be able to lengthen a man's years, but industrial competition is surely pushing the hands of the clock ahead on the dial of a man's career. The men who, like Gladstone, develop late in life, find the struggle fiercest in their youth; the men who develop early, and these are a majority, find it in advancing years. In this respect it may be that Dr. Osler's words have done much harm; for while he spoke as a humanitarian that men of sixty should retire, it may only have the effect of making it still more difficult for the old man to keep his place in the stern struggle for an existence, and thereby add another burden to those brought to him already by reason of his years.

V.—HISTORICALLY CONSIDERED.

The world will ever marvel at the remembrance of Gladstone's fight for Home Rule in Ireland after he had passed eighty, of Von Moltke's crushing victories against Austria when he was a sexagenarian, and against France when he was a septuagenarian. Bismarck was fifty-two when he organized the North German confederation, fifty-six when he saw its culmination of success with the crowning of the King of Prussia as German Emperor, and seventy-five when he resigned the reins of power.

Johann Kepler was fifty-nine years of age when he announced his discovery of the distance from the planets to the sun; Bacon was fifty-nine when he published "Novum Organum"; Gassendi was fifty-eight years old when he published his atomic theory, and Newton was forty-four when he published his law of gravitation, and older when he wrote his Principia.

Dealing with the rather surprising claim that if the work of men more than forty was subtracted from the world's record we should be

practically where we are, let us give a few contradictory examples. Among statesmen, Gladstone, Bismarck, Palmerston, Salisbury, Chamberlain, Burke, Chatham, Washington, Peel, Grey, Lincoln, and Sir John Macdonald were more than forty when their greatest work was done. Caesar, Cromwell, von Moltke, Lee, Grant, Marlborough, Nelson, Wellington, Blücher, Farragut, Roberts, Campbell, Kitchener, Nogi, Kuroki, Togo, Nodzu and Oyama are warriors in this category. The same is true of Shakespeare, Milton, Goethe, Carlyle, Dryden, Scott, Voltaire, Flaubert, Newman, Macaulay, Gibbon, Tennyson and Hallam among great writers; while among scientists we might name, Spencer, Darwin, Newton, Jenner, Faraday, Avebury Galileo, Tycho Brahe, Fulton, Kepler, Brewster, Copernicus, Huxley, Humboldt and Kelvin as falling beyond the comparatively useless line. Columbus was fifty-six years old when he discovered this continent, and Washington fifty-seven when he became President. Captain James C. Cook met with an untimely death at the age of fifty-one while conducting his third voyage of discovery among the Pacific Islands.

If we may accept Scriptural testimony in a purely scientific discussion, we know that in the days of the prophets there were many men who lived to an extreme old age, and whose natural strength was not abated. Some thousands of years later, the Psalmist said, "The years of a man's life are three score and ten." We have some reason to understand that he meant the useful years. At the present moment great events are transpiring in the Far East. The leaders of Japan, the Emperor, Marquis Ito, Admirals Togo and Kamimura, Marshal Oyama, and Generals Nogi, Kuroki and Nodzu, nine in all, average sixty-one years. These men are brilliant in a very high degree, both in initiating plans and in carrying them to successful completion.

We do not believe that Dr. Osler is correct in this matter and are quite sure that the examples of the medical men he adduced as illustrating the tenability of his position do not bear him out in the least. When we recall the tremendous importance commonly attached to the work done by Virchow up almost to the very end of his long life, we cannot admit that it illustrates such a belief. As for Bichat, it is true that he did his work while he was young, for at thirty-one he died, and we shall never know what he might have accomplished had he lived to old age. Harvey was born in 1578 and published his work, "*Exercitatio de Motu Cordis et Sanguinis*," in 1628 when he was fifty years old. Lister was born in 1827, and was close on to fifty years of age when he began to convert the medical world to the principles of antiseptic surgery; and while Koch was born in 1843,

and was within one year of forty when he discovered the tubercle bacillus, even the least appreciative of his admirers will admit that he has done some good work since 1882.

Darwin published his "Origin of Species" at fifty, and his work on moulds at seventy-two, the year before his death. John Hunter was sixty-five when he died. He rose from a meeting in St. George's Hospital and died suddenly of angina, from which he had suffered for twenty years. The last twenty years of his life were very active ones. He was fifty-seven when he made the experiment of tying the stag's carotid, and fifty-eight when he tied the femoral artery to cure a popliteal aneurism. All these added to the sum of human achievement long after they had passed the dead line of forty years old. Dr. Osler published his first medical book when he was forty years old, and Dr. George M. Gould, the accomplished editor of "American Medicine," did not enter the medical ranks until he was forty years of age. Andreas Vesalius died at fifty, thus his brilliant career was cut short, and much that he might have done has been lost to the world. His great work, however, was accomplished in his last ten years. Laenner, the distinguished physician, pathologist, anatomist and inventor of the stethoscope, died at the young age of forty-five. And after death "no man worketh."

It is difficult to try to refute by statistics of greatness or of genius that he is wrong, because when examples of the manifestation of artistic power in advanced age are cited it is open to him to answer, at least plausibly, that the exception proves the rule. In spite of the multiplication of such instances he may still be able to assert that for all practical purposes the creative activity belongs to the period before forty, even when its manifestations are delayed till after that period of life.

One rejoinder to this would be that in case of the great poets like Shakespeare, Goethe, Browning, and Tennyson—and poetry is perhaps the supreme criterion by which to test the theory—their best work was not done before forty, but after it, and that it continued to improve as to the higher qualities so long as they continued to write. No competent critic would postpone Shakespeare's "Tempest," written when he was nearly fifty, to any of his earlier productions as a work of creative genius; or prefer "Locksley Hall" to "Locksley Hall Sixty Years After." Shakespeare, greatest of all literary artists, voluntarily ceased writing at forty-nine, but there is no reason to doubt his work would have continued to improve with experience and practice if he had chosen to continue it for another twenty years of healthful life. The same statement, *mutatis mutandis*, would hold good of the great historians, the great scientists, and the great philosophers. In short, it is impossible for Dr. Osler to establish by any induction, however wide, that his theory is even presumptively sound.

Longfellow when he wrote his "Morituri Salutamus," from which we have quoted and which is regarded as equal in merit and popularity to anything he wrote in his youth. The greatest of all Browning's poems, "The Ring and the Book," was published when he was in the sixth decade, and some of his most characteristic verse was produced in his eighth. Tennyson's rich and tender insight into the spiritual life of the soul was with him still as an octogenarian, notably in that exquisite lyric, "Crossing the Bar," in that wonderful dramatic idyl, "Rizpah." Then there is Milton at sixty completing his "Paradise." If Carlyle had died at forty, we would only have some essays and "Sartor Resartus" to know him by, as most of his essays, "Heroes and Hero Worship," "The French Revolution," "Cromwell," "Frederick the Great," and "Past and Present" were written between forty-five and seventy.

Dr. Johnson conducted the *Rambler*, the *Adventurer*, and the *Idler* from the fiftieth to the sixtieth year of age. His dictionary was published when fifty-five, a phenomenal task in his day, when seventy-five he made his trip to the Hebrides, and when seventy-seven published his masterpiece, "The Lives of British Poets." Adam Smith gave to the world his "Wealth of Nations" when fifty-three, and continued for many years to do excellent work.

Kant began the study of his immortal work, the "Kritik der reinen Vernunft," when fifty, and published it when fifty-seven. He brought out a second edition when sixty-three.

John Locke, the physician philosopher, wrote his essay on the human understanding between 50 and 58.

The two physicians and the three surgeons who attended the King when operated upon for his attack of appendicitis varied in age from fifty to seventy-five, averaging over fifty-eight, and were all actively engaged in professional or state duties.

Lord Howard, Sir Francis Drake, Sir John Hawkins, Sir Martin Frobisher, Sir Walter Raleigh and Sir Richard Grenville, the six men who commanded the English Fleet against the Spanish Armada, varied in age from 36 to 68, making an average of 51. They all continued to render great services to their country for years afterwards.

But why extend the list of names? Such works as the encyclopedia *Britannica*, *Dictionaries of Biography*, "The English Men of Letters" series, "The Eminent Statesmen" series, *Plutarch's Lives*, etc., etc., yield not hundreds but thousands of instances of men at fifty, sixty, seventy, and even eighty, performing great tasks and doing splendid work.

I have examined somewhat carefully the achievements of about 500 distinguished poets, historians, critics, mathematicians, scientists, explorers, warriors, statesmen, inventors, orators of many countries and of

different periods from the dawn of history down to the present, and find that about seventy-five per cent. of their best work was given to the world after forty years of age. In coming to this conclusion I take it that the mental operations of Galileo, Brahe and Kepler on the laws of astronomy, of Kant in writing his *Kritik*, of Smith in composing his *Wealth of Nations*, of Wellington at Waterloo, of Kelvin in laying the Atlantic Cable, of Roberts in South Africa, of Salisbury as Premier of Britain, of Darwin formulating the origin of species, of Pasteur in his laboratory, of Lister preaching antiseptic surgery, of Treves at the bedside of the King, are not less important or valuable than their studies and trainings which laid the foundation for these achievements; and I think the consensus of opinion is with me.

A MATERNITY PACKET. *

A. G. ASHTON FLETCHER, M.D., O.M., F.T.M.C.,

Obstetrician to the Western Hospital, etc., etc.

MR President and Gentlemen,—I would give you an apology for taking up the time of this Society on a subject so simple, were it not that its very simplicity causes it to be passed over as one of small importance. That it is not so, can be abundantly proved by any of you who do obstetrical work if you will ask your next ten cases to provide themselves with some such Packet as I am about to describe. All will deluge you with why's and wherefor's, eventually adopt your suggestions and pass through one of the most comfortable accouchments for both patient and attendant.

In these modern days of general education in hygiene, the majority of our patients have more or less knowledge of antiseptics; true, it may be erroneous or crude, but they will accept and readily enter into the few processes necessary to prepare the materials for the Packet; and thus enable us in private practice to work under more favorable conditions than heretofore have existed.

A Maternity Packet then is a packet the contents of which are provided by the patient for the use of herself, babe and attendant during and after labor. Two considerations confront us at the outset in making this preparation: First, the cost which must be brought within the means of the patient, and yet not at the expense of the second, namely, usefulness.

* Read at Toronto Medical Society, 16th March.

I shall first enumerate the articles required for the packet and then describe the manufacture and application of those requiring any word from me.

Contents of the Packet:—(1) Sheets, 3 to 16; (2) Towels, old and soft, 6 to 12; (3) abdominal binders, 2 or 3, $1\frac{1}{2}$ yards by 24 inches or more; (4) Obstetrical pads, 2 or 3, 20 inches by 20 inches; (5) Vulva pads, 24, 12 inches by 3 inches (6) stockings, long, 1 pair; (7) Night dresses, 2; (8) Safety pins, 3 doz., 2 large, 1 small; (9) Absorbent cotton, at least half lb.; (10) 2 hand basins, enamelware preferred; (11) 1 nail brush, wooden backed; (12) Lysol, synol, or 1 cake of H. & H. soap; (13) Rubber sheet, enamel cloth, or papers; (14) Talcum powder, and 2 puffs, or stearate of zinc; (15) 4 oz. olive oil; (16) 4 oz. Sol ac boric; (17) Some pieces of old cotton or linen, 12 in number.

The sheets should be sterilized where that can be done by the nurse and put away after being wrapped up and labelled. Where no trained nurse can be afforded, the patient should wash and iron dry the sheets and, after wrapping up in three thicknesses of newspaper, put them in a hot oven and leave till the outer paper is charred. This will render them practically sterile and will be much cleaner than those articles usually provided by patients of such a class which are usually dirty sheets kept to save two washings.

The towels should be treated in like manner and are for the use of attendant during the labor.

The abdominal binder has been dispensed with by some, but is a great source of comfort to the patient after her labor. It should be made of new factory cotton, unbleached, $2\frac{1}{2}$ yards will make two and the excess width can be cut off or turned in at the time of using. You will notice that I have not provided any T bandages or menstrual bandage. I much prefer to have the binder pinned on so far down the thighs that the Vulva pad will be retained in position without any pinning or bandage to hold it. In this way it cannot become a perineal strap to hold the binder down, as the binder cannot slip upward over the hips, and also it does not cause painful pressure on the perineum, retarding union in case of laceration. A third advantage of the wide binder is the freedom of movement the patient can enjoy without fear of the stitches in a laceration being put upon a strain.

Vulva pads may be purchased or made. The sanitary vulva pads of Johnson & Johnson are well made and good, or the patient can improvise for herself by buying 3 yards of cheesecloth and boiling it in water to which a tablespoonful of washing soda has been added, for half an hour and, after rinsing in water which has already boiled and been

strained, putting them on again for half an hour's boiling in some more boiled water. Then wring dry with clean hands and baked in like manner to the sheets and towels.

Obstetrical pads are prepared at the same time, 2 yards of cheesecloth are needed for these and, after drying, but before baking, they should be made by filling 1 inch thick with cotton batting, not absorbant, quilted or tied down, and then the whole baked.

Stockings and night dresses, washed and ironed, then baked, are for the labor—the second dress for use in case the first becomes soiled.

The absorbent cotton should be sterilized and will be used to make the vulva pads when they are required and as needed, the one removed being burned. The nurse will sterilize her hands then open the package of cheese cloth and cut off a piece 12 inches by 7 inches within this she will fold some absorbent cotton and at once apply the pad thus made.

The safety pins, hand basins and nail brush need no word from me.

Lysol, synol, or H. & H. soap. Personally I prefer the H. & H. soap and have half the cake dissolved in two quarts of water and put in 2 quart jars (self sealers). This soft soap is in the form of a jelly and makes an excellent lubricant for the examining fingers, for the washing of the vulva and later on, will remove the vernix caseosa better than the olive oil and soap which I have put in for those who use lysol or synol and the oil.

Rubber sheet. This should be at least one yard square, it is a luxury for some and absolutely beyond the means of many. These can be accommodated with the thin enamel cloth found on the kitchen tables, or four or five evening newspapers or wrapping paper spread over the bed under the sheet and one of the obstetrical pads will answer just as well.

Lastly, the pieces of old cotton or linen are to wipe the eyes and mouth of the babe when the head is born, and will also be found useful in placing as a pad over the anus during the birth of the head. For even after an enema and with the bowels moving regularly, one frequently finds that little pieces of hardened faecal matter are brought down by the advancing head.

One word more. I have overlooked the two powder puffs, and someone will ask, why are two necessary? Let me answer: One is for the neck and ears of the body; the other, which should be larger and of a different color, is for the buttocks and thighs.

THE CANADIAN SOCIETY FOR THE PREVENTION OF TUBERCULOSIS.

By E. J. BARRICK, M.D., C.M., Toronto.

THE fifth annual meeting of the Canadian Society for the Prevention of Tuberculosis was held in the Railway Committee-room of the House of Commons on 15th March. The gathering was largely attended by medical men from various parts of the Dominion.

Senator Edwards, president of the association, occupied the chair. He opened the proceedings by congratulating the association on the large attendance at the meeting. This showed the great interest taken in the work. This year it was thought better to have just a business meeting, and next year a large convention, occupying two or three days. He referred to the resolution moved by Mr. Perley in the House of Commons to the effect that the time had arrived for the Government to take up this great question. The resolution had met with warm approval. A similar resolution will be offered in the Senate.

Rev. Wm. Moore, the secretary, in his annual report, after saying that Earl Grey shortly after his arrival in Canada had accepted the place of honorary president, set forth that in accordance with the resolution passed at the last annual meeting, a large deputation from all parts of Canada waited upon the Dominion Government with reference to the establishment of a sanatorium. They were presented by Senator Edwards. The Premier expressed his pleasure at meeting them, and his sympathy with their objects. The sub-committee which was appointed, with Dr. Bryce as convenor, with the object of getting County Councils and other public bodies to petition for the establishment of a sanatorium in each province, to be assisted from the Federal treasury, has met with gratifying success. Twenty-four petitions to the Governor-in Council have come from British Columbia alone. The matter has been warmly taken up in Manitoba, many places raising money for the establishment of a sanatorium in that province, hoping, of course, for some help from the Dominion Government. The British Columbia Association for the Prevention of Tuberculosis and the association of Colchester, N.S., were admitted to affiliation. During the year the secretary delivered 14 lectures in Ontario, 11 in Prince Edward Island, 9 in Nova Scotia, and 2 in New Brunswick. An attack of illness prevented him from continuing the course. He also lectured before the Lanark County Public School Teachers' Association, and the Eastern Ontario Dairyman's Association. During the eleven months to March 1st the literature distributed amounted to 785,000 leaves. The resolution offered by Sir James Grant last year in favor of a medical inspection of children in the schools, was sent

to the Ministers of Education of the different provinces, but no indication has yet been received of any intention to take action.

The report from Colchester, N.S., showed that an association was formed there on Jan. 5th, 1905, and has aroused widespread interest. Observation seems to show that tuberculosis is much more prevalent in Colchester and vicinity than the average for the whole Dominion. The death rate from tuberculosis in that county is one in five.

The treasurer's report covered the eleven months ending on March 1st. Its receipts showed cash on hand \$1,199.73; men's membership fees, \$13; life membership fee, A. W. Fleck, \$50; Dominion Government grant, \$2,000; collected in small sums at various places, \$182.85; total receipts, \$3,445.58. The expenditures were \$2,513.12, leaving a balance on hand of \$932.48. The treasurer congratulated the association on this showing. He did not know any association that got so much work done for so small an expenditure.

Mr. F. A. Lawrence, M.P. for Colchester, N.S., said a few words, pointing out that Nova Scotia was the first and as yet the only province to have a provincial sanatorium. It was modest but it was a good beginning.

Dr. Adami, of Montreal, reported on behalf of the branch in that city. He spoke of the tuberculosis dispensary which has been established there, and which is doing excellent work. He also praised highly the City Council for its grant of \$700, and for the subsequent assistance given by it, as well as its action in appointing one of its health inspectors as the special inspector for the association. During the year several thousand wall cards have been distributed, giving instructions as to the conduct and care of people with tuberculosis and the means of preventing it.

Dr. Barrick said that good progress was being made in raising by private contribution the \$25,000 which must be secured before the \$50,000 voted by the municipality becomes available. He hoped that a municipal sanatorium would be a reality in Toronto before long.

It was moved by Sir James A. Grant, seconded by Mr. George H. Perley, "That, whereas, the following resolution was agreed to unanimously by the House of Commons on 20th February, 1905, viz. :—

"That in the opinion of this House the time has arrived when Parliament should take some active steps to lessen the widespread suffering and the great mortality among the people of Canada, caused by the various forms of tuberculosis."

"It is hereby resolved that this association do now and hereby respectfully petition the Dominion Government to take such action as may be expedient to constitute a Royal Commission with authority to enquire

into and report upon what active steps should be taken to lessen the widespread suffering and the great mortality among the people of Canada caused by the various forms of tuberculosis.

"It is further resolved that a special committee be appointed by the Executive Council of the association to forward this matter."

Sir James Grant had no doubt that the resolution would receive the closest possible attention from the Government. There were 8,000 deaths annually in Canada from tuberculosis, and the subject was eminently one in which the Government should take action. Sir James also referred to the great work done by the association during the past four years, and expressed strong hope for its future.

Mr. George Herley, M.P., for Argenteuil, seconded the motion. He said that the Executive Committee had come to the conclusion that the best way of getting at the matter was simply to ask the Dominion Government to appoint a commission to interview the authorities of the different provinces to see what they will do, and what form the co-operation between the provinces and the Dominion should take. His impression was that the Government would not take the initiative in doing anything whatever, but would have to be prompted and pushed to it. The sympathy which the movement had received from the members of the House of Commons was greater than its best friends had expected.

Prof. J. W. Robertson referred to the demand made by the Government in the House for a definite scheme as a condition of assistance. He thought that the commission that was asked for might succeed in drawing up such a scheme.

Dr. Sheard, Medical Health Officer of Toronto, remarked that dealing with consumption was an expensive matter, and for that reason municipal and other bodies had sometimes a tendency to shoulder it from one to another. The problem of dealing with a consumptive who was poor was serious. Thus far one result secured by the dissemination of literature was to spread just about enough knowledge to frighten people, and to cause the consumptive to be more or less ostracized. To deal with consumption properly it was necessary to know what the Government of the Dominion would give, what the provinces would give, and what would be done by the municipalities.

Some remarks on the subject were also made by Dr. Rutherford, Dr. Hodgetts, Ontario Provincial Health Inspector; Dr. Third, professor of medicine at Queen's University, and Drs. Noble and Barrick, of Toronto.

The resolution was adopted.

Senator Edwards was re-elected president, and Mr. J. M. Courtney was re-elected honorary treasurer. The following Executive Committee was selected:—Bishop Hamilton, Ottawa; Dr. Charles A. Hodgetts, Toronto; Dr. Adami, Montreal; Dr. Lachappelle, Montreal; Dr. Bots-

ford, Moncton, N.B., Mr. F. Lawrence, M.P., Truro; Dr. J. G. Toombs, Mt. Stewart, P.E.I.; Dr. Gordon Bell, Winnipeg, Man.; Dr. J. D. Lafferty, Calgary, N.W.T.; Dr. C. J. Fagan, Victoria, B.C. Rev. William Moore was re-appointed secretary.

His Excellency the Governor-General, the honorary president, will appoint ten more members of the Executive Committee. The honorary vice-presidents are Sir Wilfrid Laurier, Lord Strathcona, and the Lieutenant-Governors of the provinces.

A large and fashionable audience assembled in the Normal School in the evening to hear the lecture of Dr. Adami, pathologist at McGill University, on tuberculosis. Earl Grey presided, and announced his hearty sympathy with the movement. He urged Canada to try and take the lead in banishing tuberculosis from its midst.

Prof. Adami's address was a scholarly one, and abounded in details of the latest medical discoveries bearing on the question. In the course of his remarks he said that tuberculosis was a preventable disease, and cited the remarks of his Majesty the King to the International Congress in London, "Why not prevent it?" Although in some cases the tissues did not seem to have any resisting power, tuberculosis was by no means progressive. Out of 139 post-mortems performed by his department there were eighteen cases in which tuberculosis assumed a progressive character, and had assuredly been the cause of death. In 41 cases there was absolute evidence that the disease had been arrested, and had seemed to heal. The evidence was all against the idea that human tuberculosis could be given to cattle. Where tuberculosis passed from cow to cow for a long period it became more virulent to cattle and less and less virulent to man. We had not so much to fear from milk containing the bacillus, but there was danger where young and weakly children were concerned. The danger in regard to milk containing tuberculosis-bacilli was there, but it had been exaggerated. Dr. Adami suggested the stamping out of bovine tuberculosis, beginning with Prince Edward Island.

A vote of thanks to the distinguished lecturer was adopted on motion of Sir James Grant, seconded by Dr. Sheard, and in replying Dr. Adami made it clear that milk containing bacteria of any kind should not be drunk. The Governor-General was thanked for his presence and sympathy in a resolution moved by Hon. S. Fisher.

CURRENT MEDICAL LITERATURE

MEDICINE.

Under the charge of A. J. MACKENZIE, B.A., M.B., Toronto.

MAGNESIUM DIOXIDE.

In *Southern Medicine*, February, Fitch calls attention to the value of Magnesium Dioxide in the treatment of rheumatism and diabetes. It is given in five grain tablets every four hours, and in three cases of rheumatism and in one of diabetes which he cites it was attended by very marked success. He believes that its value depends on its ability to convey oxygen to the tissues.

INJECTIONS OF GAS FOR THE RELIEF OF PAIN.

In the *Journal des Sciences Medicales de Lille*, February 4th, Prof. Desplates describes a method employed for the relief of pain by the injection of gas into the cellular tissues in the region. Air is used, as experiment has shown that the result is not increased by the use of vapors such as those of chloroform, ether, etc. An ordinary apparatus is used, the air being filtered and the amount injected depending on the position and severity of the pain, enough being injected to distend the tissues into a bulla, which disappears on massage after a short time. No inconvenience is experienced and the relief is usually instantaneous, but care must be used to avoid injecting a vessel. The affections which have been successfully treated in this way include sciatica, intercostal neuralgia, lumbago, arthralgia, etc. The explanation of the result is not very clear.

BASEDOW'S DISEASE.

In the *Medical Fortnightly*, February 10th, Lademann has an article on this malady, and the result of the treatment of a severe case by the method suggested by Lanz in 1894. Lanz believed that in thyroid cachexia a poison circulated in the economy which under normal conditions is neutralized by the thyroid secretion, and the secretion of such a cachexia, if used in Basedow's disease might have an antagonising

effect on the poison of this affection. This prompted him to feed those suffering from exophthalmic goitre with the milk of "thyroidectomised" goats. The result was favorable and others had similar success, but the method has not gone beyond the experimental stage. The writer believes that his was the first case in which the treatment was used on this side of the Atlantic. The condition of the patient and the effect of treatment is summarised as follows:

General condition, one of emaciation; slight mechanical dyspnea, moderate anemia, an anxious and staring expression, weight 96 pounds.

Eyes: Considerable ocular protrusion, particularly the left eye; ex-quisite v. Graefe and Stellwag symptoms (one lid closure about every 90 seconds), Möbius symptom (internal rectus insufficiency) not present.

Neck: Contour greatly altered, both thyroid lobes considerably enlarged, the enlargement of left lobe greatly in excess. A pronounced pulsation of the struma was visible. Circumference 39 cm.

Thorax: Lungs negative. In the precordial area a diffuse pulsation. The apex beat not circumscribed. A slight dilatation to the right and left on percussion. Auscultation revealed a blowing systolic murmur over the entire cardiac area, most pronounced at the base. No accentuation of sounds.

Pulse: Wave small, though equal, regular, and rhythmic. Arterial tension diminished. Pulse rate 165 per minute.

Nervous system: Reflexes considerably increased. A fine oscillatory motion of the fingers when abducted. (Marie symptom.) Pronounced choreiform movements of upper extremities. No disturbance in sensation.

Vasomotor disturbances: The entire body presented a moist condition. Vigoureux symptom positive. (Increased electric conductivity of the skin, due to increased moisture.)

Urine not catheterized; specific gravity, 1016 reaction acid, a trace of nuclealbumin and serum albumin; indican not increased. Sugar, acetone, diacetic acid, peptones, etc., absent. An alimentary glycosuria upon the changes: Between May 9 and 16, large doses of bromids were given internally without effect. Loss in weight during this period, 2 pounds (weight 94 pounds). Pulse, 160. May 16.—Thyroidectomized goat's milk used (3 pints daily). Other medicines discontinued. May 27.—Condition improved. Patient less excited, diarrhea somewhat decreased, appetite improved, no choking spells. Weight increased 4 pounds (98 pounds). Pulse, 135. June 3.—Condition considerably worse. Patient received only one quart of milk the entire previous week. Diarrhea very severe, frequent attacks of choking spells. Weight decreased 2 pounds (96 pounds). Pulse, 155. June 10.—Condition bet-

ter. Diarrhea less severe, appetite good, sleeps well, less excitable. Weight increased 3 pounds (99 pounds). Pulse, 130. Exophthalmos and goitre unchanged. June 20.—Condition greatly improved. Patient able to indulge in moderate exercise without fatigue. Diarrhea has disappeared, tremor considerably lessened. Choreic movements have almost entirely disappeared. Appetite, sleep, etc., good. Weight increased 4 pounds (103 pounds). Pulse, 125. Neck, 38 cm., exophthalmos conspicuously less. June 27.—No more diarrhea, no choking spells. No complaints of any kind. Weight increased 2 pounds (105 pounds). Pulse, 120. July 5.—Fully able to do all kinds of domestic work. No complaints whatsoever. Weight increased 1 pound (106 pounds). Pulse, 120. July 11.—Condition excellent. Weight increased 2 pounds (108 pounds). Pulse, 130. July 23.—On the day previous to her visit she had diarrhea, which lasted 12 hours (probably due to an error in diet). Weight increased 1 pound (109 pounds). Pulse, 145. August 1.—Weight increased a half pound (109½ pounds). Pulse, 118. Neck, 36. A return of the menses during this week. Hemoglobin, 60 per cent. Leucocytes, 4,080 per cmm.

The case is an interesting one and the method of treatment one apparently worthy of trial. Parke, Davis & Co. supply the milk in a desiccated form in 5 grain tablets.

OPIUM IN DIARRHOEAL DISEASES.

Crandall gives the following contraindications to the use of opium in diarrhoeal diseases: 1. In the early stages of an acute attack, before the intestinal tract is cleansed. 2. When the passages are infrequent and of bad odor. 3. Where there are high fever or cerebral symptoms. 4. When its use is followed by an increase of temperature or by more offensive passages. It is indicated: 1. In cases with frequent painful passages. 2. When the discharges are large and watery. 3. In dysstages of a diarrhoea, when the discharges are small, frequent and nagging. 5. When there is lientery, the food passing undigested soon after ingestion.

A DIET TABLE FOR USE IN INTESTINAL DISEASES.

Swallow nothing that has not been either passed through a sieve or has not been so thoroughly masticated in the mouth that it is of the consistence of cream, and would readily pass through a sieve without

leaving any remainder. To avoid all skins, bones, strings and stones. Where these things cannot be removed from the article, such diet must be rejected; skins of fruit, of grapes, peaches, apricots, gooseberries, marmalade. Reject currants, raisins. Skins of vegetables, tomatoes, potatoes. Reject peas, beans. Skins of fish of all kinds. Reject sardines, whitebait. Skins of fowl—fowl, game, larks, quails. Bones of fish, sardines, herrings, trout. Reject whitebait. Strings in fruit— oranges, peaches, apples, pears, bananas, tamarinds, mangoes. Strings in vegetables, asparagus, cabbage, cauliflower. Reject carrots and turnips unless mashed and passed through a sieve. Strings in meat— stringy fibres of beef, sinews in larks, quails, fowl and game. Stone or seeds in vegetables—tomatoes. Avoid peas and beans unless most carefully chewed. Stones or seeds in all kinds of fruit—grapes. Reject nuts, almonds, strawberries, raspberries, currants. Strawberries, raspberries or currants may be pulped either alone or with sugar or cream, and may be passed through a fine sieve. The juice thus obtained may be taken either alone or with farinaceous food.

Patient may have milk with soda water or lime water, or even alone if sipped and eaten with rusk or biscuit, and well minced in the mouth. Bread, if stale; new bread to be avoided. All bread that breaks down under the finger and thumb into crumbs is old enough. Bread that under the pressure of the finger makes a stiff dough must be avoided. Rusk or biscuit, or cracker or bread and butter (not crust), provided it be well chewed in the mouth, so that it is of the consistence of cream before it is swallowed. Eggs in any form except hard boiled or fried. Generally the patient may have anything (fruit, vegetables, meat, fish or game) that has been passed through a sieve. All kinds of corn flour, tapioca, sago, rice, if well boiled and well chewed. Macaroni vermicelli, spaghetti, sassagna, Italian paste. (These may be boiled in stock which may be made with vegetables, if the vegetables are strained first. Essence of celery in quarter to one drop as flavoring). Cocoa freely. Tea (China) infused for short time. Butter in moderation. Cream cheese in small quantity and well mixed with bread in the mouth, or grated parmesan, but must not have any other kind of cheese. Gravy without grease from any kind of meat. Savory jellies (if there be no solids in them). Sponge biscuits. Madeira cake (plain, no currants, no peel). Grated meat, tongue, etc. Toast, if it be well masticated, but no hot buttered toast. Stale bread or toast in soup. Honey or golden syrup. The syrup of jam or marmalade with the seeds or skins strained out carefully; fruit jellies, apple jelly, quince jelly, guava jelly with bread or bread and butter, or with any kind of corn flower or arrow root, or macaroni or any kind of farinaceous food allowed.

SURGERY.

Under the charge of H. A. BEATTY, M.D., M.R.C.S., Eng.

Chief Surgeon Canadian Pacific Railway, Ontario Division ; Surgeon Toronto Western Hospital

FISTULA IN ANO.

J. A. MacMillan, in the *Detroit Medical Journal* for February, gives the following as the causes of fistula in ano :—

1. Low power of resistance in the anal and ischio-rectal tissue.
2. Pulmonary tuberculosis.
3. Lesions of the ano-rectal mucous membrane, such as hæmorrhoids, fissures, and ulcerations, which permit the entrance of pyogenic organisms to the perirectal tissue.
4. Ischio-rectal abscess.
5. Traumatism.

When the fistulous tract has been completely exposed by an incision, it should be curetted or scarified and the wound should be thoroughly and evenly packed with sterilized gauze.

In Gant's recent work on rectal surgery, it is stated that not more than fifty per cent. of the operations for the cure of fistula in ano are followed by cure, and the writer believes that the fault lies not so much in the operative technique as in the after treatment.

The wound should be dressed at least every twenty-four hours until completely healed. After granulation begins, while the wound is still deep, the dressing should be done twice a day.

In order that the wound should granulate evenly from its deepest part towards the surface, it is necessary that the gauze packing should be most carefully applied. The writer gives the purposes of his packing as follows :—

1. To control hæmorrhage and give relief during the first twenty-four hours by firm packing.
2. To keep the sides of the wound separated during the second and third days by loose packing.
3. To control exuberant granulations and maintain uniform healing, pressure from the gauze is applied as indicated, namely, firm packing where the granulations are exuberant, and very gentle pressure where they are frail.
4. Besides these special purposes, the packing has the general function of drainage.

SOME POINTS IN THE TECHNICS OF ASEPTIC OPERATING.

Dr. Henry T. Byford, of Chicago, in a paper with this title, said he did not offer any new method, but emphasized the necessity of more thoroughness in those already used. The method he employed consisted in (1) twenty minutes scrubbing with green soap and waer; (2) three minutes in dilute acetic, or citric, or oxalic acid; (3) five minutes in strong alcohol; (4) five minutes in a 1-2000 solution of mercuric chloride in water.

The author considered the use of rubber gloves open to the objection of macerating the cuticle, with danger of their being punctured and allowing septic sweat to escape. He deprecated the mixing up of the steps of the preparation by using a combination of green soap and alcohol, or by dissolving the mercuric chloride in alcohol, since aqueous solutions were more efficient than alcoholic. He advised disinfection of the hands one or more times during the course of long operations. Attention was called to the necessity of unusual care in the preparation of the field of operations in operating about the pubes and vulva. He recommended absorbent rather than occlusive dressings in the dressing of wounds after operation.

THE SIGNIFICANCE OF EXTRAVASATED BLOOD, IN THE HEALING OF FRACTURES.

It is a much mooted question, whether the blood poured out between the fractured ends of bones serves any function in the process of healing. Prof. A. Bier, the surgeon of Bonn, Germany, (*Medizinische Klinik*, No. 1, 1905) believes the fact to be unquestionable, that the blood extravasation is a direct agent in the healing process. It not only acts as a stimulus to, but also serves as a matrix for, new bone formation. Subcutaneous fractures heal much more quickly than those that are opened up and wired, because the surgeon is always careful to quell all bleeding, and thus to prevent hæmatoma from forming. All the methods of causing pseudarthroses to unite depend upon the fact of increasing the blood supply, to the part, e.g., massage, friction of the bone ends, percussion of the fractured site, and having the patient walk about. When the tibia is injured, a subperiosteal hæmatoma forms, and extensive callus formation results. When a hæmatoma forms in the muscles about the knee, bone is deposited in it. All these facts show that these blood extravasations tend to ossify. Bier has verified these facts clinically by the following procedure: In eight cases of pseudarthrosis due to delayed union, he injected about 20 c.c. of blood about the

ends of the non-united bones. In seven of these cases, bony union followed the treatment. Bier contends that the injected blood sets up the necessary reaction around the fracture site and stimulates the osteoblasts to activity.

THE BUFFALO EXPERIMENT ON CANCER.

The following statement has been given out from the Gratwick Pathological Laboratory of the University of Buffalo: "Drs. Gaylord and Clowes, assisted by Mr. Baeslack of the cancer laboratory of the State Department of Health, have recently performed a series of experiments on mice infected with cancer, which have led to the discovery of an antitoxic serum which visibly affects the growth of cancers in mice, and in a number of cases has been sufficiently active to cause the total disappearance and cure of tumors of considerable size.

"The field which is opened by these primary experiments is apparently a difficult one, but they should prove in principle that not only is cancer curable, but extend the hope that some means may be found to develop a similar immune serum which could be applied to human beings."

GANGRENE OF THE EXTREMITIES IN YOUNG PERSONS FOLLOWING INFECTIOUS DISEASES.

S. Barraud (*Centralblatt f. Chirurgie*, No. 50, 1904), has collected 103 cases of gangrene in young persons exclusive of senile or pre-senile gangrene and Raynaud's disease. As causal factors, embolism 10 per cent.; arterial thrombosis, the most frequent, and venous thrombosis, rare, are found. The mortality is high, 51 per cent.

INTESTINAL OBSTRUCTION IN CHILDREN.

Dr. John W. Erdmann (*Journal Amer. Med. Assoc.*, Jan. 21, 1905) says: The diagnosis is not difficult, although the symptomatology, as given in former textbooks on diseases of children, etc., should be rewritten, with a view to placing all the stress on blood or bloody mucous stools and not on the presence of a sausage shaped tumor. In over 60 per cent. of a series of 28 cases seen by him in 24 of which he operated, no tumor of any kind was palpable per rectum or through the abdominal wall. He does not find on searching his histories, a single acute case in which blood, bloody stool, bloody mucous, or bloody serum was not found, either on the diaper or expelled from the anus after digital examination.

GYNÆCOLOGY.

Under the charge of S. M. HAY, M.D., C.M., Gynæcologist Toronto Western Hospital; Consulting Surgeon Toronto Orthopedic Hospital.

ROENTGEN RAY IN GYNÆCOLOGY.

The New York Post-Graduate quotes Delphey as saying that the Roentgen ray offers no special diagnostic inducements to the properly-schooled gynæcologist. Plevic tumors, excepting dermoid cysts, can hardly ever be determined by the x-ray. The main use of the Roentgen ray in gynæcology is in the treatment of malignant neoplasms. The proper treatment, when diagnosis is made early enough, is to remove the growth entirely. When this is impracticable, or the growth can only be removed in part, resort should be had to X-ray treatment. Quite a number of cases of carcinomata have been very much improved, and epitheliomata has apparently been entirely cured by this means; and, as certain death is otherwise the only outlook, the patient should be given the benefit of the chance. The rationale of the treatment is not yet completely understood, but is plain that the X-ray in some way interferes with the life of the adventitious tissue, probably in two ways: by causing an inflammatory exudate, which chokes off the blood supply and which is followed by a fibroid change; and by causing a degeneration of the cells of all the tissues which are absorbed and excreted through the ordinary channels. Consequently these cases must be treated cautiously watching the pulse and temperature lest too large an amount of waste products be thrown into the general circulation for the eliminative organs to dispose of, in which case there would be likely an acute septic infection or at least a severe toxæmia.

ROUND-LIGAMENT SHORTENING BY AN EASY METHOD.

Dr. M. C. McGannon, of Nashville, Tenn., writes an instructive paper on the above subject in the March number of the *American Journal of Surgery and Gynecology*. We quote the doctor's description of the operation, and also the advantages claimed for it, as follows:—

A central incision, at least two inches in length, is made through the abdominal wall, immediately above the pubic bone. The uterus is freed from any restraining influences, and is brought forward to its normal position. The round ligaments are in turn picked up, about one and one-half inches from their origin in the uterus. A small incision through the peritoneum at this point is now made, and a piece of pedicle silk is passed through the opening and under the ligament. A pedicle needle or

a curved forceps is next inserted at the margin of the wound at its lowest angle, underneath the peritoneum, and made to pass outwards until the round ligament is reached, then along that structure until the point of the instrument emerges through the little slit in the peritoneum previously made over the ligament, about one and one-half inches from the uterus. The eye of the needle or the opened forceps is next made to engage both ends of the silk loop, by which the ligament was surrounded and the instrument is withdrawn conveying with it the thread. Dragging upon this thread draws the ligament upon itself immediately under the peritoneum, and out at the lower margin of the wound, where it appears in the form of a loop. This loop of ligament may then be so manipulated as to place the uterus in the exact position that the operator desires; in other words, the proximal part of the ligament may be made any length that is found necessary to hold the uterus in its normal position. The ligament as it is drawn forward to emerge under the peritoneum, and out at the lower margin of the abdominal opening, puckers and shortens the broad ligament, and tends to elevate both the ovary and the Fallopian tubes. The looped ends of each ligament is secured by stitching with the catgut to the posterior part of each rectus muscle near the lower angle of the abdominal opening, and by uniting them together in the centre line by means of catgut sutures. The abdominal wall may be closed by the usual method.

The advantages for this operation are:—

1. It produces a round ligament of normal length.
2. The ligament is left a post-peritoneal structure.
3. It leaves no injury to the peritoneum by which adhesions may be invited.
4. It utilizes the strongest and most muscular part of the ligaments, and throws out of commission the weak, atrophic, fibrous, distal end.
5. The ligament is attached firmly and efficiently to both the uterus and the abdominal wall.
6. The broad ligament is shortened. This I consider essential to success in all operations for shortening the round ligaments of the uterus.
7. It produces a minimum of trauma and does not penetrate or weaken any important structure.
8. The operation is easy of performance.
9. The time consumed should not exceed fifteen minutes, and in many cases the operation can be completed in five minutes.

OVERLAPPING THE APONEUROSES IN THE CLOSURE OF WOUNDS OF THE ABDOMINAL WALL.

Dr. Charles P. Noble, of Philadelphia, writes an interesting article on the above subject. He says the method is applicable in the closure of all wounds of the abdominal wall, no matter what the location of the particular wound may be.

The writer says it is now a generally received principle that the proper closure of incisions in the abdominal wall involves the union of homologous structures, and it is almost as generally accepted that this is best secured by the employment of the tier suture. There are surgeons who still claim that equally as good results can be obtained by means of the through and through suture, but the claims of these are contrary both to the theoretical considerations involved and to the general experience of the profession.

While the object of the suturing of incisions is to bring the homologous structures of the wound in apposition and to restore the abdominal wall to its original anatomical relations, it is nevertheless true that from the standpoint of the prevention of hernia the most important point is to secure firm union of the aponeuroses; because the strength of the abdominal wall, from the standpoint of resisting intra-abdominal pressure, depends more upon the integrity of the aponeuroses and fasciæ than upon the union of the other structures involved. The usual method advised is to suture these structures either with a running or interrupted suture so as to bring the cut edges in apposition. When it is recalled, however, that the aponeuroses of the transverse muscles are quite thin (about a line in thickness), it becomes evident that the cicatricial union of these edges when merely brought in apposition will be weaker than were the aponeuroses before their division. Impressed by this fact the doctor has made it a practice to overlap the fasciæ from one-third to one-half inch as a routine method. And he says the results thus secured in the prevention of hernia have been such as to convince him that this method insures a firmer union and a more certain safeguard against the development of hernia than any other method in use. Since 1897 there have been approximately eleven hundred and fifty wounds in the abdominal wall closed by this method, and of this number only three cases of hernia are known to have occurred.

In practice the method is quite simple. The incision in the hypogastrium for operation on the female pelvic organs may be taken as the type. This incision is made by choice through the inner border of the right rectus muscle. In closing the wound, the peritoneum is first closed with a

continuous suture of fine cumol catgut. The fat is then dissected from the upper surfaces of the aponeurosis of the transverse muscles on the left side of the wound from one-third to one-half inch. The aponeurosis upon the right side of the wound is then separated for an equal distance from the rectus muscle. The muscles and fasciæ are then sutured by means of a medium weight chromicized catgut suture in the following manner: The suturing is begun at the lower angle of the wound upon the left side. The suture is passed from above downwards through the aponeurosis and rectus muscle. Then the separated bundles of the rectus muscle are united with a continuous suture until the upper angle of the wound is reached, when the suture is passed from below upwards through the aponeurosis upon the left side of the wound. The suture is then passed from below upward through the aponeurosis upon the right side of the wound, and an additional suture is taken above this point to fix the suture and take the strain off that part which has brought the muscle in apposition. The aponeurosis is then closed from above downwards by catching the aponeurosis upon the left side of the wound after the manner of the Lembert intestinal suture, and then passing the needle from below upward through the aponeurosis upon the right side of the wound. When this suture is drawn taut, it slides the aponeurosis of the right side of the wound upon that of the left side and holds the two in apposition; the amount of overlapping depending upon the distance from the edge at which the needle is passed through the aponeurosis upon the left side of the wound. The process is repeated until the lower angle is reached, when the two ends of the suture are tied. In long wounds two or more mattress sutures are placed to take tension off the lines of continuous suture. The fat is closed with a continuous suture of fine cumol catgut. The skin is closed with fine cumol catgut suture by the intracuticular method.

OBSTETRICS AND DISEASES OF CHILDREN.

Under the charge of D. J. EVANS, M.D., Lecturer in Obstetrics, Medical Faculty,
McGill University, Montreal.

THE PATHOLOGICAL ANATOMY AND PATHOGENESIS OF THE TOXAEMIA OF PREGNANCY.

In this paper, Dr. James Living, in *American Journal Obstetrics*, Feb., 1905, demonstrates three clinical manifestations of the toxæmia of pregnancy and their associated hepatic lesions, briefly remarking the pathogenesis of these. Hæmorrhagic hepatitis, he states, takes place in 95 per cent. of all cases of any variety of eclampsia.

Acute yellow atrophy of the liver is, in his opinion, closely related to eclampsia, and is dependent on the toxins associated with pregnancy.

A case, four and a half months pregnant, is reported. Toxaemic symptoms were present for two weeks followed by fever, epistaxis, jaundice, muscular twitching, and one convulsion, two hours before death. The urine was free from albumen and casts, but contained leucin and tyrosin.

Autolysis of the liver cells is present in certain cases where the microscopic condition of the liver is apparently unaltered. In such cases the function of the organ is profoundly affected.

A series of cases of severe vomiting of pregnancy terminating fatally show the condition to be associated with (1) acute yellow atrophy of the liver; (2) the same necrotic process in a liver which is not reduced in size; (3) less marked degenerative changes indicative of extensive autolysis and profound disturbance of liver function. These lesions are thus identical with those found in eclampsia, therefore, the process in both series is one and the same.

One experiment on a rabbit, demonstrating the toxic effect of the blood from a case of pernicious vomiting, is mentioned. 10 c.c. of such blood, injected into the abdominal cavity of a rabbit, resulted in immediate muscular spasms, death following five days later. The liver showed well marked degenerative changes.

That leukæmia is occasionally close to the toxæmia of pregnancy. Living advances the following facts. Its frequent development shortly after pregnancy, and the frequent appearance of leucin and tyrosin in the urine in both conditions.

Living has no opinion as to the exact identity of the poisons but suggests that they are various and not fully accessible to present clinical and biological methods.

He suggests that acute yellow atrophy of the liver may occur in mild form and, in fact, is present in all cases of vomiting of pregnancy, hence no doubt can exist that the occurrence of this condition is often followed by recovery.

With regard to the urinary changes in the toxæmia of pregnancy, Living believes that the examination for various unoxidized proteid derivatives will prove a fairly reliable indication of the seriousness of the case. Not only must the precipitate be examined for leucin and tyrosin, but the filtrate must be tested as well.

He regards the toxæmia of pregnancy as being due to a "functional disturbance of the liver, usually but not necessarily attended by severe anatomical lesions of the kidneys and other organs. When albuminuria appears the disease is already far advanced."

As the disease is the result of a disturbance of function and the organic changes are only dependent on the presence of toxins, then in most cases where these can be eliminated recovery follows as cases have proved.

Saline irrigation and infusion seem to be the most effective agents. Ringer's fluid Living recommends as being more effective than plain saline. Its composition is as follows: Sodium chloride, seven grains; calcium chloride, two grains; potassium chloride, one grain; sodium bicarbonate, one grain; aq ad, 1000 c.c. The solution is best prepared with distilled water recently boiled, and the salts must not be heated enough to decompose the sodium bicarbonate.

OPHTHALMOLOGY AND OTOTOLOGY.

Under the charge of G. STERLING RYERSON, M.D., C.M., Professor of Ophthalmology and Otology, Medical Faculty, University of Toronto.

OPTIC NEURITIS AND FACIAL PARALYSIS.

E. A. SHUMWAY, Philadelphia (*Journal A. M. A.*, February 11), reports a case of postpapillitic optic atrophy with a history of prior right-sided facial paralysis with pain in jaw and with a noticeable flattening of the right side of the face from loss of sub-cutaneous fat, together with enophthalmus, all on the right side, while the optic atrophy was bilateral, most marked on the left. He finds in the literature only seven similar cases of this association of facial paralysis and optic neuritis, though a number of cases of optic neuritis have been reported in connection with polyneuritis. The atrophy and sinking of the eyeball is evidently rarer, as he has found no reports of a similar case. He has, however, been able to examine a case of Dr. Spiller's with flattening of the face and enophthalmus following rheumatic facial paralysis and implying, he thinks, as in his own case, some involvement of the seventh nerve. There were chloroanemic and disordered menstrual symptoms in Shumway's case, but he does not attribute to them the optic atrophy. His conclusions are given as follows: "1. Optic neuritis is occasionally associated with facial paralysis, either alone or as part of a multiple neuritis; the etiologic factor may be rheumatism, but at times appears to be infection, the nature of which is as yet undetermined. The optic neuritis is usually of the retrobulbar type, but a decided papillitis may be present, and be followed by more or less marked atrophy. In cases of multiple neuritis of the cranial nerves, the eye grounds should be examined for possible optic nerve complication. 2. In facial paralysis, flattening of the face and enophthalmus may appear, and are to be considered as due to a neuritis of the fifth nerve, and not to involvement of possible sensory fibres in the facial nerve."

THE ATTRACTIVE FEATURES OF GRADUATED TENOTOMIES UPON THE EYE MUSCLES.

A. L. Ranney gives the histories of twenty illustrative cases in which by graduated tenotomies he has restored to perfect health patients apparently suffering from incurable maladies. His experience leads him to consider eye-strain, which may exist without any refractive error, capable of inducing conditions of the utmost gravity, often apparently having little or no association with the eyes. Among these are asthenopia, epiphora, wry neck, epilepsy, insanity, nervous prostration, chorea, progressive muscular atrophy, loss of the intellectual faculties, uncontrollable neuralgia, insomnia, and uncontrollable vomiting. Even glycosuria may be relieved by correction of heterophoria, as apparently the close anatomical relationship of the diabetic center and of those controlling the eyes caused irritation of the former when the latter are called upon for abnormal activity. These cases require careful study, and frequently demand the methodical use of prismatic glasses for purposes of diagnosis in order to ascertain latent muscular errors. Tenotomies should never be suggested or performed too hastily, and those who have the largest experience are the slowest to operate, but the author condemns efforts to cure genuine heterophoria by the use of prisms.—*Medical Record*, February 11, 1905.

LOSS OF SIGHT FROM DISUSE OF THE EYE. (AMBLYOPIA EX ANOPSIA.)

D. B. St. John Roosa believes that the term *amblyopia ex anopsia* should be limited to those cases in which the use of the eye has been given up because to use it involves double vision, the maculae luteae being no longer in exactly corresponding positions, as is the case in any form of strabismus. Amblyopia due to obscuration of the media does not belong in this category. The case reported illustrates the fact that amblyopia in the deviating eye in strabismus is functional and not organic, and that it may be recovered from perfectly. The patient was a man of forty-six, whose right eye was amblyopic owing to suppression of the image accompanying divergent strabismus following overcorrection of a convergent strabismus. Five years ago the left eye, on which he was dependent for vision, was put out of function by an accident. Vision in the right eye was at this time 20-200 with a cylindrical glass of +4D., but with suitable correction and practice, in the course of five years he gradually regained the function of the organ until now his vision with the formerly amblyopic eye is 20-30 with an appropriate glass. The vision for fine type improved much more quickly than that for distance.—*Medical Record*.

CURRENT CANADIAN MEDICAL LITERATURE.

The Canadian Practitioner, March, 1905.

EXCISION OF THE WRIST.

This paper was read by Dr. F. W. Marlow at a recent meeting of the Toronto Medical Society. He referred to Lister's operation as advocated by that surgeon in 1865, in which the carpal bones and the ends of the radius and ulna and the bases of the metacarpal bones are removed. This operation may be required for tuberculosis of the joint, infection resulting in necrosis, severe wounds and injuries, ankylosis in faulty positions, irreducible dislocations.

Of the methods of operating the most frequently employed are those of Lister, Ollier, Langenbeck, König, and Kocher. The first two are characterized by a metacarpo-dorso-radial and a metacarpo-carpo-ulnar incision. Ollier's method adds a short incision on the radial side for drainage. In the latter three methods there is only a single dorsal incision, Langenbeck's being a metacarpo-dorso-radial, König's having a similar one though not so extensive in an upward direction, while Kocher's is a metacarpo-dorso-ulnar one. All the operations are tedious and often difficult. No diseased bone or synovial membrane should be left. In Lister's method the insertions of the radial and ulnar extensors and the ulnar flexor of the wrist and the origin of the thenar and hypothenar group of muscles are divided. A better result is likely to ensue if it is possible to preserve some of these structures. If it is possible to complete the removal of the diseased parts without sacrificing more than the upper and lateral articular cartilages and surfaces of the metacarpal bases, and at the same time to leave the trapezium, the pisiform and the hook of the unciform, such preservation may be accomplished.

Before the operation an attempt should be made to freely flex and extend the fingers. During the operation the tendon sheaths should be preserved as far as possible, and also all the healthy periosteum. But great care should be taken not to leave diseased periosteum.

The parts are dressed with plenty absorbent and the forearm and hand put in a splint. An ordinary straight splint answers the purpose. The hand is slightly extended and the forearm flexed and semi-pronated. To allow the approximation of the bones the splint should be removed and adjusted every two days. At the end of one week passive motion

should be commenced, and kept up until the risk of ankylosis is over. Movements of the thumb and fingers should be persisted in. The operation may be followed by a flail-joint, complete ankylosis, or a fibrous union and mobility. An interesting case is reported.

THE USE OF THE PELVIMETER DURING THE PUERPERIUM.

Dr. F. Fenton has a short article under the title of "some lessons to be derived from the use of the pelvimeter during the puerperium." He directs attention to the fact that the position of the fundus uteri should be the guide as to when the patient may be allowed out of bed. The disappearance of the fundus below the symphysis should be the obstetricians' milestone. Dr. Fenton's rule is to keep the patient in bed till the second day after this position of the uterus has occurred. He mentions sepsis of the endometrium and lacerations of the cervix as delaying involution. He has repaired cervical lacerations five or six days or even as late as ten days after labor. He does not hesitate to keep a patient in bed till the fundus is in a satisfactory position and remarks, "but it is not only in normal cases that the pelvimeter is of service to us."

INVOLUTION AND SUBINVOLUTION OF THE UTERUS.

Dr. Adam Wright discusses this subject briefly. He thinks that sufficient attention is not given to the progress of uterine involution after labor. He is in the habit of watching carefully the involution line and finds that the uterus contracts more rapidly in primipara than in multipara. The fundus reaches the top of the symphysis on the eighth day in 70 per cent. of the former and only in 40 per cent. of the latter. He does not think that the ascent of the fundus always means sepsis, nor its descent the absence of sepsis. When the fundus is found too high on the second day, it may be due to a distended bladder. He does not think subinvolution alone should lead us to interfere with the uterus. He also holds that recent and old lacerations may cause delay in the uterus returning to its proper size.

OBSTRUCTION OF MAIN BRONCHUS BY A SHOE BUTTON.

Dr. W. B. This'le reports an interesting case. The diagnosis was extremely difficult, there being hyper-resonance over the upper portion and dulness over the lower portion of the lung. At the end of two months, a violent coughing spell brought up a good deal of pus and a corroded shoe button. The conditions at once changed, over the dull area there was bronchial breathing. The recovery was good.

The Maritime Medical News, February.

THE DOCTOR AND THE CRIMINAL.

Dr. O. J. McCully, M.R.C.S., Eng., of St. John, N.B., takes up this subject in an exhaustive and timely article. First he deals with some of the fundamental laws of evolution and dissolution, and applies them to the nervous system. He points out the advance made by medical science in showing that epilepsy and insanity were diseases and not diabolic possessions. Reference is made to the teachings of Aristotle that certain conformations of head and physiognomic expressions indicated vicious and criminal instincts. The work of Gall and Despine is referred to as creating our modern Anthropology and Criminology. The great work of Lombroso on Delinquent Man laid a firm foundation of the study of the criminal. Much work has been done in Britain along this line by Morrison and Maudsley. The criminal must be studied biologically and sociologically. Anatomical abnormalities are very common in criminals, especially about the head and brain, the latter usually being considerably under the average weight. The convolutions are often irregular, or pertaining to the carnivorous type. There is a tendency to a confluence of the fissures; and the capillaries are degenerated, the meninges thickened and the remnants of old congestions. The lower jaw is usually heavy and projecting. A receding chin is found in criminals who are such from weakness. The ears are large and often present a tubercle on the helix and a prominent tragus. Prominent zygomata and cheek bones, badly formed and deflected noses, and many wrinkles are marks of the criminal type. Criminal women have usually a great deal of hair, which pertakes of a distribution similar to that of the male.

With regard to the physiognomy of criminals Lombroso is quoted as follows: "They are remarkable for the mobility of their features and of their hands; the eyes are small and very restless; eyebrows thick and close; nose often crooked and incurved; the forehead nearly always narrow and reclining; the complexion pale and yellow and incapable of blushing." Any one of these features may not count for much; but, taken together, they make a strong case. Criminals resemble savages and the insane in being very insensible to pain, and can inflict much physical torture upon themselves. They possess psychological peculiarities. It is very rare to find a true criminal express remorse, and as Gall said, it is that he was caught. The criminal is more astute than intelligent, and he lacks in forethought, thus overlooking the possibilities of his action and afterwards loses caution. Criminals are always vain. They are regarded by their associates as heroes and they so consider themselves. They are lazy and it is the desire to escape work that makes them resort to crime in many cases.

As much as 60 per cent. of criminals show a hereditary' history of crime, insanity, epilepsy, or drunkenness. The latter feature in their heredity is very marked, drunken parents producing a large number of the criminals. Murder and crime against the person are more common in tropical than northern climates, and in summer than in winter. Destitution causes crime as well as a sudden rise in wages, through the dissipation that results.

These varieties of the criminal type, such as the criminal by passion, or one who acts in uncontrollable anger, the occasional criminal, or one who yields to temptation, the instructive criminal who has no restraining social instincts, the professional criminal, and criminal insane. Our present legal system does not take these features into consideration and has regard too much to the crime and the punishment, while true criminology considers the crime, the criminal and the protection of society. Crime is the result of forces that have been acting so as to affect the individual, in the same way that insanity is the result of a diseased or abnormal condition. "Criminals are manufactured," said Maudsley, "like steam engines."

In dealing with punishment, the writer does not object to the death penalty for some cases, as it rids the community and is more humane than life imprisonment. He strongly condemns definite sentences. Criminals should be committed for study and reformation. An effort should be made to pick out and treat abnormal children. All children should be taught to use the hand as well as the head, as this tends to correct indolent habits, so common in the criminal. All those conditions that cause hereditary taints must be sought out and corrected.

EDUCATION AGAINST PULMONARY TUBERCULOSIS.

Dr. J. H. Scammell, St. John, N.B., lays down the following conclusions as admitted by the profession :

1. Tuberculosis is a communicable disease, due to Koch's tubercle bacilli acting on an organism prepared to receive it, or unable to resist the bacilli when present in large numbers.
2. Tuberculosis is not to any great extent hereditary.
3. Tuberculosis may be prevented by reducing the sources of infection by improving the environment, by strengthening the individual.
4. Tuberculosis, in many of its severest varieties, can be cured.

The great work of educating the public on the infectious and preventable nature of the disease rests largely on the shoulders of the medical profession. The consumptive should be put in possession of the instructions that will enable him to lessen his danger to others. To spread such information all cases should be reported.

Dominion Medical Monthly, February, 1905.

GENERAL INFECTION BY THE STAPHYLOCOCCUS, STREPTOCOCCUS AND PNEUMOCOCCUS.

Dr. H. B. Anderson reported a case of general infection by the above germs to the Clinical Society of Toronto. The text of his paper appears in the *Dominion Medical Monthly* for February. Blood, taken from a vein, yielded staphylococci in cultivation. Pus from an otitis media showed the presence of streptococci, and there was also during the illness an attack of erysipelas, due to this germ. There was a typical pneumonia caused by the pneumococcus. There were abscesses, rheumatic pains, a pleurisy, inflammation of the pharynx, spleen and liver, and an extension of this to the peritoneum. The illness lasted from December, 1903, to September, 1904, when the patient, a woman aged 39, died. Towards the end of the illness bed sores formed. There were chills and considerable variation of temperature. The blood count on one occasion was 2,736,000 reds, 116,000 whites, and 70 per cent. haemoglobin. "The patient presented in succession the clinical evidences of a general infection, endocarditis, acute splenic tumor, perisplenitis, left basal pneumonia and pleurisy, acute naso-pharyngitis, double suppurative otitis media, erysipelas, pains and swelling in numerous joints, intense pain and tenderness in the limbs, multiple subcutaneous abscesses with resulting indolent ulcers, right apical pneumonia and generalized right pleurisy, perihepatitis and paralytic distention of the bowels." It was not possible to discover the point of entrance of the infection.

THE VOMITING OF PREGNANCY.

This is the subject of the article by Dr. S. J. Elkin, of Winnipeg. The reflexes are discussed at considerable length, such as tickling the sole of the foot causing a movement of the leg, the irritation of a foreign body in the eye producing a flow of tears, and the presence of cough from some body in the meatus of the ear. In the pregnant uterus the foetus produces stimuli which may act on the muscles of the uterus through the spinal cord and cause an abortion. On the other hand the stimuli may be carried to the medulla and be then reflected upon the stomach through the vomiting centre, giving rise to nausea, vomiting, or anorexia. The condition of the nervous system may have something to do with the effects of those stimuli, as some nervous systems are less stable than others. In some cases the bearing and nursing of children reduce the health and render the patients more sensitive to reflex influences. In sea sickness the motion of the vessel disturbs the semi-circular canals causing an irritation which is carried to the medulla and thereupon affects the stomach. In

these cases of sea sickness tolerance is established, and this may account for the cessation of vomiting in pregnancy in most instances as the system becomes accustomed to the condition. Means to allay the sensitiveness of the nervous system may do good. The many drugs that have been employed for the vomiting are of doubtful value. Stretching the cervix may relieve some cases, as may also the application of cocaine. The frequent taking of some food has proven useful. Diverting the surplus energy of the nervous system in some other way than upon the stomach is of much benefit.

The Montreal Medical Journal, February, 1905.

ACTINOMYCOSIS: A SYMPOSIUM.

The first paper is a report of cases and some comments by Dr. James Bell, of Montreal. He remarks that the cause of the disease is streptothrix actinomycotica, and that it is common to man, bovines, sheep and pigs. The disease is generally chronic, but may be acute. As there is a good deal of proliferative tissue, the condition may be mistaken for other granulomata such as tubercular and syphilitic lesions. Langenbeck discovered the parasite in 1845, but Israel's work in 1878 made the disease well known. A certain diagnosis depends upon the discovery of the parasite, which is sometimes very difficult to do. The lesions of actinomycosis may be found in almost any tissue of the body. The actinomyces may be carried by the vessels to remote organs. Animals have been inoculated with the fungus from other animals, but it is rare for the disease to be communicated from one person to another or from a lower animal to man by contact or by their flesh used as food. The parasite occurs as a smut on grains and grasses, notably bearded varieties. The fungus may enter through the mouth or the digestive canal, or by means of a wound, or be inhaled as dust from the grain or grass. The features of the disease of importance for its detection are proliferation and tissue increase, the tendency to extend to the surface and to enter the blood vessels, and the presence of yellow granules in the pus. This latter sign is not very reliable. The disease is not likely to be mistaken for cancer or sarcoma. The treatment consists of the radical removal of the growth where possible, or thorough curettage and the application of tincture of iodine or nitrate of silver. The internal administration of potassium iodide has proven of much benefit. A number of cases are reported. Dr. Bell states that it may not be too great a flight of the imagination to regard a similar parasite as the cause of cancer and sarcoma.

Professor J. G. Adami discusses some points in the history of the disease and its causation. He refers to the work of Langenbeck, Israel,

Louis, Lebert, Bollinger, Ponfick, Bostroem and others. Bostroem was the first to succeed in making cultures of the ray fungus in 1888. Dr. Adami thinks that the ray fungus constitutes an intermediate form between the bacteria and the hyphomycetes proper or moulds. The opinion is ventured that we have to deal with more than one variety of organism; and this is borne out by the difference in the clinical history of cases and by the microscopic appearance of the mycelium.

Dr. W. W. Chipman follows with a paper on the Clinical Aspects of Actinomycosis. Two interesting cases are reported, both being of the pelvic organs, one under the care of Dr. Berry Hart, of Edinburgh, the other under Dr. Gardiner of Montreal. In both cases the primary focus of infection was the intestinal canal. One of the cases ran an acute course with fever, rigors and rapid amaciation. The other case was chronic with very little fever, pain, emacaton, or loss of strength.

Dr. W. F. Hamilton discusses actinomycosis from the medical point of view. He remarks that surgery must be the mainstay in the treatment of the disease. There are cases that cannot, however, be dealt with surgically. Potassium iodide in free doses has been of benefit. The x-ray treatment has been tried, but with doubtful results. Lately, Prof. V. Baracz has introduced the use of colloid silver or colargol by means of intravenous injection.

Dr. A. G. Nicholl takes up the Bacteriology of Actimycosis, which belongs to a group of disease known as the infective granulomata, such as farcin du boeuf, glanders, tertiary syphilis, leprosy, tuberculosis, actinomycosis, mycetoma pedis, and mycosis aspergillum. In all these diseases the lesions are histologically similar. With regard to the organisms, in glanders, leprosy and tuberculosis there is a frank bacillus; in farcin du bceuf, a branched, thread-like form; in actinomycosis, a rosette-shaped organism; and in the melanoid variety of mycetoma and in mycosis aspergillina, a much higher type, a hyphomyces. Some attention is given in the paper to the changes the above organisms go through in the course of their development. In actinomycosis the organisms do not always take on the club form, but assume the long branching form, as a streptothrix. Actinomycosis must be distinguished from diseases where granulomata are present, especially tuberculosis. The discovery of the ray fungus and the sulphur grains in pus, sputum, or other discharges clears up the diagnosis.

Dr. E. W. Archibald follows with some remarks on the Clinical Bacteriology, in which he mentions seven varieties of the organism have been found that are pathogenic for man. Dr. Keenan, Dr. Abbott, Dr. Garrow and Dr. McKenzie have also some additional remarks upon the disease, and the varieties of the organisms causing.

URINARY EXAMINATIONS IN NEPHRITIS.

This is the subject of an interesting paper by Dr. W. W. Francis. In some instances alarming symptoms may arise, or the cases terminate fatally, when the urine revealed nothing to create suspicion, as albumen was absent. Likewise, the estimation of the urea is of little value, as it may vary very much in nephritis. With regard to casts the writer states that they may be present in abundance without albumen and in conditions where there is no primary nephritis. Also casts may be extremely rare in cases with abundance of albumen. It is remarked that blood in the urine may evade every search for its source. It is also stated that results of the urinary examinations may lead one to expect conditions in the kidneys which the autopsy completely negatives. In some cases the urine may vary so much from day to day that it is impossible to decide upon the condition of the kidneys. Again the kidneys may be seriously invaded by sarcoma and yet the urine present very little to reveal the presence of such disease. Much importance is attached to variations in the quantity and specific gravity of the urine, indeed this is regarded as of more value than anything else.

PANOTITIS DURING TYPHOID FEVER.

Dr. G. K. Grimmer reports a case in which there was a very destructive otitis in both ears during typhoid fever. There were the formation of pus and the loss of the ossicula. There resulted complete deafness. Antiseptic syringing was kept up and some polypoid granulations removed as well as the small bones of the ears. Potassium iodide was given internally and the daily hypodermic injection for a month of 4 to 8 minims of a 1 per cent solution of hydrochlorate of pilocarpine.

MALIGNANT PUSTULE AND SEPTICO-PYÆMIA.

Dr. Campbell reports a case of anthrax affecting the shoulder ending in death. Dr. McKenzie gives the history of a case of septic-pyæmia which ended fatally, and where the organism found was the staphylococcus.

QUEBEC MEDICAL NEWS

Conducted by MALCOLM MacKAY, B.A., M.D., Windsor Mills

On February 21st a union banquet was held by the Societe Medicale de Montreal and the Montreal Medico-Chirurgical Society, the first function of the kind in which Montreal English- and French-speaking medical men have met under the names of their societies.

Many speeches were made and the fraternal good fellowship which existed between the guests was a pledge of the harmony between the French- and English-speaking sections of the profession.

Dr. E. P. Lachapelle, who was chairman, was supported by Sir Wm. Hingston, Hon. Dr. Lanclot, Prof. Shepherd, Prof. F. W. Campbell and Dr. Labeye.

In proposing the toast of the Medical Profession, Dr. Lachapelle remarked that it was the first time the whole profession was united in Montreal. He could see no reason why the two elements should not meet oftener socially, for that would help towards meeting together scientifically.

What Dr. Lachapelle particularly urged was unity. By unity they could make the Legislature recognize their rights, whereas now it refused the necessary legislation to suppress charlatanism; by unity they could enforce respect from other professional bodies; by unity they could imbue the public with a proper respect to do justice to medical services. They constituted the best and most unselfish ally the public possessed, for often they worked disinterestedly. Why could not the medical profession with its societies, hospitals and hygienic bureau, make its influence felt more strongly? Unity only had been lacking, and he was happy to think that this banquet marked an era of advancement, the dawn of that union they required. Difference of language should not constitute a barrier, but be they French-Canadian or English-speaking Canadians, their one object was the progress of their profession, in the fullest sense of the word.

In responding as the representative of McGill University, Prof. Shepherd mentioned that there was still a regulation in existence permitting examination papers to be written in either French or English. He briefly referred to the friendliness of McGill in past and present to their French-Canadian confreres, and urged that difference of race and language should be forgotten.

Sir William Hingston, who replied for Laval University, spoke both in French and English. He said that medical science knew no geographical boundaries, and there was no such thing as a purely national science. Each country knew and availed itself of the science of another, and Canada stole more than them all, taking from Germany, France, Great Britain and the United States.

"I want to urge upon you," said Sir William, "that the more you meet together, the more you unite, the more you will gain. That is the purpose and function of every well educated gentleman."

Prof. F. W. Campbell, replying for Bishop's University, told some anecdotes of those men of the past, who had set their seal on the medical profession in Montreal—Drs. Munro, Trudell, Pelletier, Bruneau, Dean Holmes, Scott, Robert Palmer Howard, Sutherland, and Professors George W. Campbell and Fraser.

Profs. L. de L. Harwood and Armstrong replied for the Medico-Chirurgical Society, and Dr. J. G. McCarthy and Prof. Mercier for the Societe Medicale de Montreal.

Songs were contributed during the evening by Drs. Fleury, Lockhart, Beauchamp and Haldimand, Dr. G. E. Cartier acting as pianist.

It is stated that the Faculty of Medicine of the University of Bishop's College is to be amalgamated with the Medical Faculty of McGill University. The details have been discussed, but as yet no official announcement has been made, and those most concerned in the movement have nothing to say upon the matter, and declare that the newspapers are premature in their statements. The question has been brought up many times in an unofficial way, and it has been surprising to many that the faculties have not united long ago. The Medical Faculty of Bishop's College is quite a recent institution, having been founded in 1872 by Dr. F. W. Campbell, Dr. Trenholme and others. Dr. Campbell was its first registrar and subsequently became Dean of the Faculty, much of the life of the College being due to his untiring efforts.

It is believed that McGill will recognize the medical degrees granted by Bishop's College in the past, and that present students will be placed on equal footing with those of McGill.

The eighty-second annual meeting of the Board of Governors of the Montreal General Hospital was held on February 21st. The chair was occupied by the President, Mr. Jas. Crathern, who, in his opening address, said that the income of the hospital for the past year amounted to \$83,589, which is \$7,605 less than in 1903. He expressed the hope that the citizens of Montreal would provide by their annual subscriptions the necessary funds to care for the sick and injured, regard-

less of race or creed. In December, 1903, the endowment fund amounted to \$50,500, to which \$25,000 had been added during the past year.

The total number of patients which have been passed through the wards of the hospital during 1904 were 3,144, against 3,066 in 1903.

The outdoor patients numbered 38,922, against 35,984 in 1903, showing an increase of 2,938.

Nineteen nurses graduated and received their diplomas and medals, making a total of 233 that have passed through the training school since its establishment.

The committee has completed the purchase of the whole frontage on Dorchester Street from St. Dominique to Cadieux, at the cost of \$25,000, and it is hoped that an additional wing will be erected upon this newly acquired property.

The average number of days spent in the hospital was 22.05, and the aggregate number 69,212, an increase of 1,775 over the year previous. The death rate was 7.98 per cent., or 4.5 per cent. exclusive of deaths occurring within three days of admission.

Two hundred and forty-five autopsies were held in the pathological department, and 1,374 examinations carried out by the attending staff.

The following staff was elected for the year :

Physicians—W. A. Molson, M.D., M.R.C.S. (Eng.), A. D. Blackader, B.A., M.D., M.R.C.S. (Eng.), F. G. Finley, M.D., H. A. Lafleur, B.A., M.D.

Surgeons—F. J. Shepherd, M.D., M.R.C.S. (Eng.), George E. Armstrong, M.D., J. Alex. Hutchinson, M.D., L.R.C.P. & S. (Edin.), J. M. Elder, B.A., M.D.

Assistant Physicians—F. W. Campbell, M.D., L.R.C.P. (London), G. Gordon Campbell, B.Sc., M.D., S. Ridley Mackenzie, M.D.

Assistant Surgeons—Kenneth Cameron, B.A., M.D., Chas. W. Wilson, M.D., M.R.C.S. (Eng.), J. Anderson Springle, M.D.

Specialists—Oculist and aurist, John J. Gardner, M.D.; assistant oculist and aurist, J. W. Stirling, M.B. (Edin.); gynaecologist, F. A. Lockhart, M.D.; assistant gynaecologist, John D. Cameron, M.D.; laryngologist, H. D. Hamilton, B.A., M.D.; assistant laryngologist, George K. Grimmer, B.A., M.D., F.R.C.S. (Edin.); neurologist, David A. Shirres, M.D.

At a meeting of the St. Francis Medical Association the question of the indiscriminate use of wood alcohol was discussed, and it was decided to petition the Minister of Justice in connection with the sale of the alcohol. The petition points out that wood alcohol is used largely as a substitute for grain alcohol. It is stated on reliable authority that unscrupulous manufacturers of alcoholic preparations use refined

wood alcohol for making liniments, essences, medicinal extracts, and proprietary remedies, and is even used for adulterating whiskey, a number of deaths having recently taken place in New York in this way. It is also retailed as a substitute for the more expensive grain alcohol for bathing and sponging the sick, for use in Turkish bath cabinets, etc. It is recognized by the highest medical authorities as a highly dangerous poison, many deaths being recorded from its use; not only is it dangerous to life, but it has been proved that its use has been followed by total blindness.

Dr. C. Wood, of Chicago, and Dr. F. Buller, of Montreal, record 153 cases of total blindness, and 122 cases of death from its use during the past few years. The petition points out the danger from the use of this alcohol, not only when taken internally, but also when imbibed by absorption through the skin. It is also stated that some druggists substitute wood alcohol for grain alcohol, and these facts warrants the secretary to drawing attention to the evil. It is suggested that all wood alcohol be labelled poison, and also that its use in adulterating articles of food for human consumption be made a criminal offence.

Dr. Camirand reported an interesting case of sarcoma of the cranium, which involved the brain, there being but few pressure symptoms with the exception of an optic atrophy following neuritis. The tumor was operated upon, but death resulted. Photographs and specimens completed a most instructive demonstration.

Dr. J. Roddick Byers read a paper upon Relative Aortic Insufficiency, illustrated by two cases from the wards of the Royal Victoria Hospital.

The Corporation of the Sherbrooke Protestant Hospital met in February, and the Governor's report was submitted for approval.

The report states that there was a large increase in the number of patients admitted to the hospital during the past year.

There were admitted 282, and of these there were discharged cured 240, improved 9, unimproved 4, died 17. The aggregate number of days in the hospital was 4,807, the average being 17 per patient. The financial report showed a satisfactory year. The total contribution from the public amounted to \$3,645.93, hospital earnings \$3,689.54, making a total of \$7,335.47. There was a balance of \$950.03, which was carried to the capital account.

Majr Wood, who has recently donated sun-parlors to the hospital, and in times past has contributed so largely to all the funds, tendered his resignation as President, and a resolution of regret was passed by the Board.

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EDITORIAL.

HIGH BLOOD PRESSURE.

Cases of this nature are very common. They are marked by some abnormal resistance to the onward flow of the blood. Degeneration in the blood vessels, chronic disease of the kidneys, or some poison in the blood giving rise to high arterial tension, leading to cardiac changes, are the features of these cases. The treatment of these cases resolves itself largely into that of the conditions leading up to the cardio-vascular changes and high tension. It is of the utmost importance that cases of high arterial tension should be detected as early as possible, as they are much more likely to yield to treatment in their early stages than when they are advanced and the vascular system has undergone serious degenerative changes. It should always be borne in mind that, setting aside ordinary diseases and accidents, the duration of life is mainly determined by the condition of the heart and arteries. "A man is as old as his arteries."

The heart, the blood vessels and the kidneys are very closely linked together in all true high tension cases. Indeed, the late Dr. G. W. Balfour, of Edinburgh, stated that it was quite impossible, in most cases, to say whether granular kidney and arterio-sclerosis were diseases beginning first in the kidneys or in the vessels. An instance of the close relationship between the heart, vessels and kidneys is found in the disease known as chronic Bright's disease. A person may die of chronic Bright's disease with fairly normal kidneys, the force of the pathological changes having expended itself on the vessels. In chronic nephritis, the earliest symptoms may be cardiac hypertrophy, headaches, increased urine-flow, epistaxis, indigestion, or a general failure in health before the kidneys are suspected, or, indeed, could be shown to be diseased.

The earliest signs of high arterial tension or chronic Bright's disease are to be found in derangement of function. It is through the blood supply to the various organs that their functions are maintained and performed. Early in high arterial tension and granular kidney, the regulating qualities are the arterioles begin to suffer, and, consequently, there is derangement of function. The small arteries are the first to suffer and indeed may suffer for a long time before marked changes take place in

the larger arteries, the heart, or the kidneys. Among the earliest symptoms may be insomnia, vertigo, weakness, headache, slight aphasia, nervousness and momentary unconsciousness. In these cases, so long as the tension is maintained the patient is not likely to suffer from the circulation, though there are many dangers to the nervous system.

In the management of these cases it is necessary to find the cause and treat it and not merely to direct attention to the high tension symptom. Among the causes of prolonged high tension, over activity of the circulation and the presence in the blood of toxins take first place. Nervous strain, worry, over work, severe and prolonged physical exertion come under the first head; while defective excretion of the waste products of metabolism, as by defective action of the kidneys, belong to the second. But many poisons may be introduced into the system, such as alcohol, lead, and those arising from over eating.

In the treatment of high pressure cases, warm baths are of much value, as they relax the arterial system and relieve the heart in this way. The elimination of toxins is also encouraged and the vascular tone lessened. If salines be added to the bath a better impression is made upon the skin. It is these warm baths that constitute a leading feature of the Schott treatment of cardio-vascular disorders. But there are examples of high blood pressure and vascular changes due to this among business men who are too close at their duties and who may consume a considerable quantity of alcohol. The treatment of such cases lies in the correction of these habits. It has become a well established fact the most successful men often overwork themselves during their prime and suffer from cardio-vascular changes which tend to very materially interfere with their health in the latter period of life, or even to seriously reduce the duration of life.

The cultivation of a cheerful disposition is of much importance in the management of these cases. This should never be overlooked. Depression, anxiety and worry may defeat every effort made for the benefit of such cases.

The hygienic treatment must be the mainstay of the physician. Errors in diet and habits must be corrected, and the eliminative functions must be put in the best condition possible.

With regard to drugs, no routine practice should be followed. Iodides are of value, and some contend that iodine should be given and let it make its own compound in the system. The nitrites are capable of producing a temporary reduction of the arterial tension, but it is not likely to succeed for any length of time, as much cardiac irritability often results from this plan of treatment. But the treatment by nitrites merely deals with the symptom of high tension, having no influence on the real conditions or causes. In the later stages, when low pressure takes the place

of the high pressure, or when the heart is beginning to break down from its efforts to overcome the previous high tension, the exhibition of digitalis and strychnine may prove very useful.

In the early stage of high tension cases, the employment of the nitrites is often of very decided value, as they temporarily reduce the tension and enable the system to take greater advantage from the other lines of treatment instituted for the relief of the condition.

EUGENICS.

Much has been said lately upon the topic of "Eugenics." By this term is understood whatever tends to improve the race both as to the in-born qualities and the cultivation of these qualities so as to bring them to the greatest state of perfection. The term eugenics means well born or of good stock.

Stock breeders may know nothing of such a word in its scientific meaning, but they know much about it practically. Successful breeders mate their animals with great care, in order the offspring may possess the maximum of good points. No such care is taken with the human species.

Many qualities in man are admitted by every one as of the utmost importance to the individual and the race. Of these we might mention health, strength, courage, energy, ability, manliness, and courteousness. Special possessions would be valued highly by those who were fortunate enough to be distinguished in some way, as the poetic gift, the artistic power, the musical quality.

The study of eugenics has for its aim the elevation of the general qualities of the race. By this means the standard of the entire nation would be raised. The political, the social, the religious, the commercial, the educational life would occupy a higher plane; and the total amount of disease, crime and degeneration would be decidedly lessened.

One of the objects of eugenics is to cause the useful classes to contribute largely to the next generation; and that the perverted, sickly, immoral and criminal classes be placed under such restraints as will reduce their progeny to the lowest possible minimum.

This is not at all an academic question. Some states are now moving along lines to limit the marriages among the degenerated classes, as the criminal, the epileptic, the drunkard, the mentally defective. Along this line there is much room for useful advance. The rights of the individual must always be subordinated to those of the State; and, therefore, there need be no compunctions about prohibiting marriage in the case of an epileptic, or one who is mentally defective.

The conditions under which civilization tends to cause infertility must be sought out, as also the conditions under which the most desirable

classes of families have had children of the best types. A distribution of suitable information would do something to discountenance improper marriages. In addition to this, however, the State should legislate along certain lines. It is much better to prevent the birth of the criminal, the epileptic and the mentally unsound than to take care of them after they come into the world. Much is being done at present along the lines of preventive medicine. Why not make preventive medicine apply to the hereditary aspects of the race, as well as to the limitation and control of infectious diseases? One could hardly imagine a more worthy object of legislation than that of raising the general level of the people socially, physically, and mentally, and thereby restraining crime and vice.

The study of and legislation regarding the heredity of disease and crime should be made the subject of close attention. It must be made familiar, until its importance becomes understood and accepted; it must be recognized as a subject, deserving serious consideration; and it must be introduced into the national conscience.

Towards the production of ill health and a wide spread evil influence on the unborn child, perhaps nothing ranks more potently than the consumption of patent medicines, containing alcohol and narcotics in large percentages as many of them do. This evil can be prevented. When we are doing so much to limit the spread of diphtheria, scarlet fever and smallpox, why not also limit the production of drink habits and drug habits by limiting the sale of injurious ingredients in proprietary medicines?

THE DANGER OF BARRED WINDOWS IN HOSPITALS.

News came some time ago from Chicago that a fire broke out in a sanitarium. Twelve men and one woman lost their lives. We quote the following from the description given of the catastrophe:—

“A scene that wrought to the pitch of madness the great crowd that had gathered around the building was enacted at a fourth-story window on the north side. Across this window was a heavy wire screen, and on the outside of the screen were iron bars running parallel to the sill. The space between these bars was too small to allow the passage of even a small boy, and behind them were gathered a crowd of men whose numbers were afterwards found to be between 25 and 30. The escape in other directions was impossible, for the fire filled all the halls, and was steadily eating its way toward the window at which the men were standing. The one chance for life for that crowd of men lay through that screened and barred window. The men closest to the screen tore and tugged at it in a vain effort to tear it from its fastenings, and more behind them fought madly to get close enough to the screen to fasten their fingers in it. So fiercely did the pri-

soners pull at the screen that from the street below were plainly visible tiny streams of blood that trickled from lacerated fingers and hands, and flowed over the window-sill.

The bars were finally wrenched out, and most of the inmates saved."

Recently in two of the Toronto hospitals there have been two fatal accidents, caused by patients, temporarily deranged mentally, jumping out through windows in the higher flats of these buildings. In both of these cases, the coroners' juries recommended that the windows be barred, or protected so as to prevent the recurrence of any such accident.

In the sanitarium in Chicago, just referred to, these precautions had been taken. The result was a catastrophe, far in excess of any that would ever happen by leaving the windows unbarred. It is quite clear that no rule can be laid down. In the well meant efforts to prevent an occasional accident, it is possible to create the conditions that may readily give rise to a holocaust, as in the case of the Chicago sanitarium disaster. It might be well for juries to consider both sides of a question, before they indulge in passing resolutions for the government of public institutions. "Audi alteram partem" and "Ne quid nimis" are excellent working mottoes.

EPILEPSY.

Epilepsy is a disease, or rather group of diseases, that has always attracted much attention at the hands of scientific physicians. We know but little definitely of its pathology; and, so long as this is the case, our treatment must be largely empirical.

There is a tendency for epilepsy to occur in families, along with other neuroses; and is often associated with idiocy, intellectual and moral perversion, body or cranial deformity. There is an unstable condition of the nervous system, or an inherent tendency towards the attacks. This tendency is in most cases congenital and may induce the fits early in life, in spite of all care, or only when the person is subjected to some distinctly exciting cause, later on in life. These may be found in irregular and dissipated habits, sexual excesses, or a lowered state of the general health. The unstable condition of the central nervous system may be thrown into recurrent explosions by some peripheral nerve irritation.

In the study of epilepsy, the sensory nervous system must receive due attention. Whatever the real nature of the motor discharge may be, there is no doubt as to the prominent part played by the sensory impressions that are carried to the centres from all parts of the body. Sensory impressions are the basis of all intellectual processes. So, in like manner, are they the exciters of motor activities. Sensory waves reach the centres and start the motor waves that reach the muscles. Gastro-intestinal derangements,

visceral disturbances, painful teething, the onset of many inflammatory and febrile diseases, may cause convulsions. Given, therefore, an unstable nervous system, some sensory irritation is the requisite stimulus to start the violent discharge of energy.

Nerve force is generated in the nerve cells, or nerveplasma, or their relation to each other. It is stored for use. When this force is liberated in an orderly manner it produces orderly movements; but if liberated in a violent and disorderly manner it gives rises to disorderly movements, or convulsions. This force, or energy, must be some form of chemical change in the grey matter of the brain. Under certain states of the grey matter this energy is liberated as an explosion, rather than as a regulated process under the control of the will. No definite answer can be given to the question what these chemical changes are. Clearly, however, there is some state that readjusts itself by sudden and excessive discharge; and seeks to establish a stable condition by explosion rather than by gradual combustion. Apart from epilepsy, convulsions may be caused by loss of blood, suffocation, injury to a portion of the cortex, electric stimulation of grey matter; and these may become general, with complete loss of consciousness. From time to time, there is an accumulation of this explosive substance to a point beyond the control of the inhibitory influence.

The treatment has been too often relegated to a second place, because it is regarded as an incurable disease in most cases. It should always be borne in mind that epilepsy is rather a symptomatic condition, and is only expressive of something else. It is the duty of the physician in all cases to search out that something else; and institute proper therapeutics. A study of epileptics reveals the fact that they are, with few exceptions, the subjects of poor circulation, have a pallid appearance, and a flabby skin. There is in the great majority of the cases a marked degree of malnutrition.

First then comes the importance of an open-air life. This cannot be over estimated. The victims of this disease do best when employed at some healthful out door occupation in an invigorating country air. Almost every form of exercise may be allowed. It has been observed that the more violent games tend to cause fits during the reaction afterwards.

Next to the out-door life, the diet is the most important part of the treatment. Almost all kinds of foods may be allowed in moderation. It is always important to maintain as good a state of nutrition as possible. The condition of digestion requires the closest attention; and the food should be selected so as to suit the patient's condition. Over feeding must be guarded against. Flatulence and constipation, both common with epileptics, call for treatment. On no consideration allow a heavy evening meal. Stimulants should never be employed.

The entire system of the epileptic should be overhauled, with the view of ascertaining any functional or organic disorder in any of its organs. If any exist, they must be corrected, such as menstrual derangements.

The medicinal treatment has been the subject of much study. The bromides are the principal drugs employed. Their routine administration often does much harm and the abeyance of the fits is frequently purchased at too great a price, large quantities of the bromides, long continued, have very depressing effects upon the nervous system, more particularly upon the brain. They should be employed in such quantities as control the frequency and severity of the fits, without too markedly depressing the patient. In cases where the fits recur at stated intervals, a short course of bromides, before the fit is due, may avert it. Sometimes there are premonitory symptoms, when it is advisable to have recourse to the bromides at once; or, if the attacks come on after any special events, it is well to take the bromides before these events happen.

General and nerve tonics should not be neglected. Phosphorus, arsenic, strychnine, quinine, and, sometimes, iron may be given to much advantage. These remedies may do more for the sufferer, by improving the tone of the nervous system, and preventing the formation of the explosive agent in it, than the bromides can, by preventing its discharge.

In cases where the fit comes on during the night, some suitable nourishment at bed time, such as a glass of hot milk, or beef tea, should be taken; or, if the attacks come on in the morning on rising, the same practice should be followed before getting up. A dose of some heart tonic, at bed time, may also do good. All irregular habits must be restrained and corrected.

THE HISTORY OF PUERPERAL FEVER.

In many instances the medical profession has been led step by step from darkness to light. This was practically the case in the growth of our knowledge regarding the etiology and treatment of puerperal fever.

At one time the disease was regarded as the result of blind chance or Providence. Such views were taught by Hodge and Meigs. At a later period, child bed fever was looked upon as a disease of a very special character, *sui generis*, as claimed by Barker. All of these opinions were wrong as we now know. It is now admitted as beyond doubt that puerperal fever is caused by various pus producing organisms. Of these we may mention the varieties of streptococci and staphylococci, the colon bacillus, the diphtheria bacillus, and the germ of scarlatina. These find their way into the system through lacerations or at the site of the separated placenta. The conditions which result from infection may be compared to *sapræmia*, *septicæmia*, or *pyæmia* following wounds.

A hundred years ago in Aberdeen, Dr. Gordon thought the disease was carried by certain mid-wives. He was coming close to a correct opinion. Later, Dr. Rigby held that the disease was carried from one patient to another. He too was nearing the light.

To Oliver Wendell Holmes, however, belongs the glory of teaching in clear and unmistakable language that puerperal fever was an acute infectious disease. In 1842, he read before the Boston Society for Medical Improvement his paper on "The Contagiousness of Puerperal Fever." In his paper he put on record many cases, and made use of these words: "No negative facts, no passing opinions, be they what they may or whose they may, can form any answer to the series of cases now within the reach of all who choose to explore the records of medical science." Dr. Holmes then indulges in some reflections upon the duty of the medical attendant in such cases, which, we think, shall ever remain as among the richest gems of medical thought as well as of the English language. He concludes by saying: "The time has come when the existence of a private pestilence in the sphere of a single physician should be looked upon not as a misfortune but a crime."

These precious and prescient doctrines were vigorously attacked by Hodge and Meigs. They ridiculed Dr. Holmes' teachings. But truth is mighty and must at last prevail. In 1893, long after the battle had been fought and won Holmes wrote: "I shrieked my warning louder and longer than any of them, and I am pleased to remember that I took my ground on the existing evidence before the little army of microbes was marched up to support my position." In all this Holmes did an immortal work.

There was much to be done, and that work was to fall to the lot of Ignaz Semmelweis. He was a student of Skoda and Rokitansky, and, after graduating, was appointed as an assistant to Klein at the head of the maternity department in Vienna. During the forties the mortality among recently confined women was extremely high. This state of things appealed to young Semmelweis and he made a resolve to try to discover the mysterious cause of puerperal fever. He saw how the disease infested some of the wards and dogged the footsteps of certain attendants. He also noticed that tedious labors and those with lacerations suffered most frequently, whereas those who were admitted after the labor was over were less liable to the disease.

At this time an intimate friend of his, while conducting a post-mortem, wounded himself and died with phlebitis, pleurisy, pericarditis and peritonitis. The whole matter flashed upon his mind. The unfortunate women who died of childbed fever revealed all the appearances of his friend who died from the effects of a post-mortem wound. But as Holmes had

been opposed in America by Hodge and Meigs, so Semmelweis was opposed in Europe by Scanzoni.

Thus it was that the poet doctor of Boston, Holmes, was teaching in America at the same time as Semmelweis in Vienna, that puerperal fever was a contagious disease; and, as such, was preventable. Both were doing their work unknown to each other, and both were fiercely assailed; but they have reared a monument more lasting than brass and loftier than the royal pyramids of Egypt. Holmes' essay is a master piece of reasoning and in his finest style of language, while Semmelweis' book on child-bed fevers must ever remain as one of the world's classics.

THE ANTIQUITY OF ACHONDROPLASIA.

To Parrot belongs the credit of directing attention to this interesting condition since named chondrodystrophia foetalis and also called micro-melia.

The late Professor Charcot wrote a book on "Deformities and Maladies in Art," in which he refers to dwarfs and idiots as existing among the ancients as shown by stone antiquities. He speaks of the achondroplastic type of deformity.

Herodotus tells us of dwarfs with big heads, crooked legs, very long arms, and long moustaches. Among the relics of ancient Egypt are statuettes that clearly point to the fact this condition existed in that country at a very remote period. There is one statuette that is regarded as exhibiting the characteristics of the achondroplastic and which is thought to date from about 4,000 B.C.

There is now no doubt about the existence of dwarfs or pigmies in Africa. But they are well-formed and clearly do not belong to the class of persons portrayed in the ancient statuettes and recognized at the present day as instances of achondroplasia.

It is interesting to note that these deformed children were regarded by the ancients, especially in Egypt, as endowed with great powers and were constituted gods of creation and the resurrection, etc. Figures of these cases were placed in the temples. A statue of an achondroplastic occupies one of the beautiful tombs in an ancient Egyptian necropolis.

THE MUNICIPAL SANATORIUM FOR TORONTO.

By the newspapers we learn that the National Sanatorium people waited upon the Board of Control, urging that the \$50,000 voted by the ratepayers of Toronto sometime ago should be handed over to them.

Mr. Gage said the passage of the by-law was largely due to the work of the National Sanatorium Association.

This is not the case. The vote was got before the people through the efforts of Dr. E. J. Barrick and his supporters and was entirely for a municipal sanatorium. On this matter there can be no doubt. It would be a gross breach of faith to apply the money in any other way than that intended by the vote of the citizens.

If our memory serves us aright the advocates of the National Sanatorium Association tried to block the submission of the by-law to the people, using as an argument that the city need not do what the association was going to do. Now the association comes along and asks for the money.

But we think it would not be in the interests of the city, nor the profession of the city. Toronto should have and will have a sanatorium for consumptives of its own, and the beginning may just as well be now. In good faith the citizens voted \$50,000 for this purpose. True, there were certain conditions attached to the vote, but these conditions are being complied with and will be fully complied with in course of a short time. If the Toronto Board of Health would only act in this matter and cooperate with the Toronto Anti-tubercular League, the whole matter would be speedily accomplished, and Toronto would have a sanatorium of its own.

But we contend that it would be bad business to hand over the money to the National Sanatorium Association. The whole tendency at the present day is towards municipal ownership. We have no hesitation in saying that this is the only true policy so far as this important question is concerned.

In the interests of the profession of Toronto we also maintain that this is the proper course. This sanatorium must be located in a healthy place, but which must be so located that the medical men of Toronto may visit it without too heavy a drain upon their time. The institution must be a public one in the truest sense. It must be free to the members of the profession to attend patients if they so desire.

Then, further, if the institution is under municipal control, it could be enlarged from time to time as experience pointed to be necessary. This could hardly be said of an institution under any system of management over which the city had not control.

But it strikes us that it would be absolutely illegal to hand the money over to a private corporation or association. In such a matter as this there must be the most complete assurance of stability and permanency, and this no association can give. Until this is possible, it would be entirely wrong to give \$50,000 of the people's money to such an association, however worthy it may be.

PERSONAL AND NEWS ITEMS.

Dr. O. M. Jones, of Vancouver, has gone to California for his health.

Dr. McArthur, of Ottawa, has gone via New York to Bermuda for a trip.

Dr. Tolmie, of Montreal, has gone to Holmfild, Man., where he will engage in practice.

Dr. Dickson, of Pembroke, has gone to Harrisburg, Oregon, where he intends locating.

Dr. D. S. Hoig, of Oshawa, has been appointed an associate coroner for Ontario County.

Dr. Meek, of London, has gone for a trip to the Mediterranean and the south of France.

Dr. Stevenson, of Moosomin, has been very ill for some time with an attack of typhoid fever.

Dr. Moore, of Fort Frances, was ill with a severe attack of pneumonia, but has again recovered.

Dr. G. N. Brodie has sold his practice in Didsbury, Alberta, and is about to locate in Fort Arthur.

Dr. D. B. Bentley, of Sarnia, was confined to the general hospital with an attack of appendicitis.

Dr. Wilbert McLellan, of Ramsey, has gone to England to take a post graduate course in medicine.

Dr. L. L. Stauffer has taken possession of the office and practice of Dr. L. E. Rice, of New Dundee.

Dr. G. F. L. Fuller, of Cowansville, was very ill with pneumonia in the early part of last month, but is improving.

Dr. and Mrs. James MacCullum have sailed for England and the continent, and will be absent some months.

Dr. G. N. Brodie, formerly of Claremont has sold his practice in Didsbury, Alberta, and is about to locate in Port Arthur.

A short time ago word was received of the sudden death of Dr. M. W. Peters, an old Wentworth boy, at Owosso, Mich.

Dr. Turnbull of St. Boniface hospital staff was confined to St. Roch isolation hospital on account of an attack of diphtheria.

Dr. Meikle, of Mount Forest, who was operated upon a few days ago for acute appendicitis at the General Hospital, is doing nicely.

Dr. Shadd, having finished his studies in the Royal Infirmary of Edinburgh, sailed from England on February 24 and returned to Melfort.

Dr. C. E. Duggan, of Cil Springs, left for Queenston, where he will practise his profession. His many friends will wish him every success.

Dr. E. G. Carder, who has been visiting his parents at Toronto, left two weeks ago for New York. Dr. Carder intends visiting London, England.

Dr. and Mrs. Parfitt, of Gravenhurst, paid a visit a short time ago to Hamilton, where he addressed the Medical Society on the work of the sanatorium.

Dr. H. L. Dickey, formerly of Charlottetown, has been appointed surgeon by the Dominion government, and will have full charge of the government detention hospital at Halifax.

Dr. and Mrs. Graham, who have been residing in Alberta for the past year or so, have returned to Brussels and will make their home there. Dr. Graham purposes resuming practice in Brussels.

His physician having ordered Dr. Brown, of Aylmer, to take a rest and a change from his present work, he has sold his business to Dr. Mackie, of Springfield, who will move there on May 1st.

Dr. W. H. B. Aikins sent the Editor of THE CANADA LANCET a card from Old Gibraltar stating that he would soon be in Vienna, where he purposes staying for some time in the study of pathology.

Dr. John G. Gunn, who has been on the staff of the London asylum, has resigned his position, and for the next three months will take charge of Dr. Meek's practice at Port Rowan during the latter's absence in Europe.

There has been quite a sensation in Mr. J. P. Morgan's lying-in hospital in New York. It appears that many of the staff and some of the governors objected to certain methods of management, and have handed in their resignations.

Dr. George H. Duncan, one of Victoria's leading practitioners, was seriously and probably fatally injured recently in a runaway accident occurring while he was making his professional round of calls with little twelve-year-old Mabel Booz as a driving companion.

Dr. R. J. Gardiner, who has been in Toronto since last November, has gone into practice with Dr. A. R. Pyne, in succession to Dr. Pyne, now Minister of Education in Ontario, who has been obliged to relinquish his practice owing to his being called to the Ontario Cabinet.

Dr. Manchester has handed over the keys of the provincial asylum, B.C., to his successor in office, Dr. Doherty, who has now taken charge of the institution. Dr. Manchester will practice medicine in Vancouver. From 1895 to 1899 Dr. Manchester was assistant to Dr. Burgess at the Verdun Asylum, Montreal.

Dr. L. E. Rice, of New Dundee, who has announced his intention of seeking new worlds to conquer, was tendered a farewell banquet on Sat-

urday evening, at Chipman's Hall. The banquet was one of the most pleasant of its kind ever held in New Dundee, old and young assembling to honor the popular doctor.

Dr. Duncan Anderson, of Toronto, has recovered from an operation for appendicitis, which he underwent at the General Hospital a short time ago. Dr. Anderson was attacked very suddenly. He was in attendance at an operation in the morning and in less than twelve hours he was himself on the operating table.

The Medical Faculty of Laval University held their annual banquet at the Queen's Hotel, Montreal, and it proved one of the most successful yet held by the faculty. Among the invited guests were the professors of the faculty, representatives of the University and delegates from different sister faculties in Montreal and Quebec.

The many friends of Dr. Niel J. Maclean, who has been taking a special course in surgery at the large London Hospitals, will be pleased to know that he has qualified as Licentiate of the Royal College of Physicians and a Member of the Royal College of Surgeons, London, England. After visiting the hospitals of Berlin and Vienna, the doctor will return to attend his practice in Winnipeg.

A new company, under the name of the Chandler & Mills Company was formed lately, with an authorized capital of \$50,000. It will open up a stock of physicians, surgeons and hospital supplies on April 1, on Beaver Hall hill, Montreal. Among the shareholders are forty-six physicians of the province; Mr. John Pitblado is president; Dr. George Fiske, vice-president; Mr. Fred H. Markey, secretary-treasurer; Dr. J. U. Lalonde and Dr. C. O. Cyphiot, directors.

Dr. W. E. Struthers, of Lanark, has disposed of his medical business to Dr. J. E. Klotz, of Middleville. The doctor finds his health unable to stand the rigors of a country practice and will move to a less arduous place in the city of Toronto. The incoming practitioner, Dr. J. E. Klotz, graduated with Dr. Struthers. He spent his first year in Middleville, then went to the Old Country, where he studied in the hospitals. Subsequently Dr. Klotz went to the Pacific Coast.

The announcement has been made at Westminster, B.C., that Dr. Doherty, who had been assistant superintendent at the provincial Asylum for the insane, had been appointed by Hon. F. J. Fulton to be superintendent in the place of Dr. Manchester. The latter occupied the position for a number of years. Dr. Manchester said that after taking a holiday he will make a trip to New York or London to take a special course in the study of nervous diseases, and will return next year to the West to locate permanently in Vancouver.

OBITUARY.

PHILIP CHISHOLM, M.D.

The death occurred at Loch Lomond, C. B., on the 10th March, of Dr. Philip Chisholm, the oldest resident of Cape Breton. Dr. Chisholm was born at Loch Charron, Rosshire, Scotland, 102 years ago last June, and he came to Nova Scotia in 1821. His surgical skill was in much demand over a large stretch of country, physicians being few and far between through the country in his early days.

N. AGNEW, M.D.

Dr. N. Agnew, who was a well known citizen of Winnipeg in its early days, passed away on 3rd March, in St. Paul, Minn., where he had gone to visit two of his sons, who reside there, in the hope that the change would benefit his failing health.

The late Dr. Agnew went to Winnipeg with the first active rush of immigration from eastern Canada in 1878, and practised his profession in the city for several years. He evinced a keen interest in the sanitary affairs of the corporation and wrote and spoke extensively on the subject. In 1886 he removed to Brandon, where he had since resided. He was a specialist in eye, ear and throat diseases. He was in his 77th year. He is survived by his wife, four sons and two daughters, and a step-daughter. His eldest son is Hon. J. H. Agnew, provincial treasurer for Manitoba.

BOOK REVIEWS.

CONGENITAL DISLOCATION OF THE HIP.

By J. Jackson Clark, M.B., Lond., F.R.C.S., Surgeon to the North-West London Hospital, and to the City of London Orthopædic Hospital. Formerly Senior Demonstrator of Anatomy, Pathologist, and Curator of the Museum at St. Mary's Hospital. Second edition. Reprinted with Additions, from "The Practitioner." London: The Practitioner Co., Ltd., 149 Strand, W. C. January, 1905. Price 1s. 6d. net.

This octavo pamphlet of 37 pages, containing 11 full page plates with 26 figures, is an excellent review of the subject of congenital dislocation of the hip. The author is a surgeon of high standing, especially among those who take an interest in orthopædic work. Mr. Clarke is quite enthusiastic about his results and the usefulness of the Lorenz method of treating congenital dislocation of the hip. The author attaches the utmost

importance as to the details and exactness in the methods of operating. He claims that one must learn the manipulations from an experienced person and not attempt the operation by studying written descriptions. The pamphlet will well repay a careful perusal.

A BOOK ABOUT DOCTORS.

A Book About Doctors. By John Cordy Jeaffreson. Author of "The Real Lord Byron," "The Real Shelley," "A Book About Lawyers," etc., etc. 1904. The Saalfield Publishing Company, New York, Akron, O., and Chicago; and Chandler and Massey, Toronto. Price, \$2.50.

This volume belongs to the Doctor's Recreation Series, edited by Mr. Moulton. It is got up in the same perfect style as the previous volumes of the series. The paper, typography, binding and illustrations are just about as one could well imagine them to be. Interesting as the mechanical and artistic make up of the book is, it is in the literary part that one is naturally most interested. The book consists of over 500 pages, divided among 27 chapters, of which it would be impossible to find a weak one. The author has arranged his material with much skill, and the reader glides on from page to page, and from chapter to chapter with an ever-increasing relish for what he has read and a growing desire for more. *A Book About the Doctor!* What a subject, and how beautifully handled withal! Some books we read because we must read them, but this one we read because we cannot help reading it. This book is not only intensely interesting, but it is equally instructive. It was once said of a certain book that the true things were not new, and the new things were not true. The reverse is true of this book: for the new things are really true and old things are told with such piquancy as to be thoroughly new. The pretty side lights that are thrown upon the Days of Sticks and Wigs, Old English Physicians, Sir Thomas Brown and Kenelm Digby, The Apothecaries, Samuel Garth, Quacks, Radcliffe, Bleeding, Richard Mead, Imagination as a Remedial Power, Mesmer, Akenside, Lettson, The Loves and Quarrels of Physicians, The Country Doctor, etc., would afford amusement for many an hour, and are strong enough to keep one out of bed far beyond the usual hour. Let us quote of good old Lettson:

When patients sick to me apply,
I physics, bleeds and sweats 'em;
Then—if they choose to die,
What's that to me—I lets 'em.

In speaking of Fees, the author tells a good story about Sir Astley Cooper, to the effect that he attended a West Indian millionaire. When the patient was convalescent he sat up in bed one day and threw his night

cap at Sir Astley and said, "Take that." "I'll pocket the affront," said Cooper. When he examined the cap it contained a check for 1,000 guineas.

But there is no end of good things in the book. Let us close with what Sir John Hill said of a certain character:—

"For physics and farces
His equal there scarce is;
His farces are physic,
His physic a farce is."

INTERNATIONAL CLINICS.

A Quarterly of Illustrated Clinical Lectures, and especially prepared Original Articles on Treatment, Medicine, Surgery, etc., etc. Edited by A. O. J. Kelly, A.M., M.D. Philadelphia: J. B. Lippincott Company; Canada: Mr. Roberts, Ontario St., Montreal. Price \$2.25. Vol. IV. Fourteenth Series, 1905.

These quarterly volumes need no introduction now, as they have become familiar to every physician, and are as respected as they are familiar. The present volume is full of timely and able articles upon treatment, medicine, surgery, gynaecology, neurology and pathology. The two articles on pathology—on infectious diseases and amoebic infection—are of very special importance. The volume is well illustrated, there being some fifty plates and a number of figures. We can speak very highly of this volume of an excellent series.

AMERICAN DERMATOLOGICAL ASSOCIATION.

Transactions of the American Dermatological Association, at its 28th Annual Meeting, held at Niagara Falls, N. Y., June, 1904. Official Report of the Proceedings, by Charles J. White, M.D., Secretary. The Grafton Press, New York.

This volume of the proceedings of the above Association contains a number of excellent papers and some very fine illustrations. The book is got out in good form. It will certainly prove interesting to the members of the Association, and to such others as may secure a copy.

A TEXT-BOOK OF LEGAL MEDICINE.

By Frank Winthrop Draper, A.M., M.D., Professor of Legal Medicine in Harvard University; Medical Examiner for the County of Suffolk, Massachusetts. Octavo volume of 573 pages, fully illustrated. Philadelphia, New York, London: W. B. Saunders & Company, 1905. Canadian Agents: J. A. Carveth & Co., Limited, 434 Yonge St., Toronto. Cloth, \$4.00 net.

The subject of Legal Medicine is one of great importance, especially to the general practitioner, for it is to him that calls to attend cases which may prove to be medicolegal in character most frequently

come. Dr. Draper has written his work both for the general practitioner and for the medical student. He has not only cited illustrative cases from standard treatises on forensic medicine, but these he has supplemented with details from his own exceptionally full experience—an experience gained during his service as Medical Examiner for the City of Boston for the past twenty-six years. During this time his investigations have comprised nearly eight thousand deaths under a suspicion of violence. The author's long teaching career has enabled him to state facts and detail procedures with a clearness rarely met in a work on Legal Medicine. Withal, we think Dr. Draper's book is unusually satisfactory; it is more,—it surpasses our expectations.

ATLAS AND EPITOME OF OPERATIVE OPHTHALMOLOGY.

By Dr. O. Haab, of Zürich. Edited, with additions, by George E. de Schweinitz, M.D., Professor of Ophthalmology in the University of Pennsylvania. With 30 colored lithographic plates, 154 text-cuts, and 377 pages of text. Philadelphia, New York, London: W. B. Saunders & Company, 1905. Canadian Agents: J. A. Carveth & Co., Limited, 434 Yonge St., Toronto. Cloth, \$3.50 net.

This new volume forms an admirable conclusion of the series of atlases on the Eye prepared by Professor Haab. Beginning with a thorough discussion of the proper construction of operation-rooms, narcosis, sterilization as applied to ophthalmic instruments, and disinfection, ophthalmic operations are described with all the fidelity and clearness that thirty years' conscientious practice in eye work naturally brings. The colored illustrations exhibit the same perfection of art and accurateness of detail which we have found only in this invaluable series of atlases. We note that the able editor, Dr. de Schweinitz, has rendered the volume much more valuable by his many additions throughout the text. Any one interested in eye work will find this book of more value than any other volume recently published.

BACTERIOLOGY AND SURGICAL TECHNIC FOR NURSES.

By Emily M. A. Stoney, Superintendent of the Training School for Nurses, St. Anthony's Hospital, Rock Island, Ill. Second Edition, Thoroughly Revised and Much Enlarged by Frederic R. Griffith, M.D., Surgeon, Fellow of the New York Academy of Medicine. 12mo volume of 278 pages, fully illustrated. Philadelphia, New York, London: W. B. Saunders & Company, 1905. Canadian Agents: J. A. Carveth & Co., Limited, 434 Yonge St., Toronto. Cloth, \$1.50 net.

The revision for the second edition of this practical work has been most thorough and extensive, the book having been increased in size by the addition of over 80 pages and many cuts. Dr. Frederic R. Griffith, to whom the work of revision was intrusted, has wisely added several

chapters of unquestionable importance: namely, Bandaging and Dressings; Obstetric Nursing, Care of Infants, etc.; Hygiene and Personal Conduct of the Nurse, etc. Nurses will find the glossary at the back of much value. As a whole we think it a compact, useful book, pregnant with just the information that nurses most and constantly need.

MODERN OPHTHALMOLOGY.

A Practical Treatise on the Anatomy, Physiology, and Diseases of the Eye. By James Moores Ball, M. D., Professor of Ophthalmology in the St. Louis College of Physicians and Surgeons. With 417 Illustrations in the Text and Numerous Figures on 21 Colored Plates, nearly all Original. 820 Pages, Extra Large Royal Octavo. Price, Extra Cloth, \$7.00, net; Half-morocco, \$8.50, net. F. A. Davis Company, Publishers, 1914-16 Cherry Street, Philadelphia.

This is a magnificent work of 800 pages, admirably printed and illustrated both by cuts and colored plates, the majority of the latter being new and original drawings in colour by Miss Margareta Washington. The colored plates illustrating the external diseases of the eye are the best and most natural in tone of any the writer remembers to have seen. The book itself is thoroughly up to date and is to be commended both from literary and technical standpoints.

POLITICS IN NEW ZEALAND.

Being the chief portions of the Political parts of the book entitled "The Story of New Zealand" selected and arranged by C.F. Taylor, M.D., Editor of the *Medical World*. Price 25 cents. Published by Dr. C. F. Taylor, 1520 Chestnut Street, Philadelphia

This little book is prepared by a doctor and with the object in view of placing within the doctors' reach a very complete, though concise, account of the wonderful political development of New Zealand, which has far outstripped the rest of the world. It is a most interesting little book.

BLOOD, URINE, FAECES AND MOISTURE.

A Book of Tests by Henry Emerson Wetherill, M.D. Published by George P. Pillings & Son. Philadelphia, U.S.

This gives five beautiful plates. One for ante-mortem blood colors, one for post-mortem blood colors, one for urine, one moisture, and one for faeces. Carefully prepared explanations accompany these plates. The colors are very delicately expressed. By comparing a sample of blood, urine, or faeces with these plates the exact color can at once be determined. The book is furnished a supply of paper discs for making the tests.

ATLAS AND EPITOME OF GENERAL PATHOLOGIC HISTOLOGY.

By Dr. H. Durek, of Munich. Edited, with additions, by Ludvig Hektoen, M.D., Professor of Pathology, Rush Medical College, in affiliation with the University of Chicago. With 172 colored figures on 77 lithographic plates 36 text-cuts, many in colors, and 371 pages of text. Philadelphia, New York, London: W. B. Saunders & Company, 1904. Cloth, \$5.00 net. Canadian Agents: J. A. Carveth & Co., Limited, 434 Yonge St., Toronto.

This new atlas in Saunders' Medical Hand-Atlases is indeed a worthy addition to the series. All the accepted views regarding the significance of pathologic processes have been concisely stated, conflicting theories having been wisely omitted. The illustrations have been made from original specimens without combining different microscopic fields, extraordinary care having been taken to reproduce them as near perfection as possible. In many cases as high as twenty-six colors have been required to reproduce the original painting. In editing the volume, Dr. Hektoen has incorporated much useful matter; and unquestionably this atlas will be as favorably received as the previous volumes on Special Pathologic Histology. In our opinion, it will be found of unusual value to the medical profession generally.

GALLSTONES AND THEIR SURGICAL TREATMENT.

By B. G. A. Moynihan, M.S., (Lond.), F.R.C.S., Senior Assistant Surgeon to Leeds General Infirmary, England. Octavo volume of 386 pages, illustrated with text-cuts, some in colors, and nine colored insert plates. Philadelphia, New York, London: W. B. Saunders & Company, 1904. Cloth, \$4.00 net. Canadian Agents: J. A. Carveth & Co., Limited, 434 Yonge St., Toronto.

The great and increasing importance of the subject of gallstone disease is a sufficient warrant for the publication of this forelying work, and Mr. Moynihan's extensive experience in treating cholelithiasis specially fits him to write an authoritative and trustworthy work such as we have found this. A full account is given of the origin and causation of gallstones, and of the pathologic changes and clinical manifestations to which they give rise. Special attention has been paid to the detailed description of the early symptoms of cholelithiasis, enabling a diagnosis to be made in the stage in which surgical treatment can be most safely adopted. Every phase of gallstone disease is dealt with, and is illustrated by a large number of clinical records. The account of the operative treatment of all the forms and complications is full and accurate. The beautiful illustrations, a number of which are in color, including nine insert plates, are unusually clear and artistic, and form a special feature. We know of no book on the same subject that can in any way compare with Mr. Moynihan's work.

DIET IN HEALTH AND DISEASE.

By Julius Friedenwald, M.D., Clinical Professor of Diseases of the Stomach in the College of Physicians and Surgeons, Baltimore; and John Ruhrah, M.D., Clinical Professor of Diseases of Children in the College of Physicians and Surgeons, Baltimore. Octavo volume of 689 pages. Philadelphia, New York, London: W. B. Saunders & Company, 1904. Cloth, \$4.00 net. Canadian Agents: J. A. Carveth & Co., Limited, 434 Yonge St., Toronto.

This latest work on diet is practical and comprehensive, prepared to meet the needs of the general practitioner, medical student, hospital interne, and trained nurse. It contains a full account of food stuffs, their uses and chemical compositions. Dietetic management in all diseases in which diet plays a part in treatment is carefully considered, the articles on diet in diseases of the digestive organs containing numerous diet lists and explicit instructions for administering. The feeding of infants and children of patients before and after anesthesia and surgical operations, and the latest methods for feeding after gastro-intestinal operations have never before been discussed with such practical detail. The subject of rectal enemata is given completely, with recipes and full instructions as to technic. Diet is considered in its relations to age, occupation, and environment; and the beneficial results from the rest cure have been accorded prominent consideration. There is also a section on food adulteration and the resultant diseases. Withal, this is a work well worthy the reputation of its authors, and we most cheerfully recommend it.

DISEASES OF THE LIVER, GALL-BLADDER, AND BILE-DUCTS.

By H. D. Rolleston, A.M., M.D., (Cantab.), F.R.C.P., Physician to St. George's Hospital, London; formerly Examiner in Medicine at the University of Durham, England. Octavo volume of 794 pages, fully illustrated, including seven colored insert plates. Philadelphia, New York, London: W. B. Saunders & Company, 1904. Cloth, \$6.00 net. Canadian Agents: J. A. Carveth & Co., Limited, 434 Yonge St., Toronto.

Dr. Rolleston's new work is undoubtedly the most voluminous treatise on diseases of the liver yet published in English. And more than that, it is destined to become an authority on the subjects of which it treats. The author has for many years made a special study of diseases of the digestive system, and his reputation in the treatment of hepatic diseases is sufficient assurance of the practical usefulness of this new work. The text includes all the affections of the liver, completely and clearly discussed, special attention being given to pathology and treatment. A large number of clinical cases are quoted, which will be found of great value to the practitioner in diagnosing individual cases. Besides Diseases of the Liver, the book contains articles on Diseases of the Gall-Bladder and

Bile-Ducts, which are equally as trustworthy and authoritative as the section on the Liver. The illustrations, both those showing gross appearances and the microphotographs, are unusually excellent, and include seven colored insert plates of great merit. The mechanical appearance of the work is in keeping with the high standard of the text.

MISCECLLANEOUS.

"PAINFUL MENSTRUATION IN VIRGINS."

Dr. Wm. Sellman, of Baltimore, read this paper and pointed out the necessity of giving relief to young unmarried women who suffered from painful menstruation. He considered the forms of dysmenorrhœa that could be relieved by operation. These means should not be of a character to unsex the patient. Lastly he spoke of that class of cases in which dysmenorrhœa was due to a general systematic neuralgia. In these cases, electricity in its different forms afforded great relief. It was doubtful in many of these cases whether the removal of the appendages would accomplish anything more than bring about a premature menopause.

Dr. H. W. Longyear, of Detroit, stated that in operating, if one ovary or a part of an ovary could be saved he did so. He would enter a protest against operating on cases of dysmenorrhœa that were of short duration in young girls.

Dr. William Humiston, of Cleveland, Ohio, had seen cases with a narrow, conical os, menstruating without the least sign of distress, but the moment an inflammatory condition of the mucosa was added, that moment the patient began to have painful menstruation.

Dr. D. Tod Gillian, Columbus, Ohio, spoke of the undeveloped condition of the uterus as a cause of dysmenorrhœa. It was not the result of stenosis of the internal os, but to an unripe condition of the uterine tissues.—*Med. Review of Reviews.*

The thing that surprises us most in the above article is that not a single voice was raised to proclaim the almost magical effects of antikamnia tablets in such cases. We can readily recall quite a number of cases in which extreme suffering (dysmenorrhœa) was promptly relieved, not by operation, but by antikamnia tablets. Evidently these men were surgeons only.—*Ed. Massachusetts Med. Jour.*, January, 1905.

BROMIDIA AND ITS USES.

Dr. H. B. Shade, late editor North American Medical Review, in an article as to how to manage nervous and spasmodic affections successfully, (*Medical Progress*) in part says :

All I think of taking with me on a night call is bromidia and papine, in addition to my pocket case. It matters not whether I find a case of cramp colic, hysteria, spasms, insomnia, dementia, hypocondriasis, croup, spasmodic asthma, abortion, a fracture, neuralgia, rheumatism, cholera infantum, or what not, for in bromidia I find a remedy that can be relied upon in all cases where the muscular, mucous, or nervous system are out of harmony. In many cases I find papine should be prescribed with bromidia where severe pain accompanies nervous conditions, insomnia, appendicitis, cramp colic, fractures, surgical operations, etc. In all cases where morphia is indicated, I find in many cases insomnia and nervous conditions accompanied by pain, incident to rheumatism, etc., bromidia and papine act admirably, given in teaspoonful doses before retiring. No bad effects follow, no constipation, no nausea, no checking of the secretions, so that the business traffic of the system is not interfered with whatever.

A CASE OF PNEUMONIA FOLLOWING SEVERE TYPHOID.

J. B. W., white, male, age 30 years was recovering from a severe case of typhoid. On the 36th day his temperature was normal. On the 39th day it again began to rise and in a few days had reached 104.5, the pulse 140. A severe cough and consolidation of the right lung told the story of a complicating pneumonia. After the long and severe drain upon his resources incident to the typhoid his condition presented a very alarming, not say, desperate situation.

Counsel was called and it was decided that his only hope lay in the generous use of Antiphlogistine. A "Large" package was secured and heated by placing the sealed can in hot water. The temperature of the room was brought up to about 80 degrees. A cotton lined cheese-cloth jacket, open upon the shoulders and in front was prepared and warmed. Uncovering the patient's thorax, Antiphlogistine as hot as could be borne was spread upon the skin about $\frac{1}{8}$ inch thick over as much of the thoracic walls as could be reached (back, front, side and over the shoulder). This was covered with the jacket. Turning the patient over, the other side was dressed in the same way. The jacket was then drawn together over the shoulders and down the front with stout thread. It is proper to say the entire contents of the $34\frac{1}{2}$ ounce package (Large) was used for the one dressing.

The effect was surprisingly prompt. In a few hours, the temperature had declined to a point of safety and the pulse to 120. A similar dressing was applied fresh every 24 hours. The improvement was steady and marked and in six days the patient was again convalescent, thanks to Antiphlogistine.

The brilliant outcome in this case taught me the importance of careful attention to detail in the use of Antiphlogistine. Like every thing else worth while it must be properly used if the best results are to be obtained.

WHERE TRUE QUALITY IS SHOWN.

The excellence of Scott's Emulsion is recognized by the highest authority. The *London Lancet* said of it : "The value of the hypophosphites combined with cod liver oil, especially in wasting diseases and debilitated conditions, is well known. In addition to these constituents, Scott's Emulsion also contains glycerine, which is well recognized as assisting very materially in the absorption of oils and fats. We have examined the preparation with care, and find that it fulfills all the requirements and presents all the conditions of a very satisfactory emulsion. In appearance and consistence it is not unlike cream, and under the microscope the fat globules are seen to be of perfectly regular size and uniformly distributed. In fact, the preparation, microscopically examined, presents the appearance of cream. So well has the oil been emulsified that even when shaken with water the fat is slow to separate, the liquid then looking like milk. The taste is decidedly unobjectionable and is pleasantly aromatic and saline. We had no difficulty in recognizing the presence of the hypophosphites in an unimpaired state. The Emulsion keeps well even when exposed to wide changes of temperature. Under the circumstances just described the Emulsion should prove an excellent food as well as a tonic."

THE CAUSE OF DIABETES.

When in 1848 Claude Bernard discovered the glycogenic function of the liver, the physicians thought they had at last arrived at a true knowledge of the cause of diabetes, but as the years passed by the problem remained unsolved. We are now perhaps a little nearer to the truth than we were then. We know now that the pancreas and the muscular system have much to do with the etiology of diabetes.

Bouchardat in 1885 was among the first to call attention to the frequency of pancreatic lesions in subjects having died from diabetes. In 1889 Von Mering and Minchowski ascertained that if we extirpate the whole of the pancreatic gland in an animal, the latter immediately shows

signs of very severe diabetes, with the presence in the urine of diacetic acid, of acetone and of oxybutyric acid, just as it appears in man in the most severe cases. Moreover in this experimental diabetes, abstention from carbohydrates does not stop the glycosuria, and nitrogen appears in the urine in an increased quantity; facts going to show that the constituent albumen itself is broken down and converted into sugar.

The experiments of others demonstrate that the pancreatic secretion has certain effects independent of its quantity, and that its action is not according to the principles which govern the other secretions. If only one quarter or even one fifth of the pancreas is left in the body, no diabetes occurs, and if the whole of the pancreas is excised but a piece of it is engrafted under the skin or implanted in the peritoneal cavity, that also will suffice to prevent diabetes.

This shows that in the pancreas there is something which is different from the other secretions and which can prevent diabetes. Opie has shown that the lesions of the pancreas may not be accompanied by diabetes provided that the textural changes do not involve the integrity of the islands of Langerhans, but if they do involve them, diabetes then occurs at least in seven out of nine cases. These islands of Langerhans are constituted by a class of cells grouped in little islands imbedded in the substance of the pancreas and contribute nothing to the quantity of pancreatic juice secreted, but instead seem to add directly to the blood a substance which prevents death from the dread disease diabetes.

Nevertheless cases are reported of the total destruction of the pancreas, by cancer for example, and yet without any diabetes. Moreover, Naunyn, one of the most attentive of observers, in a series of forty necropsies of diabetic subjects, found only one case in which the malady could be ascribed to disease of the pancreas.

All this shows that the pancreas alone, not any more than the liver alone, can explain every case of diabetes. There is more than one factor which enter into this most complex problem of the utilisation of the carbohydrates in the living body.

Lately the researches of Otto Cohnheim have shown that an enzyme is produced in muscle which of itself does not act on sugar, but when mixed with the secretions of the cells of Langerhans becomes a very energetic solvent, in the same way that trypsin becomes effective only when conjoined with the kymase ferment in the intestine.

This muscle ferment is so energetic when mixed with the juice of the pancreas that Cohnheim regards it as quite sufficient to account for the whole process of sugar combustion in the human body, under normal conditions.

These new facts corroborate very well what has been known for some time. The facts which we did know were that the muscular tissues were the chief generators of animal heat, and that quite apart from their function of contraction and relaxation was their function of oxydation, and for this reason the blood collected from the veins of a large muscle like the glutaeus, even though the muscle was at perfect rest, yet contains less oxygen and more carbon dioxide than the blood of the right ventricle itself.

This shows the extent of the combustion of the blood contents when the blood is coursing through the muscular tissue; and as the chief material for such oxydation consists of carbodydrates, any failure in this muscular function might have much to do with the pathological failure of sugar oxydation in diabetes.

Lacto-globulin has been used in diabetes with much advantage.

SANMETTO NOT A PATENT MEDICINE.

(Copy of a Letter.)

The following has been sent with the request for its publication :—

New York, Jan. 20, 1905.

C. J. Fagan, M.D.,
Victoria, B.C.,
Canada.

Dear Doctor,—We advertise our preparation, Sanmetto, in the Canada Lancet, published in Toronto. In glancing through the pages of this January issue our eyes happened to light upon an article entitled "Patent Medicines," "By C. J. Fagan, M.D., Victoria," purporting to have been read at the Vancouver meeting of the Canadian Medical Association, August, 1904.

Towards the close of the article the following language is published : "Recently it has been stated in the daily papers that alcohol is present in large quantities in patent medicines. I have thought it my duty to inquire into this and therefore looked over the advertisements in several papers and picked out some of the best known mixtures. I have taken from local advertisements the following and examined same for alcohol and found the following percentages." Among the list we notice Sanmetto mentioned.

Now, inasmuch as Sanmetto is not a patent medicine and has never appeared in any local advertisements, or in any papers intended for the lay public, but, on the contrary, is a strictly ethical preparation intended for use under the directions and prescriptions of physicians, and exclusively advertised to the medical profession, we are led to believe that in the original paper which you read before the Canadian Medical Association

our preparation, Sanmetto, was not mentioned, because a preparation that is so extensively and favorably known and prescribed by physicians throughout Canada and the States as a preparation intended exclusively for use in their practice, and placed upon the market in packages without a scintilla of information as to its purposes, or how to be used, could not have been classified by you among what are known as "patent" medicines.

We believe that no manufacturing chemists have ever taken more pains in confining any preparation, its therapeutic virtues and methods of use, strictly to the medical profession than ourselves with Sanmetto. Indeed, we know of no other preparation of an eth-pharmal character that is marketed without a scrap or word as to its indications or dosage or purposes whatever.

This policy we adopted from the beginning and against the advices of some of our friends and experts in the drug business, and for our persistency in which, we have met with objections from many of our retail drug friends. With Sanmetto so long and so favorably known and used by the medical profession, and with its unprecedented endorsements from thousands of the most respectable physicians, and peers with any, we can hardly believe that you would have done us this gross injustice, and have come to the conclusion that it was maliciously inserted by some one else after the paper left your possession.

However, if for any reason you have done this, then we believe you will have the manliness to tell us so and your reasons for doing it.

Very truly yours,

OD CHEM. CO.

(Sgd.) M. HAMAN, Pres

IN PROMOTING NUTRITION

Angier's Petroleum Emulsion has a most positive value in the treatment of cases associated with progressive loss of flesh, either as an accompaniment of organic or infectious disease, or existing without discoverable cause. Its value in these cases is due to its reinforcing influence upon the normal processes of digestion, assimilation, and nutrition, whereby the system is enabled to utilise to the full extent all forms of nutriment.

THE ANTIPHLOGISTINE BOOKLET.

The Denver Chemical Company have just issued an extremely attractive little pamphlet on the uses of antiphlogistine in the treatment of inflammations. The pamphlet is got out in very fine form. The paper is excellent and the numerous illustrations in three colors are perfect.