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SOME REMARKS ON THE SYMPTOMS AND OPERATIVE TREATMENT OF BRONCHOCELE, ESPECIALLY IN RELATION TO GRAVES' DISEASE.*

BY

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real General Hospital.

I have been asked this evening to say something about the symptoms and treatment of goitre, both of the ordinary and exophthalmic variety, and also the malignant form.

Simple Goitre usually commences as a small kernel like mass in one or other of the lobes of the thyroid, and gradually increases in size as the years go on. Sometimes both sides of the gland are affected and also the isthmus, but in this country at any rate the unilateral variety is the most common. This form is usually encysted, and the cysts may be multiple or single, and may contain clear or blood-stained fluid, or the contents may be solid or semi-solid, colloid material. A cyst which has suddenly become larger from hæmorrhage very often when it is tense simulates a solid growth. In addition to these two forms of goitre we have cases where the gland is uniformly enlarged,—the interstitial or parenchymatous form. This kind is seen chiefly in young girls, especially at the time of puberty, and generally disappears in a few months; it increases markedly before the menstrual periods, and is often, when not of the soft, vascular variety, benefited by the administration of thyroid extract and iodides. In all these forms of goitre the general health is apt to be affected, the patients are more or less nervous, are subject to breathlessness on exertion owing to pressure of the growth on the trachea and sometimes tachycardia, in fact, some of the encysted solid forms are subjects of a kind of pseudo-Graves' disease produced by the growth.

* Read before the Montreal Medico-Chirurgical Society, June 12th, 1899.

The relief afforded by removal of the growth is often very marked, as the following case illustrates :—

Mrs. H., widow, aged 35, a telegraph operator, consulted me December, 1894; a delicate, highly nervous woman, with some exophthalmos, has had enlargement of her neck since childhood. Seven years ago the growth suddenly enlarged, but the enlargement lessened for a time on application of an ointment. The increase was accompanied by palpitation of the heart and great nervous excitability, from that time the gland enlarged until last summer, when it grew much more rapidly. Of late has had frequent attacks of tachycardia, and is very nervous, so much so, that she had to give up her occupation. She has great difficulty in breathing, especially when she has to exert herself. In this case the left lobe was the larger, but both lobes extend from the hyoid bone to the clavicle. The growth seemed to consist of a number of cysts, fluid and solid. Operation was performed, and the patient got rapidly well; all nervousness and tachycardia disappeared, her eyes became normal, and she was able to resume her work.

I have many such cases in my note-book. Here we have symptoms produced by increase of thyroid tissue of the nature of Graves' disease, and perhaps pressure also has something to do with it. I have quite recently operated on a case sent me by Dr. Birkett where pressure from enlargement of the right lobe of the thyroid caused contraction of the pupil on that side, and well-marked ptosis. Operation in this case is too recent to state results, but when I last saw her, ten days after the operation the ptosis was certainly less marked.

The symptoms of Graves' disease are familiar to you all; the highly nervous, excitable individual, with prominent eyes, enlarged, soft, vascular thyroid, rapid pulse, tremors, and often pyrexia,—symptoms which are produced by taking thyroid internally. Such cases are the exactly opposite of myxœdema, due to loss or absence of thyroid tissue. Here the patient is dull, sleepy, has a stupid expression of face, low pulse and body temperature, dry, thick skin, with loss of hair. The patient sits about stupidly idle and sleeping most of the day. One disease is the exact opposite of the other—the former due to too much thyroid and the latter to too little. The exactly opposite conditions in these two diseases seem to me to prove the theory that too much thyroid is the cause of all that group of symptoms called exophthalmic goitre or Graves' disease, and the cases I have seen of Graves' disease which *commenced* with enlargement of the thyroid, and where the severity of the symptoms increased *pari passu* with the continued enlargement of the gland, also tend to prove the theory that increase of thyroid tissue is followed by symptoms of Graves' disease, and when the increased tissue is removed the patient's health returns to normal, the symptoms of Graves' disease gradually disappearing. The following case illustrates this :—

Miss L., æt 20, first noticed enlargement of the thyroid some years ago. Both sides were enlarged, and the gland continued enlarging. A short time after the enlargement commenced, nervous symptoms developed, such as tachycardia, tremors, etc. These increased in severity, so that on the slightest exertion her pulse was almost uncountable. Then came ophthalmos with persistent pyrexia and œdema of the lower extremities; there was also great difficulty in breathing, especially on exertion. When I saw her in 1896 she was a pale, anæmic girl, very thin, with exophthalmos and a rapid pulse—140 to 200—she was excessively nervous, had tremors, some fever and œdema of the lower extremities. Both lobes of the gland were considerably enlarged; the enlargement, whilst on both sides, was not the usual vascular, spongy enlargement of Graves' disease, but seemed to be made up of a separate solid cyst in each lobe. I advised operation, which was performed November, 1896. I enucleated from each lobe by separate incisions a solid cyst the size of a small orange full of colloid contents. The patient rapidly recovered from the operation, and was sent home in about ten days much better. I had a letter from her doctor May 18th, 1899, in which he says:—"I am pleased to tell you she is in excellent health; the respiratory trouble is of the past; the exophthalmos, the tachycardia, the anæmia and pyrexia are no more present, and she is perfectly well."

In other cases, although the symptoms may not be marked, yet the relief from operation is almost as great.

Jennie R., æt 24, has, since she was fifteen years old, had enlargement of the thyroid. It commenced as a small round growth in the right side, and gradually grew to its present size. For some years, owing to tachycardia and breathlessness, she has not been able to walk any distance or to go upstairs; for some years has had exophthalmos. When I saw her early in January of this year she was an anæmic girl with prominent eyes, a very nervous manner, and rapid pulse. She had a very large swelling, which was round and smooth, extending from the sternum to the hyoid bone, and this swelling went under the sternomastoid. It was not fluctuating, soft, and did not appear to be vascular. I looked upon the case as one of large colloid cyst, and recommended operation. This was performed January 27th, 1899, and the tumour, as expected, turned out to be a colloid cyst. Hæmorrhage was quite free, and a number of ligatures had to be applied, the superior thyroid being ligated. Recovery was complicated by a continuous high temperature (104° F.) and a very rapid pulse (180-200), following immediately on the operation. The discharges from the wound were tested, and found perfectly sterile. It was supposed that this was a case of thyroid intoxication, which has been described by several writers. On giving free vent to the discharges from the wound, which were thin and watery, the tempera-

ture and pulse rapidly subsided, and the patient recovered completely. I heard from her on the 15th May. She says:—"I have begun to feel like a different person, and just wonder how I ever put in such a miserable existence as I did the last five years. You would scarcely recognize me as the same person. My heart does not palpitate as it did before the operation." (See accompanying plates.)

I think these cases sufficiently prove that increase of thyroid tissue can produce a group of symptoms very much resembling Graves' disease. Now, these symptoms in my experience only come on in encysted cases with solid cysts. In cysts with fluid contents I have never seen them, so pressure can be but a small factor in the production of these symptoms.

In cases of true Graves' disease the improvement after operation is not so great. During the past four or five years I have operated on several cases, removing one-half of the enlarged thyroid. Although in these cases there has been improvement, still it is not so rapid or so marked as in those cases where the disease in the gland is localised. In one of my recent cases, operated on in February last, the patient had all the chief symptoms of Graves' disease, such as tremors, tachycardia, pyrexia, etc., and a very large vascular thyroid. Operation relieved, and her general health was much improved, but she writes me (May 23rd) that the nervousness still continues, though the tachycardia and exophthalmos are much better, and the remaining half of the gland is much smaller. In cases of true Graves' disease operation is not without danger. It seems that the danger is chiefly due to the anæsthetic; so much is this so, that Köcher has given up general anæsthesia in these cases and resorts to local anæsthesia by cocaine. Even with local anæsthesia the operation is a dangerous one, and in Köcher's last 15 cases of operation in Graves' disease, two died.

It is my custom to advise operation in all rapidly growing goitres, especially if they be tumours of the solid form. If there be dyspnœa, the operation is urgently needed, but even if there is no dyspnœa it is well to advise removal of those which are of recent formation and rapidly increasing in size, by early excision, that the serious train of symptoms which is characteristic of Graves' disease will be avoided.

Operative Procedures. It is always well to be guided by the kind of case in choosing the form of operation. In the simple cystic case, where the cysts are large and not more than one or two in number, I invariably enucleate by the method I have described before, a simple incision over the cyst through skin and muscles down to the gland, tying the anterior jugular if it be seen. When the gland is reached, it is incised down to the bluish-white capsule of the cyst. The recognition of this capsule is most important, and when reached the cyst can





be easily turned out. It has been my practice to open the cyst and evacuate its contents so that it then can be pulled out of a small opening, and any vessels which bleed can be easily seized as they are torn in separating the cyst. In some cases of adherent cyst the separation is very difficult, but in fluid cysts the vascularity is not so great, nor is there so apt to be an adherent capsule. In the solid, colloid, encysted growths the enucleation is more difficult owing to the greater vascularity. It is important here to get into the proper capsule, preferably the deeper one, for the superficial one is often covered with the ramifications of blood-vessels. Even in these cases, before enucleating I open the tumour and remove some of its contents; when this is done, the subsequent extraction is much less difficult. In diffuse cases or interstitial cases and the true vascular thyroid of Graves' disease, in malignant disease or where the cysts are multiple and small, or where the growth is very large, I prefer now to excise the gland. In Graves' and the interstitial cases only one lobe is excised. In these cases I make use of an incision along the inner border of the sternomastoid to near the upper border of the sternum, and then continue the incision transversely as far as necessary. Here the most important point is the free opening of the capsule of the gland. As soon as the capsule is divided the gland can be delivered and the vessels tied without much difficulty. The superior thyroid artery should first be secured, then the gland thrown up and over to the opposite side. The inferior thyroid artery should be tied and not cut, and then recurrent laryngeal nerve looked for and carefully separated. It runs up the posterior part of the gland, when the gland is enlarged it appears as if it entered it. The branches of the inferior thyroid artery with which it entwines should be cut near the gland, and also the veins which accompany these branches. I have cut the nerve once, and it was immediately sutured; the function has been partially recovered since.

The After Treatment. In the cases where enucleation has been performed there may be free oozing from the bed in which the cyst lay, and to prevent extensive oozing I pack this with strips of aseptic gauze, which I remove on the second day. In the cases where a portion of the gland has been removed a drain is inserted for 24 hours. The wound is closed with horse-hair sutures, and ordinary dry dressings applied. Usually the enucleation cases are discharged from hospital in a week or ten days.

The advantage of the enucleation method in suitable cases is the ease with which the operation is performed, the absence of risk of myxœdema and the fact that the recurrent laryngeal nerve is never injured. The disadvantages are the chance of recurrence of the growth, the tendency to oozing after operation, this oozing occasionally going on to secondary

hæmorrhage. In nearly fifty cases of enucleation, I have had recurrence in two cases—in one on the opposite side, and in the other a very small cyst on the side that had previously been operated on. Both came to me of their own accord to have the cysts removed while they were small. Secondary hæmorrhage I have seen three times—once in a young man who afterwards told me that he never had a tooth pulled without its bleeding for a week, and the other two were in women who had an apparent tendency to bleed. The blood oozed into the cavity which was left by the removal of the tumour, and only attracted notice when the breathing became difficult. In these cases the gauze had been removed too soon, for, after removal on the second day there was a good deal of oozing. In such cases the gauze should have been replaced for another 24 hours.

Should secondary hæmorrhage occur the wound should be laid open; the clots turned out, and the cavity firmly packed with sterile gauze. Swabbing out with tincture of the perchloride of iron in the more severe cases will arrest the hæmorrhage.

The cases I have seen all recovered promptly, and the scar left did not appear to be any greater than that left after union by first intention.

I have seen many malignant cases, but have only operated on three. All subsequently died of recurrence of the disease in the lungs. Unless the tumour is removed very early there is little hope of permanent relief. In all the cases I have seen the gland had been enlarged for years before it took on a malignant action.

I have only seen one case of the so-called thyroid intoxication after operation on a bronchocele. It is supposed that during operation much handling of the gland promotes excessive absorption of the fluid, and that after operation the cut surface of the gland exudes so much thyroid juice that if it is not evacuated it is absorbed and intoxicates the individual. Such cases are known by an excessively high temperature and rapid pulse after operation, at the same time that the wound is sterile. In the case I saw, the patient had a continuous temperature of 104° F. for nearly three days, and an uncountable pulse. The secretions from the wound were repeatedly examined, and were always found sterile. She made a good recovery. Some deaths from this cause are reported by Horsley of London and Paul of Liverpool.

The accompanying plates are reproduced through the courtesy of the *Annals of Surgery*, in the November number of which this article appeared.

GOITRE : ITS ETIOLOGY AND INCIDENCE IN THE DISTRICT OF MONTREAL.*

BY

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The obscurity surrounding the etiology of bronchocele in every part of the world renders any attempt of mine to place the subject more plainly before you from a study of the disease in the city and district of Montreal an extremely difficult one, in fact, an almost impossible one.

The absence of statistics relating to the Province of Quebec, or even to the Dominion, is well known to you, and had it not been for this fact I would not have ventured to speak upon the subject at all, for I have not a table of cases sufficiently large for it to be of any weight. However, during the last five or six years I have been interested in this disease and in its prevalence in the country parts about Montreal, and from my experience alone do I base any statements I may make. I have no theory to advance, but have simply to place certain facts before you for any consideration you may deem them worthy.

In sojourning here and there throughout the country districts of Montreal Island, and still more so in other more remote parts of this Province, one will, if observant, discover that goitre is a very common disease indeed. It ranges from the slight fulness of the neck, which adds if anything to the appearance of a throat otherwise to be considered too thin, to the huge pendulous growths which cause much disfigurement and often threaten life, and are consequently brought to our city hospitals for treatment. For the past five or six years I have had an opportunity of observing the extent to which this malady exists, and more particularly in the Laurentian Mountains.

Here, the population is of course largely of French origin as in the rest of the province. But if we penetrate further back, we come upon half-breed mixtures of Scotch, French, Irish, and English, with the Indian, and here and there may encounter the Eskimo type. This latter is occasionally to be met with in the valley of the St. Maurice River, and came originally from Hudson's Bay and Labrador. Although I am unable to present to you a table of statistics, yet I may be allowed to present facts that I have from time to time verified. In this part of the Laurentian mountains goitre or "grosse gorge" is usual in all those born and brought up there. And although the condition is perhaps more frequent among females, yet a slight fulness or prominence

* Read before the Montreal Medico-Chirurgical Society, June 12th, 1899.

of the gland is to be observed in a very large number of males. It appears to me that the disease is more limited in the males except in rare cases ; and I have seen one of two of the latter where the growths were very large.

A case of goitre occurring in the city of Montreal in an individual born and brought up here, appears to be quite rare, and, so far as I can learn, this applies to all large villages and towns in this province. It is a significant fact that the smaller the community and the more isolated this community is, the more is the disease observed to occur. Nearly all goitrous cases seeking medical and surgical relief in this city are from the country parts and, as far as I can learn, these cases, are from farms separated from one another by quite a distance in most cases, and but rarely from the villages or towns themselves. Goitre undoubtedly is seen in villages and towns, but in tracing the case it will usually be found to be from the scattering outside population.

Goitre is not supposed to be endemic in this city and all cases arising *de novo*, therefore, must be considered as sporadic.

It might be well to enumerate the various factors considered by many observers in many countries to influence or favour the occurrence of the disease. These are :—

- (1) Water containing an abundance of certain salts.
- (2) Certain degrees of altitude and conditions of climate.
- (3) Consanguinity and heredity.
- (4) Improper hygienic surroundings.
- (5) Sex and age : the incidence of the disease with the establishment of the sexual life.
- (6) Certain occupations involving strains upon the head.
- (7) Micro-organisms.
- (8) The association of cretinism and myxœdema with goitre.

Let us consider the conditions under which the farming class or "habitants" are placed. Throughout nearly the whole of the inhabited areas of the province of Quebec the geological formation is that of the Lower Laurentian of Logan, extending from the Straits of Belle Isle in Labrador to the Ottawa river. The south-western part is of a dolomitic limestone covered by Lower Silurian limestones (Trenton and Chazy). The flatter or lower levels are covered by Pleistocene deposits of the glacial periods. The province is richly endowed with minerals such as iron, copper, phosphates, etc. The people, as a rule live very comfortably ; their houses are warm and they are warmly clad. Their diet usually consists of fish, salted and smoked meats, eggs, milk, and bread during the hot summer months. In the winter, when meat can be kept cool or frozen, it is to be seen even on the poorest tables. The principal vegetables used are potatoes, onions, carrots, and turnips, the

two former in abundance. It can hardly be said that our farming classes, even those pioneers on the borders of the backwoods, suffer from lack of food, clothing, or warmth in winter. Their sanitary arrangements regarding the disposal of sewage and garbage are often primitive, but this condition is not as apparent as in the more settled areas, and must certainly compare most favourably with the rows of privies in the dirty back yards and lanes of Montreal.

In the more remote settlements it will be found that intermarriage, not only among the French but also among the English-speaking people, is quite common in spite of the edicts of the Church, even to the extent of first cousins. This state of affairs is to be expected where means of communication with the outside world are limited and where the infusion of new blood is rare. In many small villages even on the Island of Montreal intermarriage is quite common.

The altitude of the different parts of Montreal Island and surrounding country varies considerably, but nowhere can it be said to be extreme. The country south is flat and often sandy with outposts here and there of the Laurentian hills. The climate is practically the same over the western part of the province.

The water used by the inhabitants of course must vary. Those living inland use wells, and those close to rivers and large streams avail themselves of this source of supply. Cisterns for the collection of rain water are occasionally seen, but the people do not use the water unless obliged to. So we may divide the goitrous districts into those using well water and those using river water. On the St. Maurice river the settlers use the river water almost exclusively; I have not seen a well in the upper part of that district. As you are well aware, this is quite a large river, over 400 miles in length, and flowing over a rocky and sandy bed almost without exception. All its tributaries rise in the Laurentian Mountains. Lime, iron, and copper occur in quantities here. It supplies what we would call a good drinking water of a moderate degree of hardness.

As I have already said, goitre is exceedingly common in the St. Maurice region; but so far as I have seen, it is not common in the city of Three Rivers or in the larger villages adjoining. Upon the Island of Montreal, excluding the city itself, the people use the Ottawa river water except when residing some distance from the shore. Goitre occurs here and there from one end of the island to the other, except in the more thickly settled parts. One family on Isle Perrot has several cases of goitre, and I am told it is more or less prevalent in the neighbourhood. I think you will find that along the shores of the St. Lawrence below this city goitre is common among the inhabitants outside of the villages and towns.

I have never seen a case of cretinism that I could associate with goitre in the country. In any case, it is rare. I believe but two or three cases exist among the 1800 patients in the asylums for the insane in this island. That goitre is one of the stigmata of degeneration is not the experience of the alienists of this province.

Myxœdema is also a rare condition. Kocher perhaps rightly calls it thyreopriva, the gland substance having disappeared through disease or otherwise.

It is interesting to note that in this province the animals also suffer in goitrous areas. From an examination of many wild animals, ruminants, rodents, and carnivora, from the St. Maurice region, not one case of enlargement of the thyroid was found. Yet, so far as man is concerned, both Munson and Duck point to the great prevalence of goitre among the Indians.

Race appears in this district to exert no effect upon the production of goitre. Bowers, in writing on the Bronchocele of Lower Canada in 1830, considers it usual among the French, and attributes it to the use of snow-water, climate, and improper clothing and food. Adami, in reviewing the subject in Sajous' Cyclopædia of Medicine, thinks that not one of the causes can be said to be in action in every case. Gordon Holmes asserts that sporadic goitre is more liable to occur in females, and that the endemic attacks both sexes.

It is probable that not until cases are properly classified and analysed, chemical and biological, of the waters and soils of goitrous areas made, can we add to the knowledge we already possess. But it appears to be probable that here, as well as elsewhere, water is responsible for the existence of the disease. Whether it is due to one or many organisms or their products or to certain salts or combinations of salts remains yet to be discovered.

Heredity has been placed by some as a probable cause. Goitre frequently occurs in those born in goitrous districts, yet both parents are free from the disease. Congenital goitre is as rare about Montreal as it is elsewhere. In cattle, sheep, horses and dogs, it is not uncommon in all goitrous districts, and the young frequently succumb to it. Dr. Baker (D.V.S.) informs me, however, that in sheep and calves that if they live for a little while the swelling may entirely disappear.

Both heredity and consanguinity may be a predisposing cause hereabouts, but it is difficult to directly attribute the disease to either of these factors in goitrous countries.

So far as I have been able to ascertain, the incidence of the disease corresponds usually with the beginning of the establishment of the sexual functions in both sexes. In this district, as elsewhere, the age varies but little—nine to sixteen years. Professor Gaskell draws atten-

tion to the possibly sexual character of the thyroid from studies on primitive vertebrate types. This may account for the increase of the gland in size under certain conditions.

The carrying of heavy weights upon the head has been thought to be a factor by many observers. In our country districts the women, in which it is said the greater percentage of goitrous cases occur, do not employ this means of carriage as in some other countries. Among the men in some of the remote parts of this province a collier or head-pack strap is used. This passes over the forehead and the weight or pack is placed over the lumbar region. One will frequently see the *habitants* use a form of collier or shoulder board for a bucket at each end, similar to those used in the provinces of France. It is hard to prove from an anatomical standpoint that the carrying of weights in the manner described should cause goitre by vascular congestion or stasis.

Recently, an attempt has been made to trace the disease to a micro-organism. Kocher found 33 species of bacteria in goitrous water against a very much smaller number (nine) in non-goitrous water. He or his collaborator (Prof. Travel, University of Berne) were unable to fix upon any one micro-organism as specific, however. Yet these bacteria collectively caused enlargement of the gland in guinea-pigs. Kocher is non-committal upon the subject, *i.e.*, the active agent. Lustig and Carle also mention the large number of bacteria found in goitrous water, and have cultivated a bacillus. They have induced goitre in dogs and horses by this water.

Mitchell is inclined to think that goitre, from a study of it in relation to malaria among the troops in Assam, is possibly due to an amœboid organism, perhaps possibly resembling Laveran's corpuscle.

Whether the waters of this district or province will throw any further light upon the subject remains to be seen. A large field of investigation remains open. Goitrous areas, removed from the main rivers and in which the inhabitants use well water are seen in many places about this city. Goitre occurs to a moderate degree. In a small settlement some distance back from Vaudreuil the farmers are markedly goitrous. To the south of the city, in the Townships, and especially in the county of Beauharnois, it is prevalent. East of Montreal, in the counties of Berthier and Terrebonne, it is also common. In these latter areas, however, river and well water are both used.

As you are well aware, goitre has been from ancient times considered a water-borne disease, and the prevalent opinion has also been that goitrous water was that holding in solution large quantities of lime, iron, copper, and magnesium salts. These minerals do occur in more or less quantity hereabouts, but I have not been able to obtain a single

analysis of the inorganic materials even in Montreal city water supply. That made some time ago by Dr. Ruttan was to ascertain the organic materials only.

Koehler's elaborate investigations in the Canton of Berne, Switzerland, in which over 76,000 school children were examined, brings to light some new and interesting facts. First, he believes that certain waters contain the *materies morbi*. He mentions certain goitrous wells which invariably produced the disease. Again, upon analysis of non-goitrous wells and springs, he finds that their water contain four times as much lime and twice as much magnesia in solution. Goitrous and non-goitrous wells may be but a short distance removed from one another. He emphasizes the fact that water from the so-called fresh water sandstone is particularly goitrous. Manson, Glover, and Mitchell, having investigated the matter, do not believe that alkalinity is a causative agent. Armaingand mentions the significant fact that all other supposed causes of goitre having been removed, still the disease remains quite as prevalent.

THE WISDOM OF SURGICAL INTERFERENCE IN HÆMATEMESIS AND MELÆNA FROM GASTRIC AND DUODENAL ULCER.

BY

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Hæmatemesis, although a common symptom in gastric ulcer, is rarely sufficiently large in quantity to cause anxiety, yet the mortality from hæmorrhage in this condition of the stomach is not inconsiderable. Leube estimates the mortality to be about 5 per cent., and Welch at from 3 per cent. to 5 per cent. The question of the propriety of surgical interference in certain cases has received considerable attention of late, from surgeons as well as physicians, and the general tone of the medical press at the present time is very conservative indeed. It may be said that while there is, perhaps, a fairly general consensus of opinion that the surgeon should be consulted in cases of frequently repeated small hæmorrhages, which, in spite of rest, abstinence from stomach feeding, and medical therapy, continue to recur and threaten the patient's life: yet it is as a last resource, and that in the presence of large copious hæmorrhage, surgery is of little or no avail. There seem to be two very good reasons for this opinion in the facts that the large majority of cases recover under medical and dietetic treatment, and that surgery up to the present has not been particularly successful. Mikulicz has operated four times, and three of the four patients died, and adds that he only knows of two successful cases, the one of his own and one of Roux. Hartman* has collected 12 cases of operation, only four being successful; and would be inclined to trust to rest, strict diet, and the application of ligatures to the four extremities, with the addition of intravenous injection of normal saline solution.

On the other hand, Dieulafoy strongly urges immediate operation in every case of hæmatemesis in which the loss of blood equals or exceeds half a litre, especially if it recurs within twenty-four hours, and reports a case of hæmorrhage from a superficially ulcerated patch, in which he gathered up into a fold the ulcerated mucous membrane and ligated it, with recovery. Keen, in his Cartwright lectures, takes the conservative view of Mikulicz and Hartman and would abstain from operative measures except in cases of repeated small hæmorrhages, which will almost surely finally destroy life. Leube says surgical interference is absolutely indicated by repeated small hæmorrhages, especially if accompanied by

* Sem. Méd., 1898, pp. 7-8.

dilatation of the stomach, and relatively indicated by a large hæmorrhage, yet never by one single vomiting of even a large quantity of blood.

My attention was particularly directed to this subject by the following case, successfully operated upon and which I will report very briefly :

On July 21st, 1898, I was asked by Dr. George Wilkins (Montreal) to see with him a lady, 35 years of age, who had had repeated copious hæmorrhages from the stomach for seven days. Previous to this her health had been good and she had not had any of the symptoms of gastric ulcer. Her present illness began just one week prior to my first visit. Her family history was negative. I found her blanched, mucous membranes and finger-nails white, and the slightest exertion was followed by dyspnœa. She had been treated by absolute rest in bed, rectal feeding, only small bits of cracked ice being given by the mouth, also hypodermic injections of morphine and ergotin, large doses of bismuth and acetate of lead, without any apparent lessening of the quantity of blood vomited, nor did turpentine in emulsion succeed any better. Her temperature was 100° F., and her pulse rapid, very compressible and shabby. On the following day we decided that operative treatment alone gave any chance of recovery, and had her removed to the Montreal General Hospital. Her temperature on admission to the hospital was 102 $\frac{1}{2}$ ° F., pulse 136, respirations 44. As soon as possible I exposed the stomach, through an incision in the median line, drew the stomach well forward, and after carefully packing around to protect the peritoneal cavity, opened through the anterior wall. After washing out some blood clots a careful search was made for the bleeding point. No deep excavated ulcer was found, but blood was seen oozing from three different places, which looked like linear fissures in two instances, and in the third like a stellate fissure. Around the fissures, over an area of about 1 cm., there was apparent a superficial loss of surface epithelium. From the stellate fissure blood seemed to come from three small vessels. The flow of blood was completely arrested by the application of the Paquelin cautery, and the stomach and abdominal incisions were closed without drainage. The subsequent course of the case was one of uninterrupted convalescence. The nausea disappeared, no vomiting occurred after the either or subsequently. I began stomach feeding the following day, and from that time on she took nourishment by the mouth, although rectal feeding was continued for four or five days. While I was operating, an assistant gave an intravenous injection of forty ounces of normal saline solution. The woman is now quite well, not anæmic, has perfect digestion and assimilation, and is living an active life.

I have permission to report the following very instructive case :

On February 6th, 1899, I was asked by my colleague, Dr. Elder, of Montreal, to see with him a lady aged 42. This lady, on returning home

that afternoon after doing a little shopping, and without having had any previous symptoms referable to the stomach, vomited a large quantity of blood—I can safely say 10 ounces—and notwithstanding complete abstinence from food by the stomach, absolute rest in bed, ice over the epigastrium, and the administration of such drugs as morphine and ergotin hypodermically, acetate of lead and turpentine, the vomiting of blood in considerable quantities continued to occur at intervals during the following day and night. Early on the morning of the third day, or about forty hours after the first hæmatemesis, she was removed to the Montreal General Hospital. As she felt somewhat better after getting to the hospital she was allowed to rest. No vomiting occurred until a little after three o'clock in the afternoon, when she brought up about 12 ounces of blood. At 5 p.m. she was placed upon the table, ether administered, and Dr. Elder brought forward the stomach through a median incision. After carefully packing round about, the anterior wall of the stomach was opened, and a large, deeply-excavated ulcer about 1 inch long by $1\frac{1}{2}$ inch wide was at once seen. It was situated on the lesser curvature 5 cm. below the œsophagus. In the centre of the base was an open artery, from which the blood poured freely. The vessel was secured by a catgut ligature carried through the base of the ulcer, just beneath the opening in the wall of the vessel on a curved needle. This arrested the hæmorrhage completely. A row of addition sutures was carried across the floor of the ulcer in such a manner that the floor of the ulcer was somewhat elevated and the edges approximated. After closing the opening in the anterior wall of the stomach the abdomen was closed without drainage. Unfortunately this patient died from acute anæmia the following day at 1 a.m. Among other things $1\frac{1}{2}$ litre of normal saline solution was administered subcutaneously, and an equal quantity *per rectum*. At the necropsy it was found that no bleeding had occurred after the operation.

The following evening when I sat down quietly for that period of retrospection and introspection that, I fancy, is not foreign to the experience of any surgeon, I came to two conclusions: First, that this woman's life would in all probability have been saved if she had been operated upon after the second hæmorrhage; and, secondly, that the tone of advice, given to-day in the medical and surgical literature was responsible for the delay. I felt that had I another similar case, early operation would save it. But, as Carlyle says, "It is easy to be wise behindhand."

With a view to getting further information on this question of the operability of these cases, I asked Dr. Wyatt Johnston, Pathologist to the Montreal General Hospital, to give me extracts from the reports of all necropsies performed on patients who had died from gastric hæmorrhage. From Dr. Johnston's report I find that in a series of 2,000 necrop-

sies, 15 or 0.75 per cent. died from hæmorrhage from the stomach. Of these 15 cases, in 5, or $33\frac{1}{3}$ per cent., the hæmorrhage was from a gastric ulcer; in 4, or $26\frac{2}{3}$ per cent., from an ulcer in the duodenum; in 1 from rupture of an œsophageal varix, secondary to thrombosis of the portal vein, atrophy and sarcoma of the liver; in 1 to rupture of an œsophageal varix secondary to cirrhosis of the liver; in 2 to leucocythæmia; and in 2 to aneurysms rupturing into the lower end of the œsophagus.

I will now in as few words as possible state just the condition found in each of these cases of gastric or duodenal ulcer:

CASE I.—Female, aged 40. Fatty and cirrhotic liver, atrophic spleen, no ascites, fibroid kidneys. About the middle of the lesser curvature an ulcer, almost circular, three-quarters of an inch in diameter, with sharply cut edges which are not raised. In the centre of the floor is an open artery, not plugged, and readily admitting a small probe.

CASE II.—Male, aged 50. Chronic ulcer of the stomach, perforation, and hæmorrhage. In the peritoneal cavity is half a gallon of thick, dark-red fluid. Three inches from the pylorus is a large perforation in the anterior wall of the stomach, occurring in the base of an ulcer 6 cm. long by 2 cm. wide. A branch of the gastric artery ulcerated through has an orifice into which a small probe can be passed.

CASE III.—Female, aged 20. Lower two-thirds of the œsophagus dilated, and on cutting it open a number of irregular elongated losses of substance are seen; the strands of tissue between these look cicatricial. About the middle of the posterior wall of the stomach is a yellowish slough 6 mm. in size, and extending 3 mm. to 4 mm. deep, reaching into the muscular coat. No plugged vessels detected.

CASE IV.—In the fourth case there was found an oval loss of substance on the lesser curvature, three inches from the pylorus; size, 3 cm. by 2 cm. Edges round and clean cut, base made up of dense fibroid tissue. In this the ends of obliterated as well as open vessels are seen—the latter very numerous, four of these presenting gaping orifices. On injecting water into the gastric artery it flows in a free stream from the largest of these orifices.

CASE V.—The necropsy report of Dr. Elder's case, already sufficiently reported.

CASE VI.—The report of a duodenal ulcer, unfortunately mislaid.

CASE VII.—Duodenal ulcer, oval in shape, situated immediately outside the pyloric ring, 1 in. long in the axis of the gut and $\frac{3}{4}$ in. wide; deep, with rounded edges, which are much undermined. Immediately in the centre of the floor is a small dark elevation, blood-stained, and consisting chiefly of fibrin. On injecting water through the hepatic artery, small clots are washed out from this, and the water flows freely from the floor of the ulcer.

CASE VIII.—Male, aged 72. Immediately below the pyloric ring is an irregular ulcer extending through the greater part of the gut.

CASE IX.—Stout middle-aged woman. In the stomach, which is of large size, is found about 30 ounces of blood mixed with remnants of food. Mucosa dark and blood-stained, otherwise unaltered. Immediately outside the well-marked pyloric ring is a large ring, 3.5 cm. by 1.5 cm. in size, partly blocked with clot, which, when removed, allows the insertion of two fingers as far as the second joint into an oblong cavity, the size of a small orange, beneath the liver and gall bladder. The edges of the orifice are smooth and rounded. A probe passed into the right branch of the hepatic artery enters the cavity, and on slitting it open the wall of the artery is seen to be ulcerated across. The loss of substance on the vessel wall is about 2 mm. by 3 mm. The wall of the sac is partly formed by the wall of the gall bladder, which is sloughing in places.

Dr. Wyatt Johnston adds that, "The pathology of gastric and duodenal hæmorrhage as illustrated by *post-mortem* examinations shows the following conditions to be the commonest :

"1. Bleeding from an eroded surface, or from an eroded vessel in the base or wall of an ulcer.

"2. Bleeding from passive congestion, as in cirrhosis of the liver or other forms of portal obstruction, or in heart disease. In most of these cases the serious hæmorrhages come from œsophageal varices.

"3. Abnormal states of the blood, as in leukæmia (usually associated with portal obstruction), also rarely in hæmophilia, etc.

"Besides this, from reflex causes, such as vicarious menstruation, the blood may come, not from the stomach or intestine, but from some adjacent organ, as in aneurysm. Traumatic causes are rare.

"It must be remembered that an addition to hæmorrhagic conditions, properly speaking, we frequently find minute ecchymoses and hæmorrhagic erosion of the mucosa whose pathological significance is doubtful and which have no well-recognised clinical correlation. These often represent merely terminal or even agonal changes. The dilated venules of the stomach mucosa are distinguishable from ecchymoses on careful examination, but the difficulty of interpreting the fine *post-mortem* changes in the stomach mucosa is increased by the rapidity with which softening and autodigestion occur in it. It is often impossible to recognise blood in the gastro-intestinal canal by ordinary microscopic or spectroscopic tests, though the hæmatoporphyrin spectra are usually obtainable. Concentrated carbolic acid makes a good solvent for blood so altered. Preliminary hardening for twenty hours in Mueller's fluid has been recommended as a means of recognising *post-mortem* the otherwise invisible points of hæmorrhage in newborn children. It is difficult

for a pathologist to see why the operative treatment of eroded varices at the œsophageal end should offer any insuperable difficulties. Gastric ulcers differ from ordinary ulcers by the small amount of granulation on the surface and of superficial inflammatory exudation at the margins, so that the degree of vascularity is relatively small."

We learn from the *post-mortem* reports, in addition to the fact that in some instances serious complications resulted from what may fairly be termed an unduly prolonged period of progressive disease, that the hæmorrhage was in every instance arterial, and that there was loss of substance by ulceration in an artery of sufficient size to cause death from hæmorrhage. This observation is quite in accord with the statement made by Orth in the fifth edition of his *Pathologisch-anatomische Diagnostik*, pp. 500, namely, "that with reference to the origin of gastric hæmorrhage we must remember that the blood supply comes from the deeper layers, and that the arteries, while still in the deeper parts of the mucosa, break up into capillaries, so that on the surface of the mucosa the only vessels are venous capillaries and small venules."

Clinically, we divide cases of hæmatemesis into two distinct classes, those in which occur frequently repeated, small hæmorrhages, and those in which the loss of blood is in larger quantities, and it would seem that each class has a distinct pathological lesion, and this should be borne in mind in the consideration of the treatment of hæmatemesis, medically or surgically; and, however efficient hypodermics of morphine and ergotin may be in small hæmorrhages coming from the capillaries and small venules of the surface of the mucosa, it may not be, I trust, considered rank heresy to question their therapeutic value in the presence of a considerable lesion in the wall of a considerable artery. It is also to be noted that the bleeding point in the cases which I have reported was in every instance accessible, situated in a part of the stomach wall that could be readily come at, or, if duodenal, in every instance it was outside the pyloric ring.

If then, we can exclude aneurysm, which should generally be possible, and leucæmia, which should be possible with the aid of the microscope, and cirrhosis or other cause of portal obstruction, I hold that the surgeon's duty is to interfere in suitable cases; and if you will permit me I will offer as a definition of suitable cases:—those, first, of frequently repeated small hæmorrhages, which persist in spite of medical and dietetic treatment, and which threaten to destroy the life of the patient; and, secondly, in all cases of a large hæmorrhage which, in spite of medical and dietetic treatment, recurs. In these cases I advocate operation after the second hæmorrhage.

For hæmorrhage occurring in cirrhosis and portal obstruction, I do not think that the surgeon can accomplish any good. In these cases

the hæmorrhage is generally from a varicose œsophageal vein, a part difficult of access, and secondary to a pathological lesion but little amenable to any form of treatment.

In the case of gastric and duodenal ulcer, however, the conditions are totally different. The lesion is primary and local, and in addition to the securing of the bleeding point, a more smooth and rapid convalescence is secured, the likelihood of perforation removed, and if found advisable the performance of a gastro-enterostomy or pyloroplasty secures to the stomach that rest which so favours the healing of the ulcer and ensures against the subsequent occurrence of narrowing and obstruction at the pylorus.

[For the report of a second successful case see page 932 of this number.]

NOTES FROM PRACTICE IN THE ARGENTINE REPUBLIC.

BY

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To start with, I am not a "scribbler," and am not going to pretend to be what I am not : my aim is simply to put in writing the histories of some of my cases which I, perhaps wrongly, consider out of the ordinary run, paying special attention to the practical side. I am not going to follow the dates, but simply pick out cases or series of cases here and there which to me seem fittest ; above all, I intend writing out those in which I have been wrong in diagnosis or treatment. What is the good of only writing down the cream ? One man's mistakes, confessed, may save the life of some poor human. Confessions there will be, and perhaps my cases will be open to the stinging pen of the critic. Let my readers, too, remember, while reading these notes, that the difficulties under which I have often operated were at times so great that only one accustomed to them would have dared to interfere.

As some of my readers may remember, I left for this country immediately after graduating from McGill in 1890, and, owing to laws which do not allow foreigners to practise without first passing the corresponding examinations, I could not practise in any town where there was a received Argentine physician : I was forced to go to a place where there was no licensed doctor. I went to Patagones on the Rio Negro, a small town of three or four thousand inhabitants, including the smaller town of Viedma on the opposite bank of the river. Owing to the great distance and want of communication, these towns had then no received medical man.

About a week after reaching Patagones, a gentleman, well dressed and apparently well-to-do, walked into my office. He told me that for twenty years he had made it a practice to consult every new "medico" who came to the town ; that they had all seen and prescribed for him, but that not one of them had been able to cure him. I naturally asked him what was the matter, and he showed me a long prepuce which was cracked on the surface over which the urine passed. I told him that I would cure it for him in a week and that it would never come back again. He was very pleased and asked me for the prescription. I showed him a bistoury, and told him that that was the only receipt that would cure him, at the same time explaining to him the cause of his trouble and the proper way of curing it. He would have none of it, but wanted a salve or lotion. I told him that I did not want to be on the

list of which he had just told me, and refused to give him a salve. Some days later I circumcised him with natural results,—radical cure, happiness, etc.

That small operation gained for me more than any other I have ever done : more reputation, more future operations, more fees, more everything. It was plain I knew more than any man who had been in Patogones for twenty years previously. I could not kill ; if a patient of mine died it was because " God willed it," not from bad attendance, or from wrong diagnosis or treatment. This gave me courage ; I began working at surgery, and have kept at it ever since. At present I hardly do anything else, and have gained a reputation, if I, myself, may say so. I will now relate another operation, done eight years later, which did the same for me in another part of the country, as the circumcision of Don G—— M—— did in Patogones.

Fœcal Fistula following Pelvic Abscess Cured by Operation.

On January 13th of this year I was called to see a Mrs. G., wife of a lawyer in Rio IV. Rio IV. is a good big town in the province of Cordoba, a day's journey from here by train. I happened to be there for a couple of days on military business. Her history was briefly as follows :

Age 21 years, married twice, fairly good general health. At her first confinement, eleven months previously, she had had puerperal fever, and as a sequence an abscess of the broad ligaments (judging from what her medical man told me), which was too high and too far out on the pelvic brim to be opened per vaginam. This abscess, the size of an orange, had been opened in the left inguinal region by Dr. Norona, who afterwards assisted me at the radical operation. A fistula resulted, for which she was taken to Cordoba, where she was treated by scraping the fistulous tract, and, later, burning it with nitrate of silver. She was sent home as well, but almost immediately the fistula opened again and she went to Buenos Ayres, to one of the best clinics there, to be treated. More or less of the same treatment again healed the sinus, and at the end of two months she again returned home considered to be all right. In a week's time the fistula had re-opened.

At the date on which I saw her, she had been home from Buenos Ayres about three months, and had a small fistula in the left inguinal region into which water, on being syringed, found its way into the rectum and was expelled in a few moments by the anus, proving without doubt the nature of the sinus. I proposed a radical operation, and consent being obtained, decided to operate next day, as my sojourn in Rio IV. was very limited. A dose of calomel was given, she was told to take only liquid food that day, and antiseptic cloths were applied to the

abdomen. A clyster was given next morning, and, assisted by Dr. Norona and my soldier nurse who was with me, the operation was undertaken.

I first made an incision from the anterior superior spine of the ilium, of about five inches in length, in the direction of the symphysis pubis, going through all the coats of the abdominal wall. I found the omentum adherent all around the fistulous tract, which held a metal probe as a guide. After much trouble, I was able to clear this away and get down to the sigmoid flexure, which was firmly fixed by adhesions. These adhesions were broken down and the gut relieved, but not sufficiently to admit of its being lifted out of the abdomen. Boracic acid gauze wrung out of hot saline solution (six grams of sodium chloride to the litre) was packed in to prevent the small intestines from being cooled or soiled. I then made another skin incision, beginning and ending at the same points as the first, but running in a curved line half an inch below the opening of the fistula. This incision was dissected down in the same way as the first until I finally got the tract of the fistula in its whole length separated from the surrounding tissues. I next cut this off flush with the gut and removed the elliptical piece of skin, etc. The hole in the gut thus produced was about a quarter of an inch in diameter. First clamping the intestine on either side, I now cut out a ring of the degenerated bowel around this hole until I got into what I considered sound gut. The opening was now an inch and a half long in the transverse axis of the bowel and about an inch in diameter in its long axis. I decided to simply stitch up this opening hoping, as I still hope, that the calibre of the gut would not be sufficiently reduced to produce any difficulty later on. I used Lembert's suture and silk No. 0, bringing up and covering over the wound with peritoneum. I thought it prudent to put in a gauze drain on account of there having been an escape of a few drops of pus when I cut off the fistula. The rest of the wound was stitched up in three layers, and my patient came out of the chloroform.

The next morning I left Rio IV., and for the rest of the history I am indebted to Dr. Norona, the resident physician. On the third day the gauze drain was removed, and there being a little pus, a fresh one was introduced. On the fourth day the temperature rose and, on removing the dressings, there was a slight discharge of faecal matter. From this time on slight fever was noted and the dressings were changed twice a day, the bottom of the wound being dried with gauze each time, until at the end of five weeks the opening had completely closed. I have seen the patient on two occasions since, in April and again in the last week of June, and she is quite well and without any sign of a return of the fistula.

Nephrectomy Without a Ligature.

On February 25th I was called in consultation here (Mendoza) to see a lady, Mrs. A., 28 years of age, married six years, no children, who had been in bed for nine months. She gave me the following history :

Nine months before a swelling appeared in the right side, gradually became of an enormous size, and finally broke in the right loin, discharging at first watery pus, which later became much less fluid in consistence. Three months ago she began to lose the use of her right arm, especially of the shoulder muscles, which were greatly atrophied. Movement of the joint was painful and much limited. Near the end of the last rib there was a fistula which was discharging pus freely. On introducing a probe, I found it to be very deep and running in the direction of the anterior superior spine of the ilium, but I could not, as I expected, find an opening leading into the kidney. The following day I examined the ureters by Kelly's method. On the right side the catheter would not enter the ureter beyond a couple of inches, and no urine came away through it. I then felt sure, although I could not find the opening, that the fistula undoubtedly led to the kidney; and I decided to operate.

On February 28th, assisted by Dr. Goldsack, I introduced a grooved sound into the fistula, and splitting it up, soon found the opening into the kidney. On enlarging the wound, the kidney was found large and white, and on being incised, showed evidence of fatty degeneration, but little blood escaping from the cut surface of the organ. To get more room I cut away the lower third, after first passing a Lawson Tait knot around it. Then, freeing the remainder of the kidney, I placed a ligature around the vessels and cut the organ away with scissors. I next introduced, guided by my fingers, a pair of scissors to cut the ends of the ligature which had been left long. By some mistake I cut the ligature itself, and to my surprise pulled it away. To my greater surprise there was not any hæmorrhage at all; not a drop of blood came away. On investigation the artery was found to be completely obliterated. A nephrectomy without a ligature is, I think, rather rare.

I filled in the cavity with gauze and sewed up the wound, leaving a place for a gauze drain. Recovery was uneventful. The patient was up on the 23rd day, and the cavity had filled up by the end of the month, leaving only a skin deep fistula, which healed two weeks later.

This patient has gained some thirty pounds since the operation, and has gradually been recovering the use of her arm under treatment by massage and passive motion.

I have operated five times on the kidney, twice for stone, two nephropexies and the above nephrectomy. On again attempting the latter

operation I would try the incision recommended by Langenbüch instead of the lumbar incision, which gives very little room. Had the artery not been obliterated in this case, it is doubtful if my patient could have withstood the hæmorrhage. The lumbar incision suits very well for nephrolithotomy and nephropexy.

Interstitial Pregnancy Mistaken for a Myoma Uteri—Operation —Recovery.

On June 24th I was called to see a woman supposed to be suffering from a fibroid of the uterus, and who gave the following history :—

S. A., aged 38, has been married 20 years, and is the mother of seven children, the youngest of whom is four years of age. Two years ago she began to suffer from metrorrhagia, the flow at times lasting from one menstrual period to the next. After lasting about a year the hæmorrhages suddenly stopped, and about this time she began to have severe pains in the abdomen and noticed a lump growing. In April she came in from the country to the native hospital here, and, when I saw her, was still complaining of pain, for which she had been given morphia continuously since her entrance to hospital. There was great emaciation, probably partly on account of the morphia which she had been taking, but beyond this her general condition was good. The urine was normal. On examination, I found the uterus in a position of exaggerated ante flexion and a sound entered 8 centimetres. The tumor, which was about the size of an adult head and reached three inches above the umbilicus, was very hard, but free from nodules, and evidently fixed to the uterus, which moved with it. Pressure of the tumor had produced constipation only relieved by clysters. I came to the conclusion that it was a myoma, probably submucous, and decided to do a hysteromyomectomy as described by Kelly in Volume II. of his Operative Gynæcology.

After a dose of calomel (0.50) and preparation of the abdomen, on June 26th, assisted by my colleagues, Drs. Goldsac and Paladini, and my invaluable soldier-nurse, I opened the abdomen by an incision reaching from the upper margin of the tumor about three inches above the umbilicus to the symphysis pubis. I found the omentum adherent right across the tumor, in some places so firmly that it could not be separated by the fingers, but had to be ligated and cut. I then endeavoured to lift the tumour out of the pelvis, but was unsuccessful, even with the help of a colleague's hand in the vagina ; so, beginning on the right side, I tied and cut the broad ligament down to the uterine vessels, and then worked my way across between the uterus and bladder, pushing down the vesico-uterine peritoneum. I was now able to roll over the mass and then tied the uterine artery and cut through the cervix, leav-

ing the stump. The left side was much more easily dealt with, simply rolling up the mass and putting forceps upon the vessels until everything was clear. All the vessels were now secured and the cervix stitched in the method described by Kelly. Over all, the peritoneum was now stitched from one side of the pelvic brim to the other by a continuous catgut suture covering in everything. I then drew down the omentum and put two catgut stitches in it, thus fastening it over the line of the peritoneal suture (as recommended by Forgue and Reclus) to prevent possible adhesions between the intestine and line of suture, and also to act as an absorbent for any liquid which might collect in the pelvis. The abdominal wound was closed without drainage in three layers, catgut being used for the peritoneum, wire for the muscle, and silkworm gut for the skin. The operation was finished in one hour and twenty minutes, much of this time being spent in freeing the adhesions of the omentum.

While turning out the tumour I had noticed that at one spot on the posterior surface it was quite soft, and thought at once of cystic degeneration. What was my surprise, however, on opening the mass, to find a placenta, dry and hard, and a little dried-up fœtus, flattened out by pressure, measuring about five inches in length. On separating the uterus from the tumour it was seen that the ectopic gestation had taken place on the right side. On looking back over the history of the case now, I see that I might have suspected such an explanation of the symptoms, but the hardness of the tumour and its position nearly in the middle line filling up the pelvis, pointed rather to the presence of a myoma of the uterus.

The woman made an uninterrupted recovery, the dressings not being touched until the eighteenth day, when the stitches were removed, and she left for the country on the 32nd day after the operation in perfect health.

A word or two about the technique in antisepsis. Permanganate of potash and oxalic acid are used, after a thorough scrubbing, for disinfection of the hands: all instruments are boiled for at least ten minutes in alkaline water (carbonate of soda): catgut is sterilized by boiling in alcohol under pressure: sponges are prepared after Kelly's method: silk, silver wire and silkworm gut are simply boiled with the instruments, as however, repeated boiling in the alkaline water weakens silk and silkworm gut, only sufficient for the operation in hand is put in. For ordinary work sterile normal saline solution is used for both instruments and washing out cavities. I, following Dr. O'Connor, have given up the use of iodoform. Picric acid, 3 to 5 grams to the litre of water, has taken its place and, I believe, to advantage. Strips of gauze

soaked in this solution are used for packing suppurating cavities or applying to dirty wounds. The site of operation is prepared by scrubbing with soap and hot water, followed by a thorough rubbing with alcohol, and, if time permits, carbolic or sublimate fomentations are applied. Permanganate and oxalic acid complete the process. The secret of success is surgical cleanliness.

(To be continued.)

TUBERCULOSIS OF THE FLAT BONES OF THE SKULL.
PERFORATION OF THE PARIETAL BONE, WITH EXPOSURE OF THE
DURA MATER.

BY

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of Toronto.

Tuberculosis of the bones of the skull is sufficiently rare to make the report of a case interesting, more particularly when the seat of the trouble is in the cranial vault. The facial bones are much more frequently affected than those of the cranium. Thus, I had under my care recently a lad who had a tuberculous caries of the malar bone; this patient had tuberculous trouble elsewhere, the ankle joint having been excised for disease of the tarsus and tibia. Cnopf, of Munich, reports a case of spontaneous fracture of the inferior maxilla due to tuberculous caries in a child a year and a half old.* This was a debilitated infant who had, in addition to the trouble in the jaw, a tuberculous left elbow and similar disease in the right wrist. There was also found, after death, tuberculous disease of the lungs and of the abdominal organs. Cheesy matter containing tubercle bacilli was found at the seat of fracture in the jaw.

A patient, who presented conditions of unusual interest, was admitted under my care in St. Michael's Hospital in January, 1897. He was an Italian fruit-vendor, 21 years of age. He had always enjoyed good health until four months before coming under my care. His illness began at the period indicated, when he came to the hospital with trouble in the left side of the chest. He had a cough with a considerable amount of expectoration containing a good deal of blood. Dr. Dwyer informed me that he considered he had a tuberculous deposit in the left lung. He recovered sufficiently to leave the hospital, but was re-admitted a short time after with a return of the lung trouble and complaining of pain in the left hip, thigh and ankle. The ankle became very painful and a small abscess was opened over the external malleolus which did not heal but continued to discharge pus. I scraped away the pulpy material which had formed about the sinus and found that it led down to eroded bone. I made a careful microscopic examination of this material and found that it was tuberculous. After this operation a large number of foci of tuberculous disease developed, always with abscess formation and

* Quoted in Sajous Annual of the Medical Sciences, 1892, Vol. 3, pt. 2.

usually communicating with bone. Thus, in July, '97, I operated upon seven different localities. These were :—the dorsum of the right foot; an abscess over the left patella; inner malleolus of right foot; dorsum of left foot; anterior aspect of right wrist; the scalp over the left parietal bone; and the anterior region of the right leg. The abscesses, when opened at the time of operation, were found to contain thin pus which proved to be sterile. The condition of the patella consisted of a perforation large enough to admit the tip of one's fore-finger. The pulpy material found in the cavities and the lining walls of the abscesses in the various localities was examined and was found under the microscope to present the typical appearance of tubercle. The abscess in the scalp was found to communicate with disease in the parietal bone. There was a perforation about 2 cm. in diameter passing through the entire thickness of the bone and laying bare the dura mater covered only by some granulation tissue. The site of the perforation in the parietal was about 2 cm. behind the external auditory meatus and 6 cm. below the sagittal suture. Subsequently, the patient had other abscesses form; thus one formed in the cellular tissue on the right side of the neck, another on the outer border of the right fore-arm, and on the 20th October, '97, the patient had no less than seventeen abscesses or sinuses. These were in all stages of healing,—for one noted the fact that they tended to heal after a time: thus the wound in the scalp closed about six months after operation, and the left knee became ankylosed, but a discharging sinus persisted. Early in the autumn of 1898 he developed a very persistent diarrhoea and on October 10th, '98, he died, two years after the date of the beginning of his illness.

The condition presenting itself in this patient is interesting from two points of view. First, the large number of foci of tuberculous disease; and secondly, the fact that here we have an example of perforative tuberculous caries of the parietal bone. It is a noteworthy fact that the disease was chiefly confined to the skeletal parts and the viscera escaped. In spite of the fact that the disease made such havoc elsewhere, the focus in the lung seemed to heal, as the chest disease did not seem to make any progress after the first few months of his illness. The lung, too, was not alone in exhibiting this tendency to heal, as many other foci did likewise.

Perforation of the flat bones of the skull from tuberculous caries is extremely rare. I can find very little reference to it in the literature. Mr. Watson Cheyne refers to it as a rare affection, although he has observed two cases. One of these cases occurred in the occipital bone.* He believes that in most cases the trouble begins in the diploë. Where perforation occurs, the dura may be separated from the bone by the

* W. Watson Cheyne, "Tuberculous Disease of Bones and Joints," 1895.

development of tuberculous material undergoing caseation. He also alludes to the fact that the affection apparently only occurs in the course of very severe tuberculous bone disease, an observation the correctness of which is borne out by the wide-spread development of the lesions in my case. It is said to appear also, as a rule, after other bones have been involved and not as the primary lesion.

The disease as thus affecting the flat bones of the skull is apt to be confounded with syphilis. In fact it has been said that formerly the disease was mistaken for syphilis. The existence of tuberculous disease elsewhere in the body and the development of a chronic abscess, however, are conditions which aid us in forming an opinion as to the real condition of affairs.

The ravages of syphilis in similar situations are well known. Thus Jonathan Hutchison, Jr., reports a case where a gummatous deposit involved nearly the whole of the occipital lobe of the brain and caused a perforation of the skull two inches by one inch in diameter, through which the brain membranes protruded and formed a tumor under the thinned-out scalp. There was no abscess formation.*

Whilst speaking of the rarity of tuberculous disease of the bones of the skull, it is understood that I exclude the tuberculous disease which is found as a sequel to middle ear disease of tuberculous character. An interesting point for discussion, however, regarding the origin of tuberculous middle ear disease may be raised. The usual teaching is that the disease spreads from the pharynx along the Eustachian tube, and from this source the middle and internal ear may be affected. Whilst admitting the possibility of this mode of infection, it is held by Barnick† that the disease may begin in the spongy tissue of the temporal bone and thus affect the mucous membrane secondarily. The fact that the disease spreads so rapidly, however, as to affect the mucous membrane almost immediately would make it extremely difficult to demonstrate primary tuberculous affection of the spongy tissue of the temporal bone.

* J. Hutchison, Jr.—*Trans. Pathological Society, London, Vol. XLII., 1861, p. 254.*

† *Ergebnisse der Allgemeinen Pathologie und Pathologischen Anatomie des Menschen und der Tiere, Lubarsch und Ostertag., 1886, 3-2, p. 697.*

HÆMATEMESIS SUCCESSFULLY TREATED BY OPERATION.

BY

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Montreal General Hospital.

I have another case of arrest of hæmorrhage from a gastric ulcer to report.

The patient, an unmarried woman, 46 years of age, while in church on Sunday evening, the eighth of October, vomited a large quantity of blood. The quantity vomited was estimated at a pint; this, however, included stomach contents, and it is difficult to estimate with any degree of accuracy the proportion of blood in the vomit. I believe, however, that it was considerable, as she fainted and was removed from the church and sent home in a cab. Dr. J. A. Springle, who saw her soon afterwards, had her transferred to the Montreal General Hospital.

The woman gave a history of having suffered from indigestion for eight or ten years, and she tells me that nine years ago I, myself, told her that she had an ulcer in her stomach. At that time she says that she vomited a small quantity of blood. Since February last she has suffered from severe pain in the right epigastric region and vomiting. The pain radiated round to the back, was sometimes of a dull gnawing character, and at other times very severe. It was generally most severe two or three hours after taking food, and was relieved by pressure. Vomiting, also, occurred about two hours after eating. These symptoms were by no means constant. Several days might elapse without either pain or vomiting, especially if she was careful in her diet and took considerable rest.

When admitted to the hospital, she complained only of great weakness and no pain or nausea. Her muscles were hard and well developed, skin very dry and harsh, mucous membranes pale, and eyes dull. Her temperature was 98.2° F., her pulse 96, small and compressible, and her respirations 24. Her tongue was dry and she complained of great thirst. The abdomen was soft, not tender, easily palpable, and no tender spot in the region of the stomach could be detected. The right kidney was large and moveable. She was given morphia, gr. $\frac{1}{3}$, hypodermically, and an ice bag laid over the stomach; all food by the mouth was forbidden, and rectal feeding at regular intervals ordered. She remained in bed, resting quietly and sleeping well, until Wednesday evening, the eleventh of October, when at 10.45 p.m. she complained of nausea and almost immediately afterwards vomited twelve to four-

teen ounces of blood, partly in coffee grounds and partly in larger clots. Dr. Lynch, my resident house surgeon, gave her morphia, gr. $\frac{1}{4}$, hypodermically, and reapplied the ice bag which had been discontinued, and introduced one pint of sterilized salt solution under the skin of the chest. At 1.15 a.m. on the 12th, she vomited two to four ounces of blood and became quite collapsed. Her pulse was 116 and her temperature fell to 96° F. She was blanched and cold. The subcutaneous salines were repeated, $\frac{1}{8}$ grain of morphia injected, and the foot of the bed raised.

By 11 a.m. she had recovered from the immediate effects of the hæmorrhage, and I decided that my only chance of saving her life was to operate at once as it was not at all likely that a vessel large enough to allow of the escape of so much blood would be closed by medicinal agents. Accordingly, after the intravenous injection of thirty-five ounces of sterilized salt solution, I made an incision in the median line and brought up the stomach into view. I was rather under the impression that the ulcer might be duodenal. This view was favoured by two facts: first, that the pain had not usually been felt for two or three hours after eating; and secondly, that she had told us, that on the Sunday morning before her illness, she had passed a black tarry stool. I therefore made an incision through the anterior wall of the pylorus, thus exposing at once the upper end of the duodenum and lower end of the stomach. The duodenum was found normal in every respect, but on passing my finger into the stomach, I at once felt a deep, excavated, round ulcer about half an inch in diameter. On turning out this portion of the stomach the ulcer came readily into view. It was situated on the lesser curvature, about 2 in. from the pylorus. No large open vessel could be seen, but blood flowed freely from several points around the margin. The ulcer was excised, the incision continued into the first, and the opening closed as in a pyloroplasty (Heineke-Mikulicz). The woman is making a good recovery. It is now three weeks since the operation, and she is taking considerable quantities of food by the mouth without any pain or nausea; her bowels move regularly and she is gaining in strength, weight and colour. Ten days ago she laughed so heartily that she sustained a double dislocation of the mandible. This was reduced without any anæsthetic, but unfortunately the necessary bandages interfere somewhat with her feeding.

ENDO-ENTERIC SUTURE.

BY

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The urgent need of some trustworthy method of endo-enteric suture has been fully recognised for many years. Many methods have been devised, but that of Dr. F. G. Connell, described in the Philadelphia Monthly Medical Journal, is the only one which is wholly within the intestine. Maunsell's, Halstead's, and Chealle's operations require two systems of suture, one within the intestine to unite the resected ends of the gut, and another superficial row to close the longitudinal incision of the intestine. All such combinations must produce a constriction, not only in the transverse, but also in the longitudinal axis, and must involve a greater or less risk of intestinal stenosis.

The slightest risk in any such operation is very objectionable, and it can be avoided by resecting the intestine very obliquely and inserting the sutures close to the margins of the incised gut. This operation is less complicated, requires less time, and dispenses with the necessity of making a longitudinal incision in the intestine; and it must be admitted that any method which diminishes the lesion, increases the chances of recovery.

In a series of over 100 experiments on dogs, the Connell suture was used in:—Enterorrhaphy, in 24 cases; pylorotomy, in 11 cases; gastro-enterostomy, in 14 cases; pyloroplasty, in 2 cases; and cholecystenterostomy, in 8 cases. The mortality was 19 cases, divided as follows:—Hæmorrhage, 1; volvulus, 1; chloroform narcosis and shock (gunshot injury), 2; invagination of pyloric extremity of stomach in pylorotomy, 1; gangrene of omentum, mesenteric artery ligated too high, 1; gangrene of gall-bladder in cholecystenterostomy from excessive force required to bring it to the surface, 1; no ascertainable cause, 1; and sepsis, 10.

In no case could death be attributed to the method employed, specimens showing limited adhesions; and union was perfect except in one case.

The technique was modified by using *two* suspending loops instead of three, and using a slender, blunt pointed, perineum needle or needle with patent eye for drawing the suture through before tying.

The excessive mortality from sepsis is greatly to be regretted, but time was limited, the rooms were very much overcrowded, as many as twenty-five dogs being kept in the operating room after operation, and necropsies were performed in the same room. Often, when beginning an

operation on the stomach, it was found filled with masses of partly digested bone, and this was one of the principal causes of infecting the peritoncum while cleaning out the stomach.

The operation is comparatively rapid; e.g. :—

No. XCIX.—Brindle, black and tan terrier, male, 12. Abdominal incision was begun at 12.53 p.m.; peritoncum opened, intestine withdrawn, clamped, resected and arteries ligated. Suture of intestine begun at 12.56½; suture completed and knot tied at 1.00; abdominal incision closed and sutures cut off at 1.02 p.m. Recovery. Whole time of suture, 3½ minutes.

A series of one hundred enterorrhaphies could be performed without a death, and this suture is certainly worthy of a more extended trial though it may never replace Murphy's button, bobbins, cones, etc.

Murphy's button gave a proportionate number of failures, and in pups could not always be used in consequence of the extreme friability of the intestine—the intestinal walls being crushed to a pulp in the effort to close the button with the aid of a gauze compress. In these cases the button was removed and the suture used with success. Brentano's statistics for Murphy's button—48 deaths in 169 cases (Berlin Klin. Woch. 1896, xxxiii., p. 443) indicate (1) imperfect technique, (2) excessive temerity in its use, (3) defective button, and (4) its use in unsuitable cases.

Sutures are always applicable and technique should not be defective. In two cases I have seen very undesirable effects from the use of buttons. In one, gastrojejunostomy, it was necessary to use a Lembert suture around the button because the folding of the thick gastric wall prevented its complete closure. This folding could have been prevented by excising from the wall of the stomach and jejunum a circular piece about the size of the "collar" in the middle of the usual incision.

The diagrams on the following page will fully explain the suture.

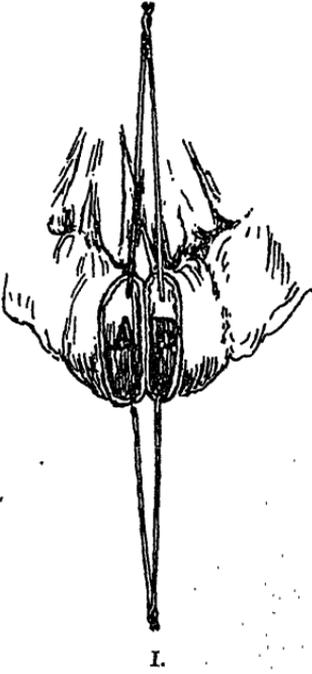
No. I.—Two suspending loops in the ends of the gut A and B.

No. II.—Suture inserted and knot tied to anchor it. Free end of suture held by forceps, and needle inserted for the continuation of the suture.

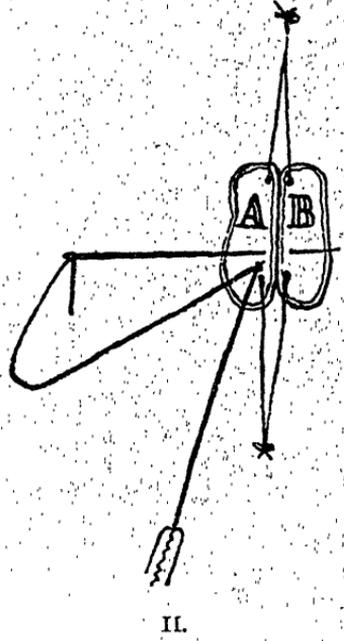
No. III.—Suture between the suspending loops completed: suspending loops knotted, cut away, and back stitch in the needle.

No. IV.—(Second stage of suture.) Needle pierces intestinal wall A from within, out, crosses to end B, and pierces intestinal wall, from without, in, and immediately from within, out; then crosses to A, pierces from without, in, and immediately from within, out; and so on until the suture is nearly completed, as in IV.

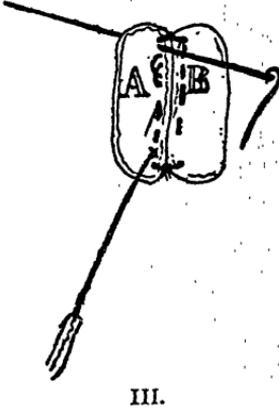
No. V.—Suture tightened and margins of the gut inverted by it. Last stitch inserted, and needle piercing and passing into the intestine where the suture was commenced.



I.



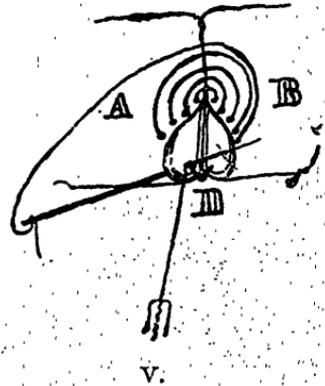
II.



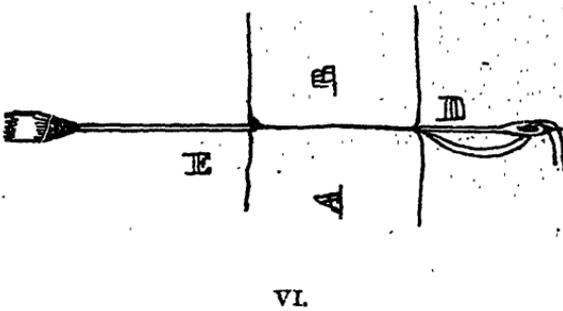
III.



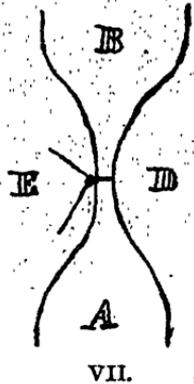
IV.



V.



VI.



VII.

No. VI.—Perineum needle (blunt pointed) passed between stitches of the opposite side to come out at D of No. V. The ends of the sutures are drawn out at E, the intestine is then flattened as in VII., the threads drawn firm, knots tied, and the ends cut close, when the ends of the suture disappear within the intestine.

The following advantages may be claimed for this suture :—

- (1) Rapidity—three and a half minutes for anastomosis.
- (2) Simplicity—no special instruments and few needles being required.
- (3) Only one line of union, that the shortest possible.
- (4) Less injury to the intestine : as no longitudinal incision is required.
- (5) All intestinal walls included and strength is the greatest attainable.
- (6) It is endo-enteric.

Case Reports.

TWO CASES OF EPHEMERAL MANIA, UNCOMPLICATED WITH EPILEPSY, INTEMPERANCE OR PARTURITION.

BY

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It may not be quite void of interest to some of the readers of the "Journal" to record two cases of a form of mental disorder, which, in my experience, has been rare. So much so, in fact, that they constitute the only ones, of this exact type, that I have encountered during twenty-five years of attendance upon the insane. Singularly enough, too, they occurred within a fortnight of each other, in the summer of 1897.

The cases to which I allude would fall under the class of mania styled, by Dr. Clouston, ephemeral mania or *mania transitoria*, and defined by him as a somewhat rare form of mental exaltation, coming on suddenly; usually sharp in its character; accompanied by incoherence, partial or complete unconsciousness of familiar surroundings, and sleeplessness; and lasting from an hour up to a few days.

Of the two terms used by Dr. Clouston, I consider the name ephemeral mania decidedly the preferable one, because that of *mania transitoria* is sometimes used as a synonym for transitory frenzy (*furor transitorius*), more rarely, for acute delirious mania, from both of which disorders ephemeral mania is distinct, lacking the blind desire of destruction characteristic of the former, the typhoid symptoms peculiar to the latter.

While attacks of transient insanity in connection with epilepsy in some of its forms, child-birth, and the use of alcohol are by no means rare, the cases to which I would call attention had their origin in none of these conditions, and may therefore prove of some interest. They were, practically, cases of ordinary acute mania distinguished by and peculiar only by reason of their extremely short duration, a fact which, under certain conditions, might become of paramount importance in a medico-legal aspect.

Case I.—J. S., a married woman, aged forty, was admitted to Verdun hospital on July 18th, 1897. The history as furnished was that she had been a passenger from St. Johns, Newfoundland, to Owen Sound, Ontario, whither she was proceeding to join her husband, who had left the Island some months previously, and had arrived in Montreal, *en route*, during the morning of the day on which she was placed under my care. On reaching the city, where she had some hours to wait for a connecting train, she had asked the station-master where she could get

some breakfast, and had been directed by him to a respectable restaurant near by. There was at this time, as far as I can ascertain, nothing peculiar about her in either appearance, manner, or conversation. On entering the restaurant, she was asked by the proprietor if she would not remove her bonnet and shawl while eating. This seemed to frighten her, and leaving hurriedly, she wandered aimlessly about the streets for several hours. About 2 p.m., she reached Westmount, one of the suburbs of the city, and stopping at a private residence there asked for a drink of water, coupling her request with one to be allowed to sit down and rest. Having been given a drink and some luncheon by the lady of the house, to whom she told her story quite coherently, she asked her newly-made friend if she could suggest a stopping place where she might remain until her train should leave. A charitable institution, St. George's Home, was suggested, and arrangements made for her conveyance thither. The matron of the home, who welcomed her and at once set about making her comfortable, stated that she seemed extremely nervous and fidgety, but otherwise perfectly well. About six o'clock, she suddenly jumped from a sofa on which she had been lying, and with a piercing scream sprang toward a window and endeavoured to throw herself therefrom, but was prevented by the matron, who chanced to be standing by. This action was followed by undoubted signs of insanity, and she soon became so noisy and excited that the police were notified. She was taken to the police station in a raving condition, screaming incoherently at the top of her voice, and there it was found necessary to put her in a straight-jacket to prevent her doing herself bodily harm. I was communicated with by telephone, and she was brought to the hospital, about midnight, in charge of three policemen.

I found her to be a stout, well-nourished woman, with a wild, hunted look, who kept up a constant babble of incoherent talk, and from whom it was impossible to gain the slightest information concerning herself. Pulse and temperature normal. She was at once put to bed and left in charge of two nurses, but no sedative was given, inasmuch as I had been told by one of the policemen that their surgeon had given her a sleeping draught of some kind just before they left the station. She dozed at intervals during the night, but most of the time was noisy, throwing herself about on the bed, and trying to slap and scratch the nurses in charge of her. In the morning she was given a hot bath, and was much quieter, though sleepless, for some hours after. She took but little nourishment, being seemingly afraid to drink the milk offered her, but ate a soda biscuit. Gradually the condition of excitement returned, and there was an incessant, incoherent chatter with constant efforts to get out of bed. She finally became so restless, and made such persistent efforts to injure herself, pulling her hair and trying to strike her head against the wall, that, about 3 p.m., I gave her $\frac{1}{75}$ of a grain of hyoscine

hydrobromate, hypodermically. Very soon after its administration she fell asleep, and slept up to 9 p.m., when she awoke, much quieter, though still restless, apparently frightened, and incapable of coherent conversation. This condition continued during the night, and up to the arrival of her husband, who had been telegraphed for, about 8 a.m. She was delighted to see him, and at once lost much of her frightened look and manner; talked quite rationally to him, ate a hearty breakfast, and soon after got up, dressed herself, and went for a walk around the grounds with him.

In the course of a long conversation with her, I could detect not the slightest sign of any mental obliquity remaining, but found her apparently completely rational, the entire duration of the insanity, dated from the time of her quitting the restaurant, having been less than forty-eight hours. She told me she did not know what had brought on the attack, of which she had never had one before, except that for some reason, she herself could not tell what, she felt frightened of the people where she had gone for breakfast. She had a vague recollection of what she had done between the time of leaving the restaurant and her arrival at St. George's Home, but none whatever of anything that had happened between the moment of her outbreak there and that morning, when she could recall seeing the nurses sitting by her bedside, and wondered where she was. She left for her home at Owen Sound on the afternoon of the same day, and over a year later, my last account of her, had had no recurrence.

By the closest questioning of the husband I could glean no evidence of any epileptic condition, masked or otherwise, nor history of heredity other than that a maternal aunt had died insane. Her habits of life had always been of the best, and she had never displayed any tendency to hysteria or other neurotic disorder,—on the contrary, she had always been looked upon as a particularly healthy, strong-minded woman.

As regards causation, I can but suppose that the excitement of travel to one totally unaccustomed thereto (she had never been on a railway train before), combined with the fatigue incident to such a long journey, had been sufficient to upset the mental equilibrium.

Case II.—Here I was called in consultation by a brother practitioner to see a young girl, M.T., aged nineteen. She had gone out walking in the morning, and while crossing the street had been nearly run over by a street-car, but had received no injury, and had continued her promenade, doing some shopping, and returned home apparently as well as when she started out. About three hours after, while chatting quietly to one of her sisters, she had suddenly become incoherent in speech, began to walk restlessly about the room, played the piano violently, mixing up snatches of airs in the most incongruous manner possible, and used very profane language. Put to bed, she talked and rolled about,

shouting and singing at the top of her voice. Her friends in vain tried to soothe her, she did not recognize any of them, and her incessant conversation was a jargon of fleeting, disconnected delusions.

When seen by me in the evening, about six hours after the commencement of the attack, I found her to be a stout, well-nourished girl, with what in health must have been a pleasant and intelligent countenance. The pulse was very slightly accelerated, but the temperature was normal, and the tongue clean. She had a wildly excited appearance, refused food and medicine, and very restless, endeavouring to pull off her night dress, rolling about the bed, and constantly trying to get up, but not at all inclined to be violent. She kept up a loud, continual, incoherent chatter, repeating over and over again in a meaningless way anything said by those about her. At times, from her actions, there were evidently both visual and auditory hallucinations of a terrifying character. The patient had enjoyed the best of health up to date, with great fondness for outdoor sports and exercise. No similar attacks had ever occurred, and the closest questioning of her friends could elicit no evidence of epileptiform seizures of any kind. Her habits of life had been good, and there had been no tendency to hysteria or other neurotic disease of any kind. There was, however, a strong hereditary predisposition to insanity, her maternal grandmother having had two attacks of melancholia, while an aunt, also on the mother's side, had been an inmate of an asylum for some years. No exciting cause other than the fright she had had could be imagined.

After advising the application of cold to the head and the administration of a hypodermic of $\frac{1}{100}$ of a grain of hyoscyne hydrobromate, I left, promising to send the necessary papers for her admission to the hospital as soon as possible. This I did, but was astonished to receive, about noon the next day, a telephonic message from my confrere that he trusted there would be no need to use them, as the patient was seemingly quite recovered. On receiving the hypodermic, about 9 p.m., she had quieted down, and slept from 10 to 2. She then awoke, and though still restless and talkative, was decidedly less so than when she had fallen asleep. She recognized those about her, and wondered at the presence of a stranger, her nurse. After partaking of a bowl of bread and milk, she fell asleep again, and remained so up to 7 a.m. On again awaking, some slight confusion of intellect with motor restlessness was still apparent, but this gradually passed off, and by noon, as already stated, she was quite well again, nor has there since been any recurrence.

The total duration of the attack in this case was only about twenty-two hours, namely, from 2 p.m. of the one day to mid-day following. Here, too, there was no recollection of anything that had occurred from the time of the seizure up to nearly the period of complete recovery, while the causative agency could only be ascribed to the shock of a sudden fright acting upon a strongly neurotic diathesis.

A CASE OF LUES VENEREA WITH AN UNUSUALLY PROTRACTED INCUBATION PERIOD.

BY

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Perhaps one of the most important points to be considered in the differential diagnosis of suspicious lesions situated on the external genitalia is the incubation period, the time elapsing after doubtful or other coitus until the sore appears. The longest incubation periods noted by some of the most prominent syphilographers are as follows :—

Keyes (Genito-Urinary Diseases and Syphilis), ten weeks ; Bumstead and Taylor's text-book, fifty days ; Fournier, seventy days ; and White and Martin's text-book, three months.

As, judging from the literature on this subject, the possibility of the incubation of lues being lengthened by a coincident gonorrhœal urethritis is not often considered, the following notes of a case presenting an unusually long incubation period may be of interest.

The patient, a lad, 22 years of age, had coitus with a woman of doubtful history about the beginning of October last, and has not had other coitus since. This statement there is no reason to doubt. About November 1st he presented himself complaining of a urethral discharge and most of the "inflammatory symptoms" which usually accompany a gonococcal urethritis. It had lasted three weeks.

Examination showed a profuse purulent discharge exuding from an inflamed meatus, but nothing suggestive of any lesions other than those due to gonorrhœa. The "two glass test" showed that the posterior as well as the anterior urethra was markedly affected, in fact, the case was an unusually severe one of gonorrhœal urethritis. Numerous gonococci were detected on microscopic examination.

The patient was warned that although by copious hot irrigations his worrying inflammatory symptoms and even the discharge could soon be conquered, yet, owing to the length of time which had elapsed from his first symptom to the beginning of treatment, the disease would be peculiarly resistant ; and it was not until January 15th that treatment could be discontinued.

On January 31st, the patient returned, complaining that three small sores had appeared on his penis, two on the glans and one on the preputial mucosa. Examination showed three discrete ulcerations giving off a profuse, serous discharge. The edges of these sores were not indu-

rated and their appearance suggested nothing graver than herpes complicated with a slight pyogenic infection of the ulcerated surfaces. The lymphatic glands of both groins were slightly enlarged. Later, the two ulcers situated on the glans coalesced. On February 2nd a similar condition was noted.

The patient did not report again until March 7th, having been absent on a vacation, during which he had been a little troubled with pain and tenderness at first but later the preputial sore had disappeared and that on the glans was drying up. An examination was made and the ulcer, now decreased in diameter to about half a centimetre, had suspiciously hard edges and was extremely tender on manipulation. A few days later, when again seen, the abraded surface was about double its previous size and induration was more marked. On March 15th, a slight mottling was noticeable on the sides of the thorax and upper abdomen; the cervical, epitrochlear and inguinal glands were distinctly palpable; and the fauces were injected. On this date he was put on antisyphilitic treatment.

The long incubation in this case was most puzzling, and until the constitutional symptoms appeared it was impossible to state positively that the penile sore was a chancre. When discussing this case with Dr. James Bell he mentioned having seen, some years ago, a very similar one, and suggested that when syphilis and gonorrhœa are contracted from the same source and at the same time, the incubation of the former disease may be so lengthened that it does not appear until the cessation of the urethral discharge.

Although the theory of the modification of the course of these diseases by their coincidence is rarely mentioned in the literature on lues, it is not altogether new. It would be interesting to observe a series of these cases, as the course of the urethritis as well as that of the lues seems to be remarkably altered. Dr. Swinburne, of New York, and others, have noticed that specific urethritis under these conditions is often extremely resistant to treatment. The history of this case would show that all penile abrasions appearing both with and after urethral discharges should be watched with more than ordinary care; and the observation of Dr. Swinburne certainly indicates the advisability of giving a most guarded prognosis in the class of cases mentioned by him.

A RARE SURGICAL CASE.

BY

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Diego —, aged 28, a labourer on the coffee estate of Sr. Pizto, gave the following history. Two years previously, while loading a mule, the animal kicked him on the buttocks, occasioning considerable pain and some swelling, from which he apparently quickly recovered, but shortly afterwards he noticed that stooping in certain positions and sitting in a certain way on a hard surface, caused him pain. A little later he felt a small lump, about the size of a robin's egg, and painless except when roughly handled, and recognised it as the cause of his pain. The lump did not grow, nor did it interfere with his occupation as a labourer and muleteer for over eighteen months, till one day, on lifting from the ground a heavy load, he felt something give way in the lump, which at once became painful and began to swell; subsequently the adjacent parts showed signs of inflammation. The pain became so intense that he was obliged to go to bed and from that time it prevented him doing any work. Shortly after this he came to the hospital of San Juan de Dios in San José, where a diagnosis of aneurism was made by Dr. Duran and the late Dr. Hine.

He objected to an operation, so he was placed upon low diet, rest, and potassium iodide, with the result that the further growth of the tumour while in the hospital was prevented. Tired of a treatment which did not cure, he left the hospital, and after some time was recommended to my confrère, who thought he had discovered a cold abscess, poulticed assiduously, gave morphine to relieve the throbbing pain, and on Christmas eve plunged his lancet boldly into the supposed abscess and saw the blood literally spurt to the ceiling.

I was called immediately, and found the patient in the following condition:—

He was emaciated, with a rapid, weak pulse, lying prone, the only position he had been able to occupy for some weeks. A tumour, some six or seven inches in length, by five in width, and three in height, occupied the right buttock and pulsated visibly. No doubt could be entertained by the merest tyro that here was an immense aneurism, but whether of the ischiatic or gluteal artery it was impossible to decide. Pressure had stopped the hæmorrhage, but to ensure that no further bleeding would occur during the night we passed a stout curved needle through the walls across the puncture and tied tightly a figure of eight.

ligature ; restoratives were given and daylight was awaited for so formidable an undertaking.

We had our choice of two operations, either cutting down directly on the aneurism or placing a ligature round the internal iliac artery. After carefully considering the matter, I decided to ligate by preference in the gluteal region, for the following reasons :—the aneurism was caused by direct violence, from the patient's age and previous good health there was no reason to suspect any disease of the arterial coats, and an incision had already been made into the tumour. Still, after anæsthetizing the patient and forcing my hand into the rectum, I was resolved, if any tumour should be felt, to tie the internal iliac, as I was convinced that unless immediate action was taken, the patient was irretrievably lost.

Chloroform was administered and a careful examination was made by the hand in the rectum, but as no tumour was discovered, I proceeded to operate by cutting directly down upon the sac. An incision was made in the direction of the longest diameter of the tumour from the posterior superior spinous process of the ilium to the great trochanter. The fibres of the gluteus maximus were separated; some fascia, probably of the gluteus medius, was divided on the director; below this was the lobulated sac of the aneurism. Following the sac carefully to the main vessel, I found this so short that I could not conveniently pass a ligature around it. I then decided to dissect the distal part of the aneurism, tie the artery or arteries with two ligatures, cut between these, and thus give myself an opportunity of passing a ligature under the sac of the aneurism, carrying it along the artery to its exit from the pelvis, and ligating there. The dissection proved that the aneurism had dilated its trifurcation; the three branches were widely separated from each other and sprang from the aneurism independently. I tied them each close to the aneurism and also at a distance of about three-quarters of an inch, and cut between the ligatures. This allowed me to pass my ligature under the aneurism. I next passed my hand under the sac to raise it up so as to place my ligature on the main artery, and while raising gently my finger to separate the tumour from the surrounding cellular tissues, the sac ruptured on its under surface. I immediately thrust my finger into it, and arrested the hæmorrhage by pressing upon the artery at its emergence from the foramen; afterwards, by first applying a spring forceps, I was able to place a ligature on the artery. The coats of the artery were greatly thickened: where it emerged from the pelvis they were about twelve mm. in thickness, and probably the degeneration extended to its origin from the common iliac, although we had not been able to detect it in our examination per rectum, made before commencing the operation.

The operation was very tedious; several times had the pressure forceps to be applied to numerous small muscular branches, which were afterwards ligated. From these the patient lost considerable blood, but

from the main artery the loss beyond what was contained in the aneurismal sac was slight. He died from collapse four hours after the operation.

Had he survived this he would, from the state of the vessel, surely have died very shortly from secondary hæmorrhage. Had we not operated the aneurism would have burst before very long, as its walls were quite thin and sacculated in several places, particularly where Dr. X made the puncture. Had it not been punctured I would not have advised an operation which, with the exception of an unusually complicated ovariectomy, was the most tedious and difficult I have ever seen performed.

The aneurism was just at the trifurcation of the gluteal artery, the three main branches arising from the sac of the tumour ; or perhaps, I should say, the aneurism was formed of all the artery between its exit from the pelvis and its division. The three divisions were much thickened where we divided them at about one quarter inch from the sac.

RETROSPECT OF CURRENT LITERATURE.

Medicine.

UNDER THE CHARGE OF JAMES STEWART.

Athletics and Circulatory Diseases.

ALFRED STENGEL, M.D. "The Immediate and Remote Effects of Athletics upon the Heart and Circulation."—*Amer. Jour. Med. Sciences*, November, 1899.

This paper is the outcome of a number of observations on young men in training for athletics, with particular reference to the heart, before and after exercise. Stengel draws a comparison of the effects of violent exercise on the *trained* and *untrained*. In the latter, percussion and auscultatory-percussion show decided increase in the area of dulness of the right, as well as of the left, heart after excessive effort, together with the development of apex murmur, thrill, and pulmonary accentuation. In a well-trained individual, enlargement of the right heart is slight or absent after violent exercise, but a pulmonary murmur, without accentuation of the sound, may develop.

Although the significance of the physical signs is not very fully discussed, it seems a fair inference that, in the untrained, dilatation of the ventricles with mitral regurgitation takes place. The writer regards a murmur at the pulmonary cartilage as extremely common in young boys, and believes it is due to a dilated conus arteriosus. Although some murmurs at the apex are probably due to mitral regurgitation, most are probably of cardio-pulmonary or intraventricular origin.

The writer draws the conclusions that overdilatation of the heart is frequent in athletic contests and may cause harm, if the individual is in ill-health or badly trained; and secondly, that hypertrophy and symptoms of overaction sometimes result from continued athletics. As practical conclusions a rigid system of medical supervision of college athletics is suggested; and secondly, that young men be encouraged to continue some form of exercise after discontinuance of regular athletics.

WILLIAMS AND ARNOLD. "The Effects of Violent and Prolonged Exercise upon the Heart."—*Transactions Amer. Clin. Assoc.*, 1899.

The athletes competing in a road race of twenty-five miles were utilized by the writers, and observations made before and after the race. The age of the contestants was from 19 to 28 years. None used alcohol, and only three tobacco. During training a diet consisting of increased albuminoids and decreased carbohydrates was taken, and practice runs two or three times a week. It was found, with a single exception, that those who trained under two months were least successful in the race.

After the race, all the thirteen contestants were more or less exhausted, three were dazed and confused, one cyanotic, and one of an ashen color.

The pulse, after the race, was weak in all contestants, and in one intermittent. Its rate varied from 104 to 120, except in two instances, when it fell to 60 and 70, both instances being in the most exhausted men. The temperature after the race was from 2 to $5\frac{1}{2}$ degrees lower than at the start, and there was a loss of weight of from $1\frac{1}{4}$ to $5\frac{1}{2}$ pounds. The urine showed albumin and casts in every case, and occasionally blood corpuscles.

Physical examination after the race showed usually an increase of heart dulness to the left, weak heart sounds, and usually a murmur at the second left space, heard down towards the apex and, in some, in the axilla and back. Owing to the weak heart sounds no pulmonary accentuation could be distinguished. All the contestants had powerfully acting hearts, slightly increased in size, and strong pulses, before the race.

The writers regard the heart examination as proving a relative or muscular incompetence of the mitral valve. The lowered temperature and blood pressure are at variance with the usual text book statements. [In this connection it is probably necessary to distinguish between the fatigue of moderate exercise and the exhaustion produced by extreme effort.]

The writers regard long distance running, under suitable conditions and without the contest, as beneficial rather than otherwise. Even with the contest it may be regarded as far less injurious than other practices indulged in by exuberant young men.

The Congo Sleeping Sickness.

MANSON AND MOTT.—*Lancet*, Oct. 21, 1899.

Drs. Manson and Mott read interesting communications at the Lon-

don Pathological Society on the clinical and pathological features of two cases of this remarkable malady.

The disease is endemic, and limited to certain villages in the tropical part of the west coast of Africa. It has a remarkable latency amounting, according to native accounts, to as much as seven years. Manson himself knew of a Congo boy in whom the disease developed in England three years after leaving his native village.

The onset is very insidious, and only those familiar with the affection can recognize the early stages in gradually increasing mental languor and muscular weakness, a tendency to sleep, taciturnity of expression, and slowness of movement. The temperature is subnormal, with occasional feverishness. The second period of the disease is one of great drowsiness and prostration. The patients reply and eat, when roused, but sleep almost continuously if left alone. In the third stage, bed-sores and convulsions develop. The lymph glands present chronic adenitis, and sometimes there is an itchy papular eruption on the skin. Death is invariable, and may result from starvation, bed sores, convulsions, coma, hyperpyrexia, or intercurrent disease.

In both of Manson's cases entozoa were discovered, the filaria perstans in the mesentery in one case, and an embryo in the blood in the other. The writer considers an entozocal origin probable, and in harmony with the long period of incubation and non-communicability. The objection to this theory is the frequency with which the parasite is found in the blood of the natives.

Dr. Mott described morbid changes in the central nervous system consisting in a leptomeningitis and encephalo-myelitis. Throughout the whole nervous system, but especially in the medulla and base of the brain, the perivascular lymphatics were distended with mononuclear leucocytes.

F. G. Finley.

Surgery.

UNDER THE CHARGE OF GEORGE E. ARMSTRONG.

Obstruction of the Bowels from Gauze Compress.

REHN. "Darmverstopfung durch eine Nullcompress."—*Archiv. f. Klinische Chirurg.*, Band 60, Heft 2.

It is a well-known fact that in a surgical operation an instrument, compress or drainage tube may be left behind. This often fatal occurrence happens most frequently during a laparotomy. Literature contains quite a number of such cases. Not infrequently a fatal peritonitis is the sequel; occasionally a gauze compress is passed per rectum.

In 1892, a patient, six and a half months after operation, passed in a stool a compress of gauze which had been overlooked and left behind; a week later the following interesting case occurred: A patient submitted to the operations for the removal of both ovaries at first, and later for the extirpation of the uterus. Four months after the last operation the patient suffered from severe abdominal pain and was unable to do any work. A well-defined, small tumor, the size of a mandarin, could be felt in the abdomen. There were symptoms of peritonitis and intestinal obstruction. There was no fever. The diagnosis was the formation of adhesions.

An exploratory incision was made and a bunch of intestines found matted together. While separating the adhesions the intestine was torn and a compress of iodoform gauze was found inside the gut. This was removed and an intestinal resection performed. The patient died six weeks later from chronic septic peritonitis.

Another case had the following history:—On the 13th of October, 1897, Miss G. was admitted to the hospital with an apparent diffuse peritonitis; at the same time a tumor about the size of a child's head could be felt in the left parametrium, which was apparently a pus tube. The operation for its removal was rendered difficult from the fact that she took the anæsthetic badly—the intestines were forced out by the patient's straining and the adhesions were so firm that a portion of the pus sack was left behind adherent to the sigmoid flexure. The abdomen was washed out with sterilized salt solution, the intestine returned, and an iodoform gauze tampon passed into Douglas' pouch. The peritonitis subsided and the gauze was removed on the eighth day. A few days later a fæcal fistula appeared. This soon closed, and the patient was discharged on the 9th of December, 1897, in excellent health. For four months she remained well, going about doing her work and had

nothing to complain of. Then stomach pain and cramps caused her to seek readmission to the hospital.

There could then be felt by pressure a tumor 10 cc., long, in the epigastric region. There seemed to be some obstruction in the bowels. It was supposed that some unfortunate adhesions had formed. After three days had passed without any stool or passing of flatus, an operation was decided upon. On the 18th of May, the patient being anæsthetized, a tumor could be felt above the region of the cæcum. On opening the abdomen, a little bloody serum escaped. A coil of intestine was found bound together by adhesions, and in one part gangrene had begun. A portion of the upper part of the small intestine 40 cc. long was resected and an end to end anastomosis effected. The abdomen was closed and the patient is now in perfect health. On examining the piece of intestine removed a gauze compress was found occupying its lumen. How it got there is the question. It is supposed that during the original operation this compress became misplaced, was overlooked, and finally got into the bowel by ulceration. The only other supposition is that the gauze was swallowed.

Jalaguier and Manclaire introduced gauze into the abdomen of dogs. In one instance the dog was killed two months afterwards and the gauze found rolled up with the intestine and embedded in adhesions. In three cases, the gauze was found embedded in the wall of the intestine as a hard foreign body; and in one instance, in a pregnant dog, the gauze was found in the cavity of the uterus. In Rehn's opinion, gauze can only enter the intestine as a result of extremely strong inflammatory adhesions.

It is noticeable that in all these cases stress is laid upon the fact that the patient took the anæsthetic badly, was restless and strained a good deal, and that the intestines were forced out. This history is supposed to account for the misplacement and overlooking of the gauze. One cannot but think that if these gauzes had been carefully counted, and accounted for before the abdomen was closed, these unfortunate accidents would not have occurred.

Experiments in Introducing a Solution of Cocaine into the Spinal Cord.

BIER. "Veruche über Cocainisirung des Rückenmarkes."—*Deutsch Zeitschrift f. Chirur., Band LI., Heft iii., u. iv.*

SELDOWITSCH. "Über Cocainisirung des Rückenmarkes nach Bier."—*Centrallblatt f. Chirur., Oct. 14, 1899.*

The regional use of cocaine after the methods of Schleich and Oberst is well known and has circumscribed the use of general anæsthesia, but

is quite useless for large operations. Bier has tried to render large areas insensitive to pain by introducing cocaine into the spinal canal. Bier introduces a firm hypodermic needle, between the lumbar vertebrae, into the spinal canal, and then with a Pravaz syringe injects a sufficient quantity of cocaine solution, taking care to allow the least possible amount of cerebro-spinal fluid to escape. He leaves the needle *in situ* for two minutes, then withdraws it and seals the opening with collodion. His object in leaving the needle two minutes before withdrawing it is to prevent the cocaine passing out of the spinal canal through the inner needle hole into the tissues. The skin over the point of puncture may be anaesthetized by Scheleich's method. He is of the opinion that the cocaine introduced into the spinal canal is diffused in the cerebrospinal fluid, and that the anaesthesia is due to influence of the cocaine upon the nerves, and perhaps also upon the ganglia.

The first patient experimented upon was a labourer 35 years of age. He was hopelessly tubercular and had been frequently operated upon. He suffered from active disease in the ankle joint. He had frequently taken ether and dreaded to take it again. Bier proposed to him the use of cocaine injected into the spinal canal, and he assented to the proposition. His fever was high and he suffered a good deal from the ankle.

On the 16th of August, 1898, 3 cc. (50 minims) of a 0.5 per cent. cocaine solution was injected between the lumbar vertebrae into the spinal canal (in all about gr. $\frac{1}{4}$). Bier waited twenty minutes, and it was then found that feeling was lost in the lower half of the body; a prick or a cut was only felt as pressure. The astragalus was removed, the lower end of the tibia sawn off, and the synovial membrane dissected out. The patient moaned during the operation, but kept quiet, and afterwards declared that he had felt no pain, but only that someone had squeezed his sore foot. The pulse increased in frequency during the operation, but nothing else was noticed. Two hours after the operation the patient complained of a pain in the loins and leg. Later he vomited and suffered from a severe headache. The vomiting soon ceased, but the headache continued during the next day.

The second patient was a baker, 17 years of age, with an osteomyelitis necrosis of the tibia. An injection of 1 ccm. (about 8 minims) of a 1 per cent. solution of cocaine was made, in all about 0.01 grammes of cocaine (about gr. $\frac{1}{4}$). In five minutes all sense of pain had disappeared, although the sense of touch remained. Six minutes after the injection the whole of the diaphysis was laid bare, the sequestra exposed by chiseling and removed. The patient had not the least sense of pain. Half an hour after the injection the lower part of the body was insensible to pain in front on the right side up to the eighth rib, on

the left side up to the fifth rib in the middle line, and behind on the right side up to the ninth and on the left side up to the eighth rib in the line of the scapula. A few minutes later the patient became excited, laughed and talked. The agitation lasted about five minutes. The pulse was 120, bounding, full and strong. He vomited a few times, and for two days suffered from severe headache.

The third patient, a 14-year-old boy, suffered from tubercular ankylosis of the left knee. The joint was flexed to a right angle. About $\frac{1}{4}$ grain of cocaine was injected as usual. The joint was resected and the ends of the bone secured with three nails. The boy was very much frightened and moaned, but apparently did not suffer any pain.

The fourth patient, a boy 11 years of age, had tubercular disease of the ischium. In seven minutes after the injection of about 1-8 grain of cocaine the bone was scraped and a portion sawn off, the only sensation the boy felt being a scratching feeling when the saw was used. Half an hour after the injection nearly the whole body except the head was insensible to pain. The pulse during the whole operation was strong and regular. This lad did not suffer from headache nor did he vomit.

In the fifth case, a complicated compound fracture of the lower end of the femur was treated ten days after the accident. The wound was opened up, collections of pus evacuated, the ends of the bone sawn off and placed in apposition. The patient felt no pain and suffered very little from headache afterwards.

The sixth, an operation for the removal of a sequestrum from the lower end of the femur, was equally successful.

These cases show that after the injection of a very small quantity of cocaine into the spinal canal a large part of the body becomes insensible to pain, so much so that major operations can be performed without the use of any other anaesthetic. Unpleasant symptoms sometimes follow, but they also occur occasionally after the use of a general anaesthetic.

To further determine the action of cocaine injected into the spinal canal, Bier and his friend, Dr. Hildebrand, each had given them by a competent physician about 1-8 grain of cocaine through a lumbar puncture. They describe in detail their sensations. In a word, about two-thirds of their bodies became quite insensitive to pain, although tactile sense remained. They received the injections at 7.38 p.m. Later in the evening they dined together, drank wine and smoked several cigars. Bier went to bed at 11 p.m., slept well through the night, awoke fresh and well, and took an hour's walk. At the end of the walk he felt a little headache, which remained during the whole day, rendering his usual occupation more than usually laborious. About 3 p.m. his face

became pale; his pulse was about 70. Later he felt a severe pressure on his head, and if he rose quickly he was dizzy. He became so weak that he had to lie down. There he was obliged to remain for nine days. His appetite and sleep were undisturbed.

Hildebrand also went to bed at 11 p.m., feeling well, but could not sleep and was restless. At midnight he suffered from a severe headache. At 1 a.m. he vomited. He felt unwell for three or four days and had a little weakness for three or four weeks afterwards.

Seldowitsch used cocaine introduced into the spinal canal between the third and fourth lumbar vertebræ in four cases.

- (1) Pirogoff's amputation of the foot for cancer.
- (2) Excision of the os calcis for melanosarcoma.
- (3) Epthelioma of the skin near the knee joint, excision, skin grafting and removal of enlarged glands in the groin.
- (4) Resection of a tuberculous knee joint.

In all cases the operation was painless, but there followed some unpleasant symptoms. These were elevation of temperature, headache, dizziness, vomiting, dryness of the mouth, and, in one case, dilatation of the pupil, and in another, chill. It is considered to be very necessary not to allow any cerebrospinal fluid to escape.

These experiments are of very great interest. It would seem highly probable that further investigation as to dosage, solution and selection of cases may enable the surgeon in the future to perform certain operations without the use of chloroform or ether. Further experience will teach us whether or not the use of cocaine in this manner is safe and satisfactory. It is quite certain that there occur cases where operations must be performed upon patients to whom one hesitates to give ether; for example, a patient the subject of Bright's disease, and at the same time with a septic peritonitis or strangulated hernia.

Gynaecology.

UNDER THE CHARGE OF WILLIAM GARDNER.

Antiseptic Technique in Gynaecology.

CUMSTON, C.G., M.D. "The Technique of Antisepsis and Asepsis in Gynaecological Surgery."—*Amer. Gyn. and Obstet. Journal*, October, 1899.

The following methods are employed by Dr. Cumston and his assistants, of whom there are rarely more than two, the anæsthetic usually being given by a nurse.

The hands and forearms are thoroughly scrubbed for ten minutes in hot water and green soap, the water being changed four times and the nail brushes boiled before using. The hands and arms are then washed with ether, scrubbed with 90 per cent. alcohol and rinsed in corrosive, 1 in 2,000, which in turn is washed off with boiled water. The nails should be kept so short that "no nail remains to be cleaned." Gloves of cotton or rubber are never used during operation, except that now and then cotton ones are employed in plastic vaginal work. Rubber gloves are worn, however, for making rectal or vaginal examinations and when dressing septic wounds. A linen cap is worn over the hair and has a bag for the beard and moustache attached to it, thus preventing any chance of infection from either the hair of the face or head.

With regard to the patient, both abdomen and vagina are sterilized in all cases of abdominal section. The external genitals and pubes are shaven and scrubbed with soap and water, as is also the vagina, the soap being entirely removed by irrigation with sterilized water, after which the parts are thoroughly irrigated with 1 in 2,000 sublimate solution or 1 in 3,000 solution of nitrate of silver. Vaginal packing before operation is never practiced. The abdomen is thoroughly scrubbed with ethereal soap, which is removed with ether; a scrubbing with 90 per cent. alcohol is followed by the application of a compress wrung out of 1 in 3,000 sublimate, which is retained in position by an abdominal binder. All of the above is repeated when the patient is placed upon the operating table.

For the purpose of rendering the intestine as aseptic as possible, 25 centigrammes of betanaphthol are administered thrice daily for four or five days previous to operation. When the urine is purulent, its condition is improved to a great extent by urotropin, giving 50 centi-

grammes four or five times a day. The day before operation 3 centigrammes of calomel are given every hour for six hours, and followed by 20 grammes of sodium phosphate.

Twisted silk is used for tying large vessels and is prepared by boiling for half an hour and then storing it for a week in a 1 in 2,000 solution of lactate of silver, from which it is transferred to sterile glass jars which are placed in the sunlight for forty-eight hours, this causing decomposition of the lactate of silver and the deposit of a layer of metallic silver on the surface of the silk. For tying off the broad ligament, catgut which has been sterilized in formalin, is used, as also for all plastic vaginal operations and all sutures buried in the abdominal wound.

Gauzes for packing the cervix or vagina are sterilized by impregnating them with salts of bismuth, because they can be steamed without injury and are practically non-toxic; but for tubercular lesions, iodoform gauze is employed.

Urinary Incontinence.

RIES, EMIL, M.D., Chicago. "Incontinence of Urine: Report of a Peculiar Case."—*Amer. Gyn. and Obstet. Journal*, November, 1899.

A patient, 38 years of age, stated that she was quite well up to her marriage, nothing unusual being discovered in her sexual history, except that she had never been pregnant. From the time of her marriage the incontinence had been growing worse, until now she had had complete incontinence for two years. Dyspareunia was intense.

On examination of the urine no abnormality was found. The skin of the vulva was red and inflamed, the hymen was torn, and the vagina admitted one finger easily. The pelvic organs appeared to be normal. Catheterization of the bladder allowed about 10 cc. of urine to escape, and cystoscopic examination of the bladder revealed nothing unusual; but urine escaped along the urethra at the side of the cystoscope. It was then ascertained that the urethra would admit the little finger. On examining the husband it was seen that the penis had been rendered small and somewhat misshapen by an accident, so that clearly the urethra had been dilated by the penis during sexual intercourse. The patient was cured by an operation consisting of twisting the urethra.

Cystocele and Urinary Prolapse.

WATKINS, T. J., M.D., Chicago. "The Treatment of Cystocele and Uterine Prolapse after the Menopause."—*Amer. Gyn. and Obstet. Journal*, November, 1899.

The operations for these conditions may be classified under three heads, viz.:—

(1) Plastic vaginal operations: (2) Plastic vaginal operations combined with abdominal suspension: (3) Hysterectomy.

Most colporrhaphies only narrow the vagina and do not tend to lengthen the anterior vaginal wall. This result is best obtained by Emmet's operation, as this brings together the tissue at the sides of the cervix and so keeps it up. Lateral colporrhaphy is valuable for the cure or relief of prolapse of the urethra, but not of the bladder.

Vaginal plastic operations plus *suspensio uteri* are not to be recommended on account of the gravity of the operation, the danger of post-operative complications, and the danger of recurrence of the prolapse.

"Hysterectomy for prolapse and cystocele during the child-bearing period is an unjustifiable operation," and even after the menopause its propriety is questionable. The writer describes an operation for the cure of this condition, in which vaginal fixation of the uterus is combined with suture of the anterior vaginal wall to the sides of the broad ligament, and plastic work upon the posterior vaginal wall.

New Operation for Procidencia Uteri.

PARSONS, J. INGLIS, M.D., M.R.C.P. "Sixteen Cases of Procidencia and Two of Prolapse Treated by a New Method."—*Brit. Med. Journal*, Oct. 14, 1899.

The new method described by the writer consists in the injection of an irritating solution into the bases of the broad ligaments so as to set up a localised inflammation with the formation of cicatricial tissue, which holds the uterus in position. The solution employed is sulphate of quinine, as it is an irritant and yet a powerful antiseptic. Dr. Parsons reports only one recurrence out of the total of eighteen cases treated by this method, and attributes the failure in this case to the use of a too weak solution. In several of the cases the injection had to be repeated.

F. A. L. Lockhart.

Pediatrics.

UNDER THE CHARGE OF A. D. BLACKADER.

Malaria in Children.

MONCORVO. "Malaria in Children."—*Pediatrics*, Aug. 1, 15, Sept. 1, 15, 1899.

In an extensive article, Moncorvo reviews the whole subject of malaria in children in the light of an experience of 5,000 cases in Rio Janeiro. He agrees with most other writers in stating that "infantile malaria is quite unlike the same affection in the higher ages," and possesses, as it were, a peculiar "*cachet*." It, moreover, resembles syphilis in the extent to which both affections cause physical and mental deterioration. The mortality in early infancy from this disease is much greater than is generally supposed, no less than 36 per cent. of the total morbidity in Rio being due to malaria, and the first year of life represented 35 per cent. of this total. The severity of the disease is thus in inverse ratio to the age. Moncorvo also believes that the disease can be derived *in utero*, and cites several cases which, while not absolutely conclusive, can with difficulty be explained on any other hypothesis. He believes in the direct transmission of the malarial germ from the mother to the foetus through the placental circulation.

With regard to race, to a certain extent the less susceptibility of the children of negroes is established by his figures, but they cannot be claimed to be immune. The influence of season is much the same as in other countries, the greater proportion of cases occurring during the acme of the summer season, while the humidity consequent upon the effect of a short rain after a period of drought favours the multiplication of the germ of paludism. With regard to the mode of infection, Moncorvo, while accepting the theory that the mosquito is the most common agency in the transmission of the germ, considers "that clinical facts put it beyond doubt that infection also occurs through drinking water." As a strong predisposing cause he looks upon all gastrointestinal disorders and especially on dilatation of the stomach in young children, explaining this fact by the probable power of normal gastric juice (altered in these conditions) as a destructive agent to the organism. In discussing the means of infection in nursing babies, it is pointed out that the milk of a mother suffering from malaria does not contain the parasite, and therefore it must come from without, presumably from the mosquito,

unless we admit the possibility of transmission of the parasite through the air. A state of dystrophy induced by syphilitic, tubercular, or malarial disease in the parent strongly predisposes, whether the child be the subject of inherited disease or simply a weakling.

The clinical characters of malaria in children bear very little resemblance to those observed at other ages. The onset is usually insidious, the child becoming fretful and restless and evidencing great thirst, more especially at night, perhaps appearing quite well again during the day. The urine becomes scanty and there is a colicky diarrhoea with rapid loss of weight. These symptoms may last for days or even weeks, and are often attributed to anything but the right cause. Finally, the marked elevation of temperature almost invariably of a quotidian, rarely of a tertian, and never of a quartan type, and the occurrence of other well-marked symptoms, establish the diagnosis. The temperature never quite falls to normal and the maximum and minimum never correspond from day to day, while the attacks do not present the three characteristic features of the disease in adults. The chill is replaced by coldness of the extremities with cyanosis, then follows a rise in the peripheral temperature with general or partial sweating. During the pyrexia the diarrhoea is aggravated, in older children being often dysenteric in character, and "the breath has a peculiar odour like chloroform, perceived at a distance." Enlargement of the liver is nearly always met with, but the opposite is true with regard to the spleen, possibly, Moncorvo suggests, owing to the difficulty of estimating the size of the latter organ in infants from its being less accessible to palpation. The enlargement of the liver is often extreme, the organ reaching to the level of the anterior spine of the ilium and becoming painful to the touch. This symptom forms a valuable diagnostic sign.

Cases show a marked tendency to assume a pernicious character, the disease taking on what is usually described as a typhoid state with a choleric form diarrhoea and terminating in coma or convulsions. A convulsive type is also described, some cases showing an eclamptic character from the start. Secondary infections in the form of visceral inflammations are common, nephritis being very frequent and comparable to the nephritis of the acute exanthemata. The disease, too, occasionally assumes rare forms, among which may be mentioned insomnia, peripheral or visceral neuralgias, etc., without other evidences of the affection. An eruption closely resembling erythema nodosum in its site and characters, is occasionally met with. In prolonged cases malarial cachexia develops. Diagnosis, as would be expected, is often difficult, a knowledge of the above mentioned symptoms taken in conjunction with the locality and surroundings of the patient and the meteorological conditions, in the absence of other ascertainable cause, being relied on.

The presence of the plasmodium malarie in the blood, which is now considered essential to a diagnosis in an adult, is not given prominence by Moncorvo, partly on account of the difficulties met with in resistance of the parents to such a method of examination and partly because of the difficulty (?) of obtaining the parasite in children.

Prophylactic treatment consists in the avoidance of dangerous surroundings, the sterilization of all drinking water, protection from the bites of mosquitoes and the use of quinine when the disease is epidemic. During the disease quinine should be given at regular intervals, and where it is rejected by the mouth may be injected hypodermically into the muscles behind the trochanter or between the shoulder blades, the chlorhydrate or chlorhydrosulphate being used in concentrated solution. After an experience of 20,000 injections, Moncorvo speaks very highly of this method. To reduce hyperpyrexia antipyrine is relied upon. A tincture made from the leaves of the common sun-flower, *helianthus annuus*, has been found of value. The other manifestations of the disease are to be treated by the usual methods, calomel being mentioned as of especial value in the intestinal, and caffenin in the adynamic types.

Pulmonary Hæmorrhage in Exploratory Puncture of the Chest.

KOPLIK, HENRY. "Pulmonary Hæmorrhage following Exploratory Puncture of the Chest for Fluid in Infants and Children."—*Archives of Pediatrics*, August, 1899.

The use of the aspirating needle as a routine method of confirming or determining diagnosis in the pulmonary affections of infancy has become so common lately that the fact that such a procedure is not absolutely free from risk deserves to be noted. Koplik, who was one of the first to advocate exploratory puncture, draws attention to a peculiar accident which occurred in four of his cases, namely, pulmonary hæmorrhage. The needle in these cases had evidently gone directly into the substance of the lung and pierced a blood vessel, the lung being adherent through the pleura with the chest wall. Blood came from the lips and nose in a spurt and was mingled with frothy sputum and was very alarming, although fortunately not followed by collapse or syncope.

Koplik considers that exploratory puncture is unjustifiable unless the physical signs point strongly to the presence of fluid. He cites a number of cases seen by him in consultation in which a needle had been introduced by the attending physician merely because the temperature had kept up after an attack of pneumonia and empyema or pleurisy was suspected of being the cause. He strongly condemns the practice of making repeated punctures at one sitting, and especially that of partially withdrawing the needle and then pushing it in various directions in quest of pus.

Inanition Fever.

CRANDALL, FLOYD M. "Inanition Fever."—*Archives of Pediatrics*,
March, 1899.

Under the above heading Crandall describes a febrile attack occurring during the first five days of life and not due to septic or organic causes. Its frequency is much greater than would be expected—135 out of 500 children born consecutively in the Sloane Maternity, and 20 out of 200 in the Nursery and Child's Hospital, New York, being affected. The disease is overlooked from neglect in using the thermometer.

"The symptoms are quite characteristic and develop alike in robust and weakly infants. On the second or third day the child, who has perhaps been quiet and restful, becomes irritable and restless. It worries and cries and sucks its fingers or anything it can get into its mouth." Unless the thermometer is used there may be no evidence of the amount of fever present. The temperature rises gradually during twenty-four or thirty-six hours and then suddenly reaches its maximum, often 104° to 105° F. Loss of weight is very rapid. Starvation, owing to an absence or insufficient supply of milk from the mother is the whole cause, and once this is remedied the temperature falls rapidly to normal. In view of the frequent delay in the establishment of lactation every new-born infant should receive water every two hours, two ounces at a time being allowed if the child seems to require it. When the milk supply is established the habit of giving water to the baby several times a day should still be continued. Where the mother is nursing the child an examination of the milk should at once be undertaken, and if it is found insufficient artificial food should be given in addition.

G. Gordon Campbell.

Reviews and Notices of Books.

THE ORIGIN, GROWTH AND FATE OF THE CORPUS LUTEUM as Observed in the Ovary of Pig and Man. By J. G. CLARK, M.D. The Johns Hopkins Hospital Reports, Vol. VII., No. 4.

This paper also appeared in German in the *Archiv. für Anatomie und Physiologie, Anatomische Abtheilung*, 1898.

It is based on work done in the Anatomical Laboratory at Leipsic undertaken by Dr. Clark at the suggestion of Professor Spalteholz and "by the employment of a digestion method especially devised for the isolation of connective tissue, and of special methods of staining," the author hopes to have arrived at conclusions which can leave no further doubt as to the origin of the corpus luteum in the higher animals and man. Dr. Clark first briefly reviews the literature of the subject in the various theories from that of Von Baer in 1827 to that Sobotta in 1897, and then describes the materials and methods of work he adopted. The work was first begun on the human corpus luteum at the Johns Hopkins Hospital but he soon found it necessary to obtain a series for comparison from some one of the lower animals. For this purpose Dr. Clark selected the pig's ovary from material obtained at the Leipsic slaughter-house. For a description of the author's methods of work, we must refer the interested reader to the paper.

Of Dr. Clark's conclusions (which are appended in full) from this admirable piece of work the most interesting seems to be that referring to the function of the corpus luteum; this is surely an admirable bit of reasoning based on laborious investigation.

Conclusions :—

1. The lutein cells are specialised connective-tissue cells which appear in the inner layers of the follicle wall at the time when it begins to show a differentiation into the theca interna and externa, and gradually increase in size and number until the period of maturity when they have assumed all of the characteristics which cause them to be designated lutein cells. The corpus luteum is therefore not an epithelial but a connective-tissue structure.

2. In the growing follicle the lutein cells are increased at the expense of the ordinary connective-tissue cells until the latter are represented by only a few cells and a fine reticulum in the mature follicle. This reticulum forms a fine web stretching from the theca externa among the lutein cells, beyond which it is woven into a more or less fine line known as the *membrana propria*.

3. At the time of the rupture of the follicle, the *membrana propria* is broken through in places by the advancing lutein cells and blood-vessels but quickly reforms a connective tissue line in front of the lutein cells which push it towards the centre, where it finally forms a dense core of interlacing fibres.

4. After the rupture of the follicle the lutein cells (connective-tissue cells) show a remarkable activity in growth, increasing both in size and numbers until the empty cavity is completely filled in, after which they begin to undergo degeneration.

5. The fine reticulum between the lutein cells of the mature follicle is the antecedent of the connective-tissue cells which are quite sparse in the first stage of the growth of the corpus luteum, but become the predominating structure at the height of its development.

6. The degeneration of the lutein cells is probably induced through the increasing density of the connective tissue surrounding them.

7. The retrogression of the corpus luteum is characterised first by the fatty degeneration of the lutein cells, followed by the shrinking of the connective-tissue net into a compact body (corpus fibrosum), after which it is gradually removed through hyaline changes until a very fine scar-tissue is left which is at last lost in the ovarian stroma.

8. The blood-vessels of the corpus luteum are quite resistant and the larger ones are among the last structures to give way in the process of retrogression.

9. The office of the corpus luteum is that of a preserver of the ovarian circulation which exercises its function almost perfectly in the younger women, but which at last with the increasing density of the stroma, begins to fail in its activity, its remains being slowly or imperfectly absorbed until these deposits finally exert the opposite influence and hasten the laming of the circulation.

10. Cessation of ovulation is induced not through the disappearance of follicles *per se*, but through a densification of the ovarian stroma and a destruction of the peripheral circulation which prevents their development.

The article is beautifully illustrated by reproductions by Veib & Co., of Leipsic, of camera-lucida drawings of the stained and digested microscopic sections by Dr. Etzold.

W. G.

CURE PROMPTE ET RADICALE DE LA SYPHILIS. Par Le DR. J. F. LAR-RIEU. Tme édition, pp. 131. Paris, Société d'Éditions Scientifique, 1899.

This book, which has reached its third edition and runs to 131 pages, might easily have been comprised in a pamphlet of two or three pages. In it the author professes to cure syphilis absolutely and for ever by his method of treatment. To abort certain cases when the chancre has not become indurated or the glands affected is, he says, quite easy. Large doses of mercury and iodide of potassium he regards as most injurious and useless in the cure of this disease.

In the first stage he applies Vienna paste to the chancre, mercurial inunction to the enlarged glands, but most important of all is the internal treatment. Early in the morning for twenty consecutive days he gives in water three to five drops of freshly made tincture of iodine and a tablespoonful of a mixture made up of 20 grammes of iodide of sodium in 300 grammes of distilled water. The last ten days of the month the patient rests from his medicines. Where secondary symptoms have

already developed, he gives the same treatment, and where the tertiary stage has ensued, a bath with 20 grammes of sublimate in it is given once a week. Locally, he applies a weak ammonio-chloride of mercury ointment.

The duration of treatment is four months and no case is not cured permanently in eight months. When the treatment is carried out in the primary stage no secondary symptoms develop, and if the treatment is applied in the secondary stage no tertiary symptoms are ever manifest. He lays great stress on the administration of the tincture of iodine and the rest from treatment for ten days out of every month. This treatment in Dr. Larrieu's hands and those of his friends has never failed and the most obstinate cases have yielded to it. It is almost too good to be true, but perhaps it is worth a trial.

F. J. S.

TRANSACTIONS OF THE COLLEGE OF PHYSICIANS OF PHILADELPHIA.
Voll. XX.

The present volume contains the papers read before the College from January to December, 1898. Many of these are very interesting. In the list we notice several papers upon the treatment of enteric fever by systematic cold bathing; one upon multiple gangrene of the skin; one describing a case of spontaneous gangrene of the extremities; and in another a description of the skeleton of the American giant with notes upon the relation of acromegaly and giantism. The volume contains also a short memoir of Dr. Harrison Allen, by Dr. H. C. Wood, with a list of his scientific and medical writings.

A. D. B.

ELEMENTS OF LATIN FOR STUDENTS IN MEDICINE AND PHARMACOLOGY.

By GEORGE D. CROTHERS, A.M., M.D., and HIRAM H. BICE, A.M.
The F. A. Davis Company, Philadelphia, 1898.

This book, according to the authors, is designed to present within the briefest possible compass those principles of Latin etymology and construction, which are essential to the intelligent use of the terminology of pharmacy and medicine.

Many students commence the study of medicine with but a very imperfect knowledge of Latin. To such, a small work like this, which not only states the essential facts of medical Latin, but also explains all the Latin words and phrases in general use in pharmacy and prescription writing, giving their correct accent, must prove of much value. The notes in the end of the book explaining medical facts given in the Latin exercises will be of service to younger students. The chapters on anatomical proper names and their origin is an excellent one for reference.

A. D. B.

A TEXT BOOK OF MATERIA MEDICA, PHARMACOLOGY AND THERAPEUTICS. By GEORGE FRANK BUTLER, Ph. G., M.D., Professor of Materia Medica and Clinical Medicine in the College of Physicians and Surgeons, University of Illinois, etc., third edition, thoroughly revised. W. B. Saunders, Philadelphia, 1899.

This text book, now in its third edition, is one of the best which has

been recently presented to the medical student. In the present edition several important changes for the better have been made in describing the physiological action of drugs. Drugs are grouped according to their therapeutic action; by far the most convenient way of fixing their more important actions upon the mind of the student. There are a few illustrations scattered throughout the text. The chapter on prescription writing is good, and the few pages devoted to the consideration of Latin terminations are, in our opinion, quite sufficient to supply the needs of the average medical student. The letter press is excellent.

A. D. B.

TEXT BOOK OF PHARMACOLOGY AND THERAPEUTICS, OR THE ACTION OF DRUGS IN HEALTH AND DISEASE. By ARTHUR R. CUSHNY, M.A., M.D., Aberdeen, Professor of *Materia Medica* and Therapeutics in the University of Michigan. Illustrated with 47 engravings. Lea Brothers and Company, Publishers, Philadelphia and New York, 1899.

Professor Cushny was a pupil and afterwards an assistant of Schmiedeberg, and his present work has been largely inspired by the classical "Grundriss" of that eminent pharmacologist. In the present volume the pupil has done honour to his teacher; the textbook he has presented us with, is, in our opinion, the best exposition of our knowledge of pharmacology which has yet been given to the medical public.

The opening chapters contain many thoughts which are of much interest to physicians. Speaking of the relation between chemical composition and pharmacological action, the writer states "as the effect of drugs on protoplasm is conceived to be due to a chemical reaction between them, it may be inferred that those drugs which present a close resemblance in their chemical properties and chemical composition, must induce similar changes in the organism." Such a general statement, however, holds true only to a very limited extent. Many members of the methane series depress the central nervous system; the heavy metals, to some extent, also resemble each other in their effects upon the organism; but whenever an attempt is made to follow this relation in detail the analogy breaks down, because factors which it is impossible to deduce from the chemical composition make themselves felt. Exactly the same thing occurs in chemistry. The sulphides of the heavy metals are not all of the same colour, nor are their chlorides equally soluble in water. For the present all that can be said is that, while it may be inferred with some probability that any substance belonging to certain wide chemical groups will induce symptoms in the organism resembling in general character those of other members; provided that it does not contain some radical which alters its action, nevertheless the details of this action can be ascertained only by actual experiment, in the same way as the details of its chemical behaviour can only be known by performing the necessary reactions.

Drugs are classified in groups according to their pharmacological action rather than according to their therapeutic action. On this point the author says:—"The classification of drugs and poisons according to their action on living matter is the natural one, and is based on the same logical principle as the modern classification of plants in botany, and of animals in zoology. In this way substances are grouped together which

have most points of resemblance, whether they are obtained from the same or from different orders of plants, and without reference to any relation which they may bear in therapeutics." Drugs which resemble each other in their pharmacological action are often used for very different purposes in therapeutics, although this is much less frequently the case now than formerly. This is very generally due to the failure of clinicians to observe the resemblance in the action of drugs. As they grow more familiar with the results of animal experiment, they will recognise that in many instances drugs which they now regard as distinct on account of superficial differences, really resemble each other in all important points, and may be substituted for each other in therapeutics." In this way it is to be hoped that the natural classification of drugs will gradually be found to approach more and more closely to the therapeutic.

Professor Cushny writes as a pharmacologist rather than as a physician. Throughout the work the pharmacological action of a drug as tested by experiments, rather than the therapeutic action of a drug tested at the bedside, is given prominence. Nevertheless, we feel convinced that physicians generally will be all the better for studying their pharmacology from this point of view, as so many unproved and misleading statements as to the action of drugs are often made. Still it must be remembered that the therapeutic action of a drug must not in all cases be limited to the exact field covered by its physiological action.

This volume is well illustrated by numerous pulse and respiration tracings which very graphically show the influence of the drug on these important systems. There is a very excellent chapter on the pharmacology of the internal secretions. The work is written in a very interesting way and the publishers have spared no pains in the matter of letter press and binding. We can cordially recommend it to all our readers who are desirous of acquainting themselves with the latest knowledge on this very important subject.

A. D. B.

EXTRA-UTERINE PREGNANCY: A CLINICAL AND OPERATIVE STUDY.

By JOHN W. TAYLOR, F.R.C.S., Eng., Senior Surgeon to the Midland & Birmingham Hospital for Women, &c., &c., &c. H. K. Lewis, London, 1899.

Probably no subject in obstetric medicine has been of more interest in recent years than extra-uterine pregnancy. For a long time an unexplored field, much attention has been given to it during the last twenty years. Dr. Parry's book in 1876 and Mr. Lawson Tait's in 1888, were notable contributions. More recent is Dr. J. Clarence Webster's admirably illustrated work, and Mr. Taylor's book, so far as we know, is the latest monograph on the subject.

It, as was Mr. Tait's, is based on the Ingleby Lectures at Mason University College, Birmingham. The surgical work in ectopic gestation done in Birmingham, must always remain notable, as it was here that Lawson Tait did the pioneer work which has had so profound an influence on the gynaecological world. Mr. Taylor was at one time an assistant to Mr. Tait and is now the senior surgeon to the same hospital where Mr. Tait did so much of his work.

medical subjects. It is based on the considerable personal experience of 42 cases. His long interest in the subject is manifested by a series of papers appearing in various medical journals and society transactions since 1891. In his first "Introductory and Historical" chapter, Mr. Taylor, after alluding to Lawson Tait's brilliant generalization, that all cases of extra-uterine pregnancy are originally tubal or interstitial, and tracing the successive observations of Dr. Berry Hart, Mr. Bland Sutton and others, claims the original observation announced to the British Gynæcological Society in 1894, that the abdominal ostium of the tube in the so-called tubal mole and tubal abortion commonly remains open, and that intraperitoneal hæmatocele, whenever it is found, can usually be traced to the blood-drip from the fimbriated end of a tube in which a mole of pregnancy has formed.

In the second chapter on "Causation," the still vexed question of the site of fertilisation of the ovum is discussed, and after a brief review of all the evidence Mr. Taylor concludes that this may be in any part of the tube. He rejects Mr. Tait's theory that denudation of the epithelium has any influence in causing tubal fixation, but from published cases in which polypi, myomata and swellings of the mucosa were present, believes it proven that those and other obstructions to the passage uterus-wards of the ovum, may determine the point at which it adheres.

When a tubal pregnancy becomes abdominal or ventral, the author believes that continued life and development can continue only when the membranes remain entire. This is contrary to the teachings of Tait and Bland Sutton, but Mr. Taylor proves his contention by a case of his own operated on after full term. In this case a transparent membrane (the amnion ?) surrounded the foetus in every direction, and though invisible on the intestine it could be seen as a thin film passing from coil to coil, completing the sac in which the pregnancy had developed. These observations were confirmed by Mr. Martin and Mr. Jordan, his colleagues, who assisted.

Mr. Taylor agrees with the generally accepted belief that we have no reliable evidence of true ovarian pregnancy.

In the chapters on "Operation," the author is fully in accord with the modern practice of vaginal section in suitable cases of localised hæmatocele and certain cases of intact extra-uterine pregnancy up to mid-term. The limitations of suitability for this operation and its description are laid down with admirable clearness.

In the management of tubo-abdominal pregnancy at full term, Mr. Taylor justly remarks that "The crux of the operation is the treatment of the placenta." If it can be removed at once with safety, this should be done. The problem is to control hæmorrhage. The differences of opinion we see expressed on this point, doubtless depend on differences of individual reference of cases. But even in cases of living child, and therefore of placenta with active circulation, Mr. Taylor thinks that often immediate removal is advisable, and for the method of dealing with it he gives valuable suggestions based on a case of his own.

In the tubo-ligamentary form most authorities will agree with him that the placenta should be left to come away of itself, the cavity containing it being kept well irrigated and drained.

Of the illustrations of this book not very much in praise can be said, but it is an admirable critical summary of our knowledge of the subject, and contains a number of original observations by a careful observer from a relatively large personal experience.

W. G.

ENLARGEMENT OF THE PROSTATE: ITS TREATMENT AND RADICAL CURE.

By C. MANSELL MOULLIN, M.D. Oxon., F.R.C.S., Surgeon and Lecturer on Surgery at the London Hospital, etc. Second Edition, 1899, H. K. Lewis, London.

This manual, by the author of Moullin's Surgery, deals with a subject which is just now exciting a great deal of interest amongst active surgeons. With many of the conclusions arrived at by the author, other eminent surgeons would doubtless take issue. The book is radical in its teachings. Many an old surgeon, for example, will shrug his shoulders at the author's diatribe against the use of catheters. But, although one may not agree with many of the views advocated by Moullin in this book, one must admit that here is food for thought, and that perhaps surgeons have, as a class, been somewhat remiss in the study of a subject which is of great importance to a large percentage of men—especially old men. Only a bare statement of some of the more important points made by the author can be noticed in a review such as this.

He maintains, in the first place, that the "function of the prostate gland is entirely sexual." Only incidentally does it take part in the act of micturition. He next goes on to show that the enlargement of the prostate (senile enlargement as we would call it) is not inflammatory, "nor is it mere hypertrophy, compensatory or otherwise." It is essentially an interstitial fibro-adenoma of the gland, and hence the increased size. He discusses the different theories as to the causation of this enlargement and proceeds to prove that old age is not a necessary factor in its etiology. The effects of this trouble on the bladder and kidneys are next exhaustively dealt with, and many of the unhappy sequelæ he attributes to the habitual use of catheters. The symptoms of enlarged prostate are also thoroughly discussed, and this is followed by a chapter on the differential diagnosis between simple enlargement and the other pathological conditions which give much the same set of symptoms.

The question of treatment is next taken up, and it is this part of the book which most interests the busy practitioner. At the outset we are met by a statement which shows how hard errors die even in these palmy days of micro-organic pathology. "Patients with enlargement of the prostate are peculiarly susceptible to chill if they are tired or overheated, and the least chill may cause retention of urine." This does seem a fair case of *post hoc* reasoning. It is only a lapse, however, for the author elsewhere shows that he thoroughly appreciates the part played by bacteria in causing "urethral fever" and post-operative cystitis. With true surgical contempt, he dismisses drugs in a few words and then goes on to consider the palliative treatment of the disease, wherein frequent mention is made (favourably, of course) of "my own aseptic catheters." Were he to read the United States journals he would find that in the matter of aseptic catheters he has several competitors. He takes strong ground against continuous drainage by catheter in cases of cystitis.

In cases of retention, where a catheter cannot be introduced without violence, he advises immediate tapping of the bladder, but with true English conservatism, he would use the trocar and canula above the pubes or the old bent trocar by rectum. No mention is made of the harmless suprapubic aspiration of a distended bladder by a Dieulafoy or other good aspirator. We quite agree with him that in cases of acute retention it is "better to tap at once," but fail to see why he should follow the antiquated and dirty route through the rectum, to say nothing of tapping the frigone of the bladder in the dark.

The chapter on radical treatment is especially well written, and should be read carefully by every surgeon. He first discusses the different operations for prostatectomy or surgical removal of the growth, including the use of the electro-cautery, and shows in what instances certain operations gives better results than others. He thinks prostatectomy has a good future before it. Next, as a corollary to his views on the function of the gland, he strongly urges a fair trial for castration in old men. Referring to his own cases of double orchidectomy, thirty in number, he states "that diminution in the size of the prostate followed in every one of my cases," and further, that the relief was surprisingly speedy and the bad effects *nil*. Regarding vasectomy (or removal of a portion of the vas deferens, and not of the testicle) he is doubtful if any good result follows directly from that simple operation, but is inclined to think that the good results attributed to it are really due to the subsequent atrophy of the testicle.

J. M. E.

A TEXT-BOOK OF PHYSIOLOGY. By WINFIELD S. HALL, Ph.D. (Leipsig), M.D. (Leipsig), Professor of Physiology, North-Western University Medical School, Chicago. Pp. 671. Lea Brothers & Co., Philadelphia and New York, 1899.

This book presents a very striking individuality. This is due to the chapters being arranged in a somewhat novel way, and to the book containing much matter not usually found in text-books of physiology. Take, for instance, the chapter on circulation. After explaining briefly the need of a circulation, the author devotes several pages to a discussion of the comparative physiology of the tissues and organs concerned. This is followed by an anatomical introduction containing a brief summary of the structure of the blood-vascular system, the lymphatic system and the spleen, with a brief paragraph on the embryology of the same. Next comes a presentation of the physical laws governing the behaviour of fluids in tubes. A fourth introductory section traces the views and discoveries connected with the circulation from the time of Aristotle to that of Harvey and Malpighii. Finally, he proceeds to the discussion of the physiology of the blood and circulation in its more restricted sense; but, as a result of the space already taken up by the excellent but lengthy introduction, is compelled to dismiss some important matters very briefly. The author succeeds, however, in making his account of the circulation very interesting and fairly complete.

The chapters on digestion and metabolism are among the best in the book and are comparatively full, especially in the chemical portions, which abound in graphic formulæ. The chapter on the central nervous

system was deputed to the late Dr. P. L. Howard. It is up to date and well illustrated.

puscles Erlich's old classification is followed and basophile cells are not mentioned. The cause of the first sound of the heart is discussed without any reference whatever to the valves. Paraxanithin and theobromin are given as identical. Albuminoids are included among the proteids. The blood supply of the glomeruli in the amphibian kidney is wrongly given. We seek in vain for any reference to the physiology of sleep. There is no adequate account of the centres of speech. In general, with the exception of certain matters of technique, such as methods of blood examination, the author fails to emphasize the facts bearing on their future work as much as is desirable for medical students. The proof-reader has failed to observe three figures referred to by their wrong numbers on page 595, and the name of an authority is wrongly spelled on page 226.

On the whole, however, the faults are of a nature which would admit of easy elimination, and, in spite of their presence, the book is attractive in style, scientific in spirit, and as complete as most student's textbooks.

W. S. M.

THE MEDICAL NEWS VISITING LIST FOR 1900. Weekly (dated, for 30 patients); Monthly (undated, for 120 patients per month); Perpetual (undated, for 30 patients weekly per year); and Perpetual (undated, for 60 patients weekly per year). The first three styles contain 32 pages of data and 160 pages of blanks. The 60-patient Perpetual consists of 256 pages of blanks. Each style in one wallet-shaped book, with pocket, pencil and rubber. Seal Grain Leather, \$1.25. Thumb-letter Index, 25 cents extra. Philadelphia and New York, Lea Brothers & Co.

The *Medical News Visiting List* opens with 32 pages of printed data of the most useful sort, including an alphabetical Table of Diseases with Approved Remedies, a Table of Doses, Sections on Examination of Urine, Artificial Respiration, Incompatibles, Poisons and Antidotes, a Diagnostic Table of Eruptive Fevers, and a full-page plate showing a glance the incisions for ligation of the various arteries, an invaluable guide in such emergencies. The *Medical News Visiting List* is issued in four styles, adapted to any system of records and any method of keeping professional accounts. It is printed on fine, tough paper, suitable for pen or pencil and durably and handsomely bound in the size of a wallet for the pocket. When desired a Ready Reference Thumb-letter Index is furnished which is an economizer of time.

THE TREATMENT OF PELVIC INFLAMMATIONS THROUGH THE VAGINA.
By WILLIAM R. PRYOR, M.D. Pp. 247. W. B. Saunders, Philadelphia, 1899.

In the preface of this work the author states that it is but an elaboration of his lectures in the New York Policlinic, and that while most of the substance is written *ex cathedra*, he has consulted the opinions of such authors as Récamier, Péan, Ségond, and Pozzi, in Europe, and Gaillard Thomas, Byford and Henrotin, in America.

Pathology has been entered into only in so far as was necessary to iden-

tify the lesions present in his cases. He places more reliance upon clinical signs and symptoms than upon bacteriological examination except when performed by the most expert.

The treatise is written in a clear and powerful style, and the teaching throughout is practical and sound, although perhaps a little too much is claimed for vaginal section for removal of the uterus and its adnexa. The illustrations are without exception useful and well selected; that on page 207, illustrating the condition of the pelvis some years after hysterectomy had been performed, is especially to be commended as showing that shortening of the vagina is by no means a constant sequela of total hysterectomy.

The book will be found useful both to the operator and those who have more faith in milder methods of treatment.

F. A. L. L.

ANNUAL REPORT OF THE SUPERVISING SURGEON-GENERAL OF THE MARINE HOSPITAL SERVICE OF THE UNITED STATES FOR THE YEAR 1897. Washington, 1899.

In our last number we referred to the Annual Report of this Service for 1898. The report for the previous year, 1897, just issued, has come into our hands and forms a volume of 800 pages, characterised, like the previous volume, by the remarkable diversity of its contents. Among those to which we would call especial attention are:—Surgeon-General Wyman's address upon the international responsibility with regard to epidemic disease; the report of the International Committee on the Pan-American Medical Congress on International Quarantine; numerous papers by various members of the staff upon: Hemiplegia complicating enteric fever (Stoner), Formaldehyde gas in Tuberculosis (Kalloch), Fracture of the Base of the Skull (Perry), Malarial Fevers of Memphis, Tenn. (Young), a Case of double Typhoid Malarial Infection (Greene), and Cases of Cocaine poisoning (Young and Gilbert). In addition to these there are Reports and Annual Histories of Cholera, Small-pox, Plague, Beri-Beri, Leprosy and Yellow Fever, with a long series of reports upon yellow fever epidemics during the fall of 1897.

J. G. A.

A PRACTICAL TREATISE ON MATERIA MEDICA AND THERAPEUTICS, with Special Reference to the Clinical Application of Drugs. By JOHN V. SHOEMAKER, M.D., LL.D., Professor Materia Medica and Therapeutics and of Clinical Medicine, Medico-Chirurgical College of Philadelphia, etc., etc. Fourth Edition, Revised. The F. A. Davis Company, Philadelphia, 1898.

This is a new edition of a well-known work which, by the incorporation of all the recent additions to our materia medica, has been brought well up to date. The distinguishing feature of the work is its wealth of therapeutic facts. Not only does it contain a description of all the more commonly employed drugs, but of many others which can have only a local use. It forms, therefore, an excellent volume of reference, while its numerous prescriptions illustrating the mode of employing each drug, must be of much service to the young practitioner. Few works contain

an equal amount of practical information. We have therefore much pleasure in recommending the volume to our readers.

A. D. B.

A TEXT-BOOK OF MECHANO-THERAPY (Massage and Medical Gymnastics). By AXEL V. GRAFSTROM, B.Sc., M.D. Especially prepared for the use of Medical Students and Trained Nurses. With eleven pen-and-ink sketches by the author. Philadelphia, W. B. Saunders, 1899.

In this volume the subject of Mechano-therapy is presented in concise form, but, we hesitate to add, with sufficient clearness to the understood by the student. The writer follows, with some modifications, the system practiced at the Royal Gymnastic Institute in Stockholm. After a brief statement of the general effects to be obtained from active and passive movements, massage, the various specialised movements to be executed to obtain the best results in medical gymnastics are described. The special treatment which, in the author's opinion, is required in affections of the respiratory and cardiac systems, in rheumatism and gout, in diseases of the urinary organs, in constipation, etc., is then detailed. "The short review of the etiology, morbid anatomy, and principal symptoms of a displaced kidney" is, in our opinion, not only faulty but entirely out of place in a work of this character.

A. D. B.

PRACTICE OF MEDICINE. A manual for Students and Practitioners. By GEORGE E. MALSBURY. Lea Brothers & Co., Philadelphia and New York, 1899.

This book forms one of a series of pocket text-books issued by Lea Brothers & Company. To treat the whole subject of internal medicine in such a small compass is obviously a task of no little difficulty. The writer has succeeded in presenting a vast amount of information in very concentrated form, and the work is well up to date in recording the latest observations and discoveries of medical science.

In our opinion, the only use of such books is to enable the student to revise rapidly before examination. For the less important diseases such a work will answer well, but most examiners would probably demand a more detailed knowledge of the more important diseases than can be gleaned from the pages of this little book. The clear print and excellent paper form a pleasing contrast to many works of a similar character.

F. G. F.

PYORRHEA ALVEOLARIS: And its Relations to General Medicine. By JOHN FITZGERALD, L.D.S., Dental Surgeon to the Italian Hospital and to the National Hospital for Diseases of the Heart and Paralysis, Soho Square. London: The Medical Publishing Company, Limited, 1899.

This book is a series of papers on "Rigg's disease," written especially for physicians, and it will repay careful reading. It may be doubted, however, whether physicians generally will care to undertake the treatment of this troublesome and persistent disease.

T H E

Montreal Medical Journal.

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

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SURGICAL INTERFERENCE IN HÆMATEMESIS.

An interesting article on the subject of surgical interference in cases of persistent and extreme hæmatemesis will be found in the present number. Fortunately, the cases in which a sufficient quantity of blood escapes from a gastric or duodenal ulcer to seriously imperil life, are not common; yet, that such cases do occur is well known. That surgery can successfully deal with these cases seems now to be an established fact. This being so, it follows that surgeons should be consulted in cases of frequently recurring, small hæmorrhages, and in those cases in which large quantities of blood are vomited; and consulted before the patients become so exsanguine that their resisting and recuperative powers are lost. It is only a small percentage of gastric ulcers that will not heal under proper care, dietary, and rest. It is the neglected ulcers, and those cases of masked ulcer in which no subjective or objective symptoms occur, that more frequently go on to perforation or give rise to serious hæmorrhage.

There does not appear to be any substantial reason why an open artery in the stomach or duodenum, that threatens to destroy life, should not be tied or otherwise dealt with now that the perfection of modern surgical technique renders it comparatively safe to do so. The attempt has been made three times in the Montreal General Hospital, twice successfully, and the third case could in all probability have been saved, had the operation been undertaken before the patient became thoroughly exhausted by the repeated large hæmorrhages.

It is indeed a question whether surgery might not be resorted to more frequently in cases of prolonged, apparently incurable, gastric pain, distress accompanied by malassimilation. These conditions are often due to chronic ulceration or narrowing of the pylorus, and are followed eventually by gastric dilation and emaciation.

Truly, Listerism has done great things, not the least of which is the

widening of the field of surgery until at the present day operations can be successfully performed on parts which the older surgeons approached only at great hazard.

THE MEDICAL SERVICE FOR THE TRANSVAAL CONTINGENT.

There are probably very few, if any, real, thorough-bred Canadians who are not, regardless of party politics, really glad that the Dominion has come forward and taken upon herself a share of responsibility in defending the interests of the British Empire. It is but natural that physicians should be sufficiently "shoppy" to watch with considerable interest the selection of the surgeons whose duty it will be to look after the health of the men and officers and to treat the wounded on the field of battle. The Canadian Medical profession are also interested from the fact that the members of the Canadian Medical Corps will have to stand side by side with the members of the Royal Army Medical Corps, as representatives of Canadian surgery. It is a position of great responsibility.

That the gentlemen selected are men of rare professional attainments goes without saying. And yet one cannot help asking: Are men chosen from the ranks of specialists likely to be the best fitted for the arduous and responsible duties of military surgeons? It is just possible that the very accomplishments, which place them in the front rank in a community of general practitioners, really unfit them for general and military surgery. Ophthalmologists may lead the world in their respective departments, and yet not be just the men one would select to deal with serious gun-shot wounds, compound fracture, etc. Their daily routine of work and habit of thought do not tend to give them that diagnostic acumen, surgical resource and familiarity with technique necessary to deal with such injuries even at home, much less under the trying circumstances under which this work must be carried out when at the front.

It would, perhaps, be unkind to intimate that political stripe or influence has had anything to do with their appointment, yet, if we are correctly informed, the services of at least one general hospital surgeon were declined, and it so happens that this surgeon is an influential member of the "opposition" in politics.

Every one will admit that in the appointment of officers and medical staff in time of war, fitness should be the only consideration. We hope that at least the Canadian Government will set an example to the world in thoroughness and completeness of equipment of the Canadian Medical Staff.

The chief of the surgical staff, Surgeon-Major Wilson, has spared neither time nor money in fitting himself for military duty, even going to England and spending months at Aldershot and taking a course of

special training with a view to becoming an efficient Army Medical Officer. Unless, however, he is properly supported by the Government at Ottawa his labours will have been more or less in vain. The most accomplished surgeon in the world cannot do much without a complete surgical equipment. We look to the Government to supply this regardless of trouble or expense.

THE CARE OF CHILDREN'S TEETH.

The care of children's teeth is a matter too often neglected, especially by persons of limited means. It has come to be taken for granted that from the cradle to the grave the teeth are an endless source of trouble, and that when a child complains of toothache it is to be regarded as one of the many childish aches and pains which will soon pass away if no attention is paid to them.

Persons of average education and intelligence will readily admit the necessity, on the score of cleanliness, of having their children's teeth brushed once or perhaps twice a day; comparatively few, however, realize the importance to their children of possessing healthy and comfortable teeth. The consequence is that advice is not usually sought until the child has complained of pain more or less severe, thereby making it a difficult thing to treat the tooth without increasing the inflammation of the already irritated pulp.

The deciduous molars are the teeth most likely to cause trouble, and parents, as a rule, do not know that these teeth are not replaced by the bicuspid until the tenth or twelfth years. They suppose that because the deciduous incisors are lost at the seventh year all the rest of the deciduous teeth will be replaced by new ones within a few months after the loss of the incisors. The pulp of the deciduous tooth being relatively larger than that of the permanent tooth, it follows that in the former a comparatively small cavity will be sufficient to cause considerable pain from the impact of food during mastication.

Many parents, too, have the idea that if the deciduous teeth are allowed to decay the permanent teeth will come in more easily. The very opposite is the case; the pulp of the deciduous tooth performs the double function of forming the dentine of the tooth in the first instance and of absorbing the root as the crown of the permanent tooth advances. Therefore if the deciduous tooth is allowed to decay and the pulp thereby is exposed and destroyed, the absorption of the root of the tooth is arrested. One of three things then happens: the root of the deciduous tooth may be pushed out through the side of the alveolus by the advancing permanent tooth, the permanent tooth may be pushed out of line, or it may be indefinitely retarded by the presence of the dead deciduous tooth.

These, however, are only some of the minor consequences of the neglect of the deciduous teeth ; of more importance are :—first, pain, which results in the child either refusing its food or swallowing it without mastication, thereby upsetting its digestion. As the cavity increases pain becomes more severe, and leads to loss of sleep and general depression of the nervous system ; finally the pulp dies and suppuration with the formation of an alveolar abscess usually follows. This in time induces a diseased state of the gums—and may lead to chronic poisoning due to the pus and bacteria swallowed with the saliva. Those who have not had occasion to examine the mouth of a child containing two or three “dead” teeth can form no idea of the foul condition often present. If parents in general realized the depressing influence on the health of their children caused by painful and diseased teeth, the very general neglect which is now prevalent would soon disappear. Ignorance in this, as in most cases, is the chief obstacle to be overcome. Among the permanent teeth the sixth-year molar is especially liable to suffer from neglect on account of the mistaken idea that it is one of the milk teeth. It is the first of the permanent teeth to appear, coming through at the back of the jaw behind the second deciduous molar. As it does not push out any of the deciduous teeth and usually causes no pain during eruption, it is overlooked and allowed to decay. Being the largest tooth of the permanent set, it makes a great gap in the arch when extracted. In these days when the wisdom teeth are either absent altogether or so soft that they are seldom successfully saved, the loss of the sixth-year molar greatly diminishes the masticating surface of the teeth. Instead of twelve molars the individual who has lost the sixth-year molars in childhood and has no use of the wisdom teeth is reduced to four, namely, the twelfth-year molars.

Thumb sucking in children is a pernicious habit only permitted through ignorance. The pressure of the thumb against the alveolus of the superior maxilla causes it to protrude. In extreme cases the superior incisors may be nearer the horizontal than the perpendicular, and when the mouth is closed the lip cannot cover the teeth without effort. This gives an idiotic expression to the face, and, furthermore, prevents the patient from bringing the upper and lower incisors into contact.

While discussing the care of the teeth of children the subject of suitable food must not be overlooked. As a rule foods requiring vigorous mastication have a better effect on the teeth than those requiring little or none. Stale bread and butter with a glass of milk are better than a bowl of porridge and milk. The mastication necessary before the bread can be swallowed necessitates slower eating, polishes the surface of the teeth, and helps to develop the muscles of mastication, and thus aids in the development of the jaw bones. Acid fruits, if taken in large quan-

tities, have a tendency to dissolve the enamel. The writer has in mind the case of a girl aged twelve years who permanently injured the enamel of the superior incisors by the habit she had formed of squeezing grapes under the upper lip against the teeth. She declared that she had only done so during the autumn of that year, and when seen in the Christmas holidays, the enamel of the central incisors was roughened and opaque, resembling chalk in appearance and feeling. Dental caries begins on the surface of the teeth and requires an acid medium; as the ptyaline of the saliva forms lactic acid with starchy food, the importance of thorough and frequent brushing of the teeth becomes at once apparent. White castile soap and camphorated chalk make a simple and effective dentrifice.

The shape of the tooth brush is of some importance. The bristles at the end of the brush should be the longest. This will make it much more effective in brushing the surfaces of the molars and getting between the teeth. When the permanent teeth appear, their proximate surfaces may be cleansed effectively by passing waxed floss silk between them, but care should be taken not to wound the gum where the teeth are very closely in contact. Deciduous teeth as a rule do not decay rapidly where the above simple directions are carried out systematically.

THIRTEENTH ANNUAL CONGRESS OF MEDICINE, PARIS, 1900.

It is well already to take notice in regard to the Thirteenth Annual Congress of Medicine, which will be held in Paris from August 2nd to August 9th, 1900. Doubtless a large number of Canadians will be present at that meeting, and some few it may be will desire to present communications. For that reason it is well to say now a few preparatory words.

In each country there is established a committee which may receive the names and subscriptions of those of their respective nationalities wishing to become members, either now or in Paris itself at the time of the Congress. Members can receive their cards, in either case, upon payment of the sum of 25 francs, or \$5.00. Among other advantages, members will receive a digest of the proceedings of the Congress and a printed report of the section to which the member belongs. The French language is adopted by the Congress as the official language in all international relations; in the general assemblies, as again in the section meetings, the English, German and French languages may be employed.

There will be five main divisions, namely:—1. Biological Sciences. 2. Medical Sciences. 3. Surgical Sciences. 4. Obstetrics and Gynaecology. 5. Public Medicine. Each division or class above mentioned is divided into sections.

Thus :—(1) Biological Sciences—Descriptive and Comparative Anatomy, Histology and Embryology, Physiology with Biological Physics and Chemistry.

(2) Medical Sciences—General and Experimental Pathology, Bacteriology and Parasitology, Pathological Anatomy and Internal Pathology, Pediatrics, Therapeutics and Pharmacology, Materia Medica, Neurology, Psychiatry, Dermatology and Syphilology.

(3) Surgical Sciences—General Surgery, Surgery of Infancy, Aural Surgery, Laryngology and Rhinology, Otolaryngology, Stomatology.

(4) Obstetrics and Gynecology.

(5) Public Medicine—Legal Medicine, Military Surgery, Medicine.

A general catalogue of the main subjects to be treated under these headings has already been extensively circulated, and doubtless is to be had on application to Dr. Beausoleil, Montreal, who is President of the Canadian Section.

Those wishing to contribute to the various discussions, etc., should apply without delay to the general secretary of the Congress, M. Chauffard, Rue St. Guillaume 21, Paris, France.

FIRST INTERNATIONAL CONGRESS OF "PROFESSIONAL MEDICINE," PARIS, 1900.

In addition to the International Congress of Medicine, another International Congress, the first of its kind, will be held in Paris from the 23rd to the 28th of July, 1900, which also is under the patronage of the Republic, and will be conducted along the same lines as the larger Congress of the following week. This is the CONGRES INTERNATIONAL DE MEDICINE PROFESSIONELLE ET DEONTOLOGIE MEDICALE. It is difficult to find a satisfactory translation for this title in our language, for we do not employ either of the terms, "professional medicine" or "deontology" at all commonly.

The work of the Congress, however, is to deal with the relationship of the medical man with the state and with other corporate bodies ; the relationship between medical man and individual ; medical ethics and the relationship between medical men (deontology) ; and lastly, medical defense and medical insurance. Under these headings it will be seen that a very large number of subjects are included.

Among the subjects for discussion will be :—Laws regulating the exercise of medicine; the relationships of medical men towards various charities ; relationships of medical men with the judicial authorities,—expert evidence, medical secrecy, etc. ; the relationship of medical men towards insurance companies ; industrial companies and benefit societies ; the repression of the illegal exercise of medicine and the relationship of the medical man towards nurses, instrument makers, etc. ; the organisation

Albert H. Buck, M.D.—Translation of Dr. Ziegler's General Pathology, 1899.

Sir Dyce Duckworth, M.D.—Harveian Oration, 1898.

Henry A. Fairbairn, M.A., M.D.—College Warden, 1899.

W. D. Halliburton, M.D., F.R.S.—Essentials of Chemical Physiology, 1899.

H. A. Hare, M.D.—Cold Bath Treatment of Typhoid Fever, 1898.

W. Bevan Lewis, M.R.C.P. Lond., M.R.C.P. Eng.—Text-book of Mental Diseases, 1899.

Luff—Gout, 1899.

Benjamin Moore, M.A.—Elementary Physiology, 1899.

William James Morton, M.D.—“Cataphoresis” or Electric Medicamental Diffusion as applied in Medicine, Surgery, and Dentistry, 1898.

Stephen Paget, F.R.C.S.—Essays for Students, 1899.

The Library is also indebted to the following contributors :

Professor Adami :

Tuberculosis of the Genito-Urinary Organs, Male and Female, by N. Senn, M.D., Ph.D., LL.D., 1897 : Fortschritte der Medicin, 1897.

Professor Blackader :

Transactions of the Association of American Physicians, 1897 : Transactions of the College of Physicians, 1898. Transactions of the Congress of American Physicians and Surgeons, 1897.

Professor Buller :

A large collection of unbound journals.

Professor Cameron :

Transactions of the Pan-American Medical Congress, two volumes, 1898. American Journal of Obstetrics, 1898. British Gynæcological Journal, 1898.

Dr. G. Gordon Campbell :

International Clinics, two volumes, 1899.

Dr. W. S. Galbraith :

Illustrations of Zoology. 1-8, by Smith and Norwell, 1895 : Outlines of Classification, by D. P. Penhallow, B.Sc., M.A.Sc.

Montreal Medical Journal, Editors of :

Index Catalogue, Surgeon-General's Office, volume iv. : Charlotte Medical Journal. 1898 : Southern California Practitioner, 1898.

Campbell Nelles, Esq. (through the kindness of Dr. Ruttan) :

Types of Mankind, by S. Gullorlois, M.D.

Publishers' Committee :

McGill Annual, 1899.

Professor Ruttan :

Proceedings and Transactions of the Royal Society of Canada, 3 vols., 1896-1898.

Professor Stewart :

A large collection of unbound journals.

Transactions and Reports :

Annual Report of the Health Department, San Francisco, 1897.

Annual Report of the Medical Officer of Health of the City of Edinburgh, 1899.

Catalogue of the Museum of the Royal College of Surgeons, Edinburgh, 2 vols., 1898.

Eye and Ear Infirmary Reports, 1899.

Glasgow Hospital Reports, 1898.

Johns Hopkins Hospital Reports, 1899.

King's College Hospital Reports, 1899.

Massachusetts General Hospital Reports, 1899.

Proceedings of the Connecticut Medical Society, 1899.

- Marine Hospital Service of the United States, Annual Report, 1899.
 Studies from the Department of Pathology of the College of Physicians and Surgeons, 1898-99.
 Transactions of the Association of American Physicians, 1897.
 Transactions of the Dermatological Society of Great Britain, 1899.
 Transactions of the American Association of Obstetricians and Gynecologists, 1899.
 Transactions of the College of Physicians, 1898.
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PAMPHLETS AND REPRINTS.

F. J. Shepherd, M.D. (13); W. L. Stowell, M.D. (3); Goodhart, M.D. (1); E. Noble Smith, M.D. (1); St. Clair Thomson, M.D. (2); G. C. Whipple, M.D. (1); D. D. Jackson, M.D. (1); W. Osler, M.D. (1); G. G. Lewis, M.D. (1); Editors of the Montreal Medical Journal (40).

NEW BOOKS, ETC., RECEIVED AND NOTED.

W. B. Saunders, Philadelphia.

The International Text-Book of Surgery by British and American Authors. Edited by J. Collis Warren, M.D., LL.D., and A. Pearce Gould, M.S., F.R.C.S. Volume i. General and Operative Surgery 1899.

A Text-Book of Materia Medica, Therapeutics and Pharmacology. By George Frank Butler, Ph.G., M.D. Third Edition, thoroughly revised. 1899.

A Text-Book of the Practice of Medicine. By James M. Anders, M.D., Ph.D., LL.D. Illustrated. Third Edition, Revised. 1899.

Saunders' Question Compends. Essentials of Medical Chemistry. Fifth Edition, thoroughly Revised by Smith Ely Jelliffe, M.D., Ph.D. 1899.

Saunders' Question Compends. Essentials of Diseases of the Skin. Fourth Edition, thoroughly Revised. Illustrated. 1899.

Lea Brothers & Company, Philadelphia and New York.

Practice of Medicine. A Manual for Students and Practitioners. By George E. Malsbury, M.D. Lea's Series of Pocket Text-Books Edited by Bern B. Gallaudet, M.D.

A Text-Book of Physiology. By Winifield S. Hall, Ph.D. (Leipzig), M.D. (Leipzig).

A System of Practical Medicine by American Authors. Edited by Alfred Lee Loomis, M.D., LL.D., and William Gilman Thompson, M.D. 1898.

The Medical News Visiting List. 1899.

D. Appleton & Company, New York.

The Nervous System and its Constituent Neurons. Designed for the Use of Practitioners of Medicine and of Students of Medicine and Psychology. By Lewellys F. Barker, M.B. Tor. 1899.

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The Macmillan Company, New York: Macmillan & Co., Ltd., London.

Introduction to the Outlines of the Principles of Differential Diagnosis with Clinical Memoranda. By Fred. J. Smith, M.A., M.D. Oxon., F.R.C.P. Lond. 1899.

G. P. Engelhard & Co., Chicago.

Love and its Affinities. By George F. Butler, M.D. 1899.

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The Johns Hopkins Press, Baltimore.

The Johns Hopkins Hospital Reports. Volume viii., Nos. 1 and 2. 1899.

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Longmans, Green & Co., London, Bombay, and New York.

Surgery: A Treatise for Students and Practitioners. By Thomas Pickering Pick. 1899.

H. K. Lewis, London.

Rough Notes on Remedies. By William Murray, M.D., F.R.C.P. Lond. Third Edition, 1899.

Oliver & Boyd, Edinburgh.

A Manual of Modern Gastric Methods, Chemical, Physical, and Therapeutical. By A. Lockhart Gillespie, M.D., F.R.C.P.E., F.R.S.E. With a chapter on the Mechanical Methods used in Young Children. By John Thompson, M.D., F.R.C.P. Ed. 1899.

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Involvement of the Eye and Ear in Cerebrospinal Meningitis. By William Cheatham, M.D. The Philadelphia Medical Journal, July 15, 1899.

The Ohio Medical University Imbrogio. Cincinnati, Curts & Jennings.

Carcinoma of the Duodenum. By Charles D. Aaron, M.D. The Philadelphia Medical Journal, February 4, 1899.

The Diagnostic Value of Abdominal Palpation in Diseases of the Intestines. By Chas. D. Aaron, M.D. Mathew's Quarterly Journal, April, 1897.

Collective Reports of Glycerinized Vaccine Lymph. By Albert C. Barnes, M.D. American Gynecological and Obstetrical Journal, September, 1899.

Hydrochloric Acid: Simple Method of Administering. By Charles D. Aaron, M.D. Journal of the American Medical Association, June 24, 1899.

Cystoid Disease of the Testicle: Teratoma Testis? By F. R. Sturgis, M.D. American Medical Quarterly, 1899.

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