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PSORIASIS: A CLINICAL LECTURE.

By William S. Gottheil, M.D., *Dermatologist to the Lebanon Hospital, the North-Western and the German West-Side Dispensaries, N.Y.*

Gentlemen:—The patients that I show you to-day are classical examples of a common disease, and are on that account perhaps more worthy of our attention than those rarer affections that but very seldom come to the notice of the general practitioner. And they will serve me as a text in calling your attention to certain new and very eligible forms of treatment that have been developed in the last few years, and which have largely superseded the older methods.

The first patient is an excellent example of a general guttate psoriasis, psoriasis universalis, in a female 33 years of age. She has had the malady, to her own recollection, ever since her fifth year,—the usual history of these cases, though it does occur *de novo* even in advanced age, and the defective memory and carelessness of our dispensary cases often lead them to claim that the present is their first attack, It has been constantly present, in some degree, ever since the patient can recollect; at times almost disappearing, and then, under influences that we are ignorant of advancing and spreading over the body until it occupies areas as extensive as that which you see affected at the present time. Her entire body is covered with white, scaly spots, looking very much as if some molten waxy material had been liberally sprinkled on it with a large brush. Each spot consists of a heaped up mass of silvery epidermic scales, which can be readily removed with the finger-nail, leaving a reddish, slightly elevated papule behind, at points of which the torn tops of the papillæ of the skin show as minute bleeding points. The scales are lamellæ of fused epidermic cells, and their peculiar silvery appearance is due to presence of air between them.

The entire surface of the body is sprinkled with these guttæ; but in certain localities, and more especially on the flexor surfaces of the joints of the extremities, they are most abundant, and form more or less continuous scaly masses with but little healthy skin between them. So abundant is this scaling that the patient scatters a cloud of minute lamellæ round her as she moves when stripped, and several large handfuls can be gotten from her clothing. The epidermic proliferation is quite rapid in these cases; but it is only on parts not often washed that it occurs to so great an extent as you see. On the face and hands, where soap and water have not been quite so sparingly employed, there are no scales at all, only the low reddish papules mark the existence of the disease. It is important to note this fact, for in some cases, where the disease is not extensive, the patients have removed all the scales before they come, and the apparent absence of so characteristic a symptom may lead to an error in diagnosis. The scalp is covered with more or less confluent psoriatic patches, but the palms and soles are free.

The second case is a male of about the same age, with a very different, but just as characteristic disease appearance. Only the knees and elbows are affected. Each of these surfaces, where the skin is naturally thicker and rougher than on other portions of the body, shows a more or less extensive infiltrated patch, with apparently but little scaling; but scraping reveals the characteristic lamellæ. Here also the condition has existed for many years; the scaly infiltrated patches disappear at times, especially during the hot weather; but they always reappear during the winter.

Both patients are evidently in good health,—in fact, most psoriatic patients are robust, even when the disease is very extensive. Its cause is absolutely unknown. Heredity certainly plays no part in it. It may be of parasitic origin; but no microbe has been found. The Epidermophyton described by Langer is certainly not the etiological factor.

It is to the treatment of these cases, however, that I would call your special attention. Internal medication is of the greatest importance, especially in cases so extensive as our first one. Arsenic, so little employed by the dermatologist, is undoubtedly of use here, German opinion to the contrary notwithstanding, but it must be taken regularly, and in large doses, for a long time. It is therefore better given in the pill form. Ichthyol is also beneficial, and we will put both patients on a combination of the two, using a modification of the famous "Asiatic Pill," which is a favorite formulæ of mine:

R. Ammon. Sulph-ichthyolat. ʒ ii.
Acid. Arseniosi, gr. iii.
Pulv. Pip Nig., ϑ iii.
Pulv. Glyc. Rad., ϑ iii.
M. Ft. pil. No. 90.

One of these is to be taken three times daily, after meals. The amount of arsenic may be gradually increased until a maximum dose of 1-20 or 1-15 grain is attained.

Local treatment, however, is of even greater importance than internal medication. It is essential in all cases, and is especially important when the face and hands are affected with the disease. The deformity must be removed as rapidly as possible.

Our local treatment will differ in the two cases. In the first and general one it should be systematic and thorough, and it may be summarized as follows:

1. Daily general bath of hot water and green soap. The scales must be entirely cleaned off from the surface of the body, to permit the appliance of topical remedies.

2. After leaving the bath, paint each spot with:

R. Ol. Rusci, or Ol. cadini, ʒ ii
Spirit. vini.

Aetheris, aa 3 iv
Spirit. Lavandulae, gtt. x.

3. Return to the bath, and remain there half an hour.

4. After drying, paint each spot with the following:

℞. Arthrarobin, or chrysarobin, 1 part.
Liquor gutta percha, or flexible Collodion, 10 parts.

Arthrarobin is not quite so effective as chrysarobin; but it is safer. It may be employed over the entire body, whilst chrysophanic acid must not be used on the face or hands, not only on account of the very dark staining of the skin that it causes, but also on account of the likelihood of its causing the disagreeable and even dangerous "Chrysarobin Conjunctivitis." If we decide to use it, the Ungt. Hydrargyri Ammoniati must be employed on the face and hands.

By this means the inuncting of the whole body with disagreeable ointments, the use of cloths and bandages, and all the nasty paraphernalia of the regular ointment treatment is avoided; and the clothing, inevitably ruined in the older methods, is in no way harmed. The evaporation of the etherial and alcoholic vehicles of the remedies leaves them in a thin and hard layer on the skin, and their penetration in these solutions is at least as great as when suspended in the ordinary fatty vehicles.

The local treatment of the second case is more simple. We now possess in the Unguenta Extensa, Collemplastra, and the Plaster Mulls, a variety of very eligible preparations which are really ointments spread on plaster, and so combined with the basis that they can be used and applied like ordinary rubber plaster. We simply take some of the 10 per cent. Chrysarobin plaster mull, cut a piece to accurately cover the psoriatic spots, and apply them. They fit accurately to the parts, need no cloths or bandages to hold them in place, do not soil the clothing, and, above all, limit the action of the remedy exactly to the diseased area. We will direct the patient to renew these plasters daily until the patches are cured.

Shall we succeed in curing our cases? Yes, for the time being. Every spot of psoriasis will disappear from the skin; but others will come back in time to take their place.

25 West 53rd Street,
New York City.

Society Proceedings.

THE MONTREAL MEDICO-CHIRURGICAL SOCIETY.

Stated Meeting, June 1st, 1894.

J. B. McConnell, M.D., 2nd Vice-President, in the Chair.

Dr. S. R. Mackenzie was elected an ordinary member.

Chronic Nephritis in the Dog.—Dr. Adami exhibited specimens, and gave the results of his examination of a case of chronic interstitial nephritis in a dog, submitted to him by Dr. Wesley Mills. The two kidneys differed in size, the right being the larger, and to the naked eye presented the condition well known as chronic interstitial nephritis. The capsules in both were thickened; they peeled off without great difficulty, revealing a nodular surface beneath. They cut firmly: the sections showing dilated pelves, and the cortex varied in thickness, in some places corresponding to the depression of the surface, and was almost entirely atrophied; that of the right kidney, on the whole, appeared less affected than that of the left. Microscopical examination revealed a condition similar to that seen in chronic interstitial nephritis of man. There was a general fibrosis of the medulla, with occasional tubules containing traces of uratic deposit, while the pelvis of the left kidney contained a minute calculus. The ureters in both had rather thickened walls, but neither in these nor in the bladder was there found any evidence pointing towards an obstruction to the flow of urine

Commenting on the existence of this disease in the dog, Dr. Adami remarked that while in his experience, as well as in that of Dr. Mills, it was of rather rare occurrence, yet it was easy to conceive causes for its production; inasmuch as the factors of excessive inception of nitrogenous food, coupled with insufficient exercise, which are recognized causes of the condition

in man, are both apt to prevail in the life of a dog. There is a tendency towards fibroid valvular change frequently observed in dogs, but arterial sclerosis he had never observed. In over-fed dogs an eczematous condition of the skin is not uncommon, and taking these indications of the gouty diathesis into consideration, he was inclined to believe that, if cirrhosis of the kidney in dogs was not often recognized, it was because careful autopsies have not been performed in sufficient number.

Dr. WESLEY MILLS had received these kidneys from Dr. Darling, a graduate of the Faculty of Comparative Medicine, who thought the condition very rare, and published an account of the case in the *Journal of Comparative Medicine*, which report Dr. Mills read in detail. Commenting on the case, Dr. Mills remarked that although diseases of the kidneys are considered of rare occurrence amongst the lower animals, systematic autopsies are not by any means frequent, especially in the case of the dog. He was impressed with the truth of Dr. Adami's view of the case, as seen by the history; this animal was fed on flesh three times daily, and had a hypertrophied left ventricle. Moreover, it is well known that dogs are very susceptible to rheumatism, and rheumatism is allied to gout. The skin of the dog is easily disordered, and almost every ailment he is subject to expresses itself by some abnormal condition of that portion of his anatomy.

In reply to a question of Dr. REED as to whether albuminuria ever occurred amongst dogs, Dr. MILLS remarked that the matter had never been much looked into owing to the great difficulty of catheterizing dogs. He had worked upon the urine of dogs, and he could say, as to healthy animals, that there was a certain amount of uric and oxalic acids as well as a great deal of sulphates in the normal urine.

Angioma and Adenoma in a Woodchuck.—Dr. ADAMI showed the liver of a woodchuck, which had also been sent him for examination by Dr. Wesley Mills. At the right extremity of the organ a tense bulging could be seen which extended deeply into its substance, as well as behind, below, above, and in front of it. Upon cutting into this mass, it was seen to be sharply circumscribed, somewhat paler than the normal liver tissue, with here and there spots of a deeper tint, marking hæmorrhages or dilated vessels. Microscopical examination of the tumor revealed different conditions in the periphery and the central portions. The peripheral specimens showed adenoma of the liver cells, not biliary adenoma which is more common in man, but an overgrowth of the liver cells proper which, however, were not regularly arranged in lobes with the bile ducts separating and encircling them, as in normal liver, but more scattered. The central portion of the tumor showed, in addition to the hæmorrhages already noticed, dilated vessels and cavernous-like spaces, characteristic of angioma. The combination of the two conditions then, adenoma and angioma, make it extremely interesting as well as rare. Comparing this with analagous conditions found in the human liver, Dr. Adami remarked that in man the liver is perhaps the most frequent seat of angiomata; but a combined condition as we have here is very unusual in the lower animals, the tendency is to have adenoma develop rather than carcinoma; and that the former is the condition here seems confirmed by the well defined outlines of the tumor and the absence of any sign of infiltration into the surrounding tissue.

Dr. WESLEY MILLS remarked that the woodchuck in question was one of the animals he had been rearing and studying with a view to arrive at some sounder knowledge on the question of hibernation. This was the one which did not hibernate. He obtained it when quite young, and kept it for three years, and without ever having shown any symptoms of being unwell it was found dead one morning in the cage. At the post-mortem he noticed a dark mass standing out in the folds of the mysentery connected with the liver; there seemed to have been considerable hæmorrhage which he thought was the cause of the sudden death. At the same time it may be noted that it died in the spring, a season when these animals' vitality is at its lowest, and but little is required to end their career.

Dr. LAFLEUR wished to know why Dr. Adami considered adenomata of the liver very rare in man. Although he himself only remembered having seen one case of such, yet quite a number of these tumors had been reported, and the condition seemed to be common in France.

Dr. ADAMI in reply said that the cases of adenomata reported, as well as he could recollect, were only biliary adenomata; not adenoma of the liver cells as in this case.

Ovarian Cyst.—Dr. ADAMI exhibited a large ovarian cyst received from Dr. Alloway. It consisted of an enormous sac, within which were secondary sacs, or daughter cysts, and was a typical example of an ovarian cystoma, the interest in the specimen being in the one huge sac.

Dr. ALLOWAY stated that the patient was an old woman, 61 years of age, and was remarkable for the activity which she showed considering her age and the enormous distension of her abdomen. She complained of no pain, but suffered from a complete procidentia of the pelvic contents. It was this latter condition which first led Dr. Alloway to doubt the primary diagnosis, that the tumor was connected with the liver, and on further investigation he found he could separate the border of the liver from the upper portion of the tumor; the dull

note over the tumor was continued into the pelvic cavity. The doubt as to diagnosis was the most interesting feature in the case.

Ovarian Cyst.—Dr. ADAMI showed a second specimen of an ovarian cyst received from Dr. Alloway. This also showed secondary cysts, but not so highly developed as in the former case. There seemed to have been a certain amount of inflammation about the main sac.

Dr. ALLOWAY.—The patient was an unmarried woman, 40 years of age, who had been suffering from, and been under treatment for the last six months, for recurring attacks of pelvic inflammation. Recently the abdomen began to enlarge very much, and seeking advice, a diagnosis of ovarian tumor was made. The whole cyst wall was united to the parietal peritoneum, and in some places to the intestines. These adhesions were very dense and had to be separated inch by inch, thereby increasing greatly the difficulty of the operation. The intestines were of the color of port wine, and the coils were united together by a soft gelatinous material, which was easily broken down without injuring the bowel. This latter condition Dr. Alloway had never before seen in abdominal sections, and thought it might have been the result of the very recent peritonitis.

Tubal Pregnancy.—Dr. ALLOWAY gave the following history: The patient, a lady 28 years of age, had four or five miscarriages, never having a full term child. She had her last miscarriage about six weeks ago, which was followed by a metrorrhagia of three weeks' standing. He found the parts so exquisitely tender as to preclude exact diagnosis, at the same time he came to the conclusion that there was some mass growing upon the left side of the uterus, and that the interior needed curetting. The curetting he first performed, and while the patient was under ether he made a thorough examination with a view to ascertain the nature of the growth to the left of the uterus. This seemed to be in the broad ligament, and as the idea of tubal fœtation presented itself, he advised an immediate operation for its removal. One week later the patient was again put under ether and the abdomen opened. A large mass was noticed coming up on the left side, which shoved the uterus to the right. It was of a dark bluish color, hard in parts, while in other parts it had the feel of a cyst filled with fluid. The sigmoid flexure of the large intestine had become adherent to the tumor which it completely encircled, and entered the pelvis by the right instead of the left side. The ovary was not distinguishable but was part of the tumor mass. The mass was removed, and the patient has done very well, and is now almost convalescent. The condition here could not be distinguished from a hæmatoma of the ovary, which condition it really was, but, in his opinion, it was likely to be caused by a ruptured tubal pregnancy.

Dr. ARMSTRONG said he had now seen quite a number of extra-uterine fœtations, and his experience was that the clinical history in these cases has been anything but uniform and clear. In none of his cases has he seen that clear clinical history which the text books laid down. There is often no definite history of a skipped menstrual period, no severe pain, no condition of collapse indicating a serious internal hæmorrhage. This indefinite element in the history should always be borne in mind, as many of those cases if neglected will likely go on to a second rupture which must prove fatal. Whenever there is a localized mass on one side of recent occurrence, Dr. Armstrong thought the matter should be thoroughly investigated with a view to exclude extra-uterine fœtation.

Dr. J. C. CAMERON wished to know upon what data Dr. Alloway has based his diagnosis of extra-uterine fœtation?

Dr. ALLOWAY in answer said that the patient had gone three weeks over a menstrual period; when the flow did commence there was no history of any clots or solid masses being passed, nothing but a constant trickling flow of blood; there was also a history of a sudden acute attack of pelvic inflammation accompanied by a certain degree of collapse—not the collapse due to a large hæmorrhage, but the collapse accompanying shock. This acute inflammatory attack was passed over very lightly at the time, being regarded as some transient alteration in the bowel. But when taken in connection with the missed menstruation, and the mass to the left of the uterus, Dr. Alloway thought there was an abundant evidence of extra-uterine pregnancy. The operation moreover confirmed his diagnosis, inasmuch as a hæmatoma of the ovary is a very rare condition, and the failure to find a fœtus proves nothing, since in those cases where we have very early fœtation, no evidence of the embyro proper is found.

Dr. J. C. CAMERON believed it to be rare for pregnancy to have existed, for the ovum to have attached itself to, and grown in the tube or uterus without leaving some evidence of the fact behind. Unless one could produce some such evidence, he did not think they were justified in pronouncing and reporting it as a case of extra-uterine pregnancy. The symptoms of inflammation and shock upon which Dr. Alloway lays such stress are just as fully symptoms of ovarian hæmatoma as of extra-uterine pregnancy.

Dr. ADAMI, while admitting that Dr. Cameron's remarks were in some respects well founded, he yet wished to suggest the possibility that after all it might not be so easy to detect fœtation by the miscroscope. He referred to the recent

case reported by Dr. Armstrong, in which placental and fœtal tissue were sought for in vain, and in which a diagnosis of extra-uterine pregnancy was arrived at by the finding of a curious little malformed body like a fœtus. Here suppose, which is not unlikely, this fœtus had been lost, or passed out, or absorbed, no evidence would have remained of the abdominal fœtation.

Epithelioma of the Cervix Uteri.—Dr. Alloway next produced a photograph of a case now under his care in the General Hospital. The woman was operated upon about 10 days ago for a malignant growth of the uterus, accompanied by a constant discharge, which had lasted for the past six or eight months. The mass was as large as a child's head at the seventh or eighth month, it filled the whole of the vagina, and protruded without, as seen by the photograph. It was quite friable, easily broken down with the fingers, and was of the ordinary cauliflower variety of malignant diseases. It extended up as far as the posterior fornix of the vagina, without greatly implicating the latter's walls; and examination through the vagina showed the broad ligament to be affected. On account of the latter complication the uterus was not removed, but instead a considerable portion of this tumor was cut away, to the great relief of the patient, and before her discharge from the hospital he hoped to remove still more of it. The interest in the case lies in the size and protrusion of the malignant growth.

Dr. Adami, referring to this case, said that from the distinct cauliflower appearance of the mass one would have suspected epithelioma; sections, however, showed it characteristic of carcinoma instead of epithelioma. It is richly cellular, and most probably originated from some of the mucous crypts rather than the epithelium of the cervix.

Blue Coloration of the Urine following the use of Methylene Blue.—Dr. Adami exhibited several specimens of urine of a deep bluish green tint, from a patient under the care of Dr. Roddick. She was a Jewess, aged 63, and came complaining of a sore, with swelling, upon the leg. She stated that she was diabetic, and upon bringing a sample of her urine, Dr. Roddick thought that the bottle was not clean, but he was informed by the patient that a physician in New York had been treating her for some "internal trouble," giving her small pills, after which the urine was invariably blue for some time.

The urine was submitted to Dr. G. C. L. Wolf for analysis, who reports as follows:—Fluid of a bright bluish green color; odor of phenol; acid reaction; specific gravity 1032; urea, 1.15 p.c.; glucose, 5.87 p.c. (28.16 grains per ounce). On making an examination to ascertain the nature of the coloring matter, Dr. Wolf found that by treating with strong HCl., the color was to a great extent discharged; on treating with chloroform the color was taken up by the solvent; silk was unaffected, but cotton, wool, and especially cork wood, were well stained. On examination with the spectroscope, the urine showed a broad band in the red at 70° on Zeiss' scale, when 60° was placed in the first oxyhæmoglobin line. Solutions of various blue dyes with urine were made up, and with methylene blue a band was obtained in precisely the same position. The urine showed no bands before and after E., which would lead to a suspicion of Indian coloring matters. The conclusion, therefore, was that the color of the urine was due to methylene blue, and the assumption followed that this was the drug prescribed by her physician in New York. Dr. Adami stated that Dr. Wolf had called attention to the fact, that, as pointed out in a recent number of the *Journal of the Society of Chemical Industry*, if glucose be heated with methylene blue, the color disappears. He found that upon keeping this blue urine in a sealed tube, it became slowly decolorized. This may be taken as an additional proof, if such were needed after the admirable proof already given by him, that the coloring matter in the diabetic urine was methylene blue.

Stated Meeting, June 15th, 1894.

James Bell, M.D., President, in the Chair.

Carcinoma of the Rectum.—Dr. Williams reported the case for Dr. Kirkpatrick. Mrs. M., aged 39, admitted to the General Hospital on May 29th. For one year she had suffered from irregularity of the bowels and pain during defecation. For the past two months she had suffered from persistent diarrhœa, otherwise her general health had been good. Examination revealed a stricture of the rectum, about 2 inches above the anus, impassable to the tip of the little finger, felt smooth and hard, and did not bleed. By vaginal examination the mass could be easily detected. On June 11th, the patient was etherized, and the stricture was incised along the posterior part with a blunt pointed bistoury, and dilated. The bowel was then irrigated with a warm boracic solution, and a large rubber tube wrapped about with iodoform gauze inserted. The patient sank and died nine hours after the operation.

Owing to the smooth fibrous surface of the lower end of the mass, Dr. Kirkpatrick was at first disposed to regard it as a syphilitic stricture. However, after a more thorough examination under ether, especially noting the totally different character of the upper portion of the mass, he was satisfied of its malignant nature.

Dr. Adami had found at the autopsy an irregular rent 4 c.m. long in the anterior wall of the rectum through which fluid had passed into Douglas' pouch. The abdominal cavity con-

tained 24 ounces of fluid of a light brown color The lower portion of the rectum was thickened and constricted for 5-8 c.m. of its length, with the mucous surface rough and nodular. The growth extended back towards the sacrum, but did not involve the uterus or bladder. Microscopic examination showed the growth to consist of small round cells and spindle cells, with large amount of connective tissue, infiltrating the mucous and submucous coats lying between bands of muscle fibres and extending to the peritoneum. In places there was considerable destruction of the mucous membrane. The diagnosis was that of schirrus cancer, which is thought to have originated in the submucosa, and spread to the neighboring tissues.

Dr. Jas. Bell wished to know if the microscopic appearances in this case were definitely characteristic of carcinoma. Even in case they were, he would be still inclined to doubt its cancerous nature in the face of the clinical history and physical appearances of the condition. A young woman, only 39 years of age, in good health, with the exception of a diarrhœa which does not appear to have caused much wasting, is not a likely subject for cancer. The only physical sign present was the very marked stricture of the rectum, and when this was laid open no tumor was found surrounding it. The speaker directed the members' attention to the bowel now before them, and pointed out that there was no mass in it, neither had it anything which gave one the characteristic feeling of cancerous infiltration. In the presence of such evidence, contra-indicating cancer, he thought we were not justified in making a diagnosis on the microscopical evidence alone. Such conditions are often the result of syphilis, and are amongst the manifestations of that disease which do not yield to treatment. He had seen four cases of this kind within the past year, two of which he operated upon by excising portions of the bowel. In the first case he excised about four inches, in the second a little less, and in both he was rather surprised and disgusted upon finding after excision how little real infiltration or tumor there was. Before the operation, upon examining the bowel, one got this feeling of stricture and hard infiltration, but after its removal the condition noticed was just like what is seen in this case—no real thickening, no mass or neoplasm. Both of his specimens had been submitted to Dr. Adami, who had not been able to arrive at any satisfactory conclusion, beyond the fact that the specimens were not cancerous and showed evidences of some chronic inflammatory change. A third case died in the hospital with extensive ulcerations throughout the intestines. The fourth case he saw quite recently, and had the characteristic appearances of syphilis about the buttocks and anus. In all these four cases, Dr. Bell expressed himself as convinced that he was dealing with syphilis, although at the time in none of them had he made that diagnosis. The two cases which he operated on last fall have since done well, which would not be the case had he been dealing with cancer. His first patient has had a return of the same condition as well as some similar growths about the margin of the anus which have been treated with caustic, etc., but he has not lost flesh, although suffering from diarrhœa with mucous stools, sometimes slight hæmorrhages, and tenesmus. The second case has had no return, and is doing very well.

Angiomata of the Colon.—Dr. Williams next presented a portion of the descending colon with microscopical sections of some angiomatous growths affecting the same, which were obtained by Dr. Adami at a recent autopsy.

Dr. Adami found upon opening the abdomen that the great omentum was collected in a mass beneath the left hypochondrium, and was of a grayish turbid appearance. The intestines were somewhat reddened, and showed scattered over the serous surface, especially upon that of the transverse colon, numerous minute ecchymoses. The descending colon was of a deep bluish black color, and had a peculiarly dense feel.

On section there was evidence of inflammation throughout, most marked in the descending colon commencing at the splenic flexure. At this point a band of adhesions having formed, produced a second flexure, and below this the organ was contracted, with thickened walls, and of a dark congested appearance. In its walls were observed about a dozen brownish bodies, averaging 1.5 cm. in diameter, and projecting from the mucosa, producing a considerable constriction in the gut. On microscopical examination of one of these nodules the mucous membrane was found raised up; the angiomatous growth is in the submucosa, and is of the hypertrophic and capillary variety; the muscular coat was drawn in into the centre of the nodule, at the apex of which hæmorrhages frequently occurred. The surrounding tissue was thickened, and contained a quantity of fat.

A Case of Infection by the Bacillus Pyocyaneus.—Dr. Williams reported the following case:

A child five months old, an inmate of the Montreal Foundling and Infant Nursery, who had previously been well, and nursed by a healthy mother, began without any apparent reason to fail.

For two months he steadily lost weight, became restless, and seemed to suffer from abdominal pain. When Dr. Williams saw him he appeared listless, and moaned when the abdomen was touched. There was a small group of purple papules on either side of the umbilicus. The abdomen was relaxed and the skin dry. Diarrhœa with greenish stools had been present for some time, and there was a slight fever (99°-100°).

These papules increased in number, became

of a deeper blue color, and spread to the chest, shoulders and thighs; the abdominal pain ceased, but the child became worse. The limbs were rather stiff, flexed; the child seldom moved, and cried when the limbs were extended, while they at once became flexed again. Dr. Kenneth Cameron then took charge of the Nursery, and noticed that during three days preceding the child's death hæmorrhages occurred from the nose, from between the toes and from abraded papules on the thigh and back. The day before death a slight discharge was noticed from the right ear.

At the autopsy the organs were seen to be pale. Minute petechiae were present in the mucosa of the stomach and intestines, but no hæmorrhages had occurred into these organs. There were two hæmorrhagic infarcts in each kidney and one on the heart.

Cultures prepared on gelatin from the spleen, kidney, liver and blood, and kept at the temperature of the room, gave in seven days the characteristic growth of the bacillus pyocyaneus.

Careful cultivation showed this to be a pure growth, and after various media had been satisfactorily tried, a rabbit was inoculated with 0.5 c.c. of a broth culture.

The animal had diarrhœa and stiffness of the extremities, became comatose, and died in forty hours.

On examination, punctate hæmorrhages were found in the mucosa of the stomach and intestines, and the bacillus was found in the various organs and in the intestinal contents and urine.

Microscopic sections of the liver, spleen and kidneys showed the bacillus in large numbers in the small blood vessels and about the capillaries, causing numerous minute thrombi and commencing parenchymatous degeneration.

The case appeared to be of interest, as he had been able to find but three other cases reported of primary infection by the bacillus pyocyaneus alone. These were by Neumann and Ehlers. They all occurred in children, and were similar in nearly every respect, except in the character of the eruption, which from the papular form became bullous and pustular, the contents developing in time a blue color.

There had been a number of cases where the bacillus had been found associated with other micro-organisms, especially in suppurating wounds, erysipelas, etc., and in one instance after enteric fever. But one writer in English, H. C. Ernst, had mentioned finding the bacillus. He records a case where it occurred in the pericardial fluid, associated with the tubercle bacillus, although from its large size and slight modifications in color production he had considered it another variety of the B. pyocyaneus.

Dr. Williams expressed his sincere thanks to Dr. Adami for his kind assistance in the bacteriological work and in investigating the literature of the subject.

Dr. Adami thought this was a singularly interesting case, as it is the first of the kind reported in America. Several cases have occurred in France, two in Germany, and two in Copenhagan, where the bacillus has been found pathogenic. The attention of pathologists was first directed to this organism by the occurrence from time to time of a blue color in the dressing from suppurating wounds, and which was formerly supposed to be due to the presence and reaction of iodine on starch in the bandages. The investigations, however, of Gessard and others proved this blue color to be due to the growth of a little bacillus, which was so short as to be sometimes mistaken for a micrococus. The blue color, moreover, was found not to be due to the bacillus itself, but to a secretion produced by the bacillus; and this blue pigment was further shown to be a combination of several pigments, blue, green, and red, all of which have been isolated and given separate names, such as pyocyanine, pyozanthin, etc. Speaking of its pathognomonic qualities, Dr. Adami said that in man it is most commonly found on the surface of wounds, and ordinarily is not virulent enough to cause death. As Dr. Williams mentioned, it is seldom a primary affection, and has heretofore been chiefly regarded as a disagreeable complication rather than as a disease in itself. Some workers in this field, however, having obtained pure cultures of the bacillus, inoculated rabbits with them, and studied the effects. After large doses the animal suffers from severe diarrhœa and hæmaturia, grows gradually comatose, and dies within from 24 to 40 hours. Autopsies reveal hæmorrhages throughout the various organs of the body. When smaller doses are given, the animal emaciates, has a diarrhœa, and dies from a kind of ascending paralysis. It is only the young and very feeble of the human family that seem to be susceptible to general infection from this microbe, such as occurs in the rabbit: and it is of interest to observe that when a case does occur a parallelism between the symptoms in the two animals exists. There is the same diarrhœa, the same weakness or prostration, and the same hæmorrhages both mucous and cutaneous. It is quite possible that such cases are more common among children than is generally supposed.

Dr. Kenneth Cameron thought that the cutaneous hæmorrhages which occurred between the toes were of interest, as there had been absolutely no injury to account for their appearance; they seemed to be simple extravasations of blood. He regretted very much that neither the blood nor the urine had been examined during life. A case with an almost exactly similar eruption occurred in the nursery about a year ago, which proved fatal, but the autopsy showed no hæmorrhages of the internal organs. No bacteriological examination had been made.

Dr. Reed asked if there was any theory as to

how the bacillus had obtained an entry into the body.

Dr. WILLIAMS, in reply to Dr. Reed's question, thought that aside from the infection through a wound, the alimentary tract might be the most likely point of entrance, and mentioned a case reported by Oettinger where a young man, 18 years of age, convalescent from typhoid, suddenly developed a fever, with some other symptoms unlike those of the previous ilness, and on examining the stools this bacillus was discovered. He recovered.

Mycetoma Pedis — Madura Foot Disease. Dr. WILLIAMS read for Dr. Kirkpatrick the following report, and exhibited the specimen :

Xavier Lecompte, æt 21, a French-Canadian, was born in Montreal, and has always lived here with the exception of five years which he passed in Ontario between the age of twelve and seventeen.

His parents, three brothers and four sisters, are living and in fair health. No history of tuberculosis can be obtained.

At the age of eleven, a bluish spot appeared on the inner side of the foot, which gradually increased until it became the size of a five cent piece. One day while walking he struck the foot, breaking open the spot, from which a little blood escaped. After this the spot disappeared.

A few months later, what he described as a button of flesh (un bouton de chair) appeared on the sole of the foot between the first and second metatarsals, which was later on removed, leaving a little hole which ultimately healed. Three years later a similar growth appeared on the dorsum of the foot directly opposite to where the other nodule had been on the sole. Two years after he struck the foot with an axe, bruising it severely, and ever since the foot has remained swollen and tender, though he was quite able to walk until last fall, when the condition became very much aggravated, the nodules appearing all over the foot.

The discharge from the sinuses has always been scanty and of a thin, purulent character. He came to the General Hospital, where, as the foot seemed useless, it was amputated.

Dr. ADAMI remarked that in the pressure of work he had delayed the examination of the foot until that afternoon when first he heard that it was to be brought before the Society that evening.

On proceeding to examine it, he was immediately struck by the resemblance between the general appearance of the amputated foot and that of cases of madura foot. There were the same button-like elevations of the skin scattered over the surface, and at their centres the same fine sinuses leading deep down into the interior of the foot, while by pressure upon the buttons there was expelled a thin pus containing characteristic yellowish gray bodies. Upon studying the discharge under the microscope, and again upon examination of sections, the structure of these bodies could be clearly made out. They clearly resembled in general appearance the ray fungi of actinomycosis, forming lobate masses of varying size, the larger being easily distinguished by the naked eye, some indeed being as big as small shot. Like actinomyces, the masses showed a radiate arrangement of filaments or clubs all around the periphery, with a central irregular network of filaments ; unlike actinomyces, the clubs were so large that they could be recognized by the low power of the miscroscope (Zeiss A), and under the high power there was a marked tendency observed for the clubs to bifurcate. In the sections the masses could be seen surrounded by collections of leucocytes, so loose that unless special precautions were taken, the fungi fell out. These appearances tally entirely with the very full description given by Kanthack in the *Journal of Pathology*, Vol. I. Whether this is a species absolutely identical with the Indian form can only be determined by comparison of material. The clinical history,and the hurried examination so far made, point on the whole to this being a case of true madura foot, and to the species associated with the disease being one and the same.

Dr. Adami pointed out that as in the previous case so here he had brought before the Society what, to the best of his belief, was the first case of the kind reported in any English-speaking country.

The disease of "madura foot" occurs with fair frequency in certain parts of Hindustan, but outside of India is very rare. A case had, he thought, been reported in Italy, another more recently in Algiers, where Vincent had been able to gain a pure culture of the fungus, another in Germany. The characteristics of the disease, which has been recognized for the last thirty years, are its chronic nature, its limitation to the lower extremities and the development of numerous sinuses. More recently attention has been called by Van Dyke Carter and others to the constant presence of peculiar bodies in the discharge. These are either black or yellow, and, as already indicated, Kanthack has conclusively shown them to be closely allied in structure to the actinomycosis fungus. The disease would seem to be most common in countries where the inhabitants go about barefoot ; it was noticeable that though in Canada it is not the habit to do so, the disease in this case was contracted during childhood, that is to say, during the period of frequent barefootedness.

Dr. GORDON CAMPBELL pointed out that in Crocker's work on the Diseases of the Skin,there was a reference to a previous case of madura foot reported from America. He did not think that any details were given.

MEDICAL AND CHIRURGICAL STATE FACULTY OF MARYLAND.

Dr. WALTER B. PLATT read a paper on a case of *laminectomy*, the operation having been performed eleven months after *injury to the spine*. The patient had slipped on the stairs, and two weeks later fell from a car. In another week he was confined to bed, suffering from great pain in the back. There was a curvature of the spine at the painful point, and below it complete paraplegia and loss of sensation. Bed-sores also appeared. Two parallel incisions were made to the inner side of the transverse processes, and joined by a transverse incision, forming the shape of an H. Hæmorrhage was controlled by means of pressure, and the laminæ of the fifth, sixth and seventh vertebræ removed. The flap was turned down, the dura examined and found healthy, and the flap replaced without tying any arteries. The operation required one hour and twenty minutes. Venous hæmorrhage was considerable. Two weeks later, at the time of report, the patient was able to lie on either side without fatigue, had no more night-sweats, but there was no improvement in sensation. The author favors the operation in perfectly hopeless cases. The prognosis depends upon the site of the injury; the nearer the head, the less the chances of success. If the body of the vertebra is fractured, there is little hope of success.

Dr. T. A. ASHBY read a paper on *sterility due to tubal and ovarian disease*, which was discussed at some length. Dr. J. E. MICHAEL regarded the paper as valuable, emphasizing as it did the growing tendency to save rather than to destroy the generative organs in woman. He believed that ovulation was due to a current set up in the ciliated epithelium of the tube, and that disease of the tube prevented this action. Ovulation and menstruation were not synchronous, since conception often takes place before menstruation is established.

Dr. CHAS. P. NOBLE, of Philadelphia, believed ovulation to depend much more on the tubes and ovaries than on the vagina and uterus. An ovary that is partly diseased may be saved, but there is little hope that diseased tubes will ever amount to anything.

Dr. H. A. KELLY said that it was important for the general practitioner to know how to deal with a case of sterility. No woman should be pronounced sterile until her husband has been examined. Impermeability of the os uteri is sometimes the cause, and here simple dilatation will effect a cure.

Dr. KELLY reported *thirty-nine cases of removal of the uterus*, some by the vagina and some by the abdomen. There was one death, not due to the operation, but to septic catgut. He had used the clamp method in the first cases, drawing out the tumor, adjusting the clamp, and leaving it there until the wound had healed. By the combined extra-and intra-peritoneal methods, the abdomen was opened, tumor lifted out, vessels tied, stump cauterized to prevent sepsis, and fastened to the lower angle of wound. The method he at present uses is to make an incision and put on ligatures to prevent hæmorrhage while operating. Only four large arterial trunks feed the tumor, and two of these are reached at once. The broad ligament is drawn aside with the fingers. Great care is taken not to allow the contents of the uterus and cervix to touch the stump, which is always disinfected with the cautery or cut off and left cup-shaped. A few silk ligatures are put in the stump, the abdomen cleaned out (though it should never be allowed to be anything but clean), oozing of small veins stopped, ligatures cut off and stump replaced in abdomen, the pedicle being turned upside down so that the bladder is exposed to view.—*Universal Medical Journal.*

COLLEGE OF PHYSICIANS OF PHILADELPHIA.

Dr. J. B. DEAVER presented a patient upon whom he had performed *subcutaneous osteotomy of the neck of the metatarsal bone for hallux valgus*. He detailed the history of the case, which resulted from frost-bite, but in which, as in many of these cases, there may have been a rheumatic tendency. The author expressed his belief in the superiority of the operation over amputation in such cases, and stated that it was attended by no risk, and that a good result might be promised the patient.

Dr. H. AUGUSTUS WILSON exhibited a cast of a similar case, in which there was extreme hallux valgus of the right foot, the metatarsal bone being pushed from the normal position under the second biceps. A bursa on the right foot was opened, under the impression that it was a corn or bunion, when it was found to be a segment of the joint. The pain was intense.

Dr. T. G. MORTON presented an unusual case of *general bodily deformity* with ankylosis of the spine, upper and lower extremities, etc. The patient was 32 years old, and was well until the age of 10 years, when rheumatism appeared in the right hip-joint, spreading gradually to the knee-joint of the same limb, the ankle, the joints of the left lower extremity, spinal column, both shoulders, elbows, wrists, fingers and toes. This process required three years, during which time his suffering was intense. The lateral curvature, elevation of shoulders, curve of femora, and other deformities were due to his position in a chair, which he occupied most of the time, being unable to

move about. His present state is as follows: Head normal in shape and size; wears a 7⅛ hat; trunk undersized and misshaped; antero-posterior and lateral curvature of the spine, which is perfectly rigid; legs flexed on thighs, almost in contact; thighs on pelvis and in contact with the abdomen; and pelvis upon the thorax, the anterior superior spinous processes of the ilia being almost in contact with the lower ribs; all the joints of the lower extremities are firmly ankylosed, with the exception of the phalanges. The right arm can be bent at an angle of forty-five degrees with the shoulder. The left elbow is fairly ankylosed no pronation or supination. The left arm can be brought to a right angle with the trunk at the shoulder; left elbow firmly ankylosed at a right angle; pronation and supination normal; wrist and phalangeal joints normal. Weight 52½ pounds; height from top of head to lowest part of body as he sits in chair, 22 inches; right calf 5⅝ inches; right arm, 5¾ inches; left arm, 4¾ inches; right forearm, 6 inches; left forearm, 4¾ inches; appetite fair; digestion good, tendency to constipation; heart, liver and lungs normal; urine highly acid; specific gravity, 1030 excess of urates; no abnormal constituents.

Dr. Morton felt that in this case there was little to be hoped for by operation, and that the best that could be done was to furnish the patient with a suitable brace to support the arms as an attachment to a proper spinal brace. Dr. H. A. WILSON thought a wheel-chair would be best for him. Dr. G. G. DAVIS advocated an operation to enable the man to stand upright, seeing that he was in a moderately healthy condition, and would likely stand the operation well. Drs. WHARTON, DEFOREST, WILLARD and J. B. DEAVER agreed with Dr. Morton that operation was not advisable.—*Universal Medical Journal.*

Progress of Science.

APPENDICITIS.

Just at present the interest in both medical and surgical circles seems to center chiefly about the appendix vermiformis, that curious little structure which the Darwinists would have us believe is only useful to the human race as a reminder of its humble origin, having long since lost the useful office which it is said to have once served as a digestive organ when man was only an anthropoid mammal, and subsisted upon the coarse and undifferentiated products of the primeval forests. Whether or not the Darwinists are right in their theories relating to the origin of this troublesome little pouch, is a question we shall not just now undertake to discuss. The burning question of the day is: Under what circumstances we are to consider that tolerance of the mischief-making appendix has ceased to be a virtue. Upon this subject all possible shades of opinion are expressed, together with an almost infinite variety of theories respecting the etiological factors which are active in developing the inherent mischief-making propensities of this functionless diverticulum.

A New York surgeon advances the theory that it is the duty of every surgeon to exercise himself to the extent of his ability in the interest of the evolution of an appendix-less race of human beings, which means, of course, war to the knife against the unruly member until the last member of the human family shall have undergone what might be termed a sort of biological circumcision, and have been thereby elevated to the high estate of completely evoluted manhood.

Really, it seems to us that this is carrying things a little too far. Even if the surgeon be so skillful as to be able to perform the operation upon a subject through an inch and a half incision, and to get him out of bed in a week and a half, *à la* Dr. Morris, it must be admitted that the subjection of the whole human family to this operation would result in more deaths than ever have been caused by captured cherry pits or apple seeds.

Asepsis is a procedure, the value of which cannot be overestimated; nevertheless, the comparative immunity from fatal consequences which it secures for nearly all surgical procedures involves an evil of no small proportion, the nature of which scarcely needs to be even hinted at, so notoriously common is the rashness, one might almost say criminal recklessness, manifested by many young surgeons, especially those whose educational opportunities have been limited, as shown in the undertaking of unnecessary operations or operative measures, for which neither the patient nor the operator has been properly prepared. Common sense and sound judgment are quite as necessary as asepsis for scientific surgery. The sharper the tool, the more skilled must be the workman.

Another matter worth considering is the fact of our ignorance in relation to the functions of the appendix vermiformis. The simple fact that we do not know the use of this organ is not sufficient evidence that it is useless. Only a few years back we were in the same position in relation to the supra-renal capsules, the thyroid gland, the spleen, and other structures which recent researches have shown us to be of great functional importance to the vital economy. If the supra-renal capsules were as easy of access as the appendix vermiformis, or the thyroid gland as readily removable, it is quite probable that before this time some thousands

of people would have been deprived of these important blood-purifying glands. Without having any particular theory to advance, we feel strongly inclined to the opinion that the great amount of attention now being given to the appendix vermiformis will, in the near future, develop the fact that this apparently useless organ is not merely a vestige which has been handed down by heredity from some bygone age, when man lived neighbor to the megatherium and required a third stomach for the satisfactory performance of his digestive processes. Nature is a great economist, and quickly eliminates from her domain idle and useless organs, as well as useless and idle organisms. The appendix vermiformis has been studied altogether from the negative side. It would be well, before we decide to wage an exterminating war against this little organ, to study this question from the positive side. Possibly the organ may be found to be worth preserving after all, when in health, and worthy of having a chance for its life when it gives evidence of disease.

The idea that the abdomen should be opened and the appendix removed upon the slightest indication of inflammatory disease in this region is about as sensible a notion as that the same procedure should be adopted under similar circumstances in relation to the ovaries or Fallopian tubes. An inflamed tube may result in suppuration, pyosalpinx, general peritonitis, and death. Probably more women have died from this cause than men from appendicitis. One attack of ovaritis or salpingitis is very likely indeed to be followed by another attack. The constantly recurring stimulus of the catamenia is an exciting cause of relapse which is absent in appendicitis. The frequent recurrence of ovaritis or salpingitis is a proper indication for operation. A suppurative inflammation of an ovary or tube is certainly a justifiable indication for operative interference. The same must be said of appendicitis. It may be indeed that the suppurative inflammation of appendicitis involves more hazard than a similar condition of the tubes or ovaries, although it can hardly be said that the evidence is positive and clear upon this point. The question is one in which there is a good chance for extreme views upon both sides, and hence it may be reasonably expected that salutary results will follow the very general discussion of this question which is now taking place, and that in the near future we shall be possessed of such facts and rules as regards indication as will guide the practitioner to a correct procedure in any given case, and will clearly define the respective duties of the physician and the surgeon in these cases.

—*Edit. Modern Medicine.*

ETIOLOGY OF CANCER.

Mr. S. G. Shattock, F.R.C.S., Curator of the Museum of St. Thomas' Hospital, in his Morton Lecture before the Royal College of Surgeons of England, gives the results of recent experimental work by himself and others, in the investigation of this subject. If cancer was a micro-parasitic disease, it should be capable of experimental transmission. Mr. Ballance and the lecturer had carried out a series of experiments, in which they had inserted portions of freshly removed carcinoma of the breast into the abdominal cavity, the subcutaneous tissue, the muscles and the anterior chamber of the eye of various animals. The result was in all cases negative; the portions so inserted underwent coagulation, necrosis, and were either absorbed or became encapsuled. At the present time there was no authentic case on record, in which human carcinoma had been transferred to any of the lower animals. Success, however, had followed in certain cases, when the transplantations had been made from one animal to another of the same species. And in this the results followed the laws of grafting rather than those of ordinary infection, for they showed that a portion of a growing carcinoma, if so transferred, would grow in a second individual as it would have done in the first; but they did not really show that carcinoma was infective. Although there were such strong clinical reasons for regarding cancer to be an infective disease, it was only lately that methods had been devised of cultivating a contagium vivum. Mr. Ballance and he had made a long series of experiments in this direction, and with a negative result. Up to the present time no specific microphyte—bacterium, micrococcus or other—had been cultivated from carcinomatous tumors. Speaking generally, the pathogenic action of bacteria arose from the specific albumoses and alkaloids which they elaborated; but neither albumoses nor alkaloids could be extracted from carcinoma by the most exhaustive and careful analyses.

The only positive results were obtained in experimenting on the line of Koch's second postulate, namely, the cultivation of a micro-organism alleged to be in the tissues. In sterilized sand and specially distilled water in Petri capsules, pieces of the growing edge of mammary carcinomata were placed, and in no fewer than six such capsules, of which five were infected from different tumors, they had obtained actively moving amœbæ. In check experiments, made with broth or blood plasma, no similar results were had. One of the tumors used was a sarcoma, and it was not a little curious that the same microzoon occurred in carcinoma and sarcoma: it was evident, also, from the great numbers found, that a process of multiplication was concerned. That the

bodies in question were not surviving leucocytes was proved by their living in water, the action of which was lethal in the case of the mammalian corpuscle, and what completely disproved this possibility was that there were other phases met with in the sand of the capsules,—encapsulation and sporulation.—*British Medical Journal.*

LAPAROTOMY IN TUBERCULOUS PERITONITIS.

O. V. Lassens of Randers, Denmark, performed laparotomy in the case of a woman aged 65, suffering from ascites. The peritoneum was only opened for one inch, eighteen litres (quarts) of a greenish fluid being removed. The whole surface of the peritoneum was covered with tubercles, which on microscopical examination proved to be of a true tubercular nature. Five weeks after the operation the abdomen was normal and had remained so for nine months, when the patient was last observed.—*Hospitals-Tidende,* No. 23, 1893.

THE PARASITES OF CANCER.

Kurloff has found what appears to be the organism (*Rhopalocephalus canceromatosus*) described by Korotneff, in a primary cancer of the dorsum of the hand in a male, aged 80 years. The supposed parasite lay in a vacuole within the epithelial cell. The tissue was prepared as follows: small pieces were fixed in Flemming's solution and cut in paraffin. Sections were stained in various ways, those treated by safranin being the most successful. The most notable feature of this parasite is its great size; it is readily seen under a magnification of 300 to 400. It presents well marked pseudopodia, by which movement, with passage from cell to cell, appears to take place. Kurloff is satisfied of the parasitic nature of this body. Establishing itself within the epithelial cell of the carcinoma, it leads to hypertrophy of this cell, which results in the formation of epithelial "nests."—*Centralbl. f. Bakt.*, B. xv, 10 and 11.

LESIONS OF THE STOMACH SIMULATING CANCER.

In Paris lately, M. Ferrier drew the attention of his colleagues of the Surgical Society to a form of gastric disorder simulating cancer, and which was much ignored in a surgical point of view in France. A woman entered the hospital with gastric troubles, presenting all the symptoms of cancer and coinciding with the existence of an epigastric tumor. M. Ferrier performed laparotomy for exploring purposes, and found the stomach adherent to the walls of the abdomen and to the left lobe of the liver. After breaking down those adhesions, the operator closed the wound, and the patient gradually lost all bad symptoms, and left the hospital quite recovered. In concluding, M. Ferrier said that in many cases purely inflammatory lesions could simulate cancer, and an exploring operation would put the case in its true light and do no harm to the patient.—*Med. Press and Circular.*

ELECTRICITY FOR PAIN OF CANCER.

At the New York Academy of Medicine, Dr. A. D. Rockwell said that the treatment of incurable cancer must be very incomplete without electricity. Some would remember a brief paper which he had recently read before the Society, describing a case in which strong currents through large electrodes alone had controlled the pain of cancer of the kidney. In this case it required more than 100 milliamperes, running up even to 175, to relieve the pain. Large clay electrodes were used. He thought the relief was chemical and mechanical, that the vaso motor nerves were influenced, hastening circulation, and thereby relief of pressure upon nerves of sensation.

GENERAL TREATMENT OF CANCER.

Before the same Society Dr. A. H. Smith recommended the preparation composed of sweet almond oil charged with ozone for overcoming the fetor of cancer; also cannabis indica for the relief of pain, which was free from most of the objections pertaining to opium. Dr. Collyer urged the total removal of the disease if possible, and the use of the knife for control of hemorrhage in uterine cancer under certain conditions. Chian turpentine was apt to be impure. The actual cautery would check hemorrhage and prolong life. The use of codeine he thought less likely to lead to a drug habit than that of morphine.—*N. Y. Med. Rec.*

THE EARLY DIAGNOSIS OF UTERINE CANCER.

Dr. Ernest Herman, in an address before the S. E. Branch of the British Medical Association, lays stress upon the importance of an early diagnosis of cancer of the cervix uteri, for the reason that secondary growths occur later and less often with cancer of the uterus than with that of any other part of the body, and, if it is removed, there is a better prospect of freedom from recurrence than in any other form of the disease. This disease occurs chiefly toward the end of the child-bearing period, but it has been seen in childhood and in extreme old age, and therefore the patient's age should not influence the diagnosis. A tendency to cancer is sometimes hereditary, but this should not have the slightest weight, as only a very small proportion of patients inherit the disease.

The first symptoms of cancer are usually hemorrhage and leucorrhœa; pain and wasting come later. The early diagnosis is so important, says Dr. Herman, that any unusual hemorrhage or discharge in a woman who has had children is a reason for vaginal examinations, for it may be the first symptom of cancer, and the nature of this disease cannot be determined without local examination. In considering the local signs, the features which distinguish cancer in any part of the body must be taken into consideration.

When cancer begins as an outgrowth from the surface, it may look like a growth of warts or papillæ, or granulations on the vaginal portion, and the surface feels uneven or even rough. It can be detected by an angry, livid red spot, the surface of which is at first quite smooth. This angry color depends upon the vascularity caused by the new growth and upon its tendency to break down, which leads to minute hemorrhages into the growth before the breaking down is extensive enough to make a breach of the surface. The livid surface of a cancer spot bleeds on being rubbed, so that a smooth, dark red spot, bleeding on contact, is very suspicious. This is the earliest stage of cancer; and if there is a nodule that can be felt, the suspicion is still stronger. If the cancer has so advanced as to form a growth like a mushroom or a cauliflower, the diagnosis can scarcely be doubtful.

With regard to microscopical diagnosis, Dr. Herman thinks that the value of the microscope has been overestimated, and that to rely upon its use may lead to many mistakes. It may now and then, he says, reveal cancer in a doubtful case, but negative microscopical evidence should never be trusted. The characters seen with the naked eye and the behavior of the growth should always be taken into account as well as its histology, and if the two conflict, the behavior is the more trustworthy. If the case is a doubtful one, behavior of the suspicious part under treatment is the best test. One or two applications of strong carbolic acid will improve the local condition, and the diseased part will cease to bleed on contact. If the disease is cancer, these applications will stimulate its growth, and the local changes will be more pronounced after such treatment.—*Brit. Med. Jour.*

THE ELECTRICAL CURE OF CANCER.

Under this caption, in the *Eclectic Magazine* for May, 1892, is republished an excellent resumé of the literature of this subject, written by Mrs. Emily Faithful, and originally published in the *Contemporary Review*. The gifted authoress had submitted herself to the knife twice for epithelioma without permanent relief, and was advised to submit to treatment by the galvanic current, which she did, with the result that so far had "been absolutely satisfactory." She "naturally wanted every possible confirmation of the belief which had become" her sheet-anchor, and "found by diligent search that it existed embodied in works written by many hands in many countries and through many years, all maintaining that in certain diseases electricity did better work than any knife could do." The results of her search, collected for her own encouragement, she has therein given for that of others; and has presented the conclusions of specialists in a terse yet comprehensive summary, which will well repay perusal even by professional readers.

LIVING PARASITES IN CARCINOMA.

In patients suffering from carcinoma, Kahane finds in blood from the fresh growth and also from the finger tip, minute, irregular, amœboid, highly refractile bodies, which he regards as parasites. These show very active rotatory and progressive movements. The small bodies lie free in the blood stream, and also within the red corpuscles. The movements are kept up for an appreciable time after penetration of the corpuscle. Kahane thinks that further investigation may show morphological and biological points of resemblance between these bodies and the plasmodia of malaria. Examination in the fresh state disclosed similar bodies within the cells of the cancer. The growths examined were epitheliomata situated upon the face, prepuce and cervix.—*Centralbl. f. Bakt.*, B. xv, 12.

TECHNIQUE OF MAJOR AMPUTATIONS.

Hr. Credé, of Dresden, said that within the past several years surgeons seemed to have lost interest in this subject, although the methods employed were far from being satisfactory as regards the healing of the amputation wound. Union by first intention, also, is not always the rule. The best estimate of the comparative value of the various methods is furnished by the time required for complete cicatrization. He attached little importance to the Esmarch bandage, avoiding a number of ligatures by doing without it. The form of the flap was also a secondary matter. The important point, in his opinion, was to cut a flap lined with a thick, muscular layer, as the muscles have a tendency to undergo ultimate retraction. He abandoned drainage and sutures, and, the catgut ligatures being made, he approached the edges of the flap with a gauze bandage, applied directly upon the stump in such a way as to make slight compression, then applied the dressing. He operated in

this way on twenty-two cases, all of which did well, two-thirds healing by first intention. In the other third small areas of suppuration prevented rapid recovery, but in no case was there separation of the wound, as occurs frequently when the flap consists of skin only.

Hr. Gussenbauer, of Prague, said that the only new feature of Credé's method was that he did not use any sutures ; but it was doubtful if this was an advantage, as it was only by sutures that the edges of the wound could be exactly approximated. He had also long abandoned drainage and applied a compression bandage directly to the stump.—*Univ. Med. Jour.*

VENOUS STASIS IN SURGICAL TUBERCULOSIS.

Hr. Bier, of Kiel, stated that within the last two years he had treated one hundred and eighty cases of surgical tuberculosis of the extremities by producing venous stasis. The method consists in wrapping an ordinary bandage around the affected member as far as the diseased point, and placing above it an elastic band, in such a way as to cause venous stasis of the diseased area. He divided his cases into two classes,—those with and those without fistula. In cases without fistula, a notable functional amelioration rapidly occurred, and a painful spot appeared, on the site of which an abscess formed. The spontaneous or artificial opening of this abscess leaves a fistula. To avoid this, he punctures the abscess with the needle of a Pravaz syringe, and injects iodoform, first evacuating the contents. In this way, in spite of the abscess, the application of the elastic band may be continued. However, if a large abscess form, it is best to abandon this method of treatment. In cases where a fistula already exists, the use of the bandage provokes an abundant secretion, and cure is rarely obtained. He always combines his method in such cases with injections of iodoform-oil or zinc solution. In cases of local tuberculosis, not opened, the plan had been satisfactory in his hands, and he had even obtained some cures. In three cases of tuberculosis of the epididymis and testicle, elastic constriction brought about recovery in two. He had one case of recovery from lupus of the face, where he produced venous stasis by means of cups. He considered his success sufficiently encouraging, and recommended the combination of his method with iodoform injections.

Hr. Zeller, of Berlin, said that the method had been successfully tried in four cases without fistula in Sonnenburg's clinic. In one woman with lupus of the face and beginning tuberculosis of the wrist, complete recovery of the latter affection had taken place. Whenever the case was a recent one, the results showed the efficacy of the method. In four other cases the combination of venous stasis with iodoform injections was followed by excellent results, one child with tuberculosis of the knee having been cured.—*Deutsche med. Zeitung*, May 21, 1894.

CONSERVATIVE TREATMENT OF HIP JOINT DISEASE.

Professor Bruns, of Tübingen, stated that various changes have taken place in the treatment of this disease during the past twenty years, and even now surgeons are not by any means of one mind as to the best course to pursue. The minority still hold to operative treatment, whilst the majority have advanced to a more conservative and expectant line of action. Professor Bruns has come to the conclusion that the latter shows at least as good results as the former. In the Tübingen clinic during the last forty years, 600 cases were treated, and later examinations were made in 200 of them. From the data at his command, it was shown that tubercular hip-joint disease, almost without exception, occurred before the twentieth year of life, and that 50 per cent. recovered after four years' illness. Forty per cent. of all cases ended fatally from tubercular disease of the other organs or general tuberculosis. Of the non-suppurating cases, 77 per cent. recovered ; of the suppurative, 22 per cent. The prospect of recovery became worse the higher the age. Even recovered cases often died of subsequent tuberculosis. Those permanently recovered mostly gave the impression of perfect health, and showed a noteworthy usefulness of the limb affected, which was only limited by its angular position. As a rule, a partial or total ankylosis of the hip-joint remained. As regarded usefulness, the shortening of the limb was of less importance than the flexion of the legs. Resection gave no better results functionally than the conservative method of treatment, and should only be adopted where the conservative method was impracticable, or where it had been tried and led to no result. In the meantime, however, Professor Bruns would withhold his definite judgment, as a sufficient amount of experience with the modern treatment of wounds was wanting.

Hr. Schede, of Hamburg, discussed in detail the advantages of injection of iodoform glycerin into the tuberculous joint which in a moiety of the cases rendered resection unnecessary.

Professor Helferich, of Greifswald, emphasized the necessity of long-continued treatment. No cure was brought about by resection and cicatrization of the wound. If treatment was not continued, serious disturbances were certain to arise later. For this reason

resection could not be looked upon as a finality; care had also to be taken to ensure a good position of the leg. Generally, those who were discharged as cured after resection came back again later in a bad condition, in consequence of an unsuitable mode of life after withdrawal from medical supervision. Ankylosis from this cause frequently came on years afterward. For these reasons the greatest attention should be paid for years to the hygienic surroundings of the patient, as well as to the condition of the recovered bone, if the result obtained at first was not to be jeopardized.

Professor Gussenbauer, of Prague, represented the extreme stand-point of conservative treatment of cases of tubercular coxitis, preferring not to have such cases touched.

Professor v. Bergmann was more in favor of operative treatment, which, in cases of profuse suppuration, was the only course open.

Professor Bramann, of Halle, preferred resection to be limited to those cases in which the acetabulum was known to be diseased, and referred to eleven such cases in which he had performed resection.

Professor Madelung, of Rostock, noted that the prospects of conservative treatment became better when the patients were taught to go about for long periods in a suitable apparatus.—*Medical Press and Circular*, May 16, 1894.

TREATMENT OF VARICOCELE.

By Stuart McGuire, M.D.,

Professor of Principles of Surgery, University College of Medicine, Richmond, Va.

No one operation should be employed as a routine practice, but the surgeon should select in each case the method apparently best suited to its individual requirements.

The following is an operation which I have employed in five severe cases of varicocele, with uniformly good results. It is not original, but is merely a combination of the essential features of the methods of Bennett and Henry, and consists in the open deligation of the veins, the shortening of the spermatic cord, and the curtailment of the relaxed scrotum.

The patient is anæsthetized, and the scrotum, pubes and thighs shaved, well scrubbed with soap and water, and irrigated with a bichloride solution. The vas deferens is isolated and slipped behind the other constituents of the cord, and the veins grasped and made prominent by the fingers and thumb of the left hand. An incision about an inch long is made over the cord parallel to its course, and the veins, covered by their sheath, exposed. The knife is now laid aside, the vessels not having been denuded of their thin investing fascia. By means of an aneurism needle, a catgut ligature is passed around the aneurism at the lower angle of the wound, and securely tied. The veins and their fascia are then freed from the surrounding parts for an inch or more above the ligature, and a second ligature passed around them at the upper angle of the wound, and tied. The ends of both ligatures are left long. The portion of the veins between the two ligatures is divided above and below, about a quarter of an inch from the ligatures, and removed. One end of each ligature is threaded on a needle and passed through the end of the stump which it encircles, and is thus made to emerge at a point opposite the knot. All bleeding is now carefully checked, and the two stumps are brought together and kept in accurate contact by tying the corresponding ends of the upper and lower ligatures together. The ends of the ligatures are cut short, the wound irrigated and dried, and the incision closed by interrupted sutures.

The next step is the curtailment of the scrotum. The testicles are pushed up against the pubes, and the scrotum drawn through the blades of a scrotal clamp, which is tightened until it firmly grasps the skin. The clamp is applied from above downward, and care should be taken to depress it well towards the perineum, and to have the raphe of the scrotum in the middle line of the condemned tissue.

Interrupted silk stitches are now passed through the scrotum on the distal side of the clamp, and the redundant tissue cut away. The clamp is then removed, bleeding arrested, the stitches tied, and a dressing applied.—*Virginia Med. Monthly*.

SYPHILIS OF THE TONGUE AND CANCER.

There is no doubt that the condition variously known as leucoma, psoriasis or ichthyosis of the tongue has not received the attention to which it is entitled as an etiological factor in lingual cancer. This affection occurs so frequently in persons addicted to excessive smoking that it is sometimes known as smoker's tongue. According to Cotterel, however (*Medical Week*), who has written an interesting paper on this subject, leucokeratosis, as he terms it, is frequently of specific origin, although it may be difficult to demonstrate this, on account of the absence of other concurrent or confirmatory symptoms of syphilis, together with a denial on the part of the patient, either from wilfulness or ignorance, that he has had syphilis. In some cases the lesion seems to be due to the combined action of chronic syphilis and smoking. The author calls attention to the frequency with which epithelioma follows this form of leucokeratosis, and makes a forceful appeal to the general practitioner and the dentist to acquire a more thorough knowledge of the manifestations likely to lead to cancer. In conclusion he states: I would impress the necessity of very careful

watching the later manifestations of syphilis of the tongue, for, though we are not aware of the direct relationship between syphilis and epithelioma, yet the former disease provides in the tongue a frequent source of chronic irritation of the epithelium. This chronic irritation is very likely to be followed by malignant disease, and this fully accounts for the frequency with which one observes that epithelioma of the tongue follows certain syphilitic affections of that organ." —*International Journal of Surgery.*

REMOVAL OF THE TONGUE FOR CANCER.

Mr. H. T. Butlin reports a series of forty-six consecutive cases in which at least half the tongue was removed for cancer, with but one fatal result. The great majority of operations were not complicated by removal of the lymphatic glands or ligature of the lingual artery. Nineteen of the patients were above sixty years of age, and some were suffering from organic disease of internal organs. All the operations were performed by Whitehead's method, the lingual artery being tied in those cases in which the disease was situated wholly at the base of the tongue, and in those in which the situation of diseased glands was such that the same incision was suitable for ligature of the artery. The author recommends that such wounds should be drained for a week or ten days, especially when the submaxillary gland has been removed. The after-treatment of operation on the tongue should be chiefly directed to (1) maintaining the wound in an aseptic condition; (2) diminishing the tendency of the wound secretions to pass down the air passages; (3) preventing food from passing down the trachea into the lungs. The first indication is best fulfilled by frequent application of iodoform to the mouth wound by means of an applicator; the second by keeping the patient's head low and letting him lie well over on the side from which the greatest amount of tongue has been removed.

The feeding of these patients needs very great attention. When only half of the tongue—whether a lateral half or the front half—or two-thirds has been removed, liquids can generally easily be taken on the day following the operation from a feeder with a spout, provided a piece of India-rubber tubing, 3 or 4 inches long, be fixed on to the spout. If the right half of the tongue has been removed, the patient should lie over on the left side during feeding, so that the food is kept as far as possible away from the wound, and passes over the parts which have been least interfered with.

When the whole of the tongue has been removed, the difficulty of swallowing is much greater, and many days may elapse before the patient acquires the knack of swallowing liquids without permitting a small quantity to pass down the air tubes. During the first forty-eight hours these patients are fed through the rectum with nutrient enemata. At the end of that period the patient is allowed to make a first attempt to swallow a little liquid, and water is chosen for the experiment, because the entrance of a little water into the trachea is seldom followed by any serious consequences. Milk and beef tea are more dangerous; they hang about the air tubes, are difficult to get rid of, and are very prone to undergo rapid decomposition, and occasion the much-dreaded swallowing pneumonia (*Schluck pneumonie*). If the experiment is successful other liquids may be tried, and the problem of feeding is really overcome. But if there is any difficulty, the patient is fed as long as may be necessary through a tube. Butlin believes no instrument is so good for this purpose as a black bulbous catheter, about No. 9 or 10, attached to a long piece of India-rubber tubing, to the other end of which a small glass funnel is fixed.

The throat is first sprayed with a 3 or 4 per cent. solution of cocaine; the tubing is clamped with forceps just above the attachment of the catheter, and the funnel and tubing are filled down to the clamp forceps with warm food. The catheter is very gently passed down the pharynx, and hitches at the posterior border of the larynx. The patient is directed to swallow, and as he does so the catheter is easily passed on into the œsophagus. For the moment, discomfort is created, and the patient often struggles. He is directed to close his mouth, and no attempt is made to pass the catheter farther down for half a minute or longer. Then it is slowly and gently passed down to a distance of about 11 inches from the teeth. When the annoyance of the presence of the catheter has ceased, the clamp is removed and the food is allowed to run slowly down into the stomach. If there is an inclination to regurgitation or to cough, the descent of liquid is instantly arrested by pressing on the tubing with the finger and thumb, and the nurse lowers the funnel until the dangerous moment has passed. By attention to these details a pint or a pint and a-half of liquid may easily be introduced into the stomach without danger. Before removing the catheter the funnel is raised high up, so as to get rid of the contents of the tube, and during the actual removal of the catheter the tubing is kept tightly pressed between the finger and thumb in order to prevent the entrance of even a few drops into the larynx. When the feeding is carefully carried out according to these directions, Butlin has patients so satisfied with it that they have sometimes insisted on being fed through a tube for a much longer period than he has deemed necessary.

—*British Med. Journal.*

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MONTREAL, OCTOBER, 1894.

THE RAPID CURE OF PROSTATIC HYPERTROPHY BY REMOVAL OF THE TESTES.

The effect of removal of the ovaries and tubes upon hypertrophic conditions of the uterus has long been known, and has been one of the principal methods of treating uterine fibroid tumors. The result has placed the fact beyond question that the ovaries exert a powerful influence upon the amount of blood sent to the uterus. After removal of the ovaries the uterus as a rule shrinks very rapidly, and within a few months may be reduced to one-fourth its former size. Judging by analogy, the removal of the organs of sexual stimulus in the male should have a similar result upon the prostate. An interesting discussion on this subject took place a few months ago at a meeting of the Medico-Chirurgical Society of Montreal, in which the gynæcologists and physiologists took part, in which it came out very clearly that the prostate was composed of muscles and blood-vessels and some fibrous tissue; that it was developed most largely in those who used it most, and was smallest in the continent. One speaker, Dr. Lapthorn Smith, stated that in every case of enlarged prostate which had come under his notice, the owners of the hypertrophied organ had confessed to him that they had been given to either masturbation or inordinate sexual intercourse, and he had suggested that in cases where there was too much muscle in the organ there had been too much use of it; while in cases where there was too much fibrous tissue in it, this was due to venous obstruction due to constipation, as was the case in fibroid of the uterus. It was also suggested that the testes be removed, in order to lessen the blood supply of the organ and to diminish its size. These views, which were thought rather chimerical at the time, have received a striking confirmation from no less an authority than Mr. Mansell-Moullin, surgeon to the London Hospital, and a man whose opinion carries a great deal of weight. In a very interesting paper in the *Medical Press and Circular*, 19th Sept., 1894, he reports a case of absolute and rapid cure of prostatic enlargement causing retention of urine. The patient was eighty-one years of age, and the growth could be felt by the rectum as large as a tangerine orange. There was retention of urine, and the patient was rapidly becoming more and more childish as his strength gave way. Both testicles were removed, and to quote Mr. Mansell-Moullin's own words: from the following day the urine came more freely. On examination, ten days after, the prostate as felt per rectum was much smaller. Three weeks after the operation it had simply disappeared. An ordinary silver catheter, not a prostatic one, passed in easily without requiring to be depressed more than usual; and when the finger was introduced into the rectum, all that could be felt was a fusiform thickening along the catheter, not sufficiently dense or large to prevent the shaft being felt distinctly through it the whole way. The bladder was beginning to regain power, and the urine had become acid. He refers then to a similar case by Prof. Ramm of Christiania, three by Dr. Francis Haynes of Los Angeles, one by Dr. Fremont Smith, a seventh by Prof. White of Philadelphia, and an eighth by Mr. Arthur Pavel of London.

This operation must, we think, be considered as one more triumph for surgery. The operation of castration is absolutely devoid of danger with modern methods. Pathologically, the fact that the enlargement disappears after the testes are removed is no less interesting. It establishes the purely sexual character of the prostate. It does away at once with the theories that enlargement is dependent upon senility or general atheroma, or upon hypertrophy developed in compensation for sinking

of the floor of the bladder. He concludes his very able paper by saying: "There is a generally prevalent idea that there is some connection between the development of enlargement of the prostate and second marriages contracted late in life, especially when the wife is young. Without going so far as to say that the disappearance of enlargement of the prostate after castration proves this, it may be admitted that it lends it a certain amount of support."

THE DIET FOR TYPHOID PATIENTS.

During the last twenty years typhoid fever has been gradually becoming a much less fatal disease. This is no doubt partly due to a domestication, so to speak, of the former wild and savage microbe, but also very largely we think to improvements in the management of these cases. Formerly they were kept in a dark room; now, knowing as we do that all bacteria thrive best in the dark, we keep the typhoid case in the sunniest room we can get. Formerly, for fear of catching cold and chills, he was kept in a hot and tightly closed room without ventilation; now we know that chills mean high temperature, and we therefore keep our patient cool and his room well ventilated, those treated in tents in the open air making the best recoveries. In the use of water, the greatest advances have been made. Formerly the patient was made to endure his intense thirst, or at best it would be relieved by salt water, alias beef tea. Now, beef tea has been abandoned, and the patient is not only allowed all the water he craves for, to wash out his blood, liver and kidneys, but his temperature is kept down by giving that water icy cold, as well as by either immersing him in a moderately cold bath or sponging him frequently with cold water. Thus, temperatures of 105 and 106 are rare, while the average is probably less than 103. Another advance is about to be made. In the July number of the *Australian Medical Journal* there is a paper by Dr. J. W. Springthorpe, entitled "A New Food for use in Typhoid and other Fevers," after calling attention to the disadvantage of milk, the principal one being its deficiency in hydrocarbons, its curdling and fermenting, and the disgust which patients come to have for it. In place of milk he advocates with a good deal of force the use of hopped malt extract, in which the bacillus of typhoid will not grow, and which contains all the elements for sustaining life and repairing the waste of fever. A full description of its analysis and advantages over milk may be found in the New York *Medical Journal* of 15th Sept., 1894. Another incidental advantage is the somniferous effect of the lupulin of the hops. We should not be surprised to see a good sound ale that is a sterilized hopped malt extract accorded a prominent place in the treatment of typhoid in the near future, as many cases seem to do better with a little stimulant. We commend the subject to our readers' consideration.

A PROVINCE OF QUEBEC MEDICAL ASSOCIATION.

It was with feelings of no slight mortification that those who went from this province to the meeting of the Canada Medical Association at St. John, New Brunswick, were obliged to confess that there was no Medical Association in the Province of Quebec. Ontario has a splendid one, Nova Scotia has one, New Brunswick has one, and so has even the little province of Prince Edward Island. Why this province has none it is difficult to answer. At first sight, one might think that this was because the profession is partly French and partly English. But this can hardly be a reason why there is no association at all, although it might explain why there might be two associations. Moreover, most of the medical men of the province understand both languages perfectly, and for those who did not there might be an official language which should be that of the majority of members. We earnestly recommend the physicians of each town or village to form a local society, electing a president and secretary, and to meet at each other's houses once a month and talk over their cases, or even to read a paper each in turn. Then a dozen or more of these little societies should join together and form a county society, to meet every three months. From that to a provincial society would only be a short step. We would be pleased to publish in our columns the reports of these meetings as often as they occur.

Let someone in each parish throughout the province at once take this matter up, and we feel sure that the movement will be productive of the greatest good, and this opprobrium which has so long existed against the Province of Quebec will at last be removed.

ENGLISH AS A UNIVERSAL LANGUAGE.

At the Saratoga Meeting of the American Social Science Association, held on the 4th September, Mr. Porter of Waterbury, Connecticut, read a paper on the above subject, making a very strong and convincing argument in favor of the English language. We have always held that the English language must be the one which will finally be spoken throughout the world. The advantages and indeed the necessity for such a language were very clearly manifested at the International Congress at Rome, the scientific value of which was very seriously marred by the polyglot nature of the proceedings, which resembled very much the scene pictured in our mind by the description of the tower of Babel. There is no doubt a great deal of energy wasted in learning half a dozen languages, when two at the most would suffice, namely, the mother tongue of each country and English. Let the French schools throughout the world teach French and English, the German schools German and English, the Russian schools Russian and English, and so on, and the result would be in one generation there would be one universal language. Medical literature would gain enormously thereby, and we would urge upon all our foreign exchanges to take the matter up and lay it before their lay contemporaries in the strongest possible light.

ABOLISH THE DUTY ON ALCOHOL FOR USE IN THE SCIENCES.

By a recent change in the United States Tariff, the duty on alcohol to be used for the above purposes has been removed, and tinctures will thus be reduced in price about 60 per cent. This will be a great boon to the poor, who must need medicine, and also for the medical colleges and scientific men who require alcohol for preserving their pathological specimens. Many instructive pathological specimens have been lost to science because the medical man cannot afford to spend a dollar or two on alcohol for preserving them.

Why should not a similar clause be passed at the next session of the Federal parliament? We should have a sufficient number of physicians and others interested in scientific progress to bring the matter before the finance minister in a forcible manner. In this and similar cases the need of an organized section of medical M.P.'s is very much needed. There is at present a sort of provision permitting colleges to purchase slightly methylated spirits in bond at a low rate of duty; but, as we recently found out to our cost, the conditions are so irksome as to be practically prohibitory. We trust that the other journals of Canada will join us in an effort to have the duty removed.

PERSONAL.

Dr. F. W. Campbell is building a palatial residence on Sherbrooke street, at the corner of Crescent street, with a smaller but very handsome house next door for his son, Dr. Rollo Campbell. We feel sure that all the readers of the RECORD who have the pleasure of knowing our genial senior Editor will wish him many years of life and health in his new home.

Dr. Lapthorn Smith, who was elected second Vice-President of the American Electro-Therapeutic Association last year at its Chicago meeting, was this year promoted to the honor of President. Cordial invitations were offered the Association to meet in Philadelphia or Montreal or Toronto next year, but, after carefully considering the matter, Toronto was accorded the honor. Dr. Lapthorn Smith has appointed Dr. C. R. Dickson, of Toronto, chairman, and Dr. Wolford Walker, of Toronto, secretary-treasurer of the Committee of Arrangements.

We are glad to learn by the Montreal *Star* that Dr. T. G. Roddick has been called to Ottawa to attend the Premier of Canada, Sir John Thompson. Apart from his great professional skill, the doctor possesses such a happy manner and expression that the mere sight of him would make the sickest person feel decidedly better. We congratulate the Premier on his choice.

Dr. Proudfoot has retired from the position of Oculist to the Montreal Dispensary. For this we are both glad and sorry. Glad that his private practice, in addition to his duties at the General Hospital, demand so much of his time that he has none to spare for the Dispensary; but sorry because he will be sincerely missed by the poor who esteemed him so highly, as evidenced by the size of his clinic, one of the largest there. During his many years of service he has won the esteem not only of the patients but of the whole staff. We wish him continued prosperity in his new sphere.

Dr. Roddick has, we understand, given up the specialty of Surgery in order to return to general practice, in response to the request of

many of the old patients of the late Drs. Howard and Geo. Ross, who felt the need of some one to take their place, as well as of many practitioners, who required an experienced consultant. Such at least were the reasons given us by one who was in a position to know. We mention the matter as an item of interest to our readers.

LITERARY NOTE.

The well-known house of The F. A. Davis Co., of Philadelphia, will issue, shortly, a work which will be most favorably received by the Medical profession. It is entitled OBSTETRIC SURGERY, and is written by Drs. EGBERT H. GRANDIN and GEORGE W. JARMAN, gentlemen who, from their long connection with the largest and most widely known maternity hospital in the United States (The New York Maternity Hospital), are peculiarly fitted to expound the subject from the modern progressive stand-point of election.

There is no work in any language which deals with the surgical side of obstetrics so thoroughly as the present. The rules of obstetric asepsis and antisepsis are so described and simplified as to enable even the busy general practitioner to surround his patients with the same safeguards as are guaranteed in well-ordered hospitals. The subject of pelvimetry, without due regard to which modern obstetric surgery cannot exist, is most tersely and exhaustively treated of. The indications under which artificial abortion and the induction of premature labor properly fall are clearly exemplified. The limitations of the forceps and of version, and the beneficent results to be secured through timely resort to symphysiotomy and the Cæsarean section, are stated with the accuracy which the marvelous progress of the past few years allows. The surgical aspects of the puerperal state are carefully described, and the concluding chapter deals with the surgical treatment of ectopic gestation.

The work having been prepared from a teaching stand-point, the terse text is elucidated by numerous photographic plates and wood-cuts, representing graphically various steps in operative technique. The student and the practitioner, thus, not alone may *read* what to do, but may also *see* how to act.

The work is not burdened with literature references. The authors have aimed to teach that which ample and prolonged experience has taught them is good. The net price of the volume will be $2.50, and it will be printed in large, clear type, on excellent paper, and handsomely bound in extra cloth. The full-page plates, about 14 in number, will be printed on fine plate paper, in photogravure ink.

A companion volume, dealing in the same terse, practical manner with pregnancy, normal labor, and the physiological and pathological puerperium, is in active preparation by the same authors.

LITERARY NOTE.

An important new book just announced is "Practical Uranalysis and Urinary Diagnosis." A manual for the use of Practitioners and Students, with numerous illustrations, including colored photo-engravings. By Charles W. Purdy, M.D., of Chicago, author of "Bright's Disease and Allied Affections of the Kidneys;" "Diabetes: Its Causes, Symptoms and Treatment," etc. A one-volume practical and systematic work, of about 350 crown-octavo pages, in two parts, subdivided into twelve sections, and an appendix.

Part I is devoted to the general subject of analysis of urine, treating in detail of urine composition, organic and inorganic constituents of normal and abnormal urine, physical characteristics, volumetric, gravimetric, centrifugal, and all other methods of analysis. The various processes and methods of detection, determination, calculation, etc., of all pathological manifestations and substances in the urine, with their causes and clinical significance, including the urine as a toxic agent all forms of urinary sediments, casts, etc., are discussed with great clearness and force.

Part II is devoted to urinary diagnosis, and discusses fully all forms of urinary and renal diseases, including anatomical considerations, regional relations of the kidneys, ureters, bladder and the renal pelvis, also their physical examination, etc., clinical diagnosis of urinary and renal diseases, such as renal tuberculosis, cancer, diabetes insipidus, diabetes mellitus, misplacements of the kidney, cystitis, uræmia, chyluria, vesical stone, etc. The diagnostic value of the urine in acute infectious diseases, such as typhoid, yellow and typhus fevers, scarlatina, cholera, diphtheria, variola, cirrhosis of the liver, jaundice, acute rheumatism, gout, meningitis, hysteria, epilepsy, pulmonary tuberculosis, pneumonia, pleurisy, bronchitis, etc., are clearly and scientifically set forth, the author giving special prominence to the relations of the chemistry of the urine to physiological processes and pathological facts.

In the appendix is presented the highly important subject of examination of urine for life-insurance, wherein full and explicit rules for the thorough physical, chemical and microscopical examination of the urine of applicants for life-insurance are given, and the information here presented is of the greatest value to every physician who examines for life-insurance companies.

This is the first American work of a comprehensive character for more than a decade in this department of practical medical science, and it should meet with a cordial reception by the medical profession everywhere.

It has been the special aim of the author to furnish the student, physician and surgeon, in one convenient volume, the essential features of our present knowledge of the urine and urinary diagnosis, thoroughly up to date and in a systematic, concise and practical form, so that students and practitioners who obtain this work will secure the fullest as well as the latest trustworthy information on this important subject without the necessity of their procuring the larger and more expensive works.

The well-known house of The F. A. Davis Company, 1914 and 1916 Cherry St., Philadelphia, will issue the work shortly. The book will be first-class in quality of paper, press work and binding, and the price most reasonable, namely, $2.50, net, in extra cloth.

BOOK NOTICES.

MANUAL OF OBSTETRICS, GYNÆCOLOGY AND PEDIATRICS. By Kenneth N. Fenwick, M.A., M.D., Prof. Obstetrics and Diseases of Women and Children, Royal College of Physicians and Surgeons in affiliation with Queen's University, Kingston; Member of Royal College of Surgeons, England; Fellow of the Obstetrical Society, Edinburgh; and Surgeon to the Kingston General Hospital. Kingston, Ontario: John Henderson & Co., 1889.

This handy manual is evidently from the pen of one who has had large experience in teaching the subject whereof he writes, and is therefore useful not only to students but also to teachers of Gynæcology and Obstetrics. The first 124 pages are devoted to Obstetrics, the next 72 to Gynæcology, and the last 40 to Diseases of Children. By clearness and conciseness of style it is astonishing how much the author has managed to get in within the limits of his work. It is rendered still more valuable for students by means of ruled interleaves between the printed pages which are to be used for note taking. The binding is attractive, and altogether the book does honor to the Canadian who has first ventured to write a work on Gynæcology and Obstetrics.

A NEW ILLUSTRATED DICTIONARY OF MEDICINE, BIOLOGY, AND COLLATERAL SCIENCES.

Dr. George M. Gould, already well known as the editor of two small Medical Dictionaries, has now about ready an unabridged, exhaustive work of the same class, upon which he and a corps of able assistants have been uninterruptedly engaged for several years.

The feature that will attract immediate attention is the large number of fine illustrations that have been included, many of which—as, for instance, the series of over fifty of the bacteria—have been drawn and engraved especially for the work. Every scientific-minded physician will also be glad to have defined several thousand commonly used terms in Biology, Chemistry, etc.

The chief point, however, upon which the editor relies for the success of his book is the unique epitomization of old and new knowledge. It contains a far larger number of words than any other one-volume medical lexicon. It is a new book, not a revision of the older volume. The pronunciation, etymology, definition, illustration, and logical groupings of each word are given. There has never been such a gathering of new words from the living literature of the day. It is especially rich in tabular matter, a method of presentation that focuses, as it were, a whole subject so as to be understood at a glance.

The latest method of spelling certain terms, as adopted by various scientific bodies and authorities, have all been included, as well as those words classed as obsolete by some editors, but still used largely in the literature of to-day, and the omission of which in any work aiming to be complete would make it unreliable as an exhaustive work of reference.

The publishers announce that, notwithstanding the large outlay necessary to its production on such an elaborate plan, the price will be no higher than that of the usual medical text-book.

ATTFIELD'S CHEMISTRY. Fourteenth edition. Chemistry,—General, Medical and Pharmaceutical; including the Chemistry of the U.S. Pharmacopœia. A Manual of the General Principles of the Science, and their application to Medicine and Pharmacy. By John Attfield, M.A., Ph.D., F.I.C., F.C.S., F.R.S., etc., Professor of Practical Chemistry to the Pharmaceutical Society of Great Britain, etc. Fourteenth edition, specially revised by the author for America to accord with the new U.S. Pharmacopœia. In one handsome royal 12mo. volume of 794 pages, with 88 illustrations. Cloth, $2.75; leather, $3.25. Philadelphia, Lea Brothers & Co., 1894.

If the success of a work can be measured by the number of its editions, *Attfield's Chemistry* can lay claim to unexampled popularity. The author has evidently clearly discerned the needs of students of Medicine and Pharmacy, as well as those of physicians and pharmacists. He deals with the *science* of chemistry and with the chemistry of every substance having interest for the followers of Medicine and Pharmacy, devoting to it such space and detail as is indicated by its practical importance. The present edition contains such alterations and additions as seemed necessary for the demonstration of

the latest developments of chemical principles and the latest applications of the science to medicine and pharmacy. It has been brought into thorough conformity with the new United States Pharmacopœia.

A TREATISE ON THE PRINCIPLES AND PRACTICE OF MEDICINE. Designed for the use of Students and Practitioners of Medicine. By Austin Flint, M.D., LL.D., Professor of the Principles and Practice of Medicine, and of Clinical Medicine in Bellevue Hospital Medical College, N.Y. New (7th) edition. In one very handsome octavo volume of 1143 pages, with illustrations. Cloth, $5.00; leather, $6.00.

The many large editions of this great work demanded since its first appearance thirty years ago have firmly established it as the leading text-book for American students and as the chief dependence of the American physician. The reasons for its unexampled popularity lie in its peculiar adaptation to the needs of the whole continent. The author's unparalleled experience covered all classes and conditions of men in civil and military practice, on the frontier, in the country or in the city, in private life and in hospitals, in the North and the South. With exceptional powers of observation and great literary aptitude, he was especially fitted to prepare those descriptions of disease which are and will continue to be recognized as classics.

In the present issue the work has been thoroughly revised by the eminent editor, who has made such changes as were necessary in order to represent the present state of medical science and art. He has greatly enriched the sections on treatment, making them fully representative of the great advances witnessed during recent years in the department of Therapeutics. Flint's great *Practice* is therefore again put forth in the full confidence of universal recognition as the foremost American text-book and work of reference.

THE GRAPHIC HISTORY OF THE FAIR. A superb volume. 1,300 illustrations. 240 Imperial quarto pages (11 x 16 in.).

The History opens with an introductory chapter on previous World's Expositions, followed by a brief survey of the preliminary organization, with the resulting legislation and other events culminating in the creation of the marvelous "White City." Then follow chapters on the various departments of the Fair, describing each in detail.

The great merit of the Graphic History is due to the exceptional advantages accruing from the service of the *Graphic* staff of artists and engravers extending over the entire Exposition period, aided by the special photograph privilege accorded by the Director-General, from access to the entire photographic collection of the official photographer, and from the co-operation of the Chiefs of Departments and foreign commissioners.

Cloth, $4.00; full morocco, $6.00; half morocco, $5.00; édition de luxe, $10.00. The Graphic Company, 358 Dearborn St., Chicago. U.S.A.

PAMPHLETS.

A METHOD OF PERFORMING RAPID MANUAL DILATATION OF THE OS UTERI, AND ITS ADVANTAGES IN THE TREATMENT OF PLACENTA PREVIA. By Philander A. Harris, M.D., Obstetrician to the Paterson General Hospital. Reprinted from the American Journal of Obstetrics, Vol. xxix, No. 3, 1894. New York: William Wood & Company, publishers, 1894.

A CRITICAL STUDY OF THE BICEPS CRURIS MUSCLE AS IT RELATES TO DISEASE IN AND AROUND THE KNEE-JOINT. By Eliza M. Mosher, M.D., of Brooklyn, N.Y. Reprint from Annals of Surgery, November, 1891.

WHAT ARE THE INDICATIONS FOR ABDOMINAL SECTION IN INTRA-PELVIC HEMORRHAGE? By Marcus Rosenwasser, M.D., Professor of Diseases of Women and Abdominal Surgery in Wooster University, Cleveland, O. Reprinted from the Transactions of the American Association of Obstetricians and Gynæcologists. 1893.

THE DUTY OF THE COMMUNITY TO MEDICAL SCIENCE. By George M. Gould, A.M., M.D., Philadelphia. Reprinted from the Bulletin of the American Academy of Medicine. No. 16.

THE PERNICIOUS INFLUENCE OF ALBINISM UPON THE EYE. By George M. Gould, A.M., M.D., Ophthalmologist to the Philadelphia Hospital. Reprinted from Annals of Ophthalmology and Otology, Vol. II, No. 3, July, 1893.

MADAME BOIVIN. By Hunter Robb, Associate in Gynæcology. Read before the Johns Hopkins Hospital Historical Club, April 9, 1894. From the Johns Hopkins Hospital Bulletin, No. 40, May, 1894.

THE RELATIONS OF URINARY CONDITIONS TO GYNÆCOLOGICAL SURGERY. By Charles P. Noble, M.D. Reprint from American Medico-Surgical Bulletin, October, 1893.

THE INFLUENCE OF MORBID CONDITIONS OF THE UTERINE ADNEXA UPON REFLEX PHENOMENA. By Charles P. Strong, M.D., Assistant in Gynæcology, Harvard Medical School; Physician to Out-Patients, Massachusetts General Hospital; Assistant Surgeon, Free Hospital for Women. Reprinted from the Boston Medical and Surgical Journal of January 12, 1893. Boston: Damrell & Upham, publishers. No. 283 Washington Street, 1893.

AN OPERATING TABLE. By Hunter Robb, M.D., Associate in Gynæcology.

NOTES ON GYNÆCOLOGICAL TECHNIQUE. By Hunter Robb, M.D., Associate in Gynæcology, Johns Hopkins University, Baltimore, Md. Reprint from the New York Journal of Gynæcology and Obstetrics.

STOMATITIS NEUROTICA CHRONICA. By A. Jacobi, M.D., Clinical Professor in the College of Physicians and Surgeons (Columbia College), New York. Reprinted from the Transactions of the Association of American Physicians, 1894.

ELEVENTH ANNUAL ANNOUNCEMENT OF THE MEDICAL AND DENTAL DEPARTMENTS OF THE NATIONAL UNIVERSITY, 1894-1895. Mt. Vernon Square, cor. 8th and K Streets N.W., Washington, D.C.

THE ETOWAH COUNTY (ALA.) MEDICAL SOCIETY *vs.* DR. WILLIAM THOMAS COGGIN. Dr. William Thomas Coggin, of Athens, Ga., who claims the honor of doing the first symphyseotomy in this country, is denounced by the Etowah County (Ala.) Medical Society as an imposter and a fraud. Reprint from the Alabama Medical and Surgical Age, June number, 1894.

TWELFTH ANNUAL ANNOUNCEMENT OF THE MEDICAL DEPARTMENT OF NIAGARA UNIVERSITY, 1894-95.

Niagara University was founded as a seminary of learning in 1856, and has steadily increased in growth and power until it has now become one of the leading educational institutions of the country. It is beautifully located on Niagara River, near the famous cataract, Niagara Falls, and offers excellent opportunities for the education of young men in the following departments: Department of Arts, Department of Theology, Department of Medicine. For catalogues and information, address very Rev. P. V. Kavanagh. C.M., Suspension Bridge, N.Y.

ASEPSIS IN MINOR PROCEDURES. By Hunter Robb, M.D., of Baltimore. Reprinted from the Maryland Medical Journal, May 19, 1894.

THE EMPLOYMENT OF THE ELECTRO-MAGNET IN OPHTHALMIC PRACTICE. By Robert Winthrop Gillman, M.D., Detroit, Mich. Ophthalmic Surgeon to St. Mary's Hospital, Ophthalmologist to the Woman's Hospital and Foundling's Home, etc. Read before the Annual Meeting of the Michigan State Medical Society.

PUBLISHERS DEPT.

OPIATES NOT TO BE PREFERRED.

Pain, while being conservative, is oftentimes unkind, and must needs be modified and controlled. Remedies like morphia which tie up the secretions are often objectionable. Antikamnia has no such unfavorable effects. As a reliever of neuralgia dependent upon whatever cause, and rheumatism and gout, it is of great value. In the intense pains ever present in the pelvic disturbances of women, cellulitis, pyosalpinx, et al., it is to be preferred over opiates.

This drug, for convenience and accuracy of dosage, is now preseribed, to a great extent, in the tablet form. Patients should be instructed to crush the tablet before taking, thus assuring celerity.

The manufacturers have thrown around their product the security of specially protected packages, for both powder and tablets. And each tablet bears a monogram indicating its composition. Physicians should therefore insist on the presence of these conditions.

AN AUTUMN MAGAZINE.

That popular New York clergyman, the Rev. Dr. Rainsford, contributes a most interesting article to the October issue of *The Ladies' Home Journal*, in which he defines the position of "The Clergyman in Society." Not less interesting is the eminently practical view which Mrs. Burton Harrison, in her contribution to the series "Before He is Twenty," takes of "A Boy's Evenings and Amusements"—how the first should be spent, and of what the second should consist. Mr. Howells' literary biography, which he has so aptly named "My Literary Passions," continues to grow in interest and charm. A very valuable article entitled "The Candy-Eating Habit" is furnished by Cyrus W. Edson, M.D., President of the New York Board of Health. The biography of the number consists of sketches, with portraits of A. Conan Doyle, the creator of "Sherlock Holmes," and James Matthew Barrie, the author of "A Widow in Thrums." The full piano score of the Rose Bud Waltzes, specially written for the *Journal* by Luigi Arditi, Patti's veteran orchestral conductor, cannot fail to delight all lovers of good music, as "The Possibilities of Crêpe Paper" and "The Holly and Mistletoe on China" will all lovers of the artistic. The editor discourses with much earnestness on what constitutes a successful life for men and women, and Addison B. Burk very thoroughly explains the methods employed in the building and loan plan—"When Buying a House with Rent Money." Much solid wisdom may be found in Burdette's inimitable "Through Two Ends of a Telescope." Mrs. Mallon contributes some charming suggestions for "Dainty House Gowns" and for "Little Girls' Gowns," and Miss Hooper speaks some wise words on "Dressing on a Small Income." Altogether this October issue, with its attractive cover, specially designed by A. B. Wenzell, is an ideal magazine and worth ten times its price of ten cents. The *Ladies' Home Journal*, with a circulation of 700,000 copies, is published by The Curtis Publishing Company, of Philadelphia, for ten cents per number and one dollar per year.

LITERARY NOTES.

From the *Ladies' Home Journal*, Philadelphia.

For the first time in his literary career, Jerome K. Jerome is about to write directly for an American audience. This work consists of a series of papers similar in vein to his "Idle Thoughts of an Idle Fellow," but addressed to American girls and women. The articles will begin shortly in *The Ladies' Home Journal*, which periodical will print the entire series.

Bret Harte is writing a story of American life and incident for *The Ladies' Home Journal*.

Frank Stockton has given both of his new stories, with the quaint titles of "Love Before Breakfast" and "As One Woman to Another," to *The Ladies Home Journal*.

The suit of Dr. Amick against the St. Louis Clinique and Faculty of the College of Physicians and Surgeons, of St. Louis, has been decided in favor of the plaintiff.—*Am. Med. Journal.*

The Canada Medical Record.

VOL. XXIII. MONTREAL, NOVEMBER, 1894. No. 2.

CONTENTS.

Original Communications.

*THREE CASES OF CŒLIOTOMY; AN OVARIAN CYST; A TUBAL PREGNANCY; AND A HŒMATOMA OF THE OVARY.

BY A. LAPTHORN SMITH, B.A., M.D., M.R.C.S. ENGLAND, F.O.S. LONDON, *Fellow of the American Gynæcological Society, Gynæcologist to the Montreal Dispensary, Surgeon to the Women's Hospital.*

CASE I. *Multilocular cyst of right ovary. Removal. Recovery.*

This tumor, which measures about 15 inches in length by about 9 in thickness, in its present dried condition was very much larger before its removal. The patient, Mrs. T., from whom it was removed, was sent to me from Valleyfield, on the 4th of August, the diagnosis having been made by her physician. It had a distinct ovarian expression. An ovarian tumor is often mistaken for pregnancy; but in this case, the patient was led to adopt this view of her case, more especially because there was a hard, oval lump in the right hypochondrium which, I must admit, felt very like a child's head. She had begun to menstruate at 15, normally, was married at 21, and had been married two years without having become pregnant, although she had skipped a period twice since her marriage. She had first noticed her abdomen enlarging sixteen months ago. On examination, all the evidences of an ovarian cyst were found, and the uterus, which was pushed backwards and to the left, measured three inches in depth. She entered my private hospital on the 1st of September, and the tumor was removed on the 4th, without any difficulty. The wound healed by first intention, and she made such a rapid and easy recovery, that she was out of bed in two weeks and went out in twenty-five days. The other ovary was healthy, and was not removed.

CASE II. *Tubal Pregnancy. Removal. Recovery.* The patient from whom this specimen was removed was Mrs. W., æt.

* Read before the Medico-Chirurgical Society, Montreal, 2nd November, 1894.

25, married 3 years, mother of two children, last child one year ago. She began to menstruate at 12, but was never regular. She was married at 22 and became pregnant soon after. Shortly before the first baby was born, she had a pain in her left side, which was thought to be pleurisy, although she pointed to a spot in the left iliac region as the site of the pain, which leads me to think that the so-called pleurisy was pelvic peritonitis,—a belief which is strengthened by the appearance of old and dense organized adhesions between the ovary and tube on that side. Her first labor was a severe one, necessitating the use of forceps. During the next two years she had several attacks of "pleurisy," for which she was treated by several different physicians. Every time she did a little extra work about her house she was laid up with an attack, always in left ovarian region. Five weeks before coming under my notice she was suddenly taken with a very severe pain in her left side and a fainting fit while walking on the street. She was brought home in a cab. She then began to flow, and continued flowing ever since, rather profusely. She was sure it was not a miscarriage, because she had not missed a period. After a few days she was able to get up again, but two weeks later had another fainting fit following a severe, sharp, cutting pain. Again, the same thing occurred one week before I saw her, since which she had to keep to bed. With the second and third attacks she vomited. She then called in a physician (who happened to be one of my former students), who examined her, and found a badly lacerated cervix and very large and tender appendages. He called me in consultation, when I found a mass the size of a small orange in Douglas' cul-de-sac, which was exceedingly sensitive to pressure. I at once diagnosed tubal pregnancy, told her physician so, and urged immediate operation. I based my diagnosis merely on the sudden and cutting character of the pain and the vomiting and fainting in the street, coupled with a continuous flow during five weeks. She entered my private hospital, and on the 20th October I removed this beautiful specimen. In order to make her recovery a satisfactory one in every respect, I dilated and curetted the uterus, and sewed up the cervix at the same sitting, previous to the abdominal section; and as the uterus was retroverted, I performed ventrofixation after the removal of the appendages. The five operations of dilating, curetting, repairing the cervix, removing the appendages and attaching the uterus to the abdominal wall, occupied one hour and ten minutes. Only two ounces of A.C.E. mixture were used. Since Dr. Gordon Campbell read his excellent paper on ether, I have been following his example and have been keeping an exact record of the quantity of A.C.E. mixture used and the number of minutes consumed. I will have some surprising facts to lay before you. For instance, I have several times performed from three to five operations with an expenditure of only one ounce and a half of A.C.E. mixture. The dates of the various hemorrhages was beautifully illustrated when the specimen was first removed by the clots of blood surrounding it. There was rather bright red blood recently escaped, dark and slightly organized clots, and old, hard clots very dense and firm. When washing the specimen the more recent clots washed off; also several soft clots were sponged out of the abdomen, which was, however, closed without irrigation or drainage.

A few points may be raised for discussion. Why did I curette the uterus? 1st, Because it was large and heavy; and 2nd, because I wished to be able to assure you that there was no uterine abortion there. Why did I repair the cervix at the same sitting? Because I have found it very difficult to get the patient to go through a second operation if she has not been

cured by the first. It is much more satisfactory to us, to the patient, and to the good name of surgery to do all that has to be done at the one sitting, if they can all be done in about an hour. Why did I remove the other ovary? 1st, because tubal pregnancy never occurs in healthy tubes; and 2nd, because when one tube is diseased the disease nearly always spreads to the tube and ovary; 3rd, because several cases are on record where one tube and ovary having been removed for tubal pregnancy and the other tube has been left, the patient has had to have a second abdominal section for tubal pregnancy in the remaining tube.

This patient has made the most remarkable recovery I have ever known. Her operation took place at 10.30 a.m. Saturday, 20th Oct., and she was sitting up and dressed at the same time the following Saturday, 27th Oct. Next day she began walking about her room, and 13 days after the operation she went home, walking down stairs without help. She was carefully watched, but not only was not worse for getting up so early, but is apparently much better. She has her very small abdominal incision guarded by eight silk worm gut sutures, which will be left in for four weeks after the operation. By thatt ime the incision will have become united by non stretchable material, so that there will be no hernia. The effect of the operation has been very satisfactory, the pain which she has suffered for several years having disappeared after the operation, and has not returned. In fact, she has assured me every day since that she is absolutely free from pain.

CASE III. *Hæmatoma of left ovary. Chronic Salpingitis. Removal of appendages. Recovery.* Mrs. L., 25 years of age, mother of one child, consulted me on 6th Aug. because she had never been well a day since the birth of her baby, 18 months ago, when she was confined to her bed for three months with milk leg and fever. Her labor was instrumental, and seems to have been a severe one, for she has the greatest possible dread of having another child. She has never had a miscarriage. Her periods last eight days, and return every three weeks. She suffers so much pain on coitus high up that she cannot endure her husband. She has also had a barking cough for nearly a year, but there are no physical signs in the chest.

On examination there is found a deep bilateral laceration of the cervix, and upon the left side near the uterus there is a lump about the size of a small orange. Examination by the speculum shows the cervical tissue very inflamed and of a bright red color.

I treated her by the usual means for reducing congestion of the pelvic organs twice a week during August, and up to the 6th of September, when she was still complaining greatly of the pain in her side. On that date the uterus was dilated and curetted, and the laceration carefully repaired, these operations being followed at the same sitting by cœliotomy and the removal of both appendages. The left ovary was firmly attached to the posterior surface of the broad ligament, and on detaching it, it burst, and about 2 ozs. of grumous blood escaped. As the uterus was in normal position, though large, ventrofixation was not performed. The peritoneum and fascia were closed with buried silk, and a layer of through and through silk worm gut stitches, which had been passed previously, were then tied. The patient made a good recovery, being up in two weeks, and going home in a little over three weeks. The silk worm gut was left in for over four weeks, being removed at a subsequent visit at my office. In removing the stitches I take care to draw them up, so as to cut a good distance from the knot, thus avoiding stitch hole abscess by infecting the track of the ligature. She has had no return of the pain in her side, and her cough has almost disappeared.

DOUBLE FEMORAL HERNIOTOMY IN A WOMAN 64 YEARS OF AGE: PRIMARY UNION OF BOTH WOUNDS.

Dr. S. E. Milliken, N.Y., reports a case of double femoral herniotomy at the advanced age of 64 years. Deep sutures of kangaroo tendon were used to close the crural canal, while catgut was employed for bringing together the skin wounds. The dressings were changed for the first time on the tenth day, when union was found complete and the superficial sutures had been absorbed. The highest elevation of temperature was 101° F., which occurred within forty-eight hours, and was attributed to the shock of the operation.

Conclusions:

1. Age is no contra-indication to the employment of the radical cure of hernia.

2. Asepsis and antisepsis should be carefully observed.

3. Even in cases of strangulation, the radical cure should be attempted, if the condition of the patient warrants the delay.

4. When the truss becomes a source of annoyance, or if the hernia is difficult to retain, the operation should be performed without delay, and before strangulation occurs.

36 West 59th Street.

EXTRACT OF PRESIDENT'S ADDRESS BEFORE NOVA SCOTIA MEDICAL SOCIETY, JULY, 1894.*

By C. J. FOX, M.D., Pubnico.

Gentlemen:—It is with extreme diffidence I find myself in the position I today occupy, and can only regret that a more representative man had not been chosen. And yet I have to thank you for the appointment as an entirely unexpected token of esteem, the more so as I was unable to be present at the last meeting of the Society. As the position is a novel one to me, I must crave your generous indulgence if in any respect I fail to come up to your ideal of what the president of this honorable body should be.

It gives me great pleasure, not only as president of this Society, but as a practitioner of Yarmouth County, to welcome all present at this the first meeting of the Association in the western metropolis of the province; and I hope it may arouse an interest in the proceedings of our organization, which, though I trust it has been felt, it must be admitted, has not been manifested very largely in the past by physicians in this part of the province.

Now, while I have no right or desire to deliver a lecture to those who do not find it expedient to attend the meeting of this or some kindred association, I have thought it might not be unprofitable to expend a few minutes in considering the matter of medical societies in general and of our own in particular. It may be properly asked: What is the object of these societies? This is a question that need hardly be answered to any here, and yet I fear there are many outside the profession who have an erroneous idea of the purpose of our gatherings, some seeming to think it a sort of secret organization for the benefit of the profession as opposed to the public.

In answer to the above questions as to what may usually be expected from meetings of this kind, I think that the first thing that would suggest itself to the minds of most of us, and more especially when we glance at the programmes issued, would be a record of experiences and a discussion of scientific medical subjects.

Now, while the exchange of professional ideas and the suggestions of new or the improvement in old methods of treating diseased conditions, will continue to hold a primary place in the minds of those who

* Maritime Medical News.

attend these meetings, it must not be forgotten that for many hard-working practitioners it is the only approach to a holiday they have from one year to another, and they require something besides an everlasting grind of shop wherever they turn. The unexpected meeting and hearty handshake with some old friend, perhaps a college chum, out of sight for years, will be remembered when somebody's dissertation on phlegmasia dolens or the like has been long forgotten.

The feeling of brotherhood engendered will not be the least item to be placed to the credit of such occasions as the present. As we come to know each other better, it will be strange if there is not something to like in each as well as much to learn from one another. If you will allow me, I will quote a passage from an Address before the American Medical Association some years ago by Dr. N. S. Davis, of Chicago: "One of the best benefits received at meetings like this is the feeling of cheerfulness and pride in our profession inspired and a renewed determination to make it honorable, and meetings of this kind furnish us each with that magnetism which has more to do with curing our patients than our pills and powders."

I am not called on to prove the necessity for these gatherings; that proof lies in the prevalence of them. I cannot say when the first society was established, but of late years their growth has been phenomenal, for we find them now in almost countless numbers wherever the art of medicine is practised, and ranging in magnitude, if not in importance, from national associations down to county organizations.

We can understand this when we consider that man is an animal who is not at his best in a state of isolation. No matter in which rank of the industrial army he may be placed, he will be a better worker for being subject to the attrition of companionship, and this companionship, with its attendant advantages of frequent comparison of notes and experience, is out of the reach of a great majority of the practitioners of the province.

The country physician who has no confrère within reach is apt to get either careless or egotistic, and for him the only salvation is to get out occasionally and see and hear what others are doing and how much better they may be doing it than he, though I do not by this intend any reflection on country doctors in whose ranks I am honored in being placed myself. The difference between the town and country practitioner was neatly put by a recent writer, in that the former, when he met a difficult case, stepped across the street and called in help, while the latter sat down to think.

Those in more populous centres who are subject to, in some cases unfortunately hurried by, keen competition will feel the good effect of the relaxation and the atmosphere of good fellowship that as a rule pervades these gatherings. We are professionally a body of communists, and while we esteem it as our duty to share with our fellows that which falls to our lot in the shape of new ideas, we claim as a right that each one who is placed in a position to do so should make a like contribution as occasion offers, and it seems to me that no more fitting medium for the mutual exchange could be devised than such gatherings as the present, where conclusions drawn and opinions expressed will receive that keen but kindly criticism which is more to be appreciated than the calm indifference or unuttered dissent of the reading public.

Besides the social and scientific functions, medical societies have another and important object, the conservation of the legitimate interests of the profession from a legal standpoint. Now, while we ask for no invidious class legislation, we have a

right both as professional men and as citizens to be protected from the depredations of the horde of ignorant and impudent charlatans, who would in the absence of legal prohibition foist themselves upon a public who, though well informed upon matters in general, must of necessity be at a loss in regard to questions of a professional character.

With the average legislative bodies it seems useless to ask for the enactment of any measure in the direction of the elevation of the professional standing of physicians, unless the demand is backed by some more potent force than the opinion of isolated individuals, and it is only the united voice of the whole profession as uttered through their representative bodies that will reach the legislative ear.

In addition to social, scientific and medico-legal matters, medical societies have in some places been looked to to regulate affairs as between physicians themselves · but as far as this province at least is concerned, this is a function that has perhaps wisely been left largely in abeyance. No honorable man needs a code of ethics, and no dishonorable one will be bound by it.

Having referred to medical societies in general, and their duties to the profession, I may say just here that I was not aware of the title that my address was to bear until I received the programme of the meeting a few days ago, so that if the preamble is longer than the address proper, or if I have apparently not kept very rigidly to my text, I trust you will bear kindly with me. It now follows in order to consider in how far the Medical Society of Nova Scotia has conformed to what is expected of such an organization.

I have referred to the social feature of these gatherings, and what was said under that head applies especially to these meetings ; they are, in fact, what they were intended to be,—a sort of family reunion.

Lastly, to what extent is the profession indebted to the Nova Scotia Medical Society for legislative measures to advance the interests of those it represents ? In reply to this I could not do better than refer you to the admirable address of our then president, Dr. D. A. Campbell, in 1889, in which he refers to the first medical society of Nova Scotia in 1854, having been formed from the Medical Society of Halifax as a nucleus. I make the following extract : " Repeated efforts to obtain legislation ended in failure. The question was then taken up by the Medical Society of Halifax. A committee appointed for the purpose reported as follows : 'With regard to the improper treatment of bills presented of late years to the legislature, your committee are of opinion that the only alternative now left, by which an effectual resistance may be offered to the unjust procedure of the committees of assembly appointed to investigate the petitions of medical men, is a union of the profession throughout the province. To effect such union, your committee suggest that the Medical Society of Halifax should become a provincial association and its title altered accordingly, and, further, that the practitioners throughout the province be invited by a circular to become members of the association'."

In 1854 the association was organized, and the Hon. W. Gregor elected president, the country members having heartily endorsed the scheme. A memorial was drawn up for presentation to legislature and the Act of 1856 was introduced by the late Dr. Webster at Kentville.

It will not enlarge on this Act—as the most of you know more of it than I—further than to instance it as evidence of what can be done by united action under a body and a name after individual efforts have proved futile.

Again, where this Act of 1856 was found to be inadequate to the needs of the country, and we were in danger of being flooded

by bogus diplomas or overrun by the holders of none at all; and, further, when it became a necessity to take an advance step in order to keep the standing of the profession on a par with that of the neighboring provinces, our present Medical Society of Nova Scotia met the emergency by the appointment of a committee that drafted the bill which afterwards became the Act of 1872, that under which we are now working and which secures us all that we can reasonably ask.

I may sum up by saying that all the progressive work having in view the advancement of the interests of the profession in this province during the last quarter century have emanated directly or indirectly from this Society, and that where it was found necessary to take steps to safeguard the rights secured and prevent the destruction of the fabric erected, some of the active members of the Society were found to the front successfully battling against influences that one time appeared to seriously threaten the existence of the present Medical Act.

I think enough has been said to convince each one of us, who will consider the matter from the proper standpoint, that this Society has claims upon our loyalty, that we cannot afford to disregard. It is the only organization from Cape North to Cape Sable that binds the profession into one body, and yet the question arises: Why out of nearly four hundred names on the register we have a yearly attendance of from thirty to forty? This I will not attempt to explain. It is sufficient to say that those who came are doubly repaid, in that while it is a benefit to each individually, their presence tends to exalt the profession in the estimation of the public, for the latter is apt to honor those who most honor their own.

Society Proceedings.

MONTREAL MEDICO-CHIRURGICAL SOCIETY.

Stated Meeting, Sept. 21st, 1894.

JAMES BELL, M.D., PRESIDENT IN THE CHAIR.

A Case of Symphysiotomy.—Dr. J. C. CAMERON presented a rachitic dwarf, upon whom he had recently performed this operation for the relief of convulsions. The patient was 26 years of age, height 4 ft. 6 in. and weighed 84 pounds. The conjugate was 6.8 cent. Delivery was accomplished fifteen minutes after the commencement of the operation, the child being alive and weighing four pounds. The stitches were removed on the eighth day, the union being perfect, there being no moving or riding of the bones. The woman was now brought before the Society for fear she might be lost sight of after leaving the hospital, but a full report of the case will be given at a later date.

Old Dislocation of the Hip-Joint Treated by Resection.—Dr. BELL presented a little girl aged six, who had suffered from spontaneous dislocation of the left hip-joint during an attack of scarlatina, and had been treated six months later by excision of the head of the bone and clearing out the acetabulum. She contracted scarlatina in January, 1894, and was put to bed with her limbs in a perfectly normal condition. When convalescent in the month of February, and without having met with any accident or presented any symptoms, it was observed that the leg was deformed, and that she was unable to stand upon it or to use it. A physician was called (not the one who had diagnosed the scarlatina), who easily recognized a dislocation upon the dorsum of the ileum. Several attempts at reduction having failed, she was brought to the Royal Victoria Hospital in July, where she was chloroformed and unsuccessful attempts made at reduction. On the 17th of July the head and neck of the bone were exposed by incision. One-third of the globular head was worn away where it lay upon the ileum above the brim of the acetabulum. The capsular ligament could not be recognized posteriorly, and the acetabulum was practically obliterated with fibrous material. There was no ligamentum teres. The limb could not be sufficiently extended to replace the head in the acetabulum and extend the limb. The muscular resistance seemed to be general. (There was 1¾ inches of shortening with the limb brought down as well as possible.) There was no sign of inflammatory or other pathological change. The head of the bone was excised and the acetabulum cleared out, when the limb

fell easily into position. The patient made an uninterrupted recovery, the wound healing by first intention. The limbs remain in normal position. She has free movement in every direction and a good strong limb, and there is half an inch of shortening, although from the tilting of the pelvis it seems greater.

Resection of the Intestines.—Dr. SHEPHERD exhibited two cases in which he had resected the bowel.

Case I.—This case was shown to the Society soon after operation three years ago, and she was now again brought before the Society in order to show in what a good condition she was. The resection was for stenosis following strangulated hernia, for which operation had been performed. At the time of operation the gut had looked suspicious, but was returned; more sloughing occurred, and this was followed by the stenosis for which resection was performed. Several inches of the bowel had been removed, and the cut ends sutured end to end by an inner row of interrupted silk sutures passing through muscular and mucous coats and an outer row of Lembert's sutures through the serous coat. The patient recovered well, and when shown appeared in good health. Her age is 56.

Case II.—This was a case of resection of nine inches of small bowel in a woman aged 40. The bowel had been strangulated for five days, and was found gangrenous at the operation for the relief of the strangulation. As the patient's condition was fairly good, immediate resection was performed. The cut ends of the bowel were sutured by two rows of continuous sutures, the inner row passing through the mucous membrane and muscular coat, and the outer, a continuous Lembert, through the serous coat. The hernia was an inguinal one, and after suturing the bowel a radical cure was performed by excising the sac and obliterating the inguinal canal. The patient got well without a bad symptom, and the bowels moved naturally on the fifth day. She went out in four weeks perfectly well. It was now six weeks since the operation. Dr. Shepherd remarked that it was now his custom to use the continuous suture, and that he used no plates or other apparatus. The suturing of the bowel did not take very long, some twenty minutes. It was his experience that the divided mesentery gave most trouble on account of the hæmorrhage and its liability to tear. He was strongly of opinion that immediate resection was the best treatment in all cases of gangrenous hernia where the condition of the patient was good: in other cases it would be the better treatment to open the bowel and form an artificial anus, which could be closed by a subsequent operation.

A Case of Pylorectomy.—Dr. ARMSTRONG exhibited a woman from whom he had recently excised the pylorus. She came to the Montreal General Hospital on the 10th of May, 1894, complaining of a tumor situated in the right hypogastrium just below the seventh, eighth and ninth ribs, associated with pain and nausea after eating. Wishing to gain some accurate knowledge of her gastric condition, Dr. Armstrong sent her to the medical wards under the care of Dr. Lafleur, who made the necessary investigations.

Dr. LAFLEUR had first seen the patient in the out-door department, and under the impression that it was a case of malignant growth of the pyloric extremity of the stomach and of a kind suitable for operation, he sent her upstairs to Dr. Armstrong, who confirmed this view, but returned her to the medical department for further information as to the functions of her stomach. Her history was as follows: In December, 1893, she began first to feel out of sorts, without, however, any definite stomach symptoms. In January, 1894, there was pain in the epigastrium after eating. February, 1894, the pain persisted, but was regularly relieved by an attack of vomiting coming on after two hours after eating. She grew slowly weaker, and by the end of the month had to take to bed. These conditions persisted during the following March and April, accompanied by a steadily progressive loss of flesh. She lost 37 pounds from the beginning of her illness until the date of her appearance at the out-door department of the hospital. She was a dark woman, much emaciated, but with her muscles still in fairly good condition. Examination of the respiratory, circulatory and urinary systems proved negative. The digestive symptoms were poor appetite, bad taste in the mouth, constipation, pain in the stomach and vomiting after meals. Physical signs as detected under examination in the ward were enlargement of the stomach ascertained by means of the peristaltic waves observed to traverse from left to right. The boundaries were above, extending on a line with the ninth costal cartilages on both sides, and below, reaching as far as the umbilicus, typical hour-glass contractions of the stomach were at times noticed. There was a hard tumor about the size of a hen's egg, movable in every direction except downwards, and varying greatly in its situation. No contractions could be observed in this tumor, and percussion gave a dull note. It was continuous with the funnel-shaped outline of the stomach. No nodules were observed. On May 19th a test breakfast, consisting of a small piece of bread and a cup of tea without milk or sugar, was given, and withdrawn one hour afterwards. The examination of its contents revealed a complete absence of free hydrochloric acid, the gastric juice seemed effective, but lacked the presence of the acid. The want of this latter constituent seemed to be the chief abnormal feature. A few days later a second meal was administered,

which confirmed in every way the first. From a medical standpoint the chief interest in the case was the probability of its proving a suitable one for operation, owing to the complete absence of adhesions, as evidenced by the extreme mobility of the tumor and absence of all indication of involvement of the lymphatic glands. The rule that abdominal tumors are always larger when exposed than they appear from external examination was contradicted in this case. There was no appreciable difference between its real size and that which we supposed it to be before opening the abdomen.

Dr. ARMSTRONG said that the patient having returned to the surgical ward, the question of surgical interference with all its attendant dangers was put before her to decide. So miserable was her condition that she preferred death to a continuance of life under such circumstances, and gladly chose the risks of an operation. Before anæsthetizing her, a hypodermic of morphia and atropia was administered, with a view to lessen the shock of the anæsthetic, and it had very satisfactory results. She took the ether quietly, there was no vomiting, and only 6½ ounces were used in the two hours she was under its influence. Her pulse, which was 100 at the start, fell to 70 before she left the table. A median incision was made, and the tumor brought up to the opening. It was small and well defined, quite movable, non-adherent to surrounding organs, and there seemed to be no infiltration or involvement of any of the surrounding parts. It seemed a very suitable case for removal of the growth. The greater and lesser omenta were tied off, the pylorus drawn well up, and the duodenum constricted by a soft rubber band at a point about 2½ inches from the pylorus. An incision was then made across the stomach well above the tumor, taking care to have it include all infiltrated tissue; and the duodenum was then cut across well below the tumor. A hole was then made in the posterior wall of the stomach and the duodenum united here, instead of the usual method of joining it to the head of the organ. In this way he was enabled to work right inside the stomach in the process of uniting the duodenum, which obviated many of the mechanical difficulties, and after joining it from the inside, the stomach was turned over and the parts further united on the outside by a Lembert suture. The end of the stomach itself was then closed up, the edges being inverted, united, and the serous coats being finally joined by two rows of Lembert's sutures. Her recovery was as smooth as possible, there being neither pain nor vomiting. Solid food was first administered on the fifth day, and she has been taking it ever since. She was last weighed about two months ago, and had then gained ten pounds, and has been increasing in weight ever since. She looks well nourished, and says her appetite is good.

Dr. SHEPHERD congratulated Dr. Armstrong on the success of this extraordinary operation. It was, so far as he knew, the first of the kind ever performed in Canada, and was, without doubt, the first in Montreal. He had seen the patient after the operation, and looking at her now he must say he had never seen a case do better, which, when we consider the seriousness of the condition, is saying a great deal. He thought much of the rapid improvement may be attributed to the early feeding, as, in his opinion, the patients in many of the older cases owed their deaths to the starvation which was enforced. Dr. Armstrong's procedure in bringing the duodenum through a separate opening into the stomach is regarded as the only proper me hod by European surgeons.

Dr. RODDICK joined with Dr. Shepherd in congratulating Dr. Armstrong on his success in this case. Early feeding, without a doubt, contributes largely to the success of these cases.

Dr. JAMES BELL said that the trouble with these cases is the fact that most of them only submit to operation when they are practically moribund, and when the disease has consequently made such progress as to render a cure under any circumstances almost hopeless. He had more than once opened the abdomen in cases of this kind, only to find the disease so advanced that, unless for the relief of a stricture or some such mechanical difficulty, an operation was unwarrantable.

An Appendix containing an Ordinary Pin as the Exciting Cause of a Perforating Appendicitis.—Dr. BELL presented the specimen, and gave history. The patient, a boy, aged six, had been brought to the Royal Victoria Hospital with the usual symptoms and signs of appendicitis with abscess formation. There was a history of two days illness. The child was operated upon, and made a good recovery. On slitting up the appendix a pin was found lying transversely across its lumen near the apex. The head of the pin had perforated (by ulceration) all the structures of the appendix, and the point of the pin had very nearly perforated at the opposite side, and at this point the appendix was strengthened by a mass of adherent omentum. This was the only case which Dr. Bell had seen with an actual foreign body as the exciting cause of the disease—except possibly a foreign body may have been the starting point of some of the enteroliths so frequently found in the appendix.

Calcareous Tumor of the Thyroid producing Œsephageal Obstruction.—Dr. BELL showed the specimen and reported the case. An old lady, aged 58, had suffered for two years and a half from difficulty in swallowing, gradually growing worse, until she was actually starving. Since March last she had not been able to swallow solids at all, and liquids only in very small quantities, and with the greatest

difficulty. She was greatly emaciated and very weak. She was short of breath on excitation, and also had one or two severe attacks of dyspnœa. A small, hard nodule was felt above the right sterno clavicular articulation, and she stated that she had suffered from goitre when a young girl, but that it had gradually disappeared. The diagnosis was substernal calcareous thyroid tumor, and operation advised. Enucleation was not difficult and not attended with hæmorrhage, the patient made a rapid recovery, and is now swallowing quite well. The tumor, which was about the size of a hen's egg, was conical in shape and flattened against the sternum and sternal end of the clavicle. The apex had apparently pressed against the œsophagus. In structure it resembled one of the tarsal bones (excepting the articular surface), having a smooth outer surface resembling compact bony tissues, and cancellated structures internally. The operation was performed on the 13th of August last.

Tumor of the Prostate.—Two specimens were presented by Dr. BELL, and brief histories given. The first was from a man aged 58, who had suffered for ten years, with symptoms of prostatic obstruction. For the first six years he had suffered greatly, and in March last he had had a large calculus removed by lateral lithotomy, which gave a measure of relief, but this was only temporary. On examination, several stones were found in the bladder, and suprapubic section was advised for the removal of the calculi, and subsequent prostatectomy if thought necessary or desirable. On section, five (5) smallish stones were removed and the projecting prostate enucleated. Several deep sloughy ulcers were found, apparently due to the pressure of the calculi, and prostatectomy was decided upon. Only the projecting part of the prostate was removed by enucleation, and the patient made an excellent recovery. He is now perfectly well, has good bladder function (although there is some residual urine), and is quite free from pain and frequent desire to micturate.

The second case was an old, decrepit man of 68, who had suffered for a great many years, but for the past year his sufferings had been so great that he declared that life was intolerable unless he could be relieved. His urine showed no evidence of kidney disease, and after due preparation the prostate was enucleated by the suprapubic route. The points of interest were the great ease with which the bladder gland was enucleated in its entirety (making an unique specimen) very rapidly, and without hæmorrhage or shock. On the third day the patient began to grow dull and stupid, and died on the fourth day toxæmic. At the autopsy a few spots of very recent lobular pneumonia were found in the left lung, but the organs were otherwise healthy. The bladder was also presented, showing the capsule from which the prostate had been removed. Urine had flowed freely from the bladder wound, showing that there was no arrest of kidney function In both these cases the after-treatment consisted in irrigation every three hours with boro-salicylic solution through a catheter introduced into the bladder by the penis, the outflow being through the bladder wound. Dr. Bell expressed the opinion that the operation of the future would be enucleation from the perineal side, and that this could best be carried out by means of combined supra-pubic and perineal incisions.

Dr. SHEPHERD had a somewhat similar case to the first within the past few months. A man came from the country who had been sounded many times for stone without success. Dr. Shepherd was also unsuccessful until he examined him under ether. There was no sensible enlargement of the prostate. A supra-pubic section was made, and two very rough stones were found lying in the bladder. Wherever they had come in contact with the bladder wall a sloughing ulceration had taken place. He treated the ulcers with caustic without interfering further with the prostate. This was the first time that he had ever seen such a condition of the bladder in connection with stone; but it may be that they are more frequent than we think, as it is not possible to see them during the lateral operation, even when looked for.

Dr. RODDICK believed in removing the prostate by a perineal opening. He had removed diseased glands on two or three occasions by this method, and was surprised how easy it was to shell them out. He had no doubt that it would in time become the standard method of removing the prostate.

Dr. ARMSTRONG had recently seen Prof. McKeown, of Glasgow, remove a prostate, and had a talk with him on the subject afterwards. Some time after the Leeds meeting of the British Medical Association the professor had discarded the perineal method and adopted the supra-pubic, as there advised. His results, however, were exceedingly bad. One after another of his patients died of toxæmia and hæmorrhage, until he finally went back to the perineal method, which plan he now almost without exception adopts. Sometimes when only one lobe is enlarged, he will remove it through a lateral incision. In the perineum, he exposes the prostate by a U-shaped incision, and enucleates it without opening the mucous membrane of the bladder. In this way he avoids toxic troubles and can control hæmorrhage by packing. It seems very desirable that we should get some better method in prostate surgery than the supra-pubic one, and we would then be in a position to relieve a large class of people who now suffer from prostate disease in its last stage.

Dr. BELL often supplemented his supra-pubic

incisions by a perineal drain. This in many instances did not appear to cause any improvement in the results, and he found it hard to believe that the difference between the two methods can be so very great. Again, it is often very difficult to enucleate by the perineal method without injuring the mucous membrane of the bladder over the prostate. His idea of late has been a double incision—supra-pubic and perineal—so that instead of enucleating from the bladder only, one could enucleate from the perineum with the fingers in the bladder as an aid and guide to the performance.

Four Calculi weighing 5 ounces 1 drachm removed from the Bladder.—Dr. RODDICK exhibited four remarkable calculi, removed from a man, 65 years of age, who had been for four or five years suffering from bladder symptoms. During that time he had been several times sounded for stone, the last occasion being not more than three months ago, but without any signs of such a condition ever being detected. Enlarged prostate with symptoms arising therefrom was looked upon as his disease. Dr. Roddick, on examination, succeeded in diagnosing the presence of a fairly large stone, the size of which, in fact, made him conclude it was the only one. The existence of an enlarged prostate, and the unhealthy condition of the bladder, decided him to choose the supra-pubic method. On making his incision, a large stone presented in the wound, which on being removed was succeeded by another, and so on until four large ones were removed, weighing in the order of their size 37, 38, 39 and 50 grammes respectively. Two of them must certainly be looked upon as very large, and considering the combined size, as well as the circumstances of the history, the case is altogether a very remarkable one. The failure of the previous surgeons to detect stone by sounding is explained by the fact that the calculi were all lying in a distinct sac, or pocket of the bladder; the examinations no doubt were made with the bladder empty, and its mucous membrane folding itself over the stones deadened the touch of the sound.

Cases of Cholecystotomy.—Dr. SHEPHERD reported two cases performed during the last six weeks. In the first case the patient was a woman, and aged 36 years. For two years she had suffered much pain about the right hypochondriac region, the first attack of pain being accompanied by profuse jaundice, which lasted several months and then disappeared. There was always a pain of a dull character in the region of the gall bladder. In February last she had a severe attack of pain, high temperature, rigors, and rapidly became jaundiced. In July, she noticed a tumor to the right of the umbilicus; it was painful, and seemed to increase slowly in size up to the time of her entrance into the hospital. All this time she was deeply jaundiced, her urine was dark in color and her stools were colorless. On examining her, it was noticed that she was very thin and deeply jaundiced. She complained of dull, aching pain in the right hypochondrium; had continuous nausea, was feverish at night and often suffered from chills. On examining her abdomen, a round smooth tumor was felt to the right and below the umbilicus; this was dull on percussion, the dullness being continuous with that of the liver. The tumor was about the size of a small cocoa-nut, elastic and freely movable. Dr. Lafleur examined the case, and looked upon it as a case of enlarged gall-bladder. The operation was performed on August 30th, and the tumor was found to be a largely distended gall-bladder projecting beyond a "lacing lobe" of the liver; it was opened, and about a pint of thick bile evacuated. A few small stones were found in the gall-bladder, but the cystic duct was not dilated. On examining further, two large stones were found in the common duct, and these were soft, and could not be broken up by needle or padded forceps, so the gall-bladder was sutured to the abdominal wound and a glass drain inserted. Patient has gone on perfectly well ever since, large quantities of bile being discharged through the tube into a rubber bag which is attached to it. The patient is up and about, and eats well. The jaundice has almost disappeared, but unless something more be done, she will have a permanent fistula discharging bile. Dr. Shepherd said that if the fistula persisted, it was his intention to do a further operation, viz., to reopen the wound and perform a cholecystenterostomy, and then close the present opening in the gall-bladder. In making a communication between the gall-bladder and intestine, it was his intention to make use of the Murphy button.

In the second case there had been severe attacks of pain with jaundice and high temperature for more than a year. The patient was a woman, aged 36, who was somewhat stout. Dr. Shepherd saw her in the last attack, and advised her removal to hospital. She had a temperature of 103°—4°, with great tenderness and pain in right hypochondrium, and she was intensely jaundiced. She improved immediately on admission to hospital, the jaundice rapidly disappearing. No stones were found in her stools. Although the pain had disappeared, there was a point of great tenderness in the region of the gall-bladder. At her request operation was performed on September 7th, to prevent further attacks. An incision was made in the left semilunar line and the gall-bladder searched for; it was hidden by adhesions, and situated deeply down beneath a high-placed liver. On opening it, a small quantity of bile escaped, and six gall-stones the size of marbles were removed; the common duct was free.

The gall-bladder could not be brought up to the surface, so a glass drain was introduced and the cavity packed round with iodoform gauze. The wound was closed by three layers of sutures. The patient went on very well. The gauze was removed on the second day, and replaced, but a day or two after a severe iodoform rash appeared, so the sterilized gauze was substituted for the iodoform. The tube was removed on the tenth day, the amount of bile coming away having very much diminished. She is now going on well, sitting up and going out. The fistula is rapidly closing, a very small quantity of bile being now discharged.

Dr. BELL also reported a case of obstructive jaundice in which the symptoms pointed to obstruction in the common duct. A woman aged 50 had suffered from pain and disturbance about the right hypochondrium for about eight months. Since March last she had suffered from paroxysmal attacks of pain with some vomiting followed by jaundice, which, although diminishing in the intervals, never entirely disappeared. Later on she had chills, and the jaundice became persistent, increasing with each attack.

Diagnosis.—Obstruction in common bile duct from gall-stone, or possibly malignant disease.

Operation July 23rd.—Incision in right linea semi lunaris. Firm, old adhesions made it very difficult to expose the under surface of the liver, so that it became necessary to make a transverse incision from the upper extremity of the vertical one inwards nearly to the median line. The liver was shrunken and retracted beneath the ribs. The gall-bladder contained no fluid, and was contracted upon a stone which lay in the entrance to the cystic duct, and was as large as a filbert. Nothing could be detected in the common duct, but a chain of enlarged lymphatic glands were felt in the hepatic fissure. The gall-bladder was incised and the stone removed. A probe forced down the duct failed to enter the bowel. He did not feel that he had removed the cause of the trouble, but being unable to locate any obstruction elsewhere in the biliary passages he could do nothing further. As it was utterly impossible to suture the wound in the gall-bladder, which lay far back and high up underneath the ribs, to the peritoneum lining the abdominal walls, or in any other way establish a natural conduit for the outflow of bile, the wound was closed with sutures, the ends of which were brought up through the abdominal wall to fix it in position. Although there was no flow of bile during the operation, it was not thought probable that the wound in the gall-bladder would remain closed, especially as it was impossible to apply Lembert sutures, owing to the fragility of its peritoneal covering. A glass drain was carried down to the line of sutures in the gall-bladder, and carefully packed around with iodoform gauze—the idea being that the sutures would probably keep the gall-bladder closed for a couple of days until the track of the drainage tube would become closed off from the general peritoneal cavity by adhesions. This was evidently successful, as there was no biliary discharge from the tube for five days, when bile began to flow in great quantities. The jaundice then began to disappear, but the stools remained colorless and covered with oil globules. Bile continued to flow in large quantities until the 12th of August (20 days after operation), when it rapidly diminished and the stools became normal in color. Nine days later (August 21st) the wound was perfectly healed, the jaundice gone and the digestive functions normal, and the patient was discharged.

The post-operative history of this patient, I think, supplies the missing link in the diagnosis. When we remember that the gall-bladder was empty at the time of operation, that there was a chain of swollen lymphatic glands along the line of the hepatic duct, that bile began to flow from the wound five days after operation, and that it ceased to flow through the wound and began to flow through the common duct 20 days after operation, it seems pretty clear that obstruction was due to pressure from the enlarged glands from without, and that when the exciting cause was removed and the swelling disappeared from the glands, the symptoms all subsided. Dr. Bell knew of no similar case recorded.

Dr. RODDICK in April, 1892, had a case of cholecystotomy which he thought worthy of recording, especially so, since he was under the impression it was the first operation of the kind ever performed in Montreal. A lady, 64 years of age, had been jaundiced for nearly one year, accompanied by pain, etc., and her symptoms had gradually become much worse. Examination revealed a distinct tumor, which had all the signs of being a distended gall-bladder. An incision confirmed this fact, an enormously distended gall-bladder being found, containing about one pint of thick treacly-looking bile. A conical-shaped stone, about the size of a filbert, was found blocking the cystic duct; and along the line of the common duct a distinct thickening was felt, but whether of a simple or malignant character could not be ascertained. The size of the gall-bladder made it an easy matter to bring it up to the abdominal wound and suture it there, a drainage tube being inserted for the escape of the bile. A few days after the operation, the jaundice disappeared, showing that the common duct, to a certain extent at all events, was patent. Jaundice, however, returned after a time, and in a more aggravated form. Bile continued to flow through the abdominal wound for nearly three months, sometimes very little and sometimes very much, the fistula, however, never

permanently closing or being healed. Finally, the woman died of pneumonia, which was very likely the result of her condition. The operation here was made a very simple one, owing to the gall-bladder being so large and easily handled.

Dr. LAFLEUR wished to say a few words with reference to the innocuousness of bile in the peritoneal cavity. It is hard to say when the bile is septic and when not. In regard to the first case mentioned by Dr. Shepherd, he thought a diagnosis of the condition could be positively made from the physical signs. The character of the tumor was clear, because the area of dullness on either side was quite continuous with the liver dullness, an absolutely flat note being elicited from the lower border of the tumor right up to the liver. If it had been renal, as Dr. Shepherd suggested, there would be some interspace between the tumor and the liver with a lighter note. Then the feel of the tumor was too elastic for a solid growth.

Dr. ARMSTRONG said that Dr. Roddick's case recalled to his mind one of his own attended with somewhat similar difficulties. The woman went home after the operation with the bile flowing through a fistulous opening in her abdomen. After an absence of six months she returned with the bile still flowing, but with her stools pretty well colored. Dr. Armstrong then made some attempts to stop the escape of the bile by means of cotton wool plugs and collodion. A second effort in this respect was successful, and after remaining here six weeks without any sign of the flow breaking out again, she went home. The fistula eventually closed up.

ROUEN MEDICAL SOCIETY.

DIPHTHERITIC PARALYSIS.—M. Duboc called attention to the frequency of paralysis after diphtheria, and to the fact that, although the light forms are most general and yield to purely hygienic measures or tonic treatment, grave cases yield to serious complications, and sometimes even to death, by extension of the paralysis to the muscles of respiration or the heart. He reported a case from his own practice, interesting from the gravity of the affection as well as its quick and speedy cure by electricity. The patient was a married woman of 40 years, of good general health, who, eight years previously had suffered from a tubercular bronchitis, and two years previously from angina with swelling of the glands of the neck which was cured in about fifteen days. She contracted diphtheritic angina from a child with croup, the disease being of average intensity. On the twelfth day she experienced difficulty in swallowing and in talking, speech being somewhat nasal. She was treated by tonics, and as the condition grew worse she consulted M. Duboc, who found her, three weeks from the onset of the disease, very much worn out, speech nasal and incomprehensible and very fatiguing to the patient, who found it impossible to articulate. The vault of the palate was lowered, the tonsils touching the base of the tongue and entirely disappearing. The tongue deviated to the right, showing that the paralysis affected the left side more than the right. The roof of the palate remained immobile in attempts at singing, speaking, or swallowing. It was insensible to touch, and titillation of the tonsil produced no reflex. The pharynx was not sensitive, and its functions were impaired. Deglutition was difficult and almost impossible, soft food and drinks passing through the nasal fossæ, causing the patient to fear suffocation and consequently to refuse all nourishment. The tongue itself was somewhat affected; the respiratory movements were 20 per minute, while the heart-beats were but 65 per minute. M. Duboc placed a narrow rheophore upon the vault of the palate and a wide one upon the nape of the neck, using an induced current of feeble intensity. The treatment was continued for six minutes, the electrode being moved about on the affected area, and from the nape of the neck to the mastoid apophysis. The contractility of the muscles was abolished, electric sensibility being diminished but not absent, as the patient felt the opening and closing of the current. After ten *séances* complete cure resulted, and the patient could speak easily and fluently.

M. Deshayes had treated five cases of diphtheritic paralysis by electricity combined with hydrotherapy, all recovering.

INFLUENZA IN CHILDREN.—M. Brunon called attention to the large number of children who had suffered from the disease, during the recent epidemic at Rouen, from Nov. 1, 1893, to February 15, 1894. In the epdemic of 1890 the society had observed that children enjoyed almost complete immunity from the disease. M. Brunon had seen twenty-five cases in children in his practice, these belonging to thirteen families. He treated sixty-nine cases of influenza in adults in the same time, the proportion of children thus being large. The cases were nearly all characterized at the outset by vomiting, and loss of appetite, while the convalescence was long. He gave in such cases, to children over 2 years of age, from 30 to 50 grammes (1 to 1⅔ ounces) of raw meat at each meal, with a little cognac, benzo-naphthol, and laxatives. In all the cases the children rapidly lost flesh, and he found this treatment of value to counteract this. The rapidity of diffusion of the disease in a family was remarkable. In some families the children were the first to be affected, the adults becoming ill several days later.

M. Duboc had cured several cases in children by cold water baths, which he believed to be of great value in cases complicated by pulmonary troubles.—*Universal Medical Journal.*

Progress of Science.

CANCER A LOCAL DISEASE.

The evidence for this doctrine has been strongly presented by Dr. Jennings, in his work on "Cancer and Its Complications," the second edition of which has been recently published in London. If cancer be a local disease, it is imperative that not only those tissues which are seen to be subjected to cancerous infiltration, but some of the surrounding tissues and the neighboring lymphatic glands should be taken away by means of the knife at as early a date as possible. The amount of personal observation given in support of this method of treatment is not very great, but the careful analysis of the work and opinions of others, and the comparison of the methods of termination of the disease under different methods of treatment amply warrant Dr. Jennings in drawing very wide and general conclusions.—*Brit. Med. Jour.*

NEW OBSERVATIONS IN GONORRHŒA.

At the recent meeting of the German Dermatological Association, considerable time was devoted to the discussion of the etiology of gonorrhœa, and among the interesting points brought out, an observation by Wertheim is deserving of especial attention. This careful investigator has found that gonococci obtained from the secretions of chronic gonorrhœa can be cultivated so as to acquire a high degree of virulence, and when inoculated in the urethra of the patient from whom they were derived will give rise to an intense gonorrhœal inflammation. It has been quite frequently observed that patients suffering from latent gonorrhœa at the time of marriage have infected their wives, and at a later period acquired from them in return an acute urethral inflammation. Wertheim's experiments are, therefore, of importance in affording a rational and scientific explanation of this clinical observation.—*Inter. Jour. of Surgery.*

ANÆSTHESIA

Geheimrath Gurlt read the yearly report of the collective inquiry into the statistics of narcotization. The report embraces 51,846 narcoses of the year 1893, of which 32,723 were produced by chloroform, 11,617 by ether, 3896 by chloroform and ether, 750 by chloroform, ether and alcohol (Billroth's mixture), and 2769 by ethyl bromide. A number of laughing-gas narcotizations are added. These 51,846 surgical narcoses count 20 deaths, and of these, again, 17 are after chloroform. Thus, the average proportion was 1 death to 2587 narcoses and 1 death to 1924 chloroform narcoses. In the four years during which the enquiry has been carried on, only 1 death after ether has been noted, and, accordingly, the use of ether has increased from 6200 cases in 1892 to 11,600 in 1893. The chloroform-ether mixture was used 1200 times in 1892 and 3800 times in 1893. Pictet's chloroform (purified by exposure to extremely low temperature) was used 3182 times, as against 708 in 1892. In spite, however, of this and other purified chloroforms at present in use, death during chloroform narcosis has not proved preventable, and the general opinion now is that it is not caused by the chemical impurities contained in ordinary chloroform.—*British Medical Journal*, May 5, 1894.

GROWING PAINS.

In a very instructive article, Dr. P. B. Bennie (*Archives of Pediatrics*, May, 1894) states that this malady with its concomitant growing fever, like its congener, disorders of dentition vanishing from the realm of pathology through that of fancy, is fast sinking into oblivion in the medical literature of the past. As a separate morbid entity it exists now principally as an article of faith. The cases diagnosed as growing pains have, in his experience, usually proved to belong to one of the following conditions: myalgia from the fatigue of over-exertion, rheumatism, diseases of the joints and bones, fevers, and adenitis.

TREATMENT OF HYDROCELE.

Dr. Garvin (*Boston Med. & Surg. Jour.*) has employed, during the past six years, injection of half an ounce of a solution composed of equal parts of carbolic acid, alcohol and glycerine; a small bulb syringe answers well. The fluid is allowed to remain. The skin surrounding the canula should be protected from irritation with a little gauze or absorbent cotton. The injection is practically painless, patients are able to attend to their business, and a cure is effected in from two to four weeks.

ACCENTUATION OF THE PULMONARY SOUND IN PERITYPHLITIS.

Dr. Julius Mannaberg, of Vienna, states that, of 88 cases of perityphlitis observed from 1882 to 1892 in the wards of Professor Nothnagel, he was struck by the fact that the pulmonary second sound was accentuated, though no explanation of the symptom was given. Since then 13 cases have come under observation in the same wards, and in 4 of these the sound was markedly accentuated: in 7 it was distinctly louder than the aortic sound; in the 2 remaining cases both second sounds were loud, and in 1 of these the pulmonary sound

was reduplicated. From careful observation he is convinced that in cases of perityphlitis accentuation of the pulmonary second sound is a very frequent symptom, though he is unable to account for it. It is well known that Skoda first recognized pulmonary accentuation in mitral disease, and that it is an indication of high pressure in those affections in which there is increased resistance to the work of the right ventricle. Interference with the pulmonary circulation, due to elevation of the diaphragm through increased volume of the abdominal contents, as in meteorism, ascites, and the like, is also a matter of common experience ; and in this way also pulmonary accentuation may be produced. Dr. Mannaberg believes that the rise of blood-pressure after a meal is at least in part due to the same cause, and not, as Potain maintains (*De la dilatation du cœur ; la Médecine Moderne*, November 26, 1892), to a reflex contraction of the lung-capillaries, resulting from digestion. In the 10 positive cases recently observed by the author, there was no distension of the abdomen, and consequently no undue pressure on the diaphragm ; indeed, marked meteorism is rare in uncomplicated cases of perityphlitis. There was no dyspnœa, and the other symptoms, such as pain and pyrexia, would not account for the accentuation, which lasted after the acute stage, and was present even when the patient was recovering. Further observation is necessary to determine whether the symptom is generally present in perityphlitis and other abdominal affections, and whether it is of any special value in diagnosis.—*Practitioner*, April, 1894.

RARE CASE OF TRAUMATIC CYST OF THE STOMACH.

Dr. Ziegler describes a very interesting case of a man, aged 24 years, who was crushed between two cars on the railroad, and injured in the abdomen. He became unconscious, and was taken home, where he complained of severe abdominal pain, and suffered for twelve hours from hæmoptysis. The abdomen was sensitive, but there was no swelling. Micturition was painful and the urine bloody. The temperature was normal. Under the influence of local refrigeration and opium in large doses, the hæmaturia and hæmoptysis disappeared, the appetite returned, and the patient left his bed. At the end of three weeks the abdomen again became painful in the left upper portion, and a tumor the size of an apple, elastic and pulsatile, was felt beneath the false ribs. It increased in size until it reached the median line; vomiting, meteorism, constipation and collapse caused the case to appear like one of intestinal occlusion. Puncture gave exit to three-fourths of a litre (quart) of pus, and caused the disappearance of the pain. The tumor re-appeared, without fever, but the patient felt a sense of pressure which prevented him from eating, and caused vomiting, although his appetite was good. He then entered hospital, and, as it was impossible to make an exact diagnosis, an exploratory laparotomy was performed, when a tumor was found, occupying the entire anterior wall of the stomach, extending to the pylorus ; its upper portion was hidden under the diaphragm, and its limits could not be perceived. The epiploön and posterior wall of the stomach were normal. Puncture gave exit to 3 litres (quarts) of bloody fluid, and the sac was seen to be situated in the think portion of the anterior wall of the stomach. The patient recovered without accident, and seven months later was well, through he still felt some abdominal pain on being chilled, and was obliged to eat with moderation. Ziegler attributes the formation of the cyst to detachment of the wall of the stomach by the injury.— *Münchener medicinische Wochenschrift*, No. 6, 1894.

HOMES FOR CONSUMPTIVES.

The other practical line of action is the establishment of homes for consumptives. This is truly a field with the widest scope of action for the lover of his kind. Surely we shall soon see some large-hearted and open-handed son of Ontario, whom fortune has been kind to, setting apart some hundreds of acres of the thousands of square miles which can yet be had almost for the asking, for a real "Home for Consumptives." Such, exists in the New York Adirondacks solely as the realized dream of philanthropists; such, too, are found in the Grindenwald and in the forests of Brittany. My dream is to see in some Canadian forest a microcosm. We have in the province some six colonies, hundreds of acres in extent, set apart for the 4,000 mental unfortunates ; but which, instead of madhouses, are becoming for them "abodes of paradise." How much easier, how much more successful, with a class of sufferers with faculties intact, with, in many cases, the fairest forms and most splendid intellects, to establish a village where agriculture and horticulture, where tree planting and apiaries, with other occupations, might all be carried on in the outdoor air; while a dozen useful occupations might be found for indoor employment. To me the hospital idea by itself for consumption is just as repellant as the mad-house idea of former times for the mentally deranged. What more depressing than sending a consumptive girl to a hospital to die? What more beautiful or health-giving than sending this bud of womanhood to live amidst a garden of flowers?—*Ex.*

NEW METHOD OF EXAMINING FOR RENAL CALCULUS.

Dr. Charles P. Noble, of Philadelphia, describes a case in which he performed an operation enabling him to examine the kidney, the pelvis of the kidney, and about one inch of the ureter. He made the usual incision in the loin down to and through the peri-renal fat, exposing the lower end of the kidney. With the index finger the kidney was then separated from its connective-tissue attachments and gradually drawn down into and out through the wound, so that it was entirely outside. It was now a very simple matter to explore the kidney by thumb-and-finger pressure, and to make certain that it was in a normal condition. It was equally easy to examine the pelvis of the kidney and to determine that this contained no stone. Perhaps one inch of the ureter also was within reach. As nothing abnormal could be felt, the kidney was replaced within the abdomen and the incision sutured in the usual way—buried silkworm-gut sutures being placed in the muscular layers, and superficial silkworm-gut sutures in the skin. Dr. Noble recommends the adoption of this method whenever the symptoms point to the presence of stone, and are sufficiently serious to cause the patient to become an invalid. Upon theoretical grounds the procedure would not be applicable in cases of abscess of the kidney, as the latter would be fixed and not easily separated from its connective-tissue bed. Moreover, it would be enlarged, and there would be the risk of rupturing the pus-sac, perhaps into the peritoneal cavity.—*American Therapist*, March, 1894.

PRIMARY CANCER OF THE GALL-BLADDER.

J. Dallemagne has had occasion to make an autopsy in four cases of this rare disease, and histological examination leads him to believe that it generally takes its origin in the epithelium of the gall-bladder, that it is usually of the scirrhous type, and that its evolution seems in no way to affect the parenchyma of the liver, which seems to oppose a special resistance against the invasion of the neoplasm. It was but rarely that he encountered small metastatic nuclei or infectious nodules in the liver. The clinical diagnosis is difficult, as the tumor progresses without causing any cachexia, icterus, or other symptom which would call attention to the gall-bladder. It is particularly a disease of the feminine sex, and is frequently accompanied by calculi, though he believes, with Stiller, Cornil and Ranvier, that the appearance of the latter is consecutive to the carcinomatous affection.—*La Clinique*, March 15, 1894.

THE URINE IN ENTERIC FEVER.

In a lengthy study of the urine in enteric fever, Orion states: 1. The more elevated the temperature, the more active the oxidation, the fever masking a serious condition, or complicated by the so-called typhoid condition. 2. In the three clinical forms, benign, clinical and grave, whether fatal or not, as well as in complications of the typhoid state, any increase of fever is followed by an increase—if not proportional, at least parallel—of oxidation. 3. Any deviation from this principle is readily explained by one of the numerous causes capable of modifying the laws of organic exchange. 4. The typhoid state, far from owing its origin in every instance to retention in the organism of the products of combustion, often coincides with an abundant elimination of these products.—*Revue de Medecine*, January, 1894.

AN EXTREME CASE OF ASCITES.

C. C. Cotton, of Point Isabel, Ind., relates the case of a patient who died recently, a man of 51 years, who had suffered from ascites for three and one-half years. The following table will show the progress of the disease, and the increase from year to year in the frequency of tappings:—

Time.	Number Times Tapped.	Average Quantity of Fluid.	Total Quantity of Fluid.
6 months.	7	30 pounds.	210
1 year.	34	27 pounds.	918
1 year.	55	21 pounds.	1155
1 year.	71	18 pounds.	1278
$3\frac{1}{2}$ years.	157		3561

In addition to the extraordinary severity and duration of this case, what is possibly more remarkable is that the patient soon became familiar with the operation, and could perform it himself, which he did with his own hands more than one hundred times.—*Medical World*, March, 1894.

RENAL HÆMORRHAGE FROM AN UNUSUAL SOURCE.

Dr. Collier reports the following case: A laborer, aged 36, shortly after lifting a heavy weight, was seized with pain in the right lumbar region, and began to pass water of a dark-porter color. On examination there was very decided fullness and marked tenderness over the region of the right kidney. The urine contained a large amount of blood, varying considerably from time to time; under the microscope could be seen blood-corpuscles, large round and tailed cells, and squamous epithelium in great abundance. A fortnight from the onset there

supervened total suppression of urine, vomiting, muscular twitching, and great drowsiness; and forty-eight hours later the man died. It was ascertained that he had been under treatment four months previously for chronic rheumatism; no disease of the kidneys was then suspected. On post mortem examination both kidneys were found much enlarged, and their substance was almost entirely converted into closely-aggregated cysts The right kidney was about the size of a cocoa-nut. A large hæmorrhage had taken place between the capsule and the kidney, dissecting off the capsule; and had burst into one of the cysts, which in turn had ruptured into the pelvis. The ureters and bladder were perfectly healthy. —*Birmingham Medical Review*, March, 1894.

WATER IN TYPHOID FEVER.

Urge your patients to drink a great deal of cold water. The more I practice this plan, the more I am convinced of its beneficial effects. In many cases I have learned my patients to drink five quarts of cold water in twenty-four hours, and I think, to realize the full benefits of this plan, it should be carried to this extent. There are no contra-indications to this treatment. Many observers believe that its beneficial effects on a feeble heart are well marked. In this condition it certainly cannot be contra-indicated. In the lowering of the fever, disappearance of the dryness of the tongue and mouth, sedative effects on the nervous system, and the eliminative functions of the kidneys are easily observed.

This plan facilitates the oxidation of toxines, and aids nature in removing or eliminating the refuse material which always accumulates in the system in continued fevers,—a natural result to an impaired organic function. You can observe, as evidence of the increased activity of the kidneys and skin, the great quantities of urea that is eliminated by the kidneys, its quantity fluctuates with the amount of water taken into the system. This method is very pleasant and acceptable to the patient. Of course it does not influence the course or direction of the disease.—*Charlotte Med. Jour.*

TREATMENT OF RED NOSE.

Helbing (*Therap. Monatshefte*, January, 1894) calls attention to the treatment of red nose—a condition of little importance, it is true, but decidedly annoying to the possessor. The condition he refers to is the bluish-red color of some noses upon remaining for some time in a warm room, coming in from the cold air, etc. The treatment he advises is the systematic application of the galvanic current. Both poles are applied to the nose, and are continually moved about. The strength of the current he has regulated by the amount of burning complained of by the patient. Five to eight elements of an ordinary battery suffice. If the patient is very sensitive, the anode may be applied to the zygoma and the nose gently stroked with the cathode. This application is followed by an intense redness of the skin, which lasts for an interval of two to forty eight hours. Too strong currents must be avoided on account of the excessive irritation they produce. The applications are repeated at intervals of two or three days. The method requires patience and a considerable number of applications (at least ten to fifteen), and the author has had to hold as many as thirty sittings. The author has used the method in thirty-one cases, and always with success, and gives reports of two of the more obstinate cases.—*Cincin. Lancet-Clinic.*

SECOND-HAND SYRINGES.

It is a German practice of mediæval origin attended with decided danger of luetic infection to borrow syringes from drug stores. This practice, which comes down from the time when the apothecary was expected to administer the clysters prescribed by the physician, appears occasionally in the United States. A recently imported German fraulein lately abashed a modest Chicago pharmacist by the following request: 'Dear Mr. ———, lend me your injection. I will return it in a couple of hours.'"

The above extract from the *Medical Standard* brings to mind an occurrence of '61, when Tennessee was organizing her troops to join the other Southern States in their little four years' tournament that is now happily a matter of the past.

The medical purveyor at Nashville was a canny Scot, and knowing that glass manufactories did not exist in the South, in addition to all the glass syringes that he could procure from the drug stores, sent out circulars to many physicians for the purpose of purchasing syringes, even those that had seen service—these he had thoroughly cleansed and prepared for use, and issued them proportionately on the requisitions made on him.

One regimental surgeon, recognizing in those supplied to him some that had previously been used, became somewhat incensed, and wrote a very tart communication to Surgeon-General Newnan, stating that "the members of his command were first class gentlemen, and would not submit to the indignity of using second-hand syringes."

The surgeon general forwarded the communication to the medical purveyor, which was respectfully returned by the genial and witty son of "Auld Reekie" with the endorsement: "If the within mentioned first-class gentlemen would refrain from the use of other second-hand articles needless to mention, they would not need syringes of any kind."

KENTUCKY SCHOOL OF MEDICINE.

"At the meeting of the Association of American Medical Colleges, held in San Francisco, on June 7, 1894, the Kentucky School of Medicine, of Louisville, Ky., was dropped from membership in the Association."—*Exchange.*

The Kentucky School of Medicine was never a member of the American Medical College Association, but the requirements in the catalogue recently issued are higher than are the requirements of the Association. The school has been conducted in strict accordance with the requirements observed by the most successful and reputable colleges, and no school has been more respected by the honorable members of the medical profession. In laboratory, didactic and clinical work the school has adopted the most approved methods, and now that the Faculty have completed a large hospital, adjoining the College, no school in the country can offer better practical and clinical advantages.—*Matthews' Med. Quarterly.*

DANGERS OF THE LONG RECTAL TUBE.

Harrison Cripps (*British Medical Journal*, No. 1723). Traditions die hard, and notwithstanding the condemnation of the long rectal tube by Brodie, Treves, and many other eminent authorities, I still find that in most cases of obstruction or supposed obstruction the tube has been introduced. Fortunately these tubes are fairly soft, so that in a capacious rectum, when they impinge and are arrested about opposite the promontory of the sacrum, they simply coil up and do no harm. If stiffer ones are used, the patient's life is placed in imminent risk. A patient at St. Bartholomew's Hospital was to be operated on for ruptured perineum. In order to increase the supposed efficacy of the injection, a quart of soap and water, with some ounces of oil, were injected by means of a long tube. The injection never returned. A few hours afterward, owing to the acute symptoms of the patient, I assisted one of my colleagues in opening the abdomen. The soap and water and oil we found in the abdominal cavity, and a hole below a reduplicated fold in the upper part of the rectum. The patient died. The idea that these tubes can be generally passed into and beyond the sigmoid flexure is a pure delusion, save in the rarest circumstances. As a means of diagnosis, or of treating strictures beyond the reach of the finger, tubes of any kind are absolutely useless. If a stricture is actually present, it would be 100 to 1 against the long tube or bougie entering it, for it would almost certainly catch in the *cul de sac* generally caused by the invagination of the stricture. If a stricture be not present, the arrest of the bougie by the sacral promontory leads to delusive diagnosis. Brodie, in his lectures, alludes to a case in which a worthy practitioner had spent over one hundred and fifty hours in dilating a supposed stricture situated high up. The treatment had extended over a period of a year. Brodie who was present at the *post-mortem* examination, found there was no sign of a stricture, the bougie becoming arrested by the curve of the sacrum.

THE BEST TREATMENT OF HEMORRHOIDS.

Edw. S. Stevens (*Cincinnati Lancet Clinic*). If the cases seen by the practitioner are sufficiently numerous to justify him in providing himself with the necessary instruments, he will find the clamp and cautery method of treatment an ideal one, and it has not been intended to prefer the ligature to it without some qualification of the statement of preference. While not so simple of performance, it is followed by less distress, and recovery is usually more speedy after it than the ligature. The surgeon who permits his patients to walk out on the fourth day, however, as has been reported, does not decide for their best interest. A week or ten days should elapse, unless an examination shows the wounds healed. If resorted to, two or three precautions are best heeded. Do not use it on tumors high up in the rectum. Open the clamp slowly, and if there is any tendency to bleed, screw up the clamp and again apply the cautery. The cautery is sufficiently hot when dull red, and the part of the stump to which attention should be paid in applying the cautery is that farthest from the operator,—that is, where the vessels enter.

Before either operation see that the bowels are thoroughly emptied, and after it introduce an opium suppository.

There are one or two other methods advised, but they are not all that could be desired. One of them, called after the name of an eminent English surgeon, consisting in excision of the "whole of the pile-producing area," deserves to be forgotten, not because it is not simple, but because it is not safe.

A form of hemorrhoidal disease characterized by sessile granulations which bleed easily is best treated by the very old method of applying nitric acid. Introduce a speculum, dry the parts with gauze, and touch the whole granular surface again and again with a bit of cotton moistened with the acid, but containing so little that it will not run over the parts not diseased.

Lastly, before beginning any treatment, look out for complications. Especially in women should the pelvic organs other than the rectum be examined. In children, examine the urinary organs.

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MONTREAL, NOVEMBER, 1894.

COUNTY SOCIETIES.

More than ever are we convinced of the need of better organzation of the medical profession in the Province of Quebec. Cases of the greatest interest are occurring every day, throughout the country, the experience of which is lost to science because they are never recorded. If they were reported, whether the result was successful or otherwise, the lesson which they could teach might and almost surely would be the means of saving many other lives. So that each one has to go on sacrificing human lives until he has gained an experience for himself, and then when he has learned how to save many cases which in his earlier years he used to lose, he dies, and also his knowledge dies with him. If there had been a medical society in his town, he might before his death have imparted much of the knowledge which he had acquired during his lifetime of sad experiences to the men who were to-succeed him, and thus the younger men might begin where the older men left off. It is almost incredible that there is no Province of Quebec Medical Assocation ; that there is no City of Quebec Medical Society; no City of Sherbrooke Medical Society ; no Lennoxville Medical Society ; no Richmond Medical Society, and so on, throughout the whole list of towns in this Province, for apart from the three English and two French Medical Societies in Montreal and two county Societies which meet only twice a year in the Eastern Townships, there are no Medical Societies in the Province of Quebec, and the good work being done throughout the province is lost to the profession and the world. We consider this state of affairs a great misfortune. To give one instance as regards the City of Quebec, we recently received a visit from one of the great surgeons of the world, who mentioned that during a visit to Quebec this summer he thought he would look up some of the surgeons of that city. He had never seen the name of a Quebec surgeon in any of the medical journals, of which he is a keen reader, and it was only with difficulty that he at last succeeded in obtaining the name and address of one, Dr. Ahearn, upon whom he straightway called. The surgeon was just going to an operation, to which the great man was invited, and, to his astonishment, as he informed us, to witness one of the most difficult as well as the most skillful pieces of abdominal surgery he had ever seen. And yet Quebec is looked down upon by the medical and surgical world as a city of the dead, simply because there is no Medical Society at which such cases as the above might be reported and given to the world. At the Marine Hospital in Quebec, more than twenty years ago, a man was brought in one night with his abdomen ripped open by a dagger, the bowels cut across several places, and fæces escaping from them. The Superintendent, Dr. Catellier, washed them thoroughly, sewed the ends together with a double row of sutures, and closed the abdomen, and the man recovered. This case lies buried in the records of the Hospital, instead of being reported to a Medical Society and recorded in the Medical journal; and we know of many similar instances. The forming of a Medical Society is not such a tremendous undertaking. One of the young men of the city should call upon one of the oldest and most influential man in the city, and obtain his consent to the calling of a meeting at the Medical college, the town hall, or even at the residence of the leading physician for a certain evening. A printed post card announcing the fact is then sent out to each practitioner within a radius of several miles. The appointed hour arrives ; only a small proportion of the invited ones put in an appearance at the appointed hour ; a few more drop in later. All the others are waiting

to see how it will turn out. They are the selfish ones who want some one else to do all the work, and they will come in later to eat the honey which the busy bees have gathered. Do not wait for them, but go ahead; if there are only three present, elect one President, the second Secretary and the third Treasurer; make the fee one dollar a year to begin with, for there are some medical men who cannot understand that one hundred dollars a year would not be too much to pay for the benefits they would get from such a society, and anything more than one dollar a year might keep some from joining. After these three, or as many more as there may be, have organized, paid their fee to cover postage of notices, and decided on the date and place of future meetings, let them spend an hour or two in pleasant conversation, each one telling his experiences, and we will promise that they will be sorry when the meeting breaks up. When the Secretary goes home, let him sit down while the matter is fresh in his mind, and write out a page or two of a report for the CANADA MEDICAL RECORD, and we will promise an early insertion in the best part of the journal. Next day the Secretary should call upon the members, by telephone or otherwise, asking them to promise to show some pathological specimens, living cases, or to report a case or read a paper at the next meeting, and those should be put on the notice card of next meeting. If a little energy is put into the matter, the Society will be a success from the start; but don't wait for the doubting Thomases to start it. Begin with three members, and it is bound to grow until one-half the profession in the district has joined and one-fourth attends regularly. The Medico-Chirugical Society of Montreal has a membership of one hundred and twenty, and an average attendance of forty. We have been told that what has wrecked several such societies is the question of a tariff. If such is the case, pass a resolution at the first meeting that this question must not come up for discussion. It has no business at a scientific meeting, and had better be discussed elsewhere. Also pass a resolution that no charges against members can be made before the Society, but only before the council. This will avoid acrimony, and one of the greatest benefits of medical societies is the fostering of a friendly feeling between the brothers of the same profession. Our space being limited we cannot say more at present, but we trust that what we have said will lead to the formation during the next month of at least a dozen societies whose reports will find a welcome place in the columns of the CANADA MEDICAL RECORD.

THE EXAMINATION OF PATHOLOGICAL SPECIMENS.

Every medical practitioner is or ought to be able to make an examination of urine for sugar, albumen, bile, renal casts, pus, mucus. But when it comes to the microscopical examination of tissues, very few have the necessary skill or apparatus to do it properly. A well known practitioner in this city recently went to New York for the purpose of placing himself under the instruction of one of the leading pathologists of that city. The first question that the microscopical expert asked was: "How much time each day will you be able to devote to this work?" The reply was: "On some days an hour, on others half an hour, while during a busy spell no time at all for a week or longer." "Then," said the pathologist, "it is wasting time to do such work at all, for proficiency can only be maintained by spending several hours a day at the work alone. It is better to give your specimens to some one who does nothing else." How far he is right we are unable to say; but there is no doubt that many practitioners and even operators, who would like to be scientific in their work, are greatly handicapped by the want of some prompt and reliable means of having their pathological specimens examined. It is with great pleasure we read in the University (of Pennsylvania) *Medical Magazine* that that great institution has arranged for this service. Any physician has only to send in his specimen with an explanatory letter, and if his patient is able to pay, the sum of five dollars is charged; while, if he simply states in his letter that his patient is poor, the specimen will be carefully examined and a report furnished free of charge. This has already been done by Dr. Williams of Johns Hopkins at Baltimore, with the result that in many cases he has thus found some rare and very interesting conditions; and as in many cases he is allowed to keep the specimen, his pathological museum has been greatly enriched. Could not our own great Canadia

University of McGill, with its endowed Professor of Pathology and its costly laboratory and corps of trained assistants, do as much? If done at all it would have to be done conscientiously and without favor; for if the specimen is burked, and no more heard of it, unless it be sent by one of the Faculty, outsiders would soon lose confidence and cease to send them. Many surgeons throughout the Dominion would, we are sure, be glad to avail themselves of such a privilege, the granting of which we hope ere long we will be able to announce.

THE DEATH OF OLIVER WENDELL HOLMES.

SELECTED.

The genial "Autocrat" passed away on Sunday, October 7, at the ripe age of 85.

He will be missed not only by his circle of friends in Boston, the pupils whom he led through the dreary details of anatomy for so many years, and the Massachusetts Medical Society, but the older members of the American Medical Association, who remember with pride that DOCTOR OLIVER WENDELL HOLMES was one of the founders of the Association, and at the first annual meeting, as Chairman, read the "Report of the Committee on Medical Literature." * In what more competent hands could such a report have fallen? The old members recall with affectionate remembrance his scholarly articles read at the earlier annual meetings, "On the Microscopic Anatomy of Bone," † "Puerperal Fever as a Private Pestilence," ‡ and the three Boylston Prize Essays. There are but few now who remember him as he was in his earlier days, and those think with him of many a companion of those days:

> "The mossy marbles rest
> On the lips that he has prest
> In their bloom:
> And the names he loved to hear
> Have been carved for many a year
> On the tomb."

The whole world not less than the medical profession owes a deep debt of gratitude to him for the keen words of wisdom contained in his essay on the cause and prevention of puerperal sepsis, written thirty years before the era of antiseptic douches and precautionary cleanliness. The many suggestions contained in the valedictory address to the graduating class of Bellevue Hospital Medical College in 1871 conveyed in his inimitable manner to medical men generally rules for social and professional conduct, so valuable that they deserve perennial reproduction. His "Lectures on Homœopathy and Kindred Delusions" abound with that keen humor characteristic of his bright, vivacious spirit; but even in satire he always avoided needless pain and severity. He never wrote anything which could cause him to be classed among those writers of whom he wrote:

> "Their discords sting through Burns and Moore,
> Like hedgehogs dressed in lace."

As a medical teacher he invested even the most intricate details with a polish which was not merely veneer, for no one could have heard his famous dedication address at the opening of the Boston Medical Library without knowing that his wide knowledge of medical literature was one acquired not only by reason of years of love of the subject, but by hard and painstaking labor. The class of 1847 who heard Dr. Holmes' lectures on anatomy at Harvard University were astonished and delighted by his methods and pleasant manner, and annually thereafter, for nearly or quite thirty years, Professor Holmes appeared before the class with military promptness.

We have not mentioned him as he appears to the literary world, for all the world is in mourning for him to-day, and his greatness in general literature has made his writings familiar to thousands of old and young readers, who have probably learned for the first time, by reading the obituary notices, that he was a physician. He was not only a physician in every sense of the word, but a great physician, and one whose researches and observations would have made him famous had he never written a line of his illustrious prose and poetical works.

There is grief in the Massachusetts Medical Society, because he is no more, and many an eye will become dim with tears when his empty chair is placed at the annual dinner table.

In the album of a young lady, then at Bar Harbor, there was written by Dr. Holmes in his old age, the following, which shows to what thoughts his mind was tending in his last days:

> "From this fair home behold on either side,
> The restful mountains or the restless sea;
> So do the warm sheltering walls of life divide
> Time and its tides from still eternity.
>
> "Look on the waves, their noisy voices teach
> That not on earth may toil and struggle cease;
> Look on the mountains, better far than speech,
> Their silent promise of eternal peace."

—*Journal Am. Medical Association.*

AMERICAN PUBLIC HEALTH ASSOCIATION.

The published transactions of this Association, extending over a quarter of a century, constitute a library of sanitary science full of promise for the future. The Montreal meeting of the Association last week adds another vo-

* Transactions, Vol. i, p. 249.
† Transactions, Vol. iv, p. 52.
‡ Transactions, Vol, ix, p. 372.

lume of increasing interest. The membership includes all the leading health officers of both cities, States, and the governments of United States, Canada and Mexico, also of the Army and Navy of these countries. It also includes sanitary engineers and plumbers, and officers who are dealing with questions affecting public health. From this the wide and varied character of the papers may be inferred. At this meeting sixty-one papers were read, and eight reports of the progress of science on special topics; together with one evening devoted to addresses of welcome and commendation.

A grand excursion to the Quarantine at Grosse Isle on the St. Lawrence, below Quebec, also a ride through La Chine Rapids, and a reception were given to the members. Outside of this, four days were devoted to the real work of reading and discussing the many topics.

As usual in all such meetings, a certain number of papers are poor compilations of books and pamphlets, and a certain number contain a few facts of fresh interest, that could be stated in a few printed lines, but are covered up in words that stretch over twenty minutes. A small number of papers are always extreme in assumption, and dangerously dogmatic, and other papers seem to come up to the verge of originality, but fail in obscurity and confusion of statement. Then the usual advertising and commercial papers and the enthusiast with one idea and one theory to apply to all conditions of life and living. Beyond this common experience of every meeting, some excellent scientific work was presented. The filtration and sedimentation of water was presented with great clearness, and the results of original experiments given, showing that polluted waters passing over sand beds may be deprived of 95 per cent. of all their microbes and organisms. The efforts to extend the boundaries of exact science in this direction were very clearly set forth by Dr. Smart, of the U. S. Army, in a report on this topic. The disposal of garbage was the topic of several excellent papers, showing great advance and very thoughtful suggestive work in this field. The air and water of farm houses was the subject of some striking observations. Car ventilation, the danger from sputa in tuberculosis, and the infection of milk from tuberculosis were well presented. "The Influence of the Climate of Canada on Health," "The Influence of Inebriety on Public Health," and the "Long Island Water Basin," were notable papers. Drainage, ventilation, cremation, plumbing, climate, and other topics received very substantial contributions. The fact that over four hundred members were registered from all parts of the United States, Canada and Mexico is significant of a great advance in sanitary matters.

The science of medicine has expanded to such an extent that these widely varying topics must be separated and studied by specialists. As in all new subjects, sanitary science and the questions of the prevention of disease must pass through the various stages of growth and evolution.

Health boards with their officers and inspectors should lead as teachers and instructors of public sentiment: while the general practitioner may be a good observer and reasoner of causes and effects in preventive medicine, he can not have the experience and facts to draw conclusions from that health boards possess. Yet the impression grows stronger after listening to a long list of papers by men who are in a position to know the facts, that many of these sanitarians fail to use the knowledge in their possession, or to make the original observations possible in their positions. A little reflection makes it apparent that many persons connected with these health boards owe their positions more to political influence than to scientific attainments. This readily explains the disappointment in the character and quality of some of the work of these boards. While the blighting influence of politics is not peculiar to boards of health and sanitarians in general, yet it can be seen and felt in many ways in all these gatherings. This meeting of the Association showed a marked advance in many ways, over previous gatherings, and will be noted in its history as the starting point by the publication of its transactions in a quarterly. These large gatherings of men devoted to sanitary subjects have an excellent influence on the public, and if the rule of the Association was rescinded so as to allow daily papers to publish certain papers in full, the best results would follow, and more good would be done. Over a dozen papers read at this meeting would have been printed in full by the daily press, and read by a large number of persons to their great profit, if the rules could have been changed. As it is, these papers will be buried in the transactions and only a few ever appear in the public press. The sanitarians of this country have a great field before them, and this Association is doing a work of very wide influence.—*The Journal Am. Med. Assn.*

THE AMERICAN ELECTRO-THERAPEUTIC ASSOCIATION.

This Association held its fourth annual meeting in New York City September 25, 26 and 27, under the presidency of Professor W. J. Herdman, of Ann Arbor. The scientific proceedings, which, we presume, will appear in full in the *Journal*, were more than usually interesting and systematic, the plan of pre-arranged discussions on the physics and therapeutics of

each form of current being followed. The spirit of the meeting, which was largely attended, seemed to be the discussion of the primary facts of electro-physics and their applications to medicine, and while but few new facts were announced, the full discussions elicited on these fundamentals were interesting alike to the expert and the tyro, and can not be other than highly useful in stimulating greater accuracy and thoroughness in the medical users of electricity. The presence and participation of a number of electrical engineers and distinguished physicists were significant.

On the evening of the third day the members were received by Nikola Tesla at his laboratory, and were treated to a display of the remarkable qualities of high frequency currents recently developed by this latest electrical prodigy. On Friday, through the courtesy of Mr. Edison, the whole Association and its ladies were conveyed to Edison's laboratory by special train, and escorted through the works, after which a delightful banquet was enjoyed.

That New York fulfilled its social opportunities was well proven by the reception and banquet at the Academy of Medicine, and by its private hospitalities to visiting members. —*The Journal Am. Med. Assn.*

BOOK NOTICES.

THE YEAR-BOOK OF TREATMENT FOR 1894. A comprehensive and critical review for practitioners of medicine and surgery. By twenty-four eminent specialists. Duodecimo, 497 pages. Cloth, $1.50. Lea Brothers & Co., medical publishers, 706 708 and 710 Sansom St., Philadelphia.

The great value to every practitioner and specialist of having at hand such a volume must be obvious. It covers the advances in treatment made in all departments of medicine and surgery, including all the specialties during the preceding twelvemonth. The various articles are sufficiently detailed for practical purposes, but full references to original papers are given for the convenience of those desiring to make extended research. The volume is completed with a selected list of new books, etc., an index of authors, and an index of subjects. In combination with the *American Journal of the Medical Sciences* (monthly, $4.00 per annum), or *The Medical News* (weekly, $4.00 per annum), or both ($7.50 per annum). *The Year-Book of Treatment* is placed at 75 cents. *The Year-Books of Treatment* for 1891, 1892 and 1893 can be obtained for $1.50 each, and the issues for 1886 and 1887 for $1.25 each.

THE RETROSPECT OF PRACTICAL MEDICINE AND SURGERY. Being a half-yearly journal containing a retrospective view of every discovery and practical improvement in the medical sciences. Edited by James Braithwaite, M.D. London, obstetric physician to the Leeds General Infirmary; late Lecturer on Diseases of Women and Children, Leeds School of Medicine; Fellow and late Vice-President of the Obstetrical Society of London; Corresponding Fellow of the Gynæcological Society of Boston, U.S. Volume CIX., July, 1894. Uniform American edition. New York: G. P. Putnam's Sons, 27 West Twenty-third Street; 1894. For sale by Dawson Brothers, Montreal, $2.50 a year in advance, half-yearly parts $1.50.

We are always glad to welcome Braithwaite to our library table. The articles are as usual well selected and the abstracts very concise and clear. It is well worth the price for the physician to have it in his carriage or while waiting at a case, being full of hints of practical value.

PAMPHLETS.

PRACTICAL APPLICATION OF THE PRINCIPLES OF STERILIZATION. By Hunter Robb, M.D., Associate in Gynæcology, Johns Hopkins University, Baltimore. Reprinted from the American Journal of Obstetrics, Vol. XXX, No. 1, 1894. New York: William Wood & Company, publishers, 1894.

CAN PHYSICIANS HONORABLY ACCEPT COMMISSIONS FROM ORTHOPEDIC INSTRUMENT MAKERS. By H. Augustus Wilson, A.M., M.D., Professor of General and Orthopedic Surgery Philadelphia Polyclinic; Clinical Professor Orthopedic Surgery, Jefferson Medical College.

INTRALIGAMENTOUS AND RETROPERITONEAL TUMORS OF THE UTERUS AND ITS ADNEXA. By William H. Wathen, A.M., M.D.

A WEEK'S WORK IN GYNÆCOLOGY. By Kenneth N. Fenwick, M.A, M.,D.

DIAGNOSTIC PALPATION OF THE APPENDIX VERMIFORMIS. CASES OF APPENDICITIS. By George M. Edebohls, A.M., M.D., Gynæcologist to St. Francis Hospital, New York; Professor of Diseases of Women at the New York Post-Graduate Medical School and Hospital. Reprinted from the American Journal of the Medical Sciences. May, 1894; The Post-Graduate, April, 1894; and the New-York Journal of Gynæcology and Obstetrics, February, 1894.

PREGNANCY AFTER VENTRAL FIXATION OF THE UTERUS. A REPORT OF FOUR CASES. By George M. Edebohls, A.M., M.D., Gynæcologist to St. Francis Hospital, New York: Professor of Diseases of Women at the New York Post-Graduate Medical School; Consulting Gynæcologist to St. John's Riverside Hospital, Yonkers, N.Y. Reprinted from the Transactions of the New York Obstetrical Society.

MORPHINISM IN MEDICAL MEN. Read before the American Medical Association, San Francisco, 6th June, 1894. By J. B. Mattison, M.D., Medical Director Brooklyn Home for Habitués.

THE MODERN AND HUMANE TREATMENT OF THE MORPHINE DISEASE. By J. B. Mattison, M.D., Medical Director Brooklyn Home for Habitués. Read before the Pan-American Medical Congress, Washington, D. C., 6th September, 1893. Reprint from Medical Record, December 23rd, 1893.

DE L'AGRANDISSEMENT MOMENTANÉ DU BASSIN. Rapport lu au Congrès International des Sciences Médicales tenu à Rome du 29 Mars au 5 Avril 1894. Par Adolphe Pinard, Professeur à la Faculté, Membre de l'Académie de Médecine, Paris. G. Steinheil, éditeur 2, rue Casimir-Delavigne. 1894.

ANNUAL ANNOUNCEMENT OF TRINITY MEDICAL COLLEGE, Toronto, established 1850, incorporated by special Act of Parliament. In affiliation with Trinity University, The University of Toronto, Queen's University and the University of Manitoba; and specially recognized by the Royal College of Surgeons of England; the Royal College of Physicians of London; the Royal Colleges of Physicians and Surgeons of Edinburgh; the Faculty of Physicians and Surgeons of Glasgow; the King's and Queen's College of Physicians of Ireland, and by the Conjoint Examining Boards of London and Edinburgh. Session 1894-5.

THE SPELLING OF SOME MEDICAL WORDS. By George M. Gould, A.M., M.D., of Philadelphia, Pa. From The Medical News, June 17, 1893.

CLASS-ROOM NOTES.

—Prof. Parvin says in cases of *Rupture of the Uterus*, when it has become necessary to perform laparotomy in order to deliver the child, and hemorrhage exists which cannot be controlled by either sutures or tampons of iodoform gauze, hysterectomy is indicated.

—Prof. Parvin says one of the best methods of getting rid of the accumulation of water that occurs in cases of *Hydræmia* is by giving the patient a hot bath for about twenty minutes and then giving her a glass of hot water to drink, causing her to perspire freely.

—Prof. Parvin says, if immediately after the birth of the child the *after pains* are so severe as to prevent the mother from sleeping, and are not relieved by the application of hot compresses to the uterus, with compression of the uterus, opium and camphor or antipyrine may be administered.

—*Atropine and Belladonna* exert their chief influence on blondes.

—Prof. Hare says *Chronic Catarrh of the Mucous Membrane* is often relieved by alkaline diuretics.

—Dr. Wolff does not favor the use of the cold bath in the treatment of *Pneumonia*, for the reduction of the fever.

—Prof. Parvin believes that women who develop a goitre during their pregnancy should not nurse the child.

—Prof. Parvin says that the period of incubation of *Scarlet Fever* is longer in a pregnant than in a non-pregnant woman.

—Prof. Hare says creosote should not be employed in cases of *Tuberculosis* in which hemorrhage or hectic fever is present.

—In cases of *Intestinal Flatulence* combined with indigestion, Prof. Hare says chloroform will be found to be very valuable.

—Prof. Parvin says a nervous woman is more predisposed to *Puerperal Convulsions* than one whose nervous system is not over-sensitive.

—In cases where a tumor of the breast occurs, accompanied by a retraction of the nipple, Prof. Keen says that, as a rule, the tumor is a *Carcinoma*.

—Prof. Keen says in *Cancer occurring in the breast*, the whole breast should always be removed, on account of the infiltrating method in which a cancer grows.

PUBLISHERS DEPARTMENT.

The Canada Medical Record.

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CONTENTS.

Original Communications.

COCAINE POISONING.

By J. B. MATTISON, M.D., *Medical Director, Brooklyn Home for Habitues.*

It is "ancient history" more or less since the writer began to present the record of toxic effects from cocaine.

During the nearly nine years past dozens of deaths and hundreds of non-fatal cases from untoward effect of this drug have been placed before the profession, so that one is at a loss to know whether he who at this late day says, "it has hardly been reasonable to call it a poison in any ordinary quantity," is ignorant of this toxœmia, or is blinded by a feeling in its favor that prompts him to question this fact, and prevents him counselling that caution in its use which prudence undoubtedly demands.

A Boston oculist, Dr. J. A. Tenney, writing recently about "mishaps with cocaine," used the language we have quoted, and in so doing may have intended to limit his statement regarding its non-toxic effect to his special field. If so, he might better have been more explicit, for, surely it was not wise to disclaim, in a general way, its power as a *poison*, for *poison it truly is*.

In November, 1886, at a meeting of the New York Neurological Society, Doctor William A. Hammond, speaking of cocaine, said "he did not believe any dose that could be taken was dangerous." Before that meeting ended, the writer challenged such a dangerous statement, and warned the members against accepting it, and, during the next year, presented such convincing proof that Hammond was wrong as to impel the *British Medical Journal* to assert, editorially,—"if it were more needful to produce more proof of the unsoundness of Dr. Hammond's opinion, Dr. Mattison has effectually done this."

Dr. Hammond has lived to see the day that he regrets, quite likely, having expressed such dangerous doctrine. He

* Read before the Kings County Medical Society, October 16th, 1894.

certainly has admitted his error, for, in discussing my paper on cocaine inebriety read before the District of Columbia Medical Society, Washington, Christmas Eve, 1891, he frankly confessed that he was wrong, and avowed that *he* had nearly killed a patient with cocaine.

No one can tell what mischief went in the wake of his expressed disbelief in the toxic power of this drug. Had it come from some obscure practitioner, it would have passed almost unnoted, but, with the weight of such authority as Hammond's professional prominence gave it, it was all the more dangerous.

The first lethal case of cocaine poisoning was due to the hapless surgeon's reliance on its asserted use in large amount without harm. This case had a doubly tragic ending, for, not only did it cost the life of the patient, a young woman, but the unhappy surgeon, overcome by regret or remorse, committed felo de se.

What the outcome, fatal or non-fatal—all unrecorded, it may be—of a like reliance on Dr. Hammond's statement?

Dr. Tenney seems to think that the taking of 18 grs. of cocaine, subcutaneously, in 3 doses, at short intervals without death—which was Hammond's claim—proves it hardly reasonable to call it a poison. We do not agree with him. It simply proves an exception to a rule just such as obtains along numberless other lines; and, in view of what history has given us concerning cocaine poisoning, it proves that it was a fool-hardy affair, for it might have cost the venturer his life. Many a man ess a Hercules than Hammond would have been promptly "gathered to his fathers."

There is little question that the earliest reports on cocaine roused a fervor in its favor that led more than one to commend it with a zeal not tempered by that caution which prudence demands. Others, while not lauding it unduly, were inclined to disparage the warning note that, early, was sounded against it. I well recall a member of the Neurological Society, who expressed himself as much pleased with Dr. Hammond's assertion regarding the non-harmful nature of cocaine, as one likely to lessen an unfounded prejudice against a valuable drug.

With the deadly record that has since been presented, it is quite probable that member—Leonard Corning—has changed his opinion; for he must know the expressed fear of cocaine had a foundation on fact.

History has repeated itself along lethal lines, as regards cocaine, so often, that it really seems surprising that any one at this day should question its power for harm. It may not be known to all that cocaine has killed in smaller dose than morphine,—but that is a fact. It may not be known to all that cocaine has killed in quicker time than morphine,—but that is a fact.

Autumn before last, I reported, for the first time,—through the courtesy of Doctor George B. Cushing, now of Wheeling, W. Va.—this case. Strong man walked into Bellevue Hospital, suffering from urine retention. Catheter disclosed stricture. One drachm of a 4 oz. solution of cocaine was thrown in urethra. Almost at once patient became greatly excited, and in a few seconds went into convulsions so violent that it required the combined strength of doctor and nurse to hold him on table. Amyl was promptly used; no reaction; in 4 minutes, man was dead!

This case—for which I thank Dr. J. E. Lumbard, New York city—is now first reported. Man, aged 25, entered Manhattan Hospital, complaining of 2 days urine retention. Catheter revealed traumatic stricture, due to a 2½ inch sewing needle put in urethra by chum, during a drunken frolic. Twenty minims of a 4oz. cocaine solution were injected in urethra. Imme-

diately, patient went into convulsions, and, despite every effort, died! Autopsy, in each case, showed intense lung congestion.

Very recently, two deaths from cocaine —within a fortnight of each other—have been noted and are now first reported.

On the last day of last month, a young woman visited a "complexion artist"—so called—in Chicago, to have a facial blemish removed. Sham electricity was used—it being, really, a dummy battery, one sponge of which, saturated with a strong solution of carbolic acid, was held to the affected part, with the result of causing great pain. To relieve this, a 4 oz. solution of cocaine was freely applied. In a few minutes, the woman became excited, said she felt strange, walked to a window, and fell dead! No autopsy.

Four days ago—Friday last—a man, aged 26, entered the office of a Jersey City physician, to be operated upon for a rectal fistula. Twenty minims of a 4 oz. cocaine solution were injected hypodermically, for anæsthesia. No effect ensuing in 10 minutes, 20 minims more were injected. In 3 minutes, the man became unconscious and convulsed. One minute later he was dead! No autopsy.

The evidence to prove cocaine a poison is now so ample, that no excuse will avail to exonerate the doctor who, not heeding the lesson taught by the gruesome record, fails to use it with the care its toxic energy demands.

It is a drug peerless for good in certain conditions; but its power for ill must never be lost sight of, if one would conserve the best interests of those on whom it may seem wise to use it.

Prospect Place
near Prospect Park.

Society Proceedings.

THE MONTREAL MEDICO-CHIRURGICAL SOCIETY.

Stated Meeting, June 29th, 1894.

JAMES BELL, M.D., PRESIDENT, IN THE CHAIR.

Dr. BELL presented the following specimens:

(1) A large concretion which he had recently removed from the bowel in a case of appendicitis. The patient was 47 years of age, and had a bad history of recurrent attacks at intervals of three or four months for the last 21 years. The last attack occurred eight weeks before coming under observation, and it was then for the first time that he noticed any mass in the abdominal wall. This mass was in the situation of the appendix, and about the size of a hen's egg; it was very hard and very clearly adherent to the abdominal wall, was quite tender to the touch, and on walking he suffered a dragging pain. Operation was advised and accepted by the patient, and was carried out in the usual way. The incision was made to the inner side of the mass, which was then carefully dissected away from the abdominal wall to which it was attached by very firm adhesions. The free surfaces of the cæcum and the lower end of the ileum were found to be adherent, and in the adhesions were enclosed in a hard mass and the base of the appendix. The free end of the appendix projected about an inch and a half. On separating the ileum and the cæcum, it was found that the greater part of the dilated proximal end of the appendix had been absorbed (or destroyed by ulceration or gangrene), and that the concretion communicated with the lumen of the bowel on each side. The appendix and the concretion were removed and the two portions of bowel re-united by suture. The concretion, which was about the size of a horse-chestnut, had been submitted to Dr. Ruttan for chemical examination. The patient made an uninterrupted recovery. The case, Dr. Bell thought, was of interest as illustrating one of the unusual and complicated conditions one may meet with on operating for appendicitis.

(2) *Sarcoma of the Upper Third of the Tibia.*—The specimen had been removed that day from a girl 23 years old, with a tubercular history. The tumor was first noticed two and a half years ago, but emaciation had only become marked during the past eight months. The amputation was performed in the middle third of the thigh.

Chloroform Accident.—Dr. BELL next gave the history of a chlorofrom accident which occurred recently in his hospital practice, and which came very near adding one more victim to the fatalities of chloroform anæsthesia. On

Thursday of last week, a boy eight years old, suffering from caries of the lower dorsal vertebræ with psoas abscess, was prepared for operation. He had been in the hospital one month prior to this, during which time he appeared in good health: there was no fever, and with the exception of this spinal condition his organs were all sound. (Dr. Bell then read the report of the anæsthetist.)

Commenting on the report, the speaker remarked that it was impossible to say whether the pulse or respiration were the first to cease, as almost at the same moment that Dr. Shaw discovered the stoppage of the pulse, Dr. Davidson observed the respirations to cease with a long drawn sigh. Inversion, artificial respiration, cold to the face, with hot cloths over the cardiac region were all resorted to, and it seemed minutes to the observers before any return of respiration or cardiac movements manifested themselves. He thought that this case demonstrated the fact that the heart does stop suddenly in chloroform poisoning,—in some cases, at least,—and that death is not always due to respiratory failure brought on by the administration of an excess of the drug. Had respiratory failure been the initial event here, the heart, as in all cases of death from suspended respiration, such as drowning, hanging, choking, etc., would have gone on beating for some minutes, instead of stopping instantaneously as here. The converse, however, is not true; that is, respiration does not continue after an arrest of the heart's action: and considering these facts, it seems clear that in this case the effect of the chloroform was exercised on the heart primarily and solely, the stoppage of respiration being secondary to it. Moreover, the quantity of chloroform administered was too insignificant to be capable of affecting the respiratory centres, as in less than half a minute before the accident the boy cried out "take it off my face," and only a few drops were given afterwards. An interesting feature in the case is that it contradicts the contention of the Hydrabad commission, that the heart never stops first, but that death from chloroform is always the result of respiratory failure from not giving the drug properly.

Dr. Shepherd thought there must be two classes of cases in chloroform poisoning. He had a case last winter where he was operating for lupus of the face, in which chloroform was used, and in which the respirations stopped while the heart went on beating.

Dr. Gordon Campbell believed that the preponderance of clinical evidence is in favor of the heart stopping first. He then wished to know if the boy was much alarmed. Dr. Bell replied in the negative, saying that he was exceptionally free from fear.

Dr. Wesley Mills said that most of the upholders of chloroform as an anæsthetic were simply blinded by their prejudices, and were incapable of seeing or believing any facts, no matter how well substantiated, detrimental to the reputation of this drug. He instanced the fact that Surgeon Major Laurie had quoted the report of the chloroform commission as being entirely in favor of his pet belief, while, in fact, it contradicted it. And such is the attitude of a majority of the defenders of chloroform who belong to what is known as the "Syme school," and to any experience establishing untoward effects their reply is simply "You do not give it properly; if you had done so, the accident would not have happened."

Dr. Gordon Campbell agreed with Dr. Mills in his strictures on the men of the "Syme school." He said they were accustomed to state that ether was only used by second-rate surgeons, and that it only affected incomplete anæsthesia.

The late Dr. Fenwick.—The following resolution was moved by Dr. Shepherd and seconded by Dr. Mills:

Resolved—That this Society has learned with the most profound sorrow and regret of the death of Dr. George Edgeworth Fenwick, one of its foundation members and a past president. For many years a most active and valued member, beside taking a prominent part in the discussions, he contributed numerous important papers to the proceedings and exhibited numbers of very valuable pathological specimens.

He was widely and favorably known, both in Canada and abroad, as a most accomplished, original and daring surgeon, who helped to advance surgical science in various directions, but especially in the surgery of the joints.

In Canadian medical literature he always upheld the best interests of the profession by protesting against abuses and advocating reform.

His kindly, genial manner and goodness of heart endeared him to all his brethren, and especially made him the friend of the young practitioner.

Resolved—That our deepest sympathy be conveyed to his sorrowing family in this their time of mourning.

Annual Meeting.

The twenty-fourth annual meeting was held on Friday, October 5th, 1894, Dr. James Bell, President, in the chair.

The members present were: Drs. Wm. Gardner, G. P. Girdwood, A. Proudfoot, James Perrigo, J. B. McConnell, J. Chalmers Cameron, F. Buller, T. Wesley Mills, D. F. Gurd, J. A. Macdonald, G. T. Ross, Thomas D. Reed, James Stewart, J. Alex. Hutchison, F. R. England, H. S. Birkett, A. W. Gardner, E. H. P. Blackader, H. A. Lafleur, J. H. B. Allan, D. De Cow, J. H. Bell, J. A. Springle, G. Gordon

Campbell, James M. Jack, J. G. McCarthy, J. Leslie Foley, F. A. L. Lockhart, J. A. Macphail, D. J. Evans, W. S. Morrow, A. E. Orr, H. D. Hamilton, H. B. Carmichael, C. F. Martin, George A. Berwick, S. Ridley Mackenzie and Kenneth Cameron.

The minutes of the last annual meeting were read and confirmed.

Dr. J. M. JACK, the Treasurer, reported that there was a balance of $218.44 on hand, the receipts having been $1,228.53 and the expenditure $1,010.09.

Dr. KENNETH CAMERON, Secretary, reported that at the beginning of the session there were 117 ordinary members, 15 new members were elected, 1 died and 1 resigned, making a present total of 130; of these 114 are resident and 16 non-resident.

The number of temporary members had been greatly increased by the election of the resident staff of the Royal Victoria Hospital, the total membership now being 16. No honorary or corresponding member was elected.

Twenty regular meetings were held with an average attendance of 33.25 members per meeting, or an increase of 2.25 members per meeting over last year. The largest attendance at any meeting was 48 and the smallest 13 members.

Dr. T. D. REED the Librarian, read the following report:

Considerable difference of opinion existed as to the desirability of placing the library and reading room in a different story of the building from the meeting room; the separation has now been accomplished for a year, in our present quarters, and each member can form his own opinion of the change.

The number of readers may be considered to have been about the same as previous years; exact statement on this point cannot be made, as members have access at will to the room by private key, and leave no record of attendance.

The Journals have been maintained as before, and the valuable series of London, Philadelphia, New York and Montreal publications have been kept up by binding.

There are now on the table 4 weekly and 30 monthly journals.

No additions to the library by purchase have been made, as the Council has not appropriated any money for the purpose. It is very desirable that the Society should arrange for an annual appropriation for the purchase of the new encyclopædias, dictionaries, practices and other works of reference, which everyone would like occasionally to consult.

We are indebted to Dr. Blackader for a valuable series of *Braithwaite's Retrospect*.

To Dr. Smith and others our thanks are due for numerous medical journals.

The new room, though small, has been found comfortable and sufficiently commodious for the present.

The following officers were elected for the ensuing year:—

President—Dr. G. P. GIRDWOOD.
1st Vice-President—Dr. J. B. MCCONNELL.
2nd Vice-President—Dr. J. ALEX. HUTCHISON.
Secretary—Dr. G. GORDON CAMPBELL.
Treasurer—Dr. J. M. JACK.
Librarian—Dr. F. A. L. LOCKHART.
Council—Drs. JAMES BELL, PERRIGO and SHEPHERD.

Dr. JAMES BELL, the retiring President, then read the

ANNUAL ADDRESS.

The Constitution and By-Laws of the Montreal Medico-Chirurgical Society demand of the retiring President that "He shall present at the annual meeting a written address, which shall include a résumé of the work done during the year."

You have already heard from the report of the Secretary that we have now a larger membership, and that we have had during the year just ended a larger attendance, both average and minimum, than ever before. From the Treasurer we have learned that notwithstanding our more commodious and more expensive quarters and the great expenses incurred in fitting them up for occupation, we have a surplus of over $200 at the end of the year. This is undoubtedly due largely to the adoption by the Society of better business methods (as well as to the energy of the Treasurer), but it must also be taken to indicate a greater and more genuine interest in the Society by the profession at large. These facts speak for themselves, and constitute an effective answer to those who feared that in taking these rooms which we at present occupy we were launching out upon a scheme of extravagance which would ruin the Society.

Turning now to the professional work of the Society during the year, I find that it may be summed up as follows: There were 9 papers and 9 case reports read, 19 living cases exhibited, and upwards of 73 specimens presented. Besides these, 3 demonstrations were given, which are not included in any of the above headings.

What instantly strikes one in this very condensed résumé of the professional work is, that while on the whole there was no dearth of work, there were only 9 papers given in 20 meetings. Following up this analysis, we find that among 142 members and an average attendance of 33.25, 25 names only appear as contributors during the year. Moreover, the discussions have been confined to a small proportion of the members present at any meeting. This, I fear, is the weak point of the Society, and I trust that the members will pardon me for attention to it. With every department of medicine re-

presented on our programme, as they have been —clinically and pathologically—medicine and surgery, gynæcology and obstetrics, ophthalmology, otology and laryngology, and with such a wealth and variety of material presented, it seems strange that lack of discussion should be a feature of our meetings. I am sure that I voice the sentiments of the older members and of those who have been the main contributors in the past, when I say that we would gladly see the younger members take a more prominent part in the preparation and the discussion of papers. Let it not be thought for a moment that here some are teachers and some are students, rather let it be understood that all are students and all may be teachers; that here we meet on common ground for mutual benefit and for the advancement of our profession. We have abundant facilities, let us have active professional work in the Society from every member, young and old. This is all that is needed to make our Society a great power in the land In fact, it is already a great power, and we can look with pride upon the part which it has recently played in several great public reforms, notably the reform of the national quarantine system within the last two years. In making this statement I do not wish in any way to detract from those who were more directly responsible for the reforms mentioned, but simply to state the fact that this Society did not stand aloof, but took a firm and uncompromising position in support of the movement for reform.

The discussion of matters concerning the health of the public and the welfare of the profession I conceive to be an important function of this Society. Further, a more active interest among the members must rapidly develop a higher class of work—collective investigation, formal discussions on important subjects in the different departments of medicine, committee investigations and reports on material presented at the meetings, and finally, as an outcome of all this, better arrangements for the editing and publishing of a volume of the Society's transactions annually.

There is another matter which I wish to specially commend to the thoughtful consideration of every member of this Society. A year ago we celebrated the fiftieth anniversary of the founding of the Society; to-night we are transacting the business of the twenty-fourth annual meeting of its second renaissance. Is not the time ripe for the establishment of a permanent home for the Society? We are domiciled here in our present quarters for four years more; and although at this moment I know of no scheme on foot, or even suggested for the purpose, it does not seem to me that it need be looked upon as entirely utopian to hope that before our present lease has expired such a scheme should at least be well under way. Of course it means money, and I know too well that no large sum of money could be raised among the members of this Society; but this fact need not be fatal to the project. We see hospitals, schools, libraries and institutions of all kinds grow up around us, not only in Montreal, but elsewhere, from public and private benefactions, in many cases directly influenced by medical men. Why may we not hope, if the want is made known, that some public-spirited citizen will in the near future build such a monument to his memory? Such an institution will certainly be founded in Montreal sooner or later. Such institutions already exist and have long existed in all great medical centres, even in this, the new world. I have not inquired into the histories of the different institutions of this kind, but I was greatly impressed by the fact, noted during a recent visit to Philadelphia, that the Academy of Medicine of that city is now nearly two hundred years old. What we want is a permanent abode, not only for our meetings, but where we may establish a library and a museum for reference, and preserve pictures and mementoes of the great lights of the profession to stimulate us and those who come after us to greater efforts and better work. In conclusion, gentlemen, I beg to tender you all my sincerest thanks for the honor which you conferred upon me a year ago by electing me President of this Society, and for the confidence and support which you have since accorded me as its presiding officer.

ELEVENTH INTERNATIONAL MEDICAL CONGRESS.

Treatment of Blennorrhagic Urethritis in the Female.—M. Jullien, of Paris, has employed ichthyol with success in this affection. He applies it by means of a metallic stem, the extremity of which is wrapped with cotton previously soaked in ichthyol. He passes and repasses the instrument into the urethra with a certain degree of force. He also uses ichthyol to kill the gonococcus in the vagina or uterus.

Alumnol in the Treatment of Blennorrhagia.—Professor Schwimmer, of Budapest, has found that alumnol is an astringent and antiseptic which does not combine with albumen, as, for instance, with nitrate of silver, thus enabling its effects to be exerted upon the deepest portions of the connective tissue. He has made numerous experiments, in cases of acute blennorrhagia in the male, with aqueous solutions of from ½ to 5 per cent., either as injections, urethral irrigations, or instillations with Guyon's or Ultzmann's sound. The results were good. In acute cases alumnol soon produced a certain irritation; in chronic cases it was better supported, but the duration of the treatment was no shorter than with other remedies. In blennorrhagia in the female the results were excellent in both acute and chronic cases,

patients at his clinic being cured in from two weeks to two months. The remedy was applied as a vaginal injection with the aid of speculum or by tampons introduced into the cervical canal.

RADICAL CURE OF EPITHELIAL CANCER OF THE SKIN.—Dr. Gavino has obtained a cure in these cases by the following mixture: Fuming nitric acid, 10 grammes (2½ drachms); bichloride of mercury, 4 grammes (1 drachm); Berzelius paper, q. s. ad consist. sirup. The remedy is applied with a cotton forceps, repeating the cauterization in ten or twelve days. This will be sufficient to cause the largest tumor to fall off, when cicatrization soon takes place. Until the present time, the speaker had had 100 per cent. of cures. A patient of Professor Péan's, having a tumour seventeen centimetres in diameter, upon which the surgeon did not wish to operate, was cured in about eighteen days by this means, the tumor dropping off entire, nothing remaining but the cicatrizing wound.

INDICATIONS AND LIMITS OF TOPICAL TREATMENT IN LARYNGEAL PHTHISIS.—Dr. Lennox Browne, of London, read a paper on this subject. The inflammations, ulcerations, and neoplasms observed in the larynx during the course of pulmonary tuberculosis are, in all probability, of tuberculous origin; it is also known that there exists a primary laryngeal tuberculosis. Virchow has said that the larynx was the most favorable spot in which to observe the alterations of the disease; it is also the most advantageous region for topical applications. The cures, it is true, obtained by this method are exceptional; but it at least arrests the process and is much better than palliative measures. Contrary to general opinion, the improvement of the general health and of the lungs is not the cause but very often the direct effect and the logical result of local efficacious treatment of lesions of the upper respiratory passages. The indications for topical treatment depend upon (1) the state of the larynx, acute or chronic; (2) the degree of the tuberculous affection, infiltration, superficial or deep ulceration, necrosis or caries of the cartilages, and development of neoplasms; (3) the state of the lungs.

The results of treatment in 102 cases of laryngeal phthisis studied by eight different observers, grouped in the author's report, show that in 32 cases in which both lungs were diseased the treatment did not cure, but simply improved the condition; in 31 cases in which the disease was limited to one lung only, but was of a grave nature, cure was obtained in 1 case and improvement in 8 cases. In 24 cases in which the lesions were limited to one side, and were moderate in nature, cure was obtained in 6 cases and improvement in 16 cases; and in 15 cases in which there were no pulmonary symptoms 2 cases were cured and 7 were improved. The author concludes from these statistics, which comprise but a single case of cure (that being one of his own), that the chances of recovery, and even of improvement depend to a large degree upon the the co-existence and extent of pulmonary disease.

As to the methods and limitations of treatment he does not advise the use of morphine, except in hopeless cases; nor cocaine except for intralaryngeal curettage, for applications of lactic acid, or for the temporary relief of dysphagia. All medicaments (except lactic acid) should be applied as a spray, and not in the form of insufflated powders. Menthol or menthol combined with iodol and dissolved in oil is one of the best remedies in the stage preceding ulceration. The curette may be employed to, destroy the hyperplasia, to remove dead matter from the large ulcerations, and to unite the small multiple ulcers into a single large one. The curette may also be of value prior to the application of lactic acid, but its use in this connection is not indicated in more than a fifth of the cases. Lactic acid, to be really efficacious, should be employed with friction. Puncture and incision of the infiltrated tissues, as practiced by Schmidt and Rosenthal, should be avoided, as they produce no favorable result and hasten the development of ulcers. Extirpation of the arytenoid cartilages (Heryng and Gouguenheim) is not to be advised, as these are rarely the seat of morbid alteration; and if such alterations do exist, the disease is at such an advanced state that intervention is contraindicated.

According to the author's observations, tracheotomy should not be performed in tuberculosis of the larynx. While applying the topical treatment the rules of hygiene and internal medication should be considered, as well as the climate best adapted to each patient.—*Le Semaine Médicale*, April 4, 1894.

VIENNA MEDICAL SOCIETY.

VASOMOTOR PHENOMENA IN FEVER.—Prof. F. Kraus reviewed the various prevalent theories upon the vasomotor phenomena of fever, particularly those of Heidenhain, Senator, Bouchard, and Charrin. It is known that during the stage of chill the turgescence of the skin is diminished, the superficial arteries are contracted, and the peripheral temperature is lowered, while the central temperature is increased. The diminution in the turgescence of the skin is due to contraction of the small arteries, and at the height of the fever increases after dilatation of the cutaneous vessels; the venous blood is also redder than in the normal state. Thermo-electric examinations made by the speaker in fever patients showed that the vasomotor reflexes of the skin were preserved, and that the vessels alternately contracted and dilated.

From calorimetric examination he convinced himself that the elevation of temperature was coincident with a diminution in heat radiation. Antipyretics increased this radiation to a greater degree than did cold water. He also found that the number of red cells and the blood-plasma were not modified during fever. His researches show the importance of vasomotor phenomena in fever, but do not explain the process. It seems, however, that toxic agents act upon the vasomotor nervous system, upon which depend the thermogenic process and heat radiation,—a view already advanced by Billroth.—*Internationale klin. Rundschau*, March 25, 1894.

Treatment of Laryngeal Phthisis.—Dr. Hajek presented a patient with laryngeal tuberculosis upon whom he had tried a new treatment. The infiltration of the epiglottis was so great that the man could no longer swallow. Dr. Hajek removed the entire epiglottis by means of a galvano-caustic loop, and treated the wound with lactic acid. Four weeks later the patient was able to swallow with ease. Since then he had curetted one of the vocal cords, which was ulcerated. This was also dressed with lactic acid and healed readily. It is now one year since the epiglottis was extirpated, and the cure is maintained. The patient has increased in weight 19 kilogrammes (38 pounds), proving that his general condition is better. Dr. Hajek stated that he had already extirpated the epiglottis of three patients. The operation is easy, and there is no great danger of hæmorrhage. It is indicated in cases of infiltration or circumscribed tumors. The case proves, besides, in his opinion, that the prognosis of laryngeal phthisis is not so grave as one would suppose.—*La Semaine Médicale*, March 14, 1894.

BERLIN MEDICAL SOCIETY.

Resection of the Intestine.—Herr J. Israel showed a woman, aged 85 years, upon whom he had operated for carcinoma of the transverse colon twenty months previously. For twenty years she had suffered from intestinal obstruction, which for two years previous to operation had become habitual. Left iliac colotomy was performed, and one year later she returned to hospital, with prolapse of the upper portion of the intestine. In this prolapsed portion hard carcinomatous masses could be felt. These were resected and were found to have their seat on the surface of the transverse colon. Several months later, after assuring himself that the intestine was permeable throughout, Herr Israel sutured the two ends and closed the artificial anus.

Herr Hahn remarked, in the discussion, that elderly women seemed to bear such operations remarkably well. He had operated upon a woman of 70 years, who suffered from intestinal occlusion, and who recovered without incident.

Herr Rotter stated that it is not his practice to establish an artificial anus in the iliac region except when the carcinoma is situated in the rectum. If it is impossible to discover the exact location he practices laparotomy, having in this way cured three patients whose condition was desperate. In one of these the tumor was at the left bend of the colon and was inoperable. He made an astomosis between the ascending and transverse colon. The patient supported the operation well, dying several months later from carcinomatous cachexia.

Herr Israel agreed with Herr Rotter, but believed that the patients would oppose his methods, as an artificial anus was a source of great relief to them.—*Universal Medical Journal.*

Progress of Science.

OUTERBRIDGE'S OPERATION FOR HEMORRHOIDS.

By A. Ernest Gallant, M.D.,
NEW YORK.

[Written for *Matthews' Medical Quarterly.*]

In a recent number of the *Provincial Medical Journal* (Matthews' Medical Quarterly, Vol. I, page 326), Robert Jones, of Liverpool, published "a simple method of treating the wound after excising hemorrhoids," and then says he "does not intend to use the cautery again."

Believing that simplicity in operative technique is the *sine qua non* to success, Dr. Outerbridge, since 1888, has given up the use of the ligature, clamp and cautery, etc., and pursued the following plan for the cure of hemorrhoids. His experience with this operation numbers from one hundred and twenty-five to one hundred and fifty cases of all degrees, varying from the simple external "tab" to the most severe case of internal hemorrhoids, with prolapsus of the whole "hemorrhoidal inch." As a part of the general physical examination in every case which comes under his care, Dr. Outerbridge makes it a rule to explore the anal region. Later, when the patient is anesthetized, after having completed any other surgical procedure which the condition of the patient may call for, he rectifies the condition at the anus at one and the same séance.

The preparation of the patient (and this rule holds good in all cases for operation) consists of (1) the administration of a laxative on the second night preceding the day of operation,

usually resulting in a thorough evacuation of the bowels on the following day and an interval of rest of from twelve to twenty-four hours. When the above plan is carried out, the rectum will be found empty at the time for operation, and patients do not complain of pain from excessive peristalsis and rectal tenesmus; (2) in persons with excessive growth of hair, it will be necessary to cut away the excess, but it will add much to the comfort of the patient if this can be avoided, as the short hairs project into the opposite buttock and cause needle-like pain and much irritation for two or three weeks after operation.

In view of the fact, so often overlooked by anesthetists, that the sphincteric reflexes are almost the last to be abolished, the degree of anesthesia must be more profound than for any other surgical procedure. With the subject thus anesthetized, the sphincter ani must be fully dilated with the thumbs, when the hemorrhoidal mass will be brought into full view.

Thorough scrubbing of the anal region and washing the mucous membrane well above the operative field with tinctura saponis viridis and warm water appears to be the most efficient means for cleansing purposes. It is a practical impossibility to render mucous membrane aseptic, so that gross cleanliness is all that can be obtained.

For practical purposes in doing this operation we may divide the cases into two varieties:

1. Cases with only external "tabs" or with the more frequent arrangement of three tumor-like masses just inside the sphincter ani, usually considered most suitable for clamp and cautery or ligature. These may be dealt with in the following way: Grasp with a pair of thumb forceps, or insert the point of a tenaculum into the most prominent portion of the "tab" or tumor. Make enough traction at right angles to the gut to clearly define the mass. Surround it with the blades of a pair of scissors (curved on the flat) pressed well toward the muscle, and with one or two cuts the diseased tissue is removed. This will leave an elliptical raw surface, the edges of which can now be united by a continuous catgut suture. Each distinct mass is amputated and sutured in the same way.

2. Those cases where the whole "hemorrhoidal inch" is dilated and ordinarily considered as most successfully treated by Whitehead's method. These may be handled as follows: Having thoroughly dilated the sphincter, the hemorrhoidal ring will protrude from the anus. With a pair of thumb forceps grasp a part of the mass, and with the curved scissors cut away a strip of mucous membrane and hemorrhoidal tissue, down to the muscle, following the line of the muco cutaneous junction all round the lumen of the gut. A second or third strip may be removed whenever the size of the mass necessitates. If external hemorrhoids ("tabs") are also present, in order to prevent recurrence in that region, pruritus and the numerous discomforts usually following the operation as ordinarily done, a strip of skin down to the sphincter ani is removed in the same way. The free edges of the skin and mucous membrane are now brought together with a continuous catgut suture. A double stitch may be taken at two or three points in the circumference of the bowel to interrupt the sutures, and thus avoid the necessity of tying. Owing to the rapidity with which the diseased tissue can be removed and the suturing accomplished, the slight hemorrhage which occurs is at once controlled without the use of artery clamps or the necessity of ligating bleeding points. Should bleeding occur at any point immediately after suturing, an extra suture at that point will at once control it. If during the removal of the mass any vessel bleeds excessively, it can be quickly controlled by at once beginning to suture.

The excision of hemorrhoids after the manner described presents the following advantages:

1. Its extreme simplicity.
2. The instruments required are found in an ordinary pocketcase.
3. Primary union, and as a result little or no pain; no rectal or vesical tenesmus; no retention of urine; no infection; no temperature; no sloughing, granulating mass; and a minimum amount of cicatricial tissue. All danger of secondary hemorrhage is avoided; the bowels are not confined before or after, doing away with all the unpleasant effects of opium and the discomforts of enemata; the use of tubes, packing, etc., is unnecessary; there are no sutures to be removed.
4. Time; the operation requires but a few minutes.
5. Short time in bed. In cases where no other operation has been done, the patient is allowed to get up on the third day and attend to his ordinary duties.
6. Recurrence has not taken place.

35 West Fifty-Third Street.

SALOL IN DIARRHŒA.

C. G. L. Skinner (*Medical Chronicle; Atlanta Medical and Surgical Journal*). Salol is a compound of phenol and salicylic acid, containing about forty per cent. of the former and sixty per cent. of the latter. It is insoluble in water. In acid media it undergoes no change, but in alkaline fluids, and also by the action of micro-organisms, it readily splits up at the temperature of the body into phenol or carbolic acid and salicylic acid.

If, then, we give salol to a patient, it passes unchanged through the acid contents of the stomach, but on coming in contact with the alkaline pancreatic juice, splits up into carbolic

acid and salicylic acid, which thus exert their full effects on the contents of the intestines, and we have the bowel washed out with an antiseptic solution. If we take into consideration that in diarrhœa absorption in the bowel is no doubt less active than in health, and also that the micro-organisms which abound in the intestines aid us in compassing their own destruction by splitting up any of the salol which may have escaped the action of the pancreatic juice, I think we must admit that, theoretically at least, salol is more apt to give good antiseptic results than the other drugs more commonly prescribed. A further advantage is that a larger dose of carbolic acid can be given in the form of salol, owing to its non-absorption in the stomach, than if the drug itself is prescribed.

May not the local action of many other drugs on the interior of the alimentary canal be too much overlooked? Some years ago, in a paper on anemia, the late Sir Andrew Clarke, after suggesting as the cause of the disease absorption of foul gases in the intestines, gives it as his opinion that the value of iron consists, not so much in restoring the red corpuscles, as in forming an astringent lotion to apply to the interior of the bowel, thus preventing the formation of these gases. Do modern therapeutists devote too much research to dilatation and contraction of capillaries and effects on nerve endings, and too little to the immediate action of drugs on the gastro-intestinal mucous membrane?

During an epidemic of summer diarrhœa, of twenty-three cases treated with salol, only one, a child eight months old, proved fatal. In very few cases were more than three or four doses necessary, and rarely were more than one or two loose stools passed after taking the first. Ordinary catarrhal diarrhœa, due to errors of diet, diarrhœa of children, diarrhœa occurring in the course of some other disease, two or three doses seldom fail to arrest, while in the diarrhœa of tuberculosis it can generally be relied upon to give temporary relief. It has been recommended in typhoid fever, but I have no experience of its use in that disease, nor am I aware that it has been given in cholera; but it seems to be well worth a trial, and at least as likely to prove effectual as any drug yet employed.

In all these varieties of diarrhœa the good effects of salol are most probably due entirely to its direct antiseptic action on the bowel contents—destroying bacilli, controlling acid fermentation of food and the putrefactive processes. The sedative action of carbolic acid will also lessen the peristaltic movements, and so relieve pain. The dose of salol for an adult is ten to fifteen grains (best administered in a spoonful of gruel or barley water), which may be repeated every four or six hours; to a child a year old, one or two grains may be given. It is very rarely rejected by the stomach, and in the above doses does not produce unpleasant after-effects.

RUPTURED GASTRIC ULCER SUCCESSFULLY TREATED BY ABDOMINAL SECTION AND SUTURE.

T. H. Morse (*British Medical Journal*, 1733). The patient, a young lady aged twenty, having had symptoms of gastric ulcer, was suddenly seized with pain, followed by faintness and vomiting. The pain, which was of a burning character, commenced over the region of the stomach, and gradually extended all over the abdomen. Abdominal section was performed nearly five hours after the commencement of symptoms; the contents of the stomach were found in the peritoneal cavity. The stomach was withdrawn, and a perforation found on the anterior surface close to the cardiac orifice. The organ was washed out and the perforation closed with Lembert's sutures; the stomach was returned, the peritoneal cavity washed out, and the wound united. No food was given by the mouth for sixty hours, and at the end of three weeks the patient was quite well. The author had not up to the present time seen a record of any other successful case of this kind in this country, though cases had been reported by Drs. Penrose and Dickinson, also by Mr. Gilord and Mr. Barling, and by Mr. Warrington Haward, references to which were to be found in the *British Medical Journal* of the past year.

Mr. Barwell, in the discussion, said that he had been able to find twenty-five cases on record of closing a rupture in the stomach wall, and there were at least four others. In one of the twenty-five cases there was a localized abscess close to the small curvature; this abscess was opened, and that was all that was found to be necessary. He then described Kriege's case. Mr. Barwell suggested the following points, which he thought might point the way to success: First, to operate as soon as possible; secondly, that the incision through the abdominal wall should be to the left of the middle line; thirdly, to search very thoroughly the front wall of the stomach, as in these cases the opening was for various reasons liable to be hidden by lymph, puckering, etc. He suggested that it might be advisable to introduce into the patient's stomach some colored fluid, such as coffee, for this purpose. He could not agree with Mr. Haward that it was necessary to cut away the margin of the ulcer before suturing the stomach. He thought that Mr. Morse had done very wisely in washing out the stomach, and also in eschewing antiseptics in washing out the peritoneum. Mr. Barwell had seen very good results in washing out the peritoneum with warm distilled water in restoring patients from collapse during abdominal operations.

THE ANTITOXIN TREATMENT OF DIPHTHERIA.

The favorable reports which are being received from various quarters, of the successful treatment of diphtheria by Aronson's antitoxin, an antidote prepared from the cultivation of the diphtheria bacillus, with attenuation of its toxicity, seem to indicate that it will be classed with the great discoveries of Pasteur and Jenner. It is claimed to possess an advantage over these, however, in the fact that it not only produces an immunity from the disease, but also has a curative effect after the disease has already been contracted. The earlier in the course of the disease the treatment is instituted the better, and when the injections are made in the first few days, the reports show that the disease does not extend to the larynx, and the complications and sequelæ have been of a normal character. The dose varies from 5 to 25 C.D. (1¼-6¼ fl drs.) according to the age of the child and severity of the case, and may be repeated on the following day if necessary. The usual place of injection is in the back, below the scapula. The injections seem to be followed by no disagreeable symptoms, and in from twelve to twenty-four hours there is a fall in the temperature (often to normal) accompanied by marked improvement in the general condition.

The most extensive tests of this new treatment have been made in the Kaiser Freidrich Children's Hospital, where 1,081 cases of diphtheria had been treated by the usual methods, with a mortality of 38.9 per cent. Some months ago the antitoxin treatment was begun there, and since that time 128 cases have been treated by this method with a mortality of 13.2 per cent. Dr. Katz also reports having inoculated 72 children exposed to the disease, and of these only 8 were attacked, and so slightly as to be free from evil consequences.

One great disadvantage in the employment of antitoxin is that it is very expensive, and this places it beyond the reach of poor people, unless the municipal and State sanitary authorities come to their aid. In New York City, this will probably be done at an early date, as Dr. Herman Briggs, bacteriologist of the Board of Health of the city, has recently returned from Berlin, where he has been studying the manufacture and results obtained by the use of the remedy, and has reported so strongly in favor of it, that the Board of Health has asked for an appropriation in order to enable them to undertake its manufacture.—*Medical Fortnightly.*

THE CAUSE AND PERCENTAGE OF MYOPIA.

At this season of the year, when our school children are flocking home with bright eyes and healthy cheeks, from country, mountain, lake and sea; when the house is being ransacked from top to bottom in search of the school books which were so gladly thrown down in the early summer; when teachers and scholars alike are preparing for another year of arduous work, it seems a fitting time to offer some suggestions as to the cause and prevention of myopia. The ground upon which we base our remarks is as follows: We know that myopia is an acquired disease or condition, occurring ordinarily during school life; that as the children advance in grade, the number of myopes increase. According to Fuchs, about 20 per cent. of the German students are myopic in the lowest classes of the high schools, and about 60 per cent. in the highest classes.

Countless monographs have been written attempting to prove that the arrangements in schools, the light and air space, height of benches and desks, print of books, etc., are important factors in the production of myopia.

While admitting that badly lighted schools, etc., aggravate the tendency toward myopia, we must evidently look elsewhere for the cause, since we find that the greatest increase in myopia occurs in our high schools, colleges and universities, buildings which are as perfect as money or science can make them. Where, then, shall we look for the cause? Let us study, for a moment, the school life of a child from the day it is thought old enough to go to school until the day of graduation. The first years of school life are regarded by the child as so many hours of hardship, hours cut off from play. The little dears may seem much occupied with their lessons, but the girl is thinking of her doll, and the boy, of his top and marbles.

When the bell rings for recess or at the close of the session, the books are shut as quickly as the laborer drops his shovel at knocking off time. So it is safe to say that the children are not ruining their eyes at this period of the school work. But the years pass, and as the scholars advance in grade the studies become more difficult, the thirst for knowledge increases, the children become ambitious and find the school hours all too short to master their lessons. Then they carry a book home so that they can do a little work after supper.

The father and mother praise them for their diligence, instead of sending them to bed. It is at this time we notice the development of myopia. We now reach the high school, and find every one under high pressure. The amount of work required necessitates closer and closer application during school hours, and an ever increasing amount of work to be done at home. This persistent use of the eyes, often by dim light, without proper intervals of rest, overtaxes the eyes and furnishes fitting soil for the rapid increase of myopia.

The means by which we may hope to prevent the development and retard the progress of myopia are clear, and can be summed up in a

few words. We must insist upon proper intervals of rest for the eyes, and allow the children a liberal amount of play time. To this end lessons should be studied, as much as possible, during school hours, and night work at home should be discouraged. Possibly we can all recall the tired parent saying, as he settles down to his paper after supper: "Now, boys, get your books, an I don't let me hear a word out of you, or off you go to bed."

Let the boys have a good romp, and if you possibly can, romp with them, and then after they have been tucked away in bed, you can enjoy, all the more, a quiet chat with your wife or peruse your paper in quiet and peace. And when they g ow older and enter the high school or college, see to it that they do not burn the midnight oil, do not overtax the eyes, for as long as they do it, they do damage to the eyes, whether they study in a badly arranged school or in one of our great universities.—*Medical Fortnightly.*

A NOVEL WAY OF GIVING AN ENEMA.

Dr. George Ross reported the case of a man recently under his observation, who had just died from peritonitis, caused by the bursting of the bowel. It seems that he had been in the habit of attaching his syringe to the faucet in the bath-room, and allowing the water to flow into the bowel with all force in the water pipe. He had practised this novel method of taking an enema for years, but went too far this time. A post-mortem revealed the conditions above stated.

LOWERED DUTIES ON DRUGS.

The Senate tariff bill lowers the duty on a number of drugs, that on castor-oil being reduced fifty-six per cent. below the rate under the McKinley law, and that on epsom salts thirty-four per cent. Other reductions are, thirty per cent. on cod liver oil, fifty per cent. on bicarbonate of soda, twenty per cent. on sublimed sulphur, eighteen per cent. on refined camphor, and twenty-five per cent. on strychnine. The duty on spectacle lenses is reduced from sixty to thirty-five per cent. ad valorem, a decrease of nearly forty-two per cent.

A SUCCESSFUL WARFARE.

In *The Journal* of the 15th. Oct., it was announced that the Illinois State Board of Health had begun a vigorous warfare on the itinerant nostrum vendors, "who annually fleece the people of the State out of a sum estimated at more than $300 000, by means of brass bands, concert troupes, alleged Indians and other mountebank attractions." At the recent meeting of the Board, Oct ber 1st to 2nd, the Secretary, Dr. J. W. Scott, reported that there was not a single one of these concerns now doing business in the State; prosecutions had been begun simultaneously in every one of the 102 counties where these itinerants were found, some half dozen convictions were secured, and the rest folded their tents and stole away—not silently, but with loud and picturesque profanity directed against the Illinois law and its enforcement.

MEDICAL OPINION AS TO THE USE OF OPIUM AMONG THE CHINESE.

Dr. Duncan Main, Physician-in-chief of the large Mission Hospital and Opium Refuge at Hang-Chow, gives in his annual report, lately published, his adverse opinion of the evils of Chinese opium smoking in very clear terms. The paragraph here quoted refers chiefly to his observations at the Refuge for opium users who apply for treatment: "During the year, ninety-seven who came to us seeking to be relieved of the debasing habit received our kindly help. The number included all grades of society and all classes of men. My opinion about the evil effects of opium smoking is unaltered. No one in his sober senses can say anything in its favor, unless he talks nonsense. We never come across an opium smoker or a non-opium smoker who has anything to say in favor of the habit, and if it were such an innocent affair as some advocates of it try to make us believe, surely we who live among the people from year to year would find it out I think far too little is made of this most important fact. Surely the voice of the people should be listened to, and the testimony of those who have paid flying visits to opium-smoking countries and gathered their information through interpreters should be discounted. Many, I fear, are influenced by pecuniary or personal motives, and some, no doubt, take up the cudgels for it, because missionaries are its chief opponents. To me it seems an utter impossibility for any one who lives among the Chinese, speaks their language, knows their lives, and mixes with them from day to day, to do anything else but condemn the base, cruel and demoralizing habit. It affects the Chinaman's person, principle and purse, damages his constitution, degrades his conduct and drains his cash, and in many cases leads to ruin and destruction of body and soul.

FIVE CASES OF GONORRHŒA IN LITTLE GIRLS.

By John Lovett Morse, A.M., M.D.,

Physician to Out-Patients at the Boston City Hospital and at the West End Nursery and Infants' Hospital.

The following five cases of vulvo-vaginitis were observed during my service at the West End Nursery this winter. The presence of the gonococcus was demonstrated in all. No non-specific cases were met with during this period.

Florence H., five, was seen January 22, 1894. She had had a vaginal discharge for a week, and the external genitals were considerably inflamed and excoriated. No pain on micturition. She was an only child, and slept with her parents. After some difficulty it was ascertained that her father was then under treatment for gonorrhœa. The mother denied infection.

Gladys B., five and three-quarter years, came under observation March 10th. She had had a very profuse discharge from vulva, much pain in micturition and pain in back for ten days. Her general health had also somewhat deteriorated. External genitals were very much inflamed and excoriated. Under treatment the urinary symptoms ceased in a fortnight and the external irritation in a month. The discharge did not entirely cease, however, until three weeks later. Two young men boarders, who used the same bath-room and sometimes the same towel, on being questioned, refused to answer, and left the house. The child denied that she had been tampered with.

Antoinette H., two, began to have a purulent discharge about the middle of March, with much pain on micturition. When first seen, a month later, the discharge had almost ceased, but micturition was still very painful, the urine often being retained eighteen or twenty hours on this account. The external genitals were considerably inflamed, although the discharge was almost nil. No clue to the origin of this case could be obtained.

Alice R., five, was brought to the nursery on May 9th. She began to have a bloody, purulent discharge about the middle of February, the blood ceasing in a month. There was a moderate vaginal discharge at the time of examination, but the external genitals were but little inflamed. Micturition had been painful during the first month. Her general health had suffered somewhat. The probable source of infection in this instance was an older sister with whom she slept.

Irene M., two and three-quarters, complained of pain on micturition on May 7th. On examination her mother found that she was a little "chafed." The next morning she noticed a greenish discharge. The child complained of a great deal of pain about genitals and in lower abdomen. When seen, May 11th, the genitals were very much inflamed and there was a profuse creamy discharge. Pain on micturition and external irritation were subdued in ten days, the discharge ceasing in about three weeks. No source of infection, at home or abroad, could be discovered in this instance.

The occurrence of so many cases in so short a time goes to show that gonorrhœa is certainly not uncommon in children, and the fact that no non-specific cases were met with would seem to prove that vulvo-vaganitis in children is in the great majority of cases of gonorrhœal origin. They also show the difficulty or even impossibility of obtaining a history of the infection in many cases, and hence the importance of bacteriological examination of the discharge in every case. In this way alone can a positive diagnosis be made. It is to be noted also that the urethra was usually involved and that the subjective symptoms were largely due to this. The external irritation was not, as a rule, very marked, and was easily controlled. The vaginal inflammation, however, was only overcome after some time and trouble, but gave rise to no symptoms other than the continuance of a slight discharge. —*Archives of Pediatrics.*

IN DERMATOLOGY.

By M. B. Hartzell, M.D.,

Instructor in Dermatology in the Medical Department of the University of Pennsylvania, Philadelphia.

Case XXV.—*Erythema Multiforme.*

Marie E., thirteen years of age, presented herself at the Skin Dispensary of the University Hospital with an eruption consisting of shot to pea-sized, bright-red papules, for the most part discrete but in a few places confluent, situated upon the extensor surfaces of the wrists and forearms and upon the backs of the hands. The eruption was attended by slight itching, and had appeared three days before the patient's visit to the Dispensary. A saturated solution of boric acid was ordered to be applied several times a day for the relief of the mild pruritus; no internal treatment was considered necessary. Upon the patient's return three days later the eruption was much paler, and within a week had completely disappeared. Eighteen months later the patient again presented herself with a new attack, which differed in no respect from the first one.

In most cases of multiform erythema active treatment is not necessary, since there are few or no subjective symptoms, and the eruption disappears spontaneously in one to three weeks.

The disease is one readily recognized, but might be mistaken by the inexperienced for papular eczema; it differs, however, from this affection by the bright-red color of the lesions, their larger size, and the absence of severe itching.

Case XXVI.—*Ring-worm of the Scalp.*

E. C., a boy aged five, was brought to me for advice concerning a disease of the scalp characterized by the presence of numerous dime to dollar-sized, circular patches partially devoid of hair, and covered with fine grayish scales. While the greater number of these patches were pale, a few of the larger ones were red, and dotted here and there with small pustules. Upon close inspection numerous

short, broken, dry, lustreless hairs were to be seen which could be readily extracted with the forceps. Examination of these hairs with the microscope revealed large numbers of the spores characteristic of ring-worm. The disease was of several months' duration, and was still spreading. The following ointment was directed to be rubbed into the diseased portions of the scalp once a day with considerable friction, the hair having previously been cut short :

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M.

In addition, the entire scalp was to be thoroughly washed every second day with hot water and a superfatted soap containing sulphur and salicylic acid. Under this treatment, which was most faithfully carried out by the child's attendants, improvement was immediate and continuous, and at the end of three months the hair was growing vigorously and no new patches were to be found. As a precautionary measure, however, the treatment was directed to be continued for another month or six weeks.

Ring-worm of the scalp is an unusually obstinate disease, and only yields to the most vigorous treatment intelligently pursued. Unless the applications are well rubbed in so that the hair-follicles are penetrated, good results are not to be hoped for from any form of treament.

Case XXVII.—*Eczema Rubrum.*

J. B., a boy three years of age, was brought to me for the treatment of an eczema of the face and hands which had existed for a year or eighteen months. In the face the disease was limited to the cheeks, which were bright red, oozing abundantly ; the hands were less acutely inflamed, the skin being thick and covered with crusts. The itching was intense, occurring in paroxysms during which the little patient was uncontrollable, and scratched his face until it was raw and bleeding. Ointments many and various were prescribed from time to time, but these not only failed to improve the condition of the skin but invariably increased the itching, so that this form of treatment had to be abandoned. The local treatment was finally limited to the use of lotions, and of these the familiar calamine lotion proved of great service during the moist stages of the disease. When the oozing had ceased and the skin had grown paler, a lotion containing five drops of the liquor carbonis detergens to the ounce of water was used with decided benefit, relieving the itching and lessening hyperæmia. After several months of patient and careful treatment, which was practically limited to the employment of the above mentioned lotions, varied in strength according to circumstances, a cure was effected.

As a rule, ointments are far more serviceable in the treatment of cutaneous diseases than any other form of application ; but, as the foregoing case illustrates, occasionally facts of every kind disgree. In such cases we must limit ourselves to the use of lotions or the gelatine preparations used by Unna and others ; and although these often succeed admirably, yet they can scarcely be regarded as entirely replacing greasy applications in effectiveness. Patients in whom this idiosyncrasy exists are apt to require long treatment and careful discrimination in the choice of remedies.—*Archives of Pediatrics.*

TIPPLING.

The Catholic School Commissioner for the Province of Quebec, Prof. Brennan, of the Laval University, and a prominent practitioner of Montreal, in an address before the American Public Health Association last week, said that from his medical experience he was in a position to say that in women the habit of tippling was far more prevalent and disastrous than is imagined ; within the last four months he had seen four women, each the mother of several children, and moving in good society, die from the effects of chronic alcoholism. Dr. Brennan's experience can be duplicated by, probably, four out of every five general practitioners in the United States,—not among women alone, but far more frequently among men. And no wonder when, as shown by the figures of the Internal Revenue Commissioner for the year 1893, the sixty-five odd millions, comprising the population of this country, consumed 88,777,187 gallons of alcoholic spirits and 1,054,785,376 gallons of beer during the year. These gallons would make more than 6,000,000,000 drinks of whisky and nearly 13,000,000,000 glasses of beer, for which there was paid to the barkeeper $1,226,258,000. The naked figures are sufficiently eloquent of the resultant amounts of misery, disease and premature death.—*The Journal Am. Med Assn.*

IN OTOLOGY.

By J. Oscroft Tansley, M.D.,
Assistant Surgeon to the Manhattan Eye and Ear Hospital New York.

Case XI.—*A Unique Foreign Body in the Ear.*

January 16, 1892, P. M., age five years, was brought to me by his mother, who was in a very nervous condition, saying that he had lost a valuable diamond in his ear, and she wished me to extract it. She said that she permitted him to examine and play with her jewelry at times, to amuse him, and that the day before, while playing with one of her rings,

the stone had disappeared, and he said it was in his ear. She examined the ear and saw it glisten, and tried to extract it, but failed, and pushed it in out of sight.

She seemed fully as solicitous about her diamond as about his hearing, and was anxious to have me succeed in its extraction. I chloroformed the boy, and by the use of a fine fenestrated non-cutting curette, carefully passing it above and behind the stone, and using delicate traction, first upon one side and then upon the other, I soon had the diamond in my hand. It certainly was a brilliant one, but I did not test for its purity.

The drum was not injured in the slightest, and the canal had only one abrasion, and that was of little importance. There was no after-trouble.

Case XII.—*Suppurative Mastoiditis from Suppurative Otitis Media.*

April 30, 1894, W. K., age two years, has had a discharge from the left ear for about a month, caused seemingly by teething; did not have much pain or annoyance, and was as usually playful during the day. Ten days ago he began to complain of the left ear when touched, and would cry when it was washed or pressed in any way, and would not lay upon that side. It soon became swollen and red behind, and the ear was pushed forward and outward very markedly, and this it was which caused the mother to bring the child to me. The tenderness—which was not very marked—and the swelling behind the ear was of but little consequence to them, because it was evidently the result—so they said—of his teething; and the discharge from the ear was to them also but a simple matter, because "teething children were apt to have discharges from the ears." So they contented themselves with occasional injections of chamomile tea; but the unseemly appearance caused by the ear standing out so from the head was of great importance, and my assistance was sought for a cosmetic purpose rather than a medical one.

Examination showed the canal full of bloody pus, and when this was cleared away, a perforation was found in the drum posteriorly. The mastoid was largely swelled from the apex to well upon the temporal bone. Fluctuation was present, but the tissues were so densely swelled that it was difficult to decide positively upon fluctuation. The parents were extremely shocked when I told them of the immediate necessity for operation; but when I pointed out to them that this swelling was really the same as a "fever sore" upon the leg, they at once permitted me to do what was necessary.

I chloroformed the child, and then made an incision from the apex of the mastoid upward to the level of the pinna, and following the general direction of the curve of the auricle. The cut was two and a half inches long, and fully one and one quarter deep. I liberated about three drachms of laudable pus, and was able to pass the probe through a small opening into the antrum mastoidius. The wound was tented with iodoform gauze and covered with a poultice, oil silk, and bandage—and the directions were to change the poultice every two hours and syringe the ear with water as warm as can be borne at the same time.

May 1st.—The child seems much improved. There is no dischage from the ear, but a copious one from the wound. Directions were to continue as before with poultice and douche, removing and replacing the tent with a new one twice daily.

May 17th.—The child has been seen daily, and the wound has been probed and tented to prevent healing at its external lips and to insure granulation from the bottom. The tents have been gradually forced outwards by the granulations, and to day it is impossible to insert one, the wound being filled and is rapidly cicatrizing. The poultice has been to-day discontinued, and replaced by a fold of iodoform-gauze, and instruction given to daily lessen the amount of dressing and bandage. The perforation in membrana tympani is entirely healed, and there has been no discharge from it since the second day after the operation.—*Archives of Pediatrics.*

SEPTICÆMIA DURING SCARLET FEVER, IMPLICATING SEVERAL JOINTS AND CAUSING NECROSIS OF THE CLAVICLE.

The patient was a girl, six years old, and the scarlet fever ran an ordinary course, until during the second week, when she developed a purulent otitis on both sides. The next week the temperature suddenly went up to 105.2° F., and the phalangeal joint of the right great toe became swollen; and the next day the right elbow joint and the right hip were in the same condition,—swollen and painful. All three joints were opened and creamy pus evacuated, and all three joints eventually became anchylosed. Abscesses also formed underneath the periosteum of both mastoid processes, and about this time, without any abscess appearing, the sternal end of the left clavicle became prominent and ulcerated through the skin. This end of the clavicle became necrosed, and was finally removed. The child eventually recovered with an anchylosed elbow and hip, and a clavicle that is shorter and more irregular than the right one.—*Duncan Macartney* (*Glasgow Med. Journ.*).

FOREIGN BODY IN THE ŒSOPHAGUS.

A child, four and a half years old, was brought for relief from suffocative symptoms following the swallowing of a copper cent. As

the urgent symptoms quickly subsided, it was thought best not to interfere actively, and simple measures were therefore taken to favor the descent of the foreign body and to expedite its expulsion from the bowel. Four days later, suffocative symptoms again appeared, and the child complained of a sensation of discomfort in the chest. This passed off, and nothing more was noticed for another forty-eight hours. The coin could be felt at the junction of the lower and middle thirds of the œsophagus, and before resorting to an operation it was determined to attempt to dislodge it. A small sized sound was introduced into the stomach, and through it was passed a four-ounce mixture of syrup of ipecac and water. During the emesis thus provoked, the sound was gently withdrawn, and the coin catching in its edge was dislodged and expelled with the vomited fluid.—*Felizet* (*Le Bulletin Medical*).

IGNIPUNCTURE IN TUBERCULAR ARTHRITIS.

The treatment of tubercular joint disease by intra-cellular ignipuncture was formerly in common employment, but was difficult of application, owing to the fact that it was necessary to use the actual cautery with thick points. Now, however, the thermocautery and electrocautery, with their finely pointed tips, make the operation one of such ease of execution that the writer urges its revival in the therapeutics of articular affections. He reports eight cases, children from two to six years of age, treated in this way. In five of these cases a complete cure was obtained in from four to five months, and the remaining three, though not yet cured at the time the report was made, were in such a good condition that there was every reason to look for a favorable result. Kirmisson insists upon the absolute necessity of beginning the treatment by ignipuncture in the early stages of the disease while the skin is still intact and before abscesses have formed and opened, leaving fistulous tracts. In cases of local tuberculosis, in which abscesses had formed or been opened, the results of this mode of treatment were not nearly as favorable as in the cases here reported.—*E. Kirmisson* (*L'Union Médicale*).

SUPPURATION OF THE MIDDLE EAR DUE TO A COFFEE BEAN IN THE NOSE.

The patient, a girl three years old, had a running ear for two months, which appeared one month after a purulent nasal discharge from the left side. A coffee bean was found in the left nostril. This was removed, and all the symptoms promptly disappeared. In four days there was no trace of pus in the ear, and the discharge from the nose had nearly stopped. In a week the nasal discharge was normal. The almost immediate cessation of the aural discharge after the removal of the irritating factor shows the importance of carefully examining the nose and naso-pharynx in all cases of aural disturbances.—*M. D. Lederman, New York* (*Med. Rec*).

THE METHOD OF BRAND IN THE TREATMENT OF TYPHOID FEVER.

"If the diagnosis of typhoid fever is probable, recourse should be had to the baths, whatever may be the symptoms. The full tub should be placed in the ward or chamber, parallel to the bed, at a distance of one or two metres, the floors properly protected by oil-cloth, and a screen placed between the bed and the bath-tub. A sufficient quantity of water should be used to cover the patient's body to the neck. It should be of a temperature of from 64.4° to 68° F. (18° to 20° C.). The baths should be prepared without disturbance or noise. There should be placed on the floor, near the head of the tub, two pitchers of cold water of a temperature of from 46.4° to 50° F. (8° to 10° C.), each containing four or five quarts (litres). A glass of water should be at hand. The first bath should be given preferably about four o'clock in the afternoon, unless there is some urgent reason for selecting a different hour, and the physician should be present. The rectal temperature is taken, the urine is voided, and the patient is assisted into the full tub, the screen having been removed. If there is perspiration, the patient is dried before entering the bath. Cold water from the pitchers is poured upon the head and the back of the neck for one or two minutes, the amount being from two to three quarts (litres). Then a swallow of cold water or red wine is given. This being done, the whole surface of the body is briskly rubbed with a sponge or brush, and the patient is made to rub his abdomen and chest. These frictions stimulate the peripheral circulation, prevent the accumulation of heat at any one point, moderate the sensation of cold, and help to pass the time; they are not indispensable. Shivering appears, as a general rule, in between eight and twelve minutes; this is a necessary evil, to which too much attention is not to be paid. Toward the middle of the bath, or at its termination, cold water is again poured over the head and neck. The time occupied ought to be at least fifteen minutes, longer if the head is still warm and the cheeks red, or if the temperature of the patient was very high before the bath.

"The patient should leave the bath without precipitation. He cannot take cold; thoracic complications are caused by typhoid fever and not by chilling. The air of the apartment

should be pure and not too warm; the window should be opened in the intervals between the baths; during the bath it ought to be closed. On leaving the bath, the patient should be gently dried with a towel. The bed should be carefully made during each bath. If on returning to the bed shivering takes place, the limbs should be rubbed and a hot bottle placed at the patient's feet. A cold compress, covered with oil-silk or flannel, should be placed over the abdomen, and a little warm nourishment administered. It is not necessary to renew the water of the bath every three hours; once in twenty-four hours is sufficient. As a rule, the patient should pass his water before entering the bath.

"Three-quarters of an hour after the bath, the rectal temperature should again be taken. If, however, it is found to be below 101° F. (38.5° C.) it is not necessary to take it again for three hours.

"Alimentation should consist of the following articles: Milk diluted with coffee or tea or cocoa (a quarter of a litre at each administration); thoroughly cooked gruel, oatmeal, tapioca, or vermicelli; veal, mutton, or chicken broth freed from fat when cold and reheated at the moment of administration. As a drink, pure cold water should be given; the indication for wine or spirits is urgent only in cases that are subjected to this treatment late in their course. If the patient, does not sleep or sleeps badly, he is to have a draught of iced water, and the abdominal compress is to be changed every quarter of an hour. The discharges from the bowels are to be preserved for inspection, and the total quantity of urine may be collected in the same vessel. Neither age, sex, menstruation, pregnancy, nor sweating (except that which occurs at the end of defervescence) in any way modifies the treatment. In women who are weaning their children, cold compresses should be applied to the breasts, and frequently renewed. If diarrhœa persists, it is to be combated by cold compresses, which may be kept cold by the aid of a bladder of ice. If there is constipation, it is to be treated by cold enemata; and if these fail, by enemata consisting of one part of cold water and one part of fresh ox-gall.

"When the temperature before the bath is very high, or if the fall forty-five minutes after the bath is less than 1.8° F. (1° C.), the bath must be prolonged to eighteen or twenty minutes. It is very rarely necessary to modify the general formula. After the temperature does not exceed 102.2° F. (39° C.), but yet reaches 101° F. (38.5° C.), it is necessary to treat these slight exacerbations by baths 68° F. (20° C.), and of five minutes' duration, in order to prevent the prolongation of the fever or the occurrence of relapse, and to shorten convalescence. If relapse occurs, it must be treated according to the general formula. When the temperature no longer exceeds 101° F. (38.5° C.), defervescence being established, the baths are discontinued, and the patient should be treated as convalescent, but is to be kept in bed until the temperature has not exceeded 100.4° F. (38° C.) for four days. He may then rise, and in a short time walk in the open air, he may prolong his promenades according to his strength, and one will be struck by the rapidity with which his strength increases after every outing. Proper precautions are to be taken against cold. As to alimentation, already during defervescence there may be added to his soup, milk, or bouillon either one or two raw eggs daily, or, a little later, one or two teaspoonfuls of scraped raw meat or a little toasted bread or biscuit, but the aliment must always be given in liquid form."—GLÉNARD.

NITRATE OF STRYCHNINE IN ALCOHOLISM.

From the results obtained in twenty-five cases, we can learn that, simultaneously with the use of this remedy, the craving for alcohol in inebriates diminishes, and in a few days is completely gone, and through the withdrawal of the poisonous beverages and the tonic effects of the strychnine there is a more or less rapid restoration to sound physical health and of the mental powers; but as most of those treated have relapsed within from one to eleven months, the inhibiting power of the remedy is not permanent, and while it temporarily relieves the distressing and overwhelming craving for more stimulant and promotes a return to normal health, in which condition the patients may continue to remain, yet they still lack the necessary will-power to enable them to avoid the dangers which they know will precipitate a return to their previous enslaved and degraded condition. So that, while it is fully within the power of medical science to restore these patients to temporary health, strychnine does not —as doubtless no drug treatment ever will— prevent the possibility of further relapses, although we can always depend on it to arrest what would be a prolonged debauch if its aid is early resorted to. That weakened will power is a result of a prolonged use of alcohol is generally conceded, as is the fact that the tendency to alcoholism is in a large percentage of cases inherited, and it is often, as dipsomania, one of the manifestations of insanity; that a definite series of pathological conditions follows the continued indulgence in alcohol, differing only in degree in the case of the milder methyl to the powerful effects of amyl alcohol, the nervous system showing the earliest and most marked disturbance, although every organ and tissue in the body eventually suffers. These and many other facts have led neurologists to

place alcoholism as a distinct disease among the neuroses.

This position implies a complete revolution in the methods of treating these cases, and has brought to the aid of philanthropists and moralists the assistance of the medical profession, upon whom now devolves the duty of further elucidating the true pathology of the disease and indicating the best means of restoring this numerous class of patients to a normal condition.

That the urgent demand for relief from the evils of intemperance is being recognized by the profession is evidenced by the increased interest taken in the work of the American Association for the Study and Cure of Inebriety, and in the Section for the Study of Inebriety of the British Medical Association, and by an ever-increasing number of scientific investigators throughout the world.

Before rational and effective measures can be adopted for the proper management of inebriety, we must have correct opinions in regard to the physiological actions of alcohol and the pathology of the disease; otherwise we must trust to the empirical results of experience.

The chief action of alcohol, then, is to paralyze the vaso-motor system, dilating the arteries. Strychnine, besides exalting the excitability of the spinal cord, and probably the motor centres in the brain, stimulates the vaso-motor centres, contracting the arterioles, as well as being one of the most efficient heart tonics through its stimulating effects on the cardiac gangha.

While we have in strychnine a true antagonist to the action of alcohol and one that will counteract its effects, the inebriate still requires aid which can scarcely be expected of drugs; he needs the mental and will-power to overcome his acquired or inherited tendency to resort to narcotics. This must come from treatment which seeks first to restore all the abnormal conditions of the patient, whether due to alcohol or otherwise; then strict abstinence must be maintained, the patient being aided by moral suasion, the diversion of continual employment, and the education of the mental and moral faculties to a higher status; even the influence of hypnotic suggestion may be applied in suitable cases, as has been done recently with a fair measure of success; and, where these means fail, then institutions where voluntary or forced detention can be secured, and where all the present known means can be most successfully applied, must be the only hope of restoring the unfortunate subjects of narcomania.—*Therapeutic Gazette.*

TIC DOULOUREUX.

Dr. Jarre presented a report on the causation and treatment of tic douloureux of the face. His conclusions are as follows (*La Tribune Médicale*):

1. The disease known as spasmodic neuralgia, epileptiform neuralgia, tic douloureux of the face, etc., is due to a peripheral lesion seated in the terminal extremities of the fifth pair.

2. The exact and invariable seat of this lesion is a more or less extensive portion of the alveolar border of the upper or lower jaw, which is the seat of a cicatrix consecutive to former accidents of different kinds.

3. The intracicatricial location of the original lesion brings tic douloureux into the same category as the neuralgia of the toothless, and the neuralgia affecting the stumps of amputated limbs, both of which are also of cicatricial origin.

4. The rational treatment of tic, therefore, ought to consist purely and simply of the ablation of that portion of the alveolar border comprising the original seat of the disease.

5. The ablation is done by first incasing the soft parts with the galvano-cautery knife, removing the alveolar border by the bone forceps or saw, and subsequently rasping the wound in the bone.

6. The operation is not at all grave; the wound dressed antiseptically heals, ordinarily, in a few weeks without complications.

7. The results so far obtained give reason to hope that we are now in possession of a simple, rapid and harmless means of curing tic douloureux, a disease which, up to the present, has been classed with incurable diseases.—*Dominion Medical Monthly.*

A BLOODLESS OPERATION FOR HEMORRHOIDS.

Manley (*Boston Medical and Surgical Journal*, February 1, 1894) describes his bloodless method of treating hemorrhoids. A brisk purgative is given the evening before the operation. Before operating, two to four ounces of whiskey are administered, and effective cocainization applied hypodermically. Anal dilatation, gradual and steady, without rupture of the muscle, is done, and, after drying and mopping with cocaine solution, each hemorrhoid is separately seized, close to its base, firmly between the tip of the thumb, index and middle fingers. It is put on full stretch, then twisted, and finally so completely crushed that it is reduced to a pulp, and none of the investing tunics remain, except the mucous membrane and its under stratum of fibrous tissue. The mass is then returned, and an opium suppository introduced. He has treated thirty-two cases in this way with perfectly satisfactory results.

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MONTREAL, DECEMBER, 1894.

WHO OWNS THE DOCTOR'S PRESCRIPTION?

One would hardly think that this question could come up again after having been decided in favor of the patient by the courts. It is true that quite recently a judge in New York has ventured to decide, contrary to precedent, that the prescription was only good for one package of medicine, and was not transferable; but we doubt whether, if his decision should be taken to appeal, the higher courts would not reverse it, and decide, as it has generally been decided, that once the doctor has allowed the prescription to pass from his hand he has no further control over it. Such is also the opinion of leading lawyers in this city, and it appears to be the opinion of the public and of most, though not of all, the druggists. It matters not whether the patient has ever paid the doctor for the prescription or not; it matters not whether the prescription contains opium or other drugs which it would not be for the welfare of the patient to continue taking; it does not even matter whether the druggist dispenses it to his regular customers, who thereby save the expense of consulting the doctor, who, however, has no other means of obtaining his livelihood unless by the consultation fees of these very patients; the patient has the right, which is constantly being exercised, to not only cure himself but also to cure a hundred of his friends with this one prescription. What difference does it make whether the doctor receives anything for his services or not to these ninety-nine suffering citizens? They want to be cured cheaply; their friend has the prescription, and the druggist is paid for his medicine, and both these parties are satisfied. It does not seem, however, that the doctor is quite so well pleased, for an association has lately been formed in Montreal to protect the interests of the physicians, and this association has among other things decided to ask for legislation to prevent the druggist from filling a prescription more than once. In referring to this matter editorially, the Toronto *Mail* voices the opinion of the public when it says: "The result of this would be to increase materially the receipts of doctors, since it would be necessary to pay for a fresh prescription each time the medicine was required to be duplicated. If such a proposal is entertained, which is extremely unlikely, it might as well be abandoned, since the legislature would not consider it for a moment." We quite agree with our laycontemporary. Any doctor who thinks himself aggrieved by a patient, who has paid him nothing for his prescription, magnanimously handing it around to all his friends, without even mentioning the good doctor's name to them, has the remedy, and a very simple one, in his own hands. This is nothing more or less than to stop writing prescriptions. The prescription has been grossly abused by both patients and druggist; and when a doctor finds that he is prescribing himself out of practice, he had better stop prescribing. His mission on earth is to relieve suffering and to prolong life; how he best may fulfill it is a matter for himself to decide. For the busy physician who has no time to eat or sleep, it is certainly a great convenience to send his patients to the drug store to get their medicine, and it makes very little difference to him if a few hundred intending patients are thereby enabled to dispense with the formality of paying him a fee. But this is apparently not the case with the doctors of this Association, who are grumbling at the loss of practice by the druggists repeating their prescriptions, not only to their patients, but to the public generally. They seem to think that considering that they attend hundreds of people for nothing who are too poor to pay, they should at least receive a modest fee for curing the young man with gonorrhœa who has spent a hundred dollars or more in painting the town red and contracting his disease.

Every physician can recall at least a score of cases in which the patient has tried the drug store first before consulting the physician. In justice to the druggists, it must be said that the public tempt them to do this thing, in some cases the latter being astonished and angry because the druggist refuses to treat them or repeat their prescriptions. If the doctor does not care to give his own medicine, he might arrange to send his prescriptions to those druggists who would bind themselves not to repeat or give copies of prescriptions. We have no doubt that some arrangement could be made by which the evil might be overcome without doing anything so absurd as applying to the legislature.

THE MURPHY BUTTON.

About a year ago Dr. Lapthorn Smith brought the Murphy button before the notice of the Medico-Chirurgical Society of Montreal, when its application to end-to-end and lateral anastomosis was demonstrated on pigs' intestines. The members were favorably impressed by the rapidity with which the operation was performed, as well as by its simplicity, and since then two of the members, Drs. Shepherd and Jas. Bell, have employed it in several cases with very good results. Two of these cases have been seen by the writer several weeks after the operation, and they were quite convalescent, although the button had not then passed per rectum. This, however, was a matter of very little consequence, the button being sure to pass in time, although in many cases it requires several weeks to become detached. At the last meeting of the Medico-Chirurgical Society, Dr. James Bell reported three cases in which he had employed this ingenious device, two of the cases making good recoveries, but the third dying from dropping out of the button before union had become complete. On the whole, he spoke very highly of the value of the instrument. Means will probably be found to prevent this accident from recurring, either by going farther into healthy bowel to avoid the chance of anastomozing intestine which has lost its vitality, or by running a silk suture around the joined edges after the button has been inserted, so as to hold the serous edges together, even if adhesions failed to form between the cutting rings. During a recent visit to Toronto, Dr. Murphy called attention to a number of buttons which were being sold by dealers which were full of dangerous defects. We have seen some of these defective buttons in Montreal which were made in England by a man who failed to grasp the idea of the button, for there was no collar projecting around which the intestine ends were to be drawn. Such a button could not be used successfully. It is only fair to an instrument or to the man who invents it that the genuine article be employed, and after failure it is evidently unjust to condemn his instrument or his method when some entirely different method or instrument has been used. The Murphy button has, we think, come to stay, and greater familiarity with its working will probably render it more and more useful and safe.

THE ANTI-TOXINE TREATMENT OF DIPHTHERIA.

It is a pretty generally accepted fact that people who have had a zymotic disease rarely have it a second time, and even if they do, the second attack is much milder than the first. Why is this the case? Some change has taken place in the blood which renders it an unsuitable soil for that particular germ. Lady Montague applied this principle by inoculating healthy people with smallpox serum, in order to give them a mild form of smallpox which would protect them from a second attack. Sir William Jenner discovered that smallpox virus, after passing through several generations of cows, became much weakened, so that inoculation with it was far less dangerous than with the original virus. Koch and Pasteur discovered that the same law applied to cholera and tuberculosis, and although the latter has not proved so valuable as it was at first claimed for it, it promises that at some not far distant time it will yet fulfill the claims which its inventor has made for it. More lately, pupils of Koch and Pasteur have been experimenting with diphtheria virus, and have made the remarkable discovery that by inoculating the horse with diphtheria bacilli, and thus giving it the disease, the serum of that horse has an antidotal effect upon the diphtheria bacilli when the serum is injected into the infected patient's blood. It acts as an antidote, and is therefore called anti-toxine. The

modus operandi is quite comprehensible if we take alcoholic fermentation as an example. A few germs placed in a suitable medium, say grape sugar solution, multiply by the million, consuming the sugar and giving out a poisonous alcohol. When a certain percentage of this poison has been produced, further fermentation is arrested and fungi in the solution die; not only this, but if some of the toxine—alcohol—be distilled from the solution and introduced into another jar which has been attacked by fermentation of disease, fermentation will be immediately arrested, and the yeast plant will be killed. Alcohol is therefore at the same time a ptomaine and an anti-toxine. The new remedy is now being tried on an extensive scale, and we shall soon be in a position to know what its true value is. Its inventors claim that it reduces the mortality down to 24 per cent., which does not seem to be much lower than the treatment heretofore employed. Some of those who are trying the new remedy are obtaining much better success than its inventors claim, but this can be explained on the ground of defective diagnosis. Doubtless many cases of sore throat will be treated with anti-toxine, and the patients will recover; but as many Boards of Health are offering to make an absolute diagnosis by the culture process, this source of error should be eliminated. On the whole, while the value of anti-toxine is probably being overrated, it is apparently a step in advance in the great warfare of science. It must be distinctly understood that the treatment is in the experimental stage, and as such had better for the present be left in the hands of hospital physicians, who have at their disposal all the appliances necessary to make the experiments accurate and scientific. Since writing the above, we have seen a statement by Baginsky, an undoubted authority in Berlin, that the mortality has fallen to 14 per cent.

POST GRADUATE INSTRUCTION IN MONTREAL.

Some years ago we called the attention of our readers to the immense opportunities which Montreal now offers for post-graduate instruction, and we suggested that a post-graduate course be organized. Our esteemed contemporary, the *Montreal Medical Journal*, in its last issue has given the suggestion powerful support, so that all that is required is the organization of all the teachers and hospital physicians and surgeons into a post-graduate school. To make it a success, all the schools and hospitals should join it, so that the physicians may learn as much as possible with the smallest possible loss of time. From what we know of the work going on every day at the Royal Victoria, the General, the Hotel Dieu, the Notre Dame, and the Western, as well as the Montreal Dispensary, which though last is not least in the value of experience which may be gained there, a practitioner could fully occupy all his time from 12 till 6.30 p.m. every day except Sunday. From 8 to 12 he could devote to laboratory work, or occasionally at private operations by some of the gynæcologists who generally operate from 9 till 12. We trust that before long we may be able to give an affirmative reply to the many enquiries which we receive asking whether there is any post-graduate school in Montreal.

THE CANADIAN MEDICAL REVIEW.

This is the title of a new medical journal to be published by the late members of the staff of the Canadian Medical Monthly, headed by our friend Dr. Aitkin. Although Canada is fairly well supplied with journals already, we are always glad to extend a hearty welcome to just one more. The competition will lead to a struggle for existence which, while it will end fatally for some of them, will surely lead to the improvement of those which survive.

THE CANADIAN MEDICAL MONTHLY.

We are glad to learn that although the old staff of editors of this very creditable journal have suddenly left as the result of some seismic disturbances in the editorial sanctum, the monthly will continue to appear with a new staff headed by our friend Dr. Beattie Nesbitt.

Drs. W. H. B. Aitkins, A. B. Atherton, J. Ferguson, J. H. Burns, A. A. Macdonald, and G. Sterling Ryerson, have severed their connection with the Dominion Medical Monthly.

A GENEROUS BEQUEST.

By the will of the late Dr. Goodell, the celebrated gynecologist of Philadelphia, the Medi-

cal Department of the University of Pennsylvania has received a bequest of $50,000. Dr. Goodell was a man possessing the most loveable of characters, and one could hardly spend an hour in his society without easily understanding his popularity. He was an indefatigable worker, and his world-wide reputation was slowly and gradually built up by years of hard work. A day spent a few years ago by the writer in his family circle will long be remembered for its frank and genial hospitality.

BISHOP'S COLLEGE.

We are sure that many of our readers, like ourselves and our publishers, have been sorry to miss the familiar advertisement of Bishop's College from our advertising pages. We trust that its absence is only temporary, and that by next issue satisfactory arrangements may be made with the publishers for its return to its accustomed place. No matter how hard may be the times, we believe that the cost of the advertisement is a good investment for the College.

BOOK NOTICES.

TRAVAUX d'ELECTROTHÉRAPIE GYNECOLOGIQUE; Archives Semestrielles d'Electrothérapie Gynécologique, fondées et publiées par le Dr. G. Apostoli, vice président de la Société Française d'Electrothérapie, etc. Paris: Société d'Editions Scientifiques, 4 rue Antoine-Dubois, 1894. Price: 12 francs. Post free.

This work, which has just come to hand, is another evidence of Apostoli's untiring energy and industry. It contains no less than 714 pages, in which the experience with Apostoli's method of the leading physicians of each country is given systematically and in detail. Great Britain takes up 254 pages, and in these appear the opinions, for and against the method, of the two Keiths, Playfair, Moore, Madden, Halliday Croom, Simpson, Inglis, Parsons and Heywood Smith. Belgian writers occupy 10 pages, American writers 80 pages, Russia 150, while the remaining 200 pages are taken in turn by Italian, German, Danish, Austrian, Polish, Hungarian and Canadian writers.

Apostoli in the introduction says that Electrotherapeutics has no desire to pose as a rival to surgery, which has rendered and is still rendering every day such marked and various services to gynæcology; but it wishes that its special utility, varying according to the cases, but sometimes great, should be appreciated at its just value as a means of curing symptoms without destroying the organs. Electricity wishes to put an end to the unjustifiable ostracism with which it was treated from the beginning, and which is due to the indifference or combined hostility of the medical profession born of the latter's ignorance of the laws which govern electricity,—ignorance which has been kept up by its interest in treatment by operation. Apostoli has felt that the time had come to place the experience of those who have tried it abroad within the reach of French readers, and he has therefore set about the enormous task of collecting the reports which have appeared in books and journal articles all over the world, and in many different languages, into one series of volumes, which will appear at regular intervals in the French language. The first volume is before us, and the next will shortly appear. Apostoli himself in these volumes contributes numerous foot-notes wherever he finds that his disciples have exceeded their master in zeal, or that its enemies have accorded his method less than the justice which it deserves. In the succeeding volumes, after all the foreign articles have been collected and published, he will bring out a volume of articles and reports of cases by French physicians, including his own very large and rich experience, which must now number many hundreds of cases. Anyone who reads the testimony contained in the volume before us from well-known men in all parts of the world must admit that Electricity in gynæcology has come to stay, and that when the present operative furore has passed gynæcologists will use it much more in the future than they have in the past.

Any of our readers who are acquainted with French should procure this book.

THE POCKET ANATOMIST. By C. Henri Leonard, A.M., M.D., Prof. of Gynæcology, Detroit College of Medicine. Leather, 300 pages, 193 illustrations, postpaid $1.00. The Illustrated Medical Journal Co., Publishers, Detroit, Mich.

The 18th edition of this popular anatomy is now before us; it is printed upon thin paper and bound in flexible leather so as to be specially handy for the pocket. The illustrations are photo-engraved from the English edition of Gray's Anatomy, so are exact as to their details. Three large editions have been sold in England, testifying to its popularity there, and some sixteen thousand copies have been sold in this country. It briefly describes each Artery, Vein, Nerve, Muscle and Bone, besides the several Special Organs of the body. It contains more illustrations than any of the other small anatomies.

SYLLABUS OF LECTURES ON HUMAN EMBRYOLOGY. An introduction to the Study of

Obstetrics and Gynæcology. For Medical Students and Practitioners. With a Glossary of Embryological Terms. By Walter Porter Manton, M.D., Professor of Clinical Gynæcology and Lecturer on Obstetrics in the Detroit College of Medicine; Fellow of the Royal Microscopical Society, of the British Zoological Society, American Microscopical Society, etc. Illustrated with seventy (70) outline drawings and photo-engravings. 12mo. cloth, 126 pages, interleaved for adding notes and other illustrations, $1.25 net. Philadelphia: The F. A. Davis Co., Publishers, 1914 and 1916 Cherry Street.

This is a handy little volume, and may help to make the student take more interest in a subject which is generally sadly neglected.

Practical Urinalysis and Urinary Diagnosis. A Manual for the Use of Physicians, Surgeons, and Students. By Charles W. Purdy, M.D., Queen's University; Fellow of the Royal College of Physicians and Surgeons, Kingston; Professor of Urology and Urinary Diagnosis at the Chicago Post-Graduate Medical School. Author of "Bright's Disease and Allied Affections of the Kidneys"; also of "Diabetes: Its Causes, Symptoms, and Treatment." With numerous illustrations, including photo-engravings and colored plates. In one crown octavo volume, 360 pages, in extra cloth, $2.50 net. Philadelphia: The F. A. Davis Co., Publishers, 1914 and 1916 Cherry Street.

Part 1. On analysis of urine, contains chapters on general consideration, theories of secretion and excretion of urine, composition of normal urine, abnormal urine, proteids, carbo-hydratics, urinary sediments, chemical sediments, anatomical sediments, gravel and calculus. Part 2. Urinary diagnosis. Diseases of the urinary organs and urinary disorders. The urine in other diseases. The book is not only very practical, but is also very interesting, and above all is thoroughly up to date.

Text-Book of Hygiene. A Comprehensive Treatise on the Principles and Practice of Preventive Medicine from an American Stand-point. By George H. Rohé, M.D., Professor of Therapeutics, Hygiene, and Mental Diseases in the College of Physicians and Surgeons, Baltimore; Superintendent of the Maryland Hospital for the Insane; Member of the American Public Health Association; Foreign Associate of the Société Française d'Hygiène, etc. Third edition, thoroughly revised and largely rewritten, with many illustrations and valuable tables. Royal octavo, 553 pages. Cloth, $3.00 net. Philadelphia: The F. A. Davis Co., Publishers, 1914 and 1916 Cherry Street.

This valuable book has met with well deserved success, having already reached its third edition. Every chapter has been subjected to a careful revision, and the advances in sanitary science and practice have been incorporated. Dr. Rohé is well known as a writer of great clearness, and in this work he has kept up his reputation in this respect. We bespeak for his book a large sale in Canada.

A Famous Show of Beauty. The show of distinguished beauty, transfixed by famous artists, which is now taking place at the Academy of Fine Arts in New York, has been anticipated by the Cosmopolitan Magazine in its November issue, in an article by Wm. A. Coffin, with illustrations of some of the more beautiful faces. The "Great Passions of History" series has for this month's subject the romantic career of Agnes Sorel, who influenced the destinies of France under Charles VII. "The Art Schools of America," "The Great British Northwest Territory," "The Chiefs of the American Press," and the "Public Library Movement," are amongst The Cosmopolitan's table of contents. Survivors of the war and their children will find intense interest in "The Story of a Thousand," a personal narrative begun in this number, by Albion W. Tourgée, who tells in a graphic way of a regiment which saw fierce service—of its organization, its marches, its sports, and its death-roll.

Saunders' New Aid Series: A Manual of Modern Surgery—General and Operative. By John Chalmers Da Costa, M.D., Demonstrator of Surgery, Jefferson Medical College, Philadelphia; Chief Assistant Surgeon, Jefferson Medical College Hospital, etc., with 188 illustrations in the text and 13 full-page plates in colors and tints, aggregating 276 separate figures. Philadelphia: W. B. Saunders, 925 Walnut Street. 1894. Price, $2.50 net.

The author states that his aim has been to present in clear terms and in concise form the fundamental principles, the chief operations and the accepted methods of modern surgery, seeking to stand between the complete but cumbrous text-book and the incomplete but concentrated compend. A careful examination of the work certainly proves his object has been well attained. There is nothing obsolete about it, and there is no padding. The first chapter is devoted to Bacteriology, without some knowledge of the vital principles of which branch of science the vast importance of its truths will be ill appreciated, and there will be inevitable failure of aseptic and antiseptic methods. The paper and printing are excellent, and students and others who need this excellent

book are indebted to the publishers for keeping the price at so moderate a figure as two dollars and a half. We have no hesitation in saying that this is one of the best manuals that have appeared this year, and we heartily congratu ate the author upon his success.

PAMPHLETS.

HYPERTROPHY OF THE PHARYNGEAL OR LUSCHKA'S TONSIL. Read in the Section on Laryngology and Otology at the Forty-Fifth Annual Meeting of the American Medical Association, held at San Francisco, June 5th to 8th, 1894. By E. Fletcher Ingals, A.M., M.D., Chicago, Ill. Reprinted from the Journal of the American Medical Association, September 29. 1894. Chicago: American Medical Association Pres. 1894.

A CALENDAR FOR 1895.—Upon receipt of request, P. Blakiston, Son & Co., medical booksellers, 1012 Walnut Street, Philadelphia, will send free by mail, postage prepaid, a neat desk Calendar for 1895.

A CASE OF CHRONIC PERITONITIS, WITH INTESTINAL AND ABDOMINAL FISTULÆ—ENTERORRHAPHY—RECOVERY. By Frederick Holme Wiggin, M.D., President of the Society of Alumni of Bellevue Hospital; Visiting Surgeon to the City Hospital, Gynæcological division.

NEW INSTRUMENTS. Read in the Section on Laryngology and Otology, at the Forty-Fifth Annual Meeting of the American Medical Association, held at San Francisco, June 5-8, 1894. By Seth Scott Bishop, M.D., Professor of Otology in the Post-Graduate Medical School and Hospital. Chicago, Ill. Reprinted from the Journal of the American Medical Association, September 29, 1894. Chicago: American Medical Association Press, 1894.

SOCIÉTÉ D'ÉDITIONS SCIENTIFIQUES. Place de l'École de Médecine, 4 rue Antoine-Dubois, Paris. Précis Iconographique d'Anatomie Normale de l'Œil. Globe Oculaire et Nerf Optique, par le Docteur Rochon-Duvigneaud, ancien Interne des Hôpitaux: ancien Chef du Laboratoire d'Ophthalmologie à L'Hôtel-Dieu; Chef de Clinique Ophthalmologique de la Faculte. In-8vo raisin de 136 pages, 23 figures. Prix: 5 fr. broché; 6 fr. cartonné à l'anglaise; 7 fr. 50 reliure souple, peau pleine, cuir vert.

LA LÈPRE.—Observations et expériences personnelles. Par le Docteur Jules Goldschmidt. Paris: Société d'Éditions Scientifiques, Place de l'Ecole de Médecine, 4 rue Antoine-Dubois. 1894.

PERSISTENT ALBUMINURIA AND GLYCOSURIA, WITH FREQUENT HYALINE CASTS, IN FUNCTIONAL NERVOUS DISEASES. By Landon Carter Gray, M.D., of New York. From the *American Journal of the Medical Sciences*. October, 1894.

PUBLISHERS DEPARTMENT.

LITERARY NOTES from *The Ladies' Home Journal*, Philadelphia.

When his present American visit is concluded, Conan Doyle will write an article for *The Ladies' Home Journal* on American women, telling "How Your Women Impressed Me."

Mrs. Burton Harrison is writing a series of articles for and about society girls, which *The Ladies' Home Journal* will begin in one of its early issues.

The quaint little women of Kate Greenaway are to be seen in a magazine for the first time since their creation. Miss Greenaway has heretofore always drawn them in color and for book publication. Now, however, she is at work upon a special series of her curious tots for *The Ladies' Home Journal*, and in that periodical they will alternate with a new series of Palmer Cox's funny "Brownies."

LITTELL'S LIVING AGE FOR 1895.

The success of this sterling periodical is owing to the fact that it enables one, with a small outlay of time and money, to keep pace with the best thought and literature of the day. Hence its importance to every American reader.

It has always stood at the head of its class, both in the quality and quantity of the reading furnished; and in fact it affords, of itself, so thorough and complete a compendium of what is of immediate interest or permanent value in the literary world as to render it an invaluable economizer of time, labor and money. In the multitude of periodicals of the present time,—quarterlies, monthlies and weeklies,—such a publication has become almost a necessity to every person or family desiring to keep well informed in the best literature of the day.

For 1895, an extraordinary offer is made to all new subscribers; and reduced clubbing rates with other periodicals are also given by which a subscriber may at remarkably small cost obtain the cream of both home and foreign literature. Those selecting their periodicals for the new year, would do well to examine the pro-pectus. In no other way that we know of can a subscriber be put in possession of the best which the current litterature of the world affords, so cheaply or conveniently.

Littell & Co., Boston, are the publishers.

The Canada Medical Record.

VOL. XXIII. MONTREAL, JANUARY, 1895. No. 4.

CONTENTS.

Original Communications.

SOME OBSTETRICAL NOTES.

BY A. LAPTHORN SMITH, M.D., M.R.C.S. ENG., *Gynæcologist of the Montreal Dispensary, Surgeon to the Western Hospital, Fellow of the American Gynæcological Society.*

During the last 20 years some interesting cases of midwifery have come under my notice, some of which I have never yet reported, and which may prove of interest to the busy practitioner, who is most likely to meet with similar ones. The following two cases of hydrocephalus were puzzling,—the first one to myself, occurring as it did in the beginning of my practice; and the second to the family physician in connection with whom I was called to see the case.

CASE I was a multipara of some 30 years of age, who sent for me to attend her in her confinement. In due time the os became fully dilated, the bag of waters broke, but the head did not engage in the pelvis.

On careful examination the pelvis was found to be of normal size, but the child's head seemed very large. After waiting several hours, labor going on furiously and no progress being made, I decided to apply my long Baudeloque forceps, the only one I ever use, and the best forceps, in my opinion, that have ever been made, and made prolonged and forcible efforts at delivery, but was unable to make the head descend. I went in search of my friend Dr. Kennedy, who also tried to deliver with forceps, but with no better success. He then introduced his hand above the brim of the pelvis, and perceived that it was a case of hydrocephalus, when he quickly punctured the fontanelle, and allowed what appeared to be an enormous quantity of water to escape, when the head quickly descended, and the child was born within a few minutes, but of course dead.

In this case the force used in our ineffectual efforts at delivery with the forceps had considerably bruised the cellular tissue

surrounding the uterus about the brim of the pelvis, with the result that the woman had a genuine pelvic cellulitis, or, perhaps more properly, a necrosis of the cellular tissue ; an abscess formed and pointed at Poupart's ligament, where it was evacuated, and she made a rapid recovery.

CASE II.—I was called early one morning a few months ago to go in consultation with the family doctor at a small town 5 or 6 miles from Montreal. On arriving at the house, I found the attendant worn out with all night attendance, when he informed me that he had been called in the afternoon of the day before, and found the patient in active labor. She was in great pain, and screamed most of the night ; but for some reason he could not explain, the labor had made no progress, and thought that this was due to its being a breech presentation, as he could feel no bones of the head, and on the contrary he felt a slight dent in the centre of a soft mass which he thought must be the anus. On examination, however, although this dent was somewhat misleading, I had no difficulty in diagnosing a case of hydrocephalus, and by manual palpation, I ascertained that the child's head was of enormous dimensions. The mother informed me that she had thought all along that she had twins, as she had never been so large before.

I placed her under an anæsthetic, and introduced my hand under careful aseptic precautions above the pelvic brim, when, as far as I could reach, nothing could be felt but the enormous head. The bones of the skull were more like parchment, and could be easily indented with a sort of crackling feeling. As there was no object in submitting the mother to any risk for the problematical advantage of saving a child with this disease, and, moreover, as the mother believed the child was dead, I punctured the fontanelle with a pair of sharp-pointed scissors, which I had disinfected for the purpose, and allowed what I should estimate to be between 2 and 3 quarts of clear hydrocephalic fluid to escape.

By introducing my finger into the hole thus made, I was able to get a hold of one of the parietal bones, which, however, doubled up under the pressure, but, nevertheless, giving me a sufficient hold to draw down the head, and quickly deliver the child. The mother made a rapid recovery.

These are the only cases of hydrocephalus that I have met with in about 800 confinements.

CASE III. I was called early one morning to see a woman whom I had confined of her first child a few years before, and found that she had been in labor for more than 24 hours. For financial reasons she had not engaged me for this confinement, but had taken, instead, a midwife. She was evidently very poor, the house being exceedingly dirty, while her bed was simply filthy. The midwife told me that everything appeared all right until the waters broke about 10 o'clock the night before, when a hand of the child presented and appeared at the vulva. She became alarmed, and sent for a neighboring physician, who was too discouraged with the surroundings to attempt to do anything for her relief, and therefore ordered her to the lying-in hospital. Having the usual dislike for hospitals so common among the poor, she did not follow his advice. About 1 or 2 o'clock in the morning, as the pains were most violent, she sent for another physician, who gave her the same advice as the first one, and even paid for a cab to take her to the hospital.

On my arrival, about 4 or 5 o'clock, not knowing that any other physician had seen her, I found the hand protruding from the vulva, and the child placed transversely across the abdomen. I fortunately obtained a clean tin pan and a kettle of hot water, and with this and the aid of a douche

bag and some bi-chloride tablets, which I had with me, I was able to give her a 1 in 2,000 sublimate douche, and also to thoroughly disinfect my own hands. I ordered the midwife to place her under my A. C. E. mixture which I had with me, and in a few minutes had her sound asleep, with the womb and abdominal muscles thoroughly relaxed; it was only the work of a moment to introduce one hand into the uterus, push up the shoulder, aided by my left hand on the abdomen, and to seize the feet with my right hand. There was some little difficulty in getting the head through the pelvis, which was rather a flat one, necessitating the high forceps application at her first confinement. I was obliged to apply the forceps to the aftercoming head. This, however, was only the work of a few minutes. Within fifteen minutes of my arrival at the house the child was born, but dead. As I feared hemorrhage, owing to atony of the uterus from exhaustion, I administered a drachm of fluid extract of ergot before removing the placenta, and waited about 10 minutes to give this time to take effect. The placenta was then easily expressed from the uterus, and the latter organ held firmly in the hand until all danger of post-partum hemorrhage had passed. The precaution was not unnecessary, for several times I felt the uterus relaxing under my grasp, and at the same time filling up with arterial blood which was expelled at the next uterine contraction.

After waiting until she had thoroughly awakened from the anæsthetic and all danger of hemorrhage was over, I left her, with strict injunctions to have her cleaned up, which the midwife did as well as she could with the means at her command.

Strange to say, this patient recovered as if there had been nothing unusual,—thanks, I presume, to the antiseptic precautions I had taken.

CASE IV. This patient engaged me a couple of months ago to confine her, telling me that she lived several miles away from my residence, and that she had come so far to me in the hopes that I could succeed in delivering her of a living child, as she had already been confined twice, but each time the baby had to be destroyed in order to be delivered. She was very anxious to have a living child, but had been thoroughly discouraged by the three very able physicians who had told her that this was impossible. In fact, in a moment of discouragement, her husband had thrown a large stock of baby clothing into the fire.

On examination I found the pelvis contracted, the antero-posterior diameter being about 3 inches. I advised her to cut down her diet to the very smallest limit possible, in order that the size of the child might be kept down accordingly. This she faithfully did; in addition to which, her husband aided me by keeping her working more than usually hard, and I requested her to drive at once to my private hospital as soon as labor began, intending to perform symphysiotomy, for which I made due preparation. She appeared at my private hospital accordingly at 4 o'clock in the morning about 10 days ago, when I found labor going on actively, but the amniotic membrane unruptured. I carefully avoided rupturing this, and left her in the charge of a nurse, with orders to give her just enough of the A. C. E. mixture to keep her easy without rendering her unconscious.

My object in doing this was to give nature a chance to mould the child's head to the pelvis, with the possible hope that an operation might be avoided, and that the forceps applied high might effect delivery instead.

At 9 o'clock, after giving her a bichloride douche, followed by a hot water one, I applied the long Baudeloque forceps to the head, which was resting on the pelvic brim, but not engaged; and had the great

satisfaction of engaging the head and gradually sweeping it down through the pelvis, as I raised the handles. As the head passed the promontory of the sacrum, I heard a crackling noise, and felt something give way; after which the head was easily delivered.

On examination afterwards, this proved to be the left half of the frontal bone which had been indented by the promontory of the sacrum. The right temporal bone was very much indented by the blade of the forceps, and I felt certain that the child would be injured by the pressure to which it had been subjected; but, to my astonishment, it seemed none the worse, and, within a few days, all marks of the forceps and of the indentation of the frontal bone had disappeared. This case illustrates what we can do in moderately contracted pelvis, by controlling the size of the child, giving plenty of time for labor to do its work, and the careful employment of a good long forceps applied to the transverse diameter of the pelvis.

CASE V. was a case somewhat similar to the above, but I did not see the woman until she sent for me to confine her.

Labor had hardly begun when I was called. As it was her first child, I followed the rule which I adopted since the beginning of my practice, of allowing 24 hours to elapse before terminating the first confinement. By this time the child's head had engaged in the superior strait, but made no progress whatever during the last 3 or 4 hours, so that I decided to apply the forceps and terminate the labor. I was sorry on extracting the head to see about a tablespoonful of brains oozing out of a hole at the front of the left parietal bone, caused by the pressure of the forceps.

I gave a very guarded prognosis, although the child was a very large and most vigorous one. To my surprise, he seemed very little the worse for this very severe injury, and when last seen—now some years ago—was about a year old and had a nævus at this spot, about the size of a quarter of a dollar, which I ordered the mother to keep bandaged; since when neither mother nor child have been seen.

250 Bishop street.

Society Proceedings.

MONTREAL MEDICO-CHIRURGICAL SOCIETY.

Stated Meeting, October 19th, 1894.

G. P. GIRDWOOD, M.D., PRESIDENT, IN THE CHAIR.

Drs. Elzéar Pelletier, F. J. Hackett, C. F. Wylde, H. Tatley and W. E. Deeks were elected ordinary members.

Fracture of the Skull with Pulsating Tumor.—Dr. SHEPHERD showed a little girl nine years old, who in 1889 had been under his care at the Montreal General Hospital. The following is a brief account of the case:

Florence C., age four years, admitted September 9, 1889. Ambulance case. Fell from second story window on to stone pavement. Picked up unconscious, and continued motionless for half an hour. Condition on entry, unconscious, pupils unequal, swelling over the right orbit with a semi-fluctuating feel, purposeless movements of the limbs, Cheyne-Stokes respiration. Her whole forehead and eyelids were greatly swollen, and at 12 p.m. that night her temperature rose to 103°. Three days later she seemed to be conscious, but she was unable to open her eyes from œdema. Eight days after her admission she spoke, asking for food; her condition then was slowly improving. She had then a fluctuating swelling over the right eye which pulsated, and running upwards and backwards from this was a fissure. Over the right parietal bone there was another fluctuating swelling, large and flat, but not continuous with the one in front. The fissure, however, ran into it. The hole over the orbit is still present, and one can feel the pulsation of the membranes through it. The line of fracture running up from this, corresponding to the fissure mentioned above, can still be made out with the finger. The swelling over the parietal bone has disappeared. The child's intelligence has not been good; her mother thinks her different from other children and not bright.

Dr. GORDON CAMPBELL remembered the case very well, especially so as he had given an absolutely bad prognosis after examining her condition on entry.

Dr. KINGHORN, House Surgeon for Dr. Alloway, read the following reports:—

1. *Tubo-ovarian Pregnancy.*—Patient, aged 31, complained of metrorrhagia, dysmenorrhœa, pain in the lower part of the abdomen and pain in the back. Menses commenced at 13 years, and continued normal till 2½ years ago, when her last child was born. Since then the above symptoms have gradually developed. Examination revealed lacerated cervix, leucorrhœa, anteversion and a mass in the posterior fornix. Cœliotomy recommended and performed. Upon opening the abdomen, a mass about the size of an orange was observed lying in the left half of the pelvis and behind the uterus. The mass was united by strong adhesions to the posterior wall of the pelvis, to the left broad ligament, to the whole extent of the rectum, and to the posterior face of the uterus. The adhesions were separated with difficulty by the finger, but not before the mass had been ruptured and dark colored clotted blood escaped. There was very little bleeding, and none of the neighboring viscera were injured. The pedicle of remains of tube and ovary of left side was tied off in the usual way. The abdomen was washed out with boiled water and wound closed without drainage. It is now the fifth day since the operation, and the patient has been doing perfectly well.

Dr. Alloway, commenting on the specimen, remarked that after removing the mass he noticed it embraced within its limits the ovary and the fimbriæ of the left tube, and the thought occurred to him that its situation suggested a tubo-ovarian pregnancy. The sac, which was really a distended ovary and contiguous portion of the tube, was filled with blood, etc., a condition not unusual in extra-uterine pregnancies. The specimen was submitted to Dr. Wyatt Johnson for microscopical examination, and his report confirms this view. Thickened and altered chorionic villi were found in that portion of the mass which corresponded to the dilated end of the left tube; no signs of a fœtus were detected.

2. *Ovarian Cyst (Marsupialization Method Adopted).*—Patient complained of pain over sacrum, in the left groin and hip, painful micturition, dysmenorrhœa and sterility. Menses commenced at 14 years, married at 19 years; no children, no miscarriages; irregular and painful menstruation, especially marked during the past two years. Examination revealed tenderness in both iliac regions, more marked in the right; tenderness extending down the right leg to knee-joint. Anteversion of uterus, being firmly fixed behind the pubic bone; a large semi-pultaceous mass occupied the left pelvis, projecting into Douglas' pouch of that side and firmly fixed to the uterus in front. Cœliotomy recommended and performed. On opening the abdomen the omentum was found to be adherent to a mass beneath it. The mass proved to be a large cyst containing clear fluid, and grew from the vicinity of the right ovary. It was connected with nearly all the abdominal viscera by adhesions so dense that the attempt to separate them had to be given up. From this large cyst sprang a number of daughter cysts. There was nothing left to do but drain off the cyst contents. Their cavities were converted into one main cyst, then washed out with boiled water and the wall of the cyst sutured to the peritoneum. The cavity of the cyst then opened into the wound, and thus constituted a condition somewhat similar to that found in the marsupialia. After thoroughly drying the cyst walls with sterilized gauze, its cavity was packed with iodoform gauze, which acted as a drain. Every other day the iodoform gauze was changed. On the 20th day this was discontinued and the opening allowed to close.

3. *Uterus Bicornis.*—This condition was met with accidentally in the course of an abdominal section for removal of the appendages. Upon opening the abdomen the uterus was seen to consist of two corpora with only one cervix, the bodies being separated from each other by a well-marked sulcus. The right one was larger than the left.

Dr. Alloway showed a wax model of the condition, which he said resembled very closely the pelvic organs as they appeared *in situ*. His object in operating was only to remove the appendages, and the condition was thus noticed. Bicornate uteri, he thought, though heretofore regarded as very uncommon, would in the future be more often met with, owing to the increased frequency of abdominal sections. This condition was due to the non-fusion of that part of the Mullerian ducts which go to form the body of the uterus.

4. *Double Pyosalpinx.*—Patient complained of menorrhagia, weakness, dyspareunia, pains in the back and lower part of the abdomen and left leg. Menses commenced at 16 years, she was married at 27 years, had one child and one miscarriage. The pain in the back and dyspareunia had existed for the past three (3) years. Examination revealed uterus retroverted and bound down by adhesions, which inclined it somewhat towards the right side. Removal of the appendages was recommended and performed. On opening the abdomen the right fallopian tube resembled a small sausage, the fimbriated extremity had closed in, giving the appearance of an inverted cone; the ovary was embedded in the tube which was attached by strong adhesions to the intestines. The left ovary was united by dense adhesions to the fimbriated extremity of the corresponding tube, which bore a close resemblance in appearance to the right, and was also attached by adhesions to the sigmoid flexure. The left ovary proved to be transformed into a large blood cyst. The uterus was so firmly bound to the sacrum by adhesions, that these had to be liga-

tured and cut before it could be released. It was then attached to the anterior abdominal wall. Both ovaries and tubes were removed.

Dr. Alloway, commenting on the specimen, said it was chiefly of interest as showing so clearly the cause and manner of the collection of fluid in a tube, as was the condition here, the initial point being the cementing of the abdominal end of the tube by a process of inversion of the fimbriæ. This inversion and cementing was most beautifully demonstrated in the present specimen, and he had never seen one where this pathological truth was so perfectly exhibited.

Dr. Adami had found bacilli in the specimens submitted to him, but not tubercle bacilli. They were both shorter and more stubby than the latter. The condition was purely one of chronic inflammation, but it showed that curious proliferation of the lining membranes of the tubes (forming various folds, and a fusion of these folds so as to look like a cancerous condition), which is the result of long standing chronic congestion and consequent overgrowth of the parts.

An Intra-ocular Tumor—Scopalamine as a Mydriatic.—Dr. BULLER presented an ordinary intra-ocular sarcoma growing from the choroid, pigmented as usual, and nearly filling the scleral cavity. So far as the growth itself was concerned, he did not know that it presented any points of special interest, but merely brought it to notice as an illustration of the diagnostic difficulties which these intra ocular growths sometimes offered, difficulties which are rather augmented than diminished by the patient's version of his troubles. The eye was removed a few days before from an old man of 75 years, who stated positively that he had never found anything wrong with the eye until about the middle of last April, when he suffered a slight injury from a piece of brushwood. After this the eye was sore for a few days, but apparently recovered perfectly. Some three or four weeks later he noticed it had become blind. The blindness continued without pain or inconvenience till about four weeks ago, when without assignable cause the eye became inflamed and intensely painful. The pain was that of a periorbital neuralgia, as well as in the eyeball, and did not yield in the least to any palliative treatment suggested by friends or prescribed by his physician.

On examining the eye it presented a moderate degree of pericorneal congestion, resembling that of subacute glaucoma. The intra-ocular tension was only slightly increased, the cornea being perfectly clear and bright. The iris appeared somewhat thickened, and presented visible blood vessels in considerable numbers. The pupil could not be dilated in the least by atropine or scopalamine; nevertheless, he was able to make out with the ophthalmoscope a small portion of one retinal blood vessel on a yellowish surface close behind the lens, and inferred from this a total detachment of the retina. This, together with the fact that the pain was out of all proportion to the inflammatory phenomena, the loss of vision complete and the tension somewhat increased, rendered the diagnosis of intra-ocula sarcoma extremely probable, notwithstanding the patient's statements in regard to the comparatively recent origin of the blindness. Dr. Buller stated that it was likely that the growth was of much older date than last spring; two or three years at least must have elapsed since it commenced, and no doubt the blindness, more or less complete, existed long before the injury, but was unnoticed by him until particular attention was called to the condition of the eye at that time. There was one other point of interest about this case. Finding that the pupil would not dilate with atropine, he used the new and stronger mydriatic scopalamine. Two drops of a four grain solution were used in the morning, at an interval of about an hour, and caused some vertigo, but a third drop about 5 p.m. was followed by mental hallucinations and a sort of stupor which lasted for several hours. The patient was inclined to be garrulous, but talked incoherently, and did not seem able to recognize anyone about him; there was also almost complete loss of co-ordination of ordinary muscular movements, the face was somewhat flushed but of a good color, both respiration and pulse were about normal, and after a night's sleep he awoke the next morning in his usual health.

In this case the toxic effect of the scopalamine was very marked, but apparently not of a dangerous character.

The Pulse and Respiration during Ether Anæsthesia with Clover's Inhaler.—Dr. GORDON CAMPBELL read a paper with the above title, and showed a number of charts which had been prepared by Drs. Cameron, Brown and himself from notes taken during anæsthesia. The normal or usual effect was shown to be a very considerable quickening of both pulse and respiration at the outset, then gradual slowing of the pulse down to the normal rate, but continued rapid respiration while the anæsthesia lasted, so that the pulse-respiration ratio was altered. The rate of the breathing was still further increased reflexly by certain manipulations on the part of the operator. These were: stretching the sphincter ani and working with the mucosa of the rectum, sometimes stretching the perineum, rough handling of the peritoneum, especially breaking down adhesions and working with the ovaries and testes. The pulse rate was increased by hæmorrhage, and both pulse and respirations by an overdose of ether. This latter observation had been worked out experimentally. The practical points were to

watch both pulse and respiration carefully. Quickening of respiration alone was accounted for reflexly, and a less amount of ether should be given, as otherwise the increased rate of breathing would lead to an overdose. Quickening of both pulse and respiration meant an overdose; quickening of the pulse alone meant hæmorrhage. The results were obtained by tabulating the notes of one hundred cases.

Dr. KENNETH CAMERON since last Christmas had kept records of forty cases in which he had administered ether by Clover's inhaler. The cases were all gynæcological, and his results were almost identical with those of Dr. Campbell. He had noticed that the respirations were always increased by what might be called intra-abdominal reflexes, such as handling the peritoneum, as in tearing adhesions, tying off the ovary and its appendages, washing out the abdomen and pulling on the round ligament. He had had no experience of reflexes arising from manipulations about the rectum. An excess of ether was another cause of increasing the rapidity of the respirations as well as the pulse. The pulse showed the same initial rise with the gradual fall as the administration proceeded. The chief cause for increased rapidity of the pulse was hæmorrhage.

The lesson to be learned from the investigation was that when the respirations were increased, without any of the recognized reflex causes being present to account for it, the anæsthetist should suspect an excess of the ether, and remove the inhaler.

Dr. GEORGE A. BROWN had given ether for Dr. Alloway for about three years, during which time he kept records, similar to those of Dr. Campbell, of his cases. He had used Allis' inhaler for the first year and a half, after that he employed Clover's inhaler. His results closely resembled Dr. Campbell's. As to the relative merits of the two inhalers, he thought Clover's had the advantage, inasmuch as you could more accurately ascertain the quantity of ether being administered. Working with Allis', one was apt to give too much of the drug at the start, and as a consequence did not get the sharp fall in the pulse that ought to follow the initial rise, and in fact the anæsthetist often discovered that he had his patient deeply anæsthetized when a lighter degree would suffice. Still, he believed as one became accustomed to the use of Allis' apparatus he would be able to judge of the proper amount to give at the commencement, and the results of both inhalers would then be practically alike. He agreed with Dr. Campbell as to the effect of intra-abdominal reflexes upon the respirations, and had had one opportunity of noticing the truth of Dr. Cameron's observation as to the effect of pulling on the round ligament.

Dr. GURD, as an anæsthetist of some fourteen years' standing and of very considerable experience, had used Clover's inhaler, but not exactly in the manner of the previous speakers. As to the existence of certain regions which, when irritated, reflexly stimulated the respiratory centres, he thought there could be no doubt; and he believed that every anæsthetist must perforce soon become aware of the location of these places of extra excitability. It was his custom never to use the bag of Clover's inhaler, except when the operator was manipulating in these regions, and he used it then for the purpose of quieting the increased movements of the limbs, which were apt to be thus set up. Apart from this he never felt justified in using the bag of the inhaler, as he believed that pure ether was much less injurious to the patient's system than a mixture of ether and respired air, with all its impurities, which the application of the bag implied. So far as the convenience of the anæsthetist and of the operator was concerned, there could be no doubt that there was an advantage, as by its means the patient was much sooner rendered unconscious; but he thought that this was accomplished at the expense of the patient's vitality.

Dr. WILLIAM GARDNER stated that the only points in Dr. Campbell's paper which he was in a position to confirm were those which related to the reflexes set up while working on the peritoneum. He was especially impressed with the fact brought out concerning the danger of giving too much ether during these moments of unusual respiratory excitation. The patient then breathes more quickly, and hence is apt to take more of the drug, which might easily constitute an excess if the anæsthetist be not on his guard. He further expressed his satisfaction at the evidence of the popularity of Clover's inhaler in Montreal, as he considered himself as chiefly responsible for its introduction here.

Dr. ALLOWAY remarked that in the days of the old-fashioned cone and sponge, it was a matter of considerable anxiety to the surgeon as to what was going to take place before the patient was fully anæsthetized, and that throughout the whole operation his attention was more or less distracted from his work by the possibilities of danger arising from the anæsthetic. Now all this was changed. He knew that the quantity of the drug administered was accurately measured, and he felt the same safety in its use as does the physician in prescribing within the limits of the pharmacopœial dose. The only occasion now on which he has to inquire into the department of the anæsthetist was the blocking of the respiratory passages by mucus, and here the best plan is to stop the administration and allow the patient to vomit, which may be assisted by irritation of the fauces.

Dr. EVANS referred to an article he had recently read, in which much the same views

were put forth. A point mentioned in this paper was the occasional occurrence of tonic spasm in the recti muscles of the abdomen when complete anæsthesia had been induced, especially where there was a good deal of mucus in the trachea. Substituting chloroform for ether for a little while quickly overcame the spasm. He asked if any of the anæsthetists present had observed this phenomenon.

Dr. F. J. SHEPHERD, speaking of the advantages of ether as an anæsthetic, could not say that his experience was so uniformly favorable as Dr. Campbell's. He thought in men accustomed to consume large quantities of alcohol, phenomena were noticed which were both frequent and troublesome. In some a condition of tremor will set in, and persist in spite of everything throughout the whole of the anæsthesia. Others, again, frequently show a tendency to hyper-secretion of mucus in the tubes. In such cases he questioned, therefore, if it would not be better to use choloroform. Before permanently settling the question, moreover, he thought it would be desirable to have some investigations made among men as well as women, as all the cases reported here to-night were, he believed, gynæcological patients.

Dr. ARMSTRONG also would like to see these investigations extended into that numerous class of surgical patients, whose constitutions were not normal, but rather more or less shattered as a result of their disease or accident—the sort of cases which the surgeon gets in the Montreal General Hospital, especially those emergency cases where an operation has to be performed within a few hours after their admittance. One of the most prominent features of Dr. Campbell's paper was the great success he had achieved by the Clover's inhaler. He himself had heretofore a strong dislike to this method of anæsthetising, especially as he had had sometimes seen it employed, when the patient was forced to breathe vitiated air for as much as half an hour or more at a time; still, after listening to the results of the extensive investigations laid before them to-night, he thought no reasonable man could deny that, when properly used, at all events, the Clover's inhaler was a great success. Another important result brought out by this work was the evident danger of continuing the anæsthetic when the respirations were increased from any cause. By so doing, the patient inhaled an increased quantity of the drug; and the wonder is, when we consider how little this matter has been attended to in the past, why accidents have not been more frequent. Every anæsthetist should keep in mind the normal rate of respiration under ether, should know readily all the causes which might increase the rate, and watch carefully whether any of them be operating when any undue frequency is noted, so as to satisfy himself that it is not due to an excess of the drug. He should also remember that when the rate of respiration is increased, the amount of the drug consumed is also increased, and the danger of administering in excess made greater. Another point made manifest by these papers is the apparent absence of all injurious effects from prolonged administration. If this hold good for that other class of patients, already alluded to, who are not in such good physical condition as gynæcological patients generally are, it is a very important fact, and one that must sensibly influence surgical procedure. If time is of no consequence, or if it must not be seriously regarded by the surgeon in deciding on his operation, many of our present preferences for one operation more than another will have lost their *raison d'être*. As an illustration, one may mention the fact that the "Murphy button" owes its chief superiority over the method of suturing an intestinal anastomosis to the saving of time which it allows; and if this saving of time is no longer of such paramount importance, the advantage of the "button" in the minds of many surgeons will fall to the ground. The same might be said of many other operations. Yet, according to Dr. Campbell's statistics, the patient seems to have been in as good condition at the end of three hours of ether anæsthesia as at the beginning, so far, at any rate, as the respiration and circulation were concerned. If this evidence be confirmed by more general investigation, Dr. Armstrong thought that too much credit could not be given to Dr. Campbell for having brought it to light.

DR. BULLER believed that for short operations, not requiring more than a few minutes to perform, the old-fashioned cone was more serviceable than a Clover's inhaler. He had been accustomed, in little operations performed in his office, to allow the patients to anæsthetize themselves. This was easily accomplished, and gave more satisfaction to all parties, as it could be done without violence or vomiting, and the patients quickly recovered from its effects. He also thought that the members of this Society had an unnecessarily serious impression of the dangers attached to ether as an anæsthetic; for his part he had been using it for years, and with this simple apparatus, had never any really serious difficulty. He believed that any careful anæsthetist, by watching his patient, could always detect any threatened untoward effect, and prevent its development by allowing a few inspirations of pure air.

Dr. MCCONNELL found the paper and charts very instructive. He himself had been accustomed to use a mixture of chloroform and ether in the proportion or two to one respectively. To a certain extent he was prepared to admit that these results were brought about by the use of the Clover's inhaler; but still he thought a careful anæsthetist, who watched closely the

pulse and respiration, might perform good and safe work with the ordinary cone. He would like to ask Dr. Campbell if he had made any attempt to ascertain why the respirations increased under an excess of the drug. Is it because of some change in the blood, or is it through some local effect upon the respiratory mucous membrane? He saw an article some time ago, where it was stated that nitrogen produced almost exactly the same results as ether. If so, it must have been rather through the deprivation of oxygen than any special action of the nitrogen; and was it possible that in the case of the ether also, it was the want of oxygen that produced the increased respiratory action? He thought an investigation of these points would form an interesting study.

Dr. MILLS considered the papers valuable, apart from practical and scientific, as showing evidence of concerted work, which he considered only too rarely practised. It was not always the most curious case which was the most valuable; and it was only from the consideration of a great number of cases that any general laws could be based. Another advantage to be derived from the joining together of workers is that men supplement each other's weaknesses; one man may be strong in compiling statistics, another man strong in making deductions, and in this way the combination produces greater results than could be accomplished by each individual acting separately. He would like to go into more fully than the present occasion allows, how Dr. Campbell's work brings out the question of reflexes. People sometimes sneer at the idea of reflexes, but he, for his part, believed that the extent to which reflexes have been so far used to explain the phenomena of the higher animals is altogether inadequate.

Dr. GORDON CAMPBELL, in reply to Dr. Gurd, who advocated only using the bag when the patient moved, said the patient never ought to be allowed to move; if he did so, it was a sure sign he was only partially anæsthetized.

In reply to Dr. Evans' question as to the tenseness of the abdominal muscles, he said the subject was too large to go into all the phenomena connected with anæsthesia in one evening. This abdominal tenseness generally occurred at the beginning of the administration, and he believed the manner of giving the ether had something to do with it. If one commences by giving the ether in a large dose, one gets a certain amount of spasm of the larynx, which tends to spread over the whole body, and, unless the amount given is diminished, is kept up. Stopping the administration for a little while allows it to pass off, and on commencing again with a weaker dose it does not recur.

Stated Meeting, November 2nd, 1894.

G. P. GIRDWOOD, M.D., PRESIDENT, IN THE CHAIR.

A Case of Goring by an Ox with Wound of Bowel.—Dr. SHEPHERD exhibited a patient who had been severely gored by an ox, and the intestine and mesentery wounded. The patient, a French-Canadian, aged 63, whilst driving cattle on board one of the steamships on the night of September 25th, 1894, was knocked down and severely gored by one of them. He was immediately brought to the Montreal General Hospital, and Dr. Shepherd was summoned. On arrival he found the man suffering considerably from shock; the right testicle was exposed, and a large wound, on the left side of the abdomen, extended from the spine of the pubis upward and outward several inches; through this wound protruded some ten to twelve feet of bleeding small intestine covered with dirt. The intestine was washed and then examined. It was found that the mesentery was perforated and torn in eight or nine places, and on disturbing the clots the vessels bled profusely. These were secured, and the mesentery brought together with Lembert's sutures. The intestine was torn completely through in only one place, but in several other spots the outer and middle coats were torn and the mucous membrane extruded. After securing the injured parts with a continuous Lembert, the bowel was pulled out for several feet and found normal, and then the whole was returned into the abdomen. The abdominal walls were now attended to, and it was found that the wound in the muscles was of greater extent than that in the skin, which had evidently been considerably stretched—to suture the torn muscles the wound had to be extended upwards and outwards. The different structures were sutured separately, the peritoneum with catgut and the skin with horse hair.

The wound in the peritoneum was most internal, a little more external was the wound in the muscles and more external still the skin wound; so, in this way, as each structure was brought together, the level of the sutures was different. Although a considerable portion of the scrotum was torn completely off, yet sufficient skin remained to cover the testicles. A drainage tube was introduced into the peritoneal cavity, and the wound dressed with gauze and absorbent cotton.

The patient went on well, and never had a bad symptom. The drainage tube was removed on the second day. The only untoward symptom that ensued was some sloughing of the wound made by the horn; this was no doubt due to over-stretching. The man was in excellent condition, and had not the slightest ten-

dency to hernia. The skin wound was not completely healed owing to the sloughing which had occurred, but the deeper parts were quite solid.

A Case of Medico-Legal Interest.—Dr. J. A. SPRINGLE showed the genital organs of two little girls, 12 and 14 years of age, who had been violated and murdered four years before.

Polydactylism.—Dr. J. CHALMERS CAMERON exhibited two children of the same family showing this condition :—

First child, four days old.

Hands—Supernumerary fingers on each hand springing from the outer border of the little finger. Both thumbs broad.

Feet—Supernumerary great toe on each foot and a supernumerary little toe on the left foot. A web exists between the first, second and third toe of each foot.

Second child, 1 year and 9 months old.

Hands had supernumerary little fingers, which were amputated soon after birth.

Right thumb very broad, with a distinct furrow down the centre.

On *left and* a double thumb.

Feet similar to those of the other child, except the web extended up almost to the end of the toes. On the left foot are seven toes ; on the right six toes.

The father of these children presented the following peculiarities :

Right hand—Broad thumb, double the normal breadth ; nail depressed in centre, but depression did not extend down the thumb below nail.

Between thumb and index finger is a web extending as high as the web of the other fingers.

A sixth finger projecting from the little finger.

Left hand—Same as right, except that there was a web running between first, second and third fingers as high as the joint between first and second phalanx.

Dr. SHEPHERD remarked that the subject of polydactylism was a very complicated one. The occurrence of supernumerary digits may be explained by two theories : (1) That it is due to reversion or atavism ; (2) reduplication or repetition owing to excess of germative material (Blastogenic). By the latter theory, the occurrence of more than seven digits is explained, and the doubling of the bones and muscles of the extremities. The theory of reversion is applicable to those cases of supernumerary digits occurring either on the inner or outer side of the manus or pes. Anatomists of late have been much interested in the theory advocated by Prof. Bardeleben, viz., that the pentadactyle extremity has been preceded by a hepta-dactyle form, that is, that the present five digit limbs were preceded by those carrying seven digits, and that the suppressed digits were, one in succession to the 5th, the post-minimus, and one in succession to the 1st, the pre-pollex. This would explain the occurrence of these marginal structures, such as the pisiform bone and the radial sesamoid of animals, and also the occasional re-appearance of certain marginal muscles in rudimentary form. Supernumerary digits are very common in cats and pigs ; in pigs the supernumerary digits are only found in the fore limbs, whilst in all other animals they are found in both fore and hind limbs. The horse occasionally has supernumerary digits, and the sheep much more rarely. The condition is markedly hereditary, as evidenced by the cases before the Society. In conclusion, Dr. Shepherd regretted that the subject was too large a one to permit him to go into it at sufficient length to make it intelligible to the members.

Dr. GIRDWOOD mentioned instances in cats of the reduplication of parts. He had a cat possessed of an extra finger, both in the fore and hind leg, and the progeny of this cat was likewise endowed.

Dr. PROUDFOOT had a cat with four well marked ears, out of whose litter of seven, five of the kittens had similar supernumerary ears.

Excision of Maxilla.—Dr. ARMSTRONG brought before the members a man whose right maxilla he had excised for sarcoma. The whole maxilla was removed, including the whole or part of the following bones, lachrymal, malar, orbital plate, superior maxilla, palate and ethmoid. The disease was of a very progressive malignant character. It began to grow in December last ; the first symptom noticed was pain in the teeth, for which he had some teeth removed without getting relief. Next he was troubled with the tears running down the cheek, evidently denoting the plugging of the lachrymal duct. The third symptom which appeared was the pushing forward of the eye-ball. At this time his teeth were removed, under the impression that there might have been some ulceration about the roots to account for the symptoms, but without result. The antrum of Highmore was next explored in the hope of finding pus, but with like success. The swelling continued, as also the pain, to grow worse, and finally the case coming under Dr. Armstrong's notice, he diagnosed a sub-periostial sarcoma of a pretty rapid growth, and advised excision. A specimen had been submitted to Dr. Adami for examination, and the following report received.

Section shows it to be an endothelioma, *i.e.*, a malignant connective tissue tumor presenting an alveolar arrangement which in parts is with difficulty distinguished from an epitheliomatous growth.

There are, however, no true cell nests, the stroma does not tally with that of a true epithelioma, and the cells of the alveoli have a sarcomatous appearance.

The tumor is evidently rapidly growing. When the primary growth occurred could not be determined from the specimen.

Dr. RODDICK enquired concerning the prognosis of Dr. Armstrong's case, and agreed with the latter that it was very serious.

Maternal Impressions—Missed Abortion—Monstrosity (Janiceps).—Dr. GURD exhibited a monstrosity, a fœtus of about the thirteenth week having fusion of two bodies with a single head. It had four arms and four legs, all well formed. No external genitals were visible, and the umbilical cord was given off low down between one pair of legs. There was also a comparatively large spina bifida. The fœtus was partly mummified owing to its having been retained six weeks after its death.

The mother had all the usual signs and symptoms of pregnancy for three months, when these suddenly left her, and she then had all the symptoms of one carrying a dead fœtus. Dr. Gurd said that this case would strengthen the faith of those who believed that strong maternal impressions caused marks and deformities. One afternoon shortly after conception, the mother went to Sohmer Park, and there witnessed the performance of some acrobats. Their tumblings so affected her that she told her husband she could not look at them. The mother asked if this could in any way have made her lose her baby. She never knew of its being deformed.

Dr. LAPTHORN SMITH thought the term janiceps was not very appropriate in this case, as it ought to denote a double-headed body or double-faced head, instead of which, this specimen had only one head, the doubling being confined to the extremities.

Dr. GURD, in reply, said he recognized the inconsistency of the name with the condition, but he had looked up a number of authorities, and they all agreed in describing it by this term, so, though unsatisfied, he was obliged to follow their example.

Paralysis in Children.—Dr. MACPHAIL read a paper on this subject as follows :

During the past two months, through the intervention of Dr. C. S. Caverley, President of the Board of Health, and his colleague, Dr. H. H. Swift, I was able to make some observations upon an epidemic of "paralysis in children," which occurred in the State of Vermont. The epidemic commenced late in June, increased in July and culminated in August, and though new cases are cropping up, the malady has now almost abated. I obtained the notes of ninety-one cases out of one hundred and twenty which were affected.

At first the belief was held that the outbreak was one of cerebro-spinal meningitis, and there were several cases presenting the characteristics of this disease. But on examination it appeared that such cases were very few, and in many there were no symptoms at all beyond paralysis. There was a general absence of retraction of the head and flexing of the trunk. The sensory symptoms were not prominent, the headache was chiefly frontal, and beyond some slight delirium of the ordinary febrile type there were no psychical manifestations. The cutaneous symptoms were absent or unimportant, and while in many cases there were indefinite rashes, in only one were there petechiæ, in none herpes-labialis mottling, purple spots or the other undoubted cutaneous manifestations of "spotted fever."

The sequalæ and complications were also different. There was no account of pleurisy or pericarditis, and in only one case pneumonia. Neither the auditory nor any of the cranial nerves were permanently affected. The eye symptoms were wholly of central origin, no ophthalmia, no conjunctivitis, no keratitis, no permanent impairment of vision. From an examination of the records of all the epidemics of cerebro-spinal meningitis, and an estimate of such authorities as Randolph, Wilson, Niemeyer, Knapp and Kreitmair, it would appear that the eye symptoms alone were sufficient to differentiate the present malady from cerebro-spinal meningitis. Indeed, Hirsh affirms that "Conjunctivitis is almost always a constant condition."

I will set down brief notes of a few cases typical of groups into which the series seemed to fall.

S. C., a boy five years old, complained 17th June of headache, chiefly frontal, with nausea and vomiting, a temperature of 102 degrees and a pulse of 115. This continued for twenty-two hours, and was succeeded by soreness in the arms and legs, loss of reflexes, with generally increasing paralysis, culminating after twenty-four hours in a completely powerless condition of both lower and both upper extremities, which still persists.

A. B., a delicate girl of twelve years, with a slight left lateral spinal curvature, fell sick of an attack resembling indigestion, with coated tongue and marked constipation. Gradually, without alarming symptoms, paralysis supervened, and in two days both arms and legs were useless. After five weeks there is no sign of improvement.

In this case there was a real arthritis quite as intense as in an ordinary attack of acute rheumatism, the pain not merely "supposed to be in the joints." (Gowers.)

Boy, seven years old, 4th July, had a temperature of 103 degrees, and a pulse of 120 for three weeks. The temperature suddenly dropped to 97, and the pulse to 50. The knee joints now became painful and swollen, as well as the elbow and shoulder, paralysis of the left upper and left lower extremities followed, and still persists.

In this case the preliminary symptom was

double vision. A girl, eleven years old, suddenly developed this condition, and for three days was slightly unwell. Next morning she was unable to get out of bed on account of complete paralysis of the left arm and leg. Fever with delirium followed for four days when the symptoms abated, and now the limbs show some improvement. In this case the menstrual function was established during the progress of the disease.

In other instances there were no premonitory symptoms, and without warning, the children would "stumble," and on examination one or other of the limbs would be discovered in a paralytic condition.

The following may be taken as types of the fatal cases :

S. G., an Italian boy of four years old, on the 21st July became sleepy, and complained of headache. He was found to have no fever, but with a pulse of 45 slow, hobbling in character and intermitting every fifth beat. This continued four days, when a slight improvement was noticed, internal strabismus occurred, but the child made a complete recovery, so far as symptoms were concerned, on the seventh day. He was then allowed to divert himself in the hot sun in company with a goat, when all the original symptoms returned, headache, squint, halting pulse and drowsiness. This was the last of August, by the first of September he was worse than at any previous time, but yet had no fever. Next day the knee-jerk was absent, but the plantar reflex was retained, as well as the cremasteric. The legs now became paralysed, and by the third of September the paralysis was general, the eyes half closed, the pupils dilated and unequal, a temperature of 105 degrees. The child died at three o'clock the same afternoon.

Hilding A., a Swedish child, twenty months old, on the 31st August was stricken with fever of 103 degrees and pulse of 120. The restlessness was extreme, the child moaning and tossing its limbs, but quite conscious. The head was slightly retracted, and the pupils contracted unevenly. Next day the general symptoms were improved, but the child continued restless and in a highly excitable condition. The second of September the fever had disappeared, but the restlessness increased with clonic spasm, strong grinding of the teeth and paralysis of the left leg. Next day the temperature rose to 104, the spasm increased, and general paralysis supervened. The child died in the afternoon.

In view of the fact that in many cases of cerebro-spinal meningitis the lance-shaped coccus, similar in all respects to the pneumococcus, has been found, which Corneil and Babes regard as the cause of both diseases, it is worth remarking that pneumonia was present in only one case.

E. F., a boy aged four years, was affected on the 8th of August, after a slight preliminary illness, with paralysis of both legs, and two days later developed pneumonia. Both conditions subsided, and now the child is in a fair way of recovery.

In a few the onset was accompanied by symptoms of transient meningitis. Gowers believes that such condition must be regarded as a coincident effect of a common cause.

I have also notes of six cases in adults, of which three were fatal, in two the paralysis persists, the other, a man of seventy, recovered.

The ages were nineteen, twenty-four, twenty-seven, thirty-five, thirty-six and seventy years.

For example : S. J., a lad 19 years old, complained of pain in the head and back, a pulse of 100 and a temperature of 102 degrees. The fever subsided on the fourth day, the pulse fell to 56, and all pain disappeared. The right arm now became paralysed, and by next morning the pulse was at 38, the temperature 97, the extremities cold. Complete paralysis developed during the day, and in the afternoon the young man died.

The muscles in every marked case showed the degenerative reaction in a characteristic manner. The loss of faradic irritability was observed, and in many cases absolute, while the reaction to the constant current was increased. The muscles were variously affected. In some cases the whole arm was paralysed, in some only the intrinsic muscles of the palm, but the combinations of the different groups affected were endless. After an exhaustive tabulation of the muscles and groups affected, I was unable to discover any combinations which seemed to preserve any definite order. In the legs the extensor group was injured most frequently, and sometimes there was a functional association. The paralysis in every case was motor, and the only disturbance of sensation was hyperæsthesia.

The distribution of the paralysis was as follows, reduced to percentage :

Left arm alone	2.
Right arm alone	4.
Both arms alone	2.
Right leg alone	7.
Left leg alone	26.
Both legs alone	45.
Left leg and left arm	8.
Right leg and right arm	3.
Both legs and left arm	2.
Both legs and both arms	4.
Right thigh	2.

The infection was confined to a definite area fifteen miles long and twelve in breadth, with the range of the Green Mountains on the east, but no natural boundary on the other side. The city of Rutland is in the centre of the

area. It would be hard to discover a region in which a disorder had less license to become epidemic ; the whole district lies upon a series of terraces, and increased safety did not come with elevation. Indeed, four cases occurred on the very ridge of the Green Mountains, at an elevation of 1,500 feet, and the line of the four dwellings extended over half a mile. The water supply was different in each of the four cases, namely, from springs out of the mountains. The range referred to definitely limited the infected area, which occurred in a region with faults and dislocations in the earth's crust and profound breaks in the whole strata, while on the other side of the mountains the country is level and unfaulted. Neither overcrowding of habitations nor any of the evils usually accompanying or flowing from this condition were factors in the present case, since only in four families was more than one member affected. It was quite usual for children to sleep with those who were affected and themselves remain entirely free from the disease. No isolation was practised, nor did such precaution appear to be of the slightest value. Indeed, the brunt of the disease fell upon the purely rural portion of the community. There was nothing discoverable in the domestic and personal hygiene of those attacked. The houses were all detached, and in most cases there was nothing in the nature of privy or cess pool. Nor had penury any part in the epidemic. The district is one of the most thriving in the United States, and has been settled for a century and a half. The food, water and milk supply were examined and were found above reproach. The food and milk is drawn from the neighboring farms or from the farms in which the patients lived. The veterinary surgeons have remarked no unusual occurrence amongst the cattle, but twelve horses died of what was called cerebro-spinal meningitis. I was unable to procure any reliable account of these cases. The summer was dry and hot, the springs scanty and the surface water low. The rainfall for the three months was only 6.58 inches, against 11.95 last year, and 15.04 the year before, or an average of 11.2 for the last 47 years. The average temperature was 64.3 degrees, last year 64.4, the year before 65.2, and 65.4 on an average for the last 47 years. Cases were found amongst children of American, Swedish, Italian, French, Irish and Jewish parentage, so that nationality appeared to have no bearing. There is in one place a colony of a thousand Italian marble cutters, but amongst them there were only two cases.

The following table shows the results reduced to percentages:

Fatal cases	13.
Recovered	25.
Improved	30.
Unimproved	32.

CONCLUSIONS.

In the outset one has to make the humiliating admission that no useful pathological results were obtained. In no case was an autopsy permitted, and there is no authority in the State of Vermont to enforce the demand. The examination of the blood and excreta was negative.

The diagnosis is yet uncertain, as most diagnoses are which are based upon clinical considerations alone and unsupported by the results of a pathological examination.

It must rest between cerebro-spinal meningitis, multiple neuritis, poliomyelitis, or a combination of the last two.

1. Cerebro-spinal meningitis may, I think, be set aside at once under the force of the facts already alluded to. Epidemics of this disease are common enough, and its general course is definite with a special symptomatology. In the present case there was an almost entire lack of those symptoms, and there were, besides, manifestations which have never been noticed in epidemics of cerebro-spinal meningitis.

2. H. Openheim, Berlin, in his work on diseases of the nervous system, emphasizes the view that poliomyelitis is due to an infective micro-organism, and in the present epidemic there was much evidence pointing in the same direction. Indeed, Medin, of Stockholm, has reported what he considers as an undoubted epidemic of poliomyelitis, there being 44 cases. There is a strong temptation to regard the present outbreak as of a similar nature. Clinically the course of the disease much resembled poliomyelitis, as a reference to the cases makes clear. There was the initial feverishness, aching pains, abrupt paralysis of the nature commonly known as "infantile," indeed the distribution of the paralysis is highly characteristic. If it were not for the disturbance in the vagus, one would have no hesitation, on clinical grounds, in pronouncing the epidemic one of poliomyelitis. The mode of onset, the paralysis itself, the age of patients, the season at which the epidemic occurred, the distribution of the paralysis and the subsequent behavior of the muscles, all point to this disease. Besides, it is not uncommon to have cerebral disturbance in poliomyelitis, convulsions and coma, and even diplopia has been noted. In the cord of a child dead of this disease, the lesion is not confined to the cells of the anterior horn ; there may be a general hæmorrhagic myelitis and even obvious meningeal involvement. There may also be pain referred occasionally to the course of the nerves and simulating a peripheral neuritis. In an epidemic, including so many cases, it is not probable

that they would all adhere to the classical standard, and it is to be expected that some would overflow into the class of neuritis or cerebro-spinal meningitis.

3. The evidence in favor of the outbreak being due to peripheral neuritis rests upon the disturbance in the vagus. But if one regards, with Gowers, "Symmetrical weakness of the anterior muscles situated in the forearm and in the corresponding muscles in the lower limb," as the leading motor symptom, then it will not explain the present malady since it was absent in 55 per cent. of the cases. Indeed, the paralysis was "characteristically random in distribution," that is characteristic of poliomyelitis, and Gowers further affirms that the nerve trunks are sometimes probably inflamed in the latter affection.

Finally, one is driven to the conclusion that the cases constituting the epidemic mainly followed the type of poliomyelitis, but that in some there were elements strongly suggestive of multiple neuritis, either as an independent affection or the common results of a common cause.

Dr. JAMES STEWART, on being asked by the President to give his opinion on the nature of the disease described in Dr. Macphail's paper, said it was very difficult to express an opinion as to the pathology of such a very curious epidemic, without giving the subject more thought than could be expended in the course of listening to the paper being read. He, however, considering that the chief symptoms appeared to be mainly of a paralytic nature, suggested the possibility of the disease being really a peripheral neuritis. This disease sometimes occurred epidemically, and was especially likely to do so in malarial districts. In the East Indies, for instance, many cases of peripheral neuritis are attributed to the direct effect of the plasmodium. In Dublin at present they are sufferlng from an epidemic of a paralytic nature, which is nothing more than a marked peripheral neuritis. In this connection, he would like to ask Dr. Macphail, whether or not any examination of the blood had been made, as in cases of neuritis, such as he had referred to, micro-organisms were invariably found, and were capable of reproducing the disease when injected into other animals.

Dr. MACPHAIL, in reply to Dr. Stewart, said the blood had been examined in many instances, but always with negative results. He had attended four cases, which ended fatally, but he could not secure a post-mortem. Several New York physicians were also on the ground, and had carried on some investigations of the disease, which he had no doubt would subsequently be given to the profession; but, so far as he could learn, no definite data as to the pathological nature of the trouble had been obtained.

Dr. MCCONNELL inquired from Dr. Macphail whether atrophy of the muscles followed the paralysis, and was answered: "Yes, in every case." He then commented on the nature of the disease, and remarked that it seemed to be an epidemic of a local variety, and was probably caused by some micro-organism. He did not agree with Dr. Stewart in regarding it as a peripheral neuritis, but was more inclined to look upon it as a toxic affection of the spinal cord, confined to the anterior horns, probably an anterior poliomyelitis with involvement, in some cases, of the cranial motor nuclei. The symptoms here seemed to be confined to the motor functions altogether, and were mostly sudden in their onset, whereas, were it a neuritis, one would expect some sensory troubles, such as pain, tingling, hyperæsthesia or anæsthesia and the paresis or paralysis coming on gradually.

Dr. MILLS thought Dr. Macphail had here compiled a great deal of valuable material, and presented it in a form to be grasped by all. He hoped this line of work would be encouraged, and the custom of collecting a large number of cases of some disease be continued.

Progress of Science.

WILLIAM THOMAS GREEN MORTON, M.D.

William Thomas Green Morton, M.D., medical student, dentist and physician, and the recent recipient of Massachusetts' honor, was born in Carlton, Mass., August 9, 1819, and died, aged forty-eight, in New York city, July 15, 1868.*

In 1840, at the age of twenty-one, he was a student in the "Baltimore College of Dental Surgery," a chartered organization connected with the Washington University of Medicine of Baltimore.

Subsequently he engaged in the practice of dentistry in Boston, in the meantime assiduously pursuing his studies to receive a medical degree.

March 20, 1844, he entered his name as a student of medicine with Dr. Charles T. Jackson of Boston.

In November, 1844, he entered the Harvard Medical School in Boston in regular course as a matriculate, and attended all the lectures.

In 1852 he received the honorary degree of Doctor of Medicine from his original *alma*

* See the American Cyclopædia: New York, D. Appleton et Co., 1875. Article, "Morton, W. T. G.," p. 855. See Encyclopædia Britannica, Ninth Edition, Article "Anæsthesia." See the Century Illustrated Monthly Magazine, New York City, August, 1894.

mater, the Washington University of Medicine (afterwards merged into the College of Physicians and Surgeons), of Baltimore, Md.

On September 30, 1846, at his office in Boston, he administered sulphuric ether to Eben Frost, and extracted a tooth without pain to the patient.

Securing permission from Dr. John C. Warren, Senior Surgeon of the Massachusetts General Hospital, on October 16, 1846, he administered ether to a patient at the hospital, and Dr. Warren performed a severe surgical operation, the patient remaining unconscious during the operation.

He was now twenty-seven years of age and still a medical student in the Harvard Medical School. The discovery now announced brought with it overwhelming labors, and he was compelled to discontinue his studies from that moment onward.

From this crucial demonstration in October, 1846, dates the immediate and universal adoption of the practice of anæsthesia throughout the civilized world. The event marked the advent of a new epoch in the world's history, namely, the epoch of practical painless surgery.

Over Dr. Morton's grave in Mount Auburn Cemetery, near Boston, a monument has been "erected by citizens of Boston," including names the most respected and most honored among them, bearing the following inscription, written by the late Dr. Jacob Bigelow, of Boston :

"WILLIAM T. G. MORTON,

INVENTOR AND REVEALER OF ANÆSTHETIC INHALATION.

BY WHOM PAIN IN SURGERY WAS AVERTED AND ANNULLED.

BEFORE WHOM, IN ALL TIME, SURGERY WAS AGONY, SINCE WHOM SCIENCE HAS CONTROL OF PAIN."

A monument in the Public Gardens in Boston is erected "To commemorate the *discovery* that the inhalation of ether causes insensibility to pain. First proved to the world at the Massachusetts General Hopital, in Boston, October, 1846," the date of Dr. Morton's successful demonstration at the hospital.

No other date is upon this monument except the date of its erection, 1867, and no other reference, except biblical quotations, to anæsthesia. It can therefore refer to no one but to Dr. Morton.

Dr. Morton received a divided Montyon prize from the French Academy of Sciences, the "Cross of the Order of Wasa, Sweden and Norway," the "Cross of the Order of St. Vladimir, Russia," and a silver box containing one thousand dollars from the trustees of the Massachusetts General Hospital, "in honor of the ether discovery of September 30, 1846." The trustees in their report, subsequently reaffirmed, unanimously accorded the honor and credit of the discovery to him.

He made several appeals for remuneration, for the use of his discovery in the army and navy, to the Congress of the United States; and although committees to whom the subject was referred made majority reports that he was entitled "to the merit of the discovery and to substantial reward," yet no reward was ever voted to him. At two sessions of Congress, bills in his favor were passed, and on one occasion the President of the United States held his pen in his hand to sign a bill, and paused to consult Jefferson Davis, Secretary of War, with the result that the bill was never signed.

Announcing his discovery at the age of twenty-seven, and dying at the comparatively early age of forty-eight, his twenty-one years of adult and active life were entirely consumed with the turmoil and pain of the controversy forced upon him by claims not one of which had ever appeared in print until *after* his initial announcement in 1846.

He died poor, and "*he became poor in a cause which has made the world his debtor.*"

THE TREATMENT OF GONORRHŒA BY IRRIGATION OF THE URETHRA.

By H. M. CHRISTIAN, M.D., Chief of Genito-Urinary Dispensary, University of Pennsylvania, service of Dr. Edward Martin.

It is proposed in this article to give the results obtained by the writer in the treatment of gonorrhœa by daily irrigation of the urethra.

A large majority of the cases treated were patients at the Dispensary for Genito-Urinary Diseases, University Hospital; a few are taken from the case-book in private practice.

The remedies used for the purpose of irrigation were bichloride of mercury, nitrate of silver, permanganate of potassium, and trikresol. The irrigator employed was the ordinary glass-jar irrigator used in surgical clinics, and was suspended by a rope, working over a pulley, at a height of six feet above the penis, the patient standing.

The Kiefer nozzle was used in all cases, except in those instances where it was found to be too large to enter the meatus properly; in such cases the soft-rubber catheter was employed. In irrigating the urethra, one quart of the solution—warm, not hot—was used daily for a period of two weeks. In a few cases treatment was continued for three weeks; it was, however, observed that no permanent benefit resulted from this extra week's treatment. In other words, whatever result was

obtained from irrigation was always apparent at the end of two weeks, and no dictinct advantage was ever gained by prolonging the daily irrigation beyond that point.

Treatment was begun in all the cases in the first week of the disease. Purulent discharge from the urethra, ardor urinæ, and chordee were present in all. Microscopical examination of the discharge was made in every case.

It will be understood in the statistics given below that those cases in which gonococci were found are classified as infectious ; where, upon repeated examination, no gonococci were found, the case is classified as non-infectious urethritis.

1. *Bichloride of Mercury.*—Strength of solution. 1 to 15,000, increasing the second week to 1 to 8000. Number of cases treated, 20 ; infectious. 19 : non-infectious, 1 ; improved by treatment,—*i.e.*, discharge becoming less in quantity and thinner,—8 ; number unimproved, 11 ; cured, 1 ; number in which ardor urinæ and chordee were lessened by treatment, 18 ; number in which ardor urinæ and chordee were not benefited, 2 ; number of cases in which posterior urethritis developed, 2 ; number of cases in which epididymitis developed, 0 ; number of cases in which gonococci were found in discharge at end of fourteen days' treatment, 19.

2. *Nitrate of Silver.*—Strength of solution, 1 to 6000, increasing in second week to 1 to 3000. Cases treated, 20 ; infectious- 18 ; non-infectious. 2 ; improved by treat, ment, 13 ; unimproved by treatment, 6 ; cured, 1 ; number in which ardor urinæ, etc., lessened, 20 ; number in which ardor urinæ, etc., unaffected. 0 ; number developing posterior urethritis, 2 ; number developing epididymitis, 0 ; number in which gonococci were found at end of fourteen days, 16.

3. *Permanganate of Potassium.*—Strength of solution, 1 to 4000, increasing in second week to 1 to 2000. Cases treated, 20 ; infectious, 16 ; non-infectious, 4 ; improved under treatment, 10 ; unimproved, 3 ; cured, 7 ; number in which ardor urinæ, etc., lessened, 19 ; number in which ardor urinæ, etc., unaffected, 1 ; number developing posterior urethritis. 2 ; number developing epididymitis, 1 ; number in which gonococci were found at the end of fourteen days, 5.

4. *Trikresol* (Schering).—Strength of solution, one-half of one per cent. Cases treated, 10 ; infectious, 10 ; non-infectious, 0 ; improved, 1 ; unimproved, 9 ; cured, 0 ; number in which ardor urinæ, etc., lessened, 1 ; number in which ardor urinæ, etc., unaffected, 9 ; number developing posterior urethritis. 0 ; number developing epididymitis, 0 ; number in which gonococci were found at end of fourteen days, 10.

From a glance at these statistics it will be seen that, as regards therapeutic value, these four remedies stand in the following order : first, permanganate of potassium ; second, nitrate of silver ; third, bichloride of mercury ; and, fourth. trikresol. By far the most valuable remedy in urethral irrigation is permanganate of potassium. It is simply using in a new way what has long been known to every man about town to be a most potent drug in the treatment of gonorrhœa. It will be noted that gonococci were found in the discharge at the end of two weeks' treatment in only five cases.

Irrigation of the deep urethra with a 1 to 4000 permanganate of potassium solution is the very best method of treating acute posterior urethritis, and will result in a cure in most cases in from about three to five days.

Nitrate of silver follows permanganate of potassium very closely, but does not appear to dry up the discharge as quickly or as well.

In regard to bichloride of mercury, it was evident that those solutions which were strong enough to have any positive antiseptic effect irritated the urethra and increased the ardor urinæ. On the other hand, the weaker solutions appeared to act very little better than so much water on the discharge.

Trikresol is a coal-tar product manufactured by Schering, similar in every way to carbolic acid. Solutions of the strength of one-half of one per cent. were found to be very irritating to the urethra, increasing in a marked degree the ardor urinæ. Solutions of a quarter of one per cent. had little or no effect upon the discharge.

Seventy cases in all were treated by irrigation. Of these, seven were cases of simple urethritis. Thirty-two were improved by treatment,—that is to say, the condition at the end of two weeks was simply a thin muco-purulent discharge at meatus in the morning ; no ardor urinæ or chordee or frequent and imperative urination ; further irrigation did not improve this condition. These cases were all cured in about two weeks more by use of some astringent injection two or three times daily.

In twenty-nine cases the discharge was not at all affected by irrigation. These patients showed marked improvement in their condition upon beginning the use of a urethral injection containing bismuth and hydrastis, and the use internally of a capsule containing sandal-wood oil and copaiba.

Nine of the cases were cured within the two weeks. Of these, seven were cases of non-

specific urethritis. Of the nine cases cured, seven were cured by permanganate of potassium. Gonococci were found in small quantity in the discharge after two weeks' irrigation in fifty cases.

Posterior urethritis only occurred in five, and epididymitis in one instance.

It should be noted that in fifty-eight cases the ardor urinæ and chordee were entirely relieved by irrigation; and of the twelve cases in which these symptoms were not affected, nine were treated by trikresol, a remedy which was shown to be very irritating to the urethra.

The results obtained in the treatment of these cases seem to warrant the following conclusions being drawn:

1. That irrigation is a distinct advance in the treatment of gonorrhœa; in fact, up to a certain point, it must be considered the proper treatment for that disease. It relieves ardor urinæ and chordee more promptly than any other form of treatment. It is attended with a much smaller proportion of complications, such as total urethritis and epididymitis.

2. That permanganate of potassium is the best remedy for the purpose of urethral irrigation.

3. That irrigation of the urethra alone cannot be relied upon to absolutely cure specific urethritis.

For the cure of the thin muco-purulent discharge which appears at the meatus in the morning, some astringent injection used by the patient himself is necessary.

4. That simple non-infectious urethritis can be cured in from ten to twelve days by daily irrigations with permanganate of potassium.

The writer is of the opinion that, where it is possible to carry out the treatment, irrigation of the urethra with solutions of permanganate of potassium *twice* daily would very materially lessen the duration of the disease. This is, of course, impracticable in dispensary practice. I am now employing at the Dispensary of the University Hospital daily irrigation with permanganate solution, combined with the internal use of a capsule containing five minims each of oil of sandal-wood and oil of copaiba. The results obtained in these cases will be published at another time. It might be well to mention here that, for the purpose of irrigating the urethra completely, the Kiefer nozzle is not by any means all that could be desired. The blunt nose of the nozzle will not fit properly every meatus. On the other hand, it is very doubtful whether the urethra is irrigated to any great extent by its use, as it was observed in almost every case that the irrigating fluid would make a short circuit in the urethra from the point of entrance in the nozzle to the point of exit.

The best results were obtained from the use of a soft-rubber catheter several sizes smaller than the calibre of the urethra, allowing the solution to escape easily along the side.

The following table will show at a glance the results obtained by urethral irrigation:

Drug employed.	Number of cases.	Infectious.	Non-infectious.	Improved.	Unimproved.	Cured.	Gonococci found at the end of two weeks' treatment.
1. Permanganate of potassium.	20	16	4	10	3	7	5
2. Nitrate of silver.....	20	18	2	13	6	1	16
3. Bichloride of mercury.....	20	10	1	8	1	1	19
4. Trikresol.	10	10	0	1	9	0	10

THE TREATMENT OF DIABETES MELLITUS.*

By Solomon Solis-Cohen, M.D, of Philadelphia.

Throughout the management of a case of diabetes mellitus, examine the urine at regular intervals, not too far apart, and whenever its acidity increases, or the sugar is suddenly diminished or absent, or the wine-red color is developed by ferric chloride, administer alkalies freely until the urine is alkaline and the sugar reappears. Sodium bicarbonate may be given, or, if the quantity of urine is lessened, potassium acetate or potassium citrate, or some other diuretic. Some authorities, however, caution against potassium salts, believing them to be too depressing to the heart. Rochelle salt is often useful, because it will act either as a mild hydragogue purge or as a diuretic. And this leads me to say that constipation is often a precursor of diabetic coma, perhaps a cause. Never permit your patients, then, to be constipated. I am in the habit of giving to diabetic patients sodium phosphate in bulk, and directing them to take one or two teaspoonfuls in hot water before breakfast, or perhaps even two or three times a day, the quantity and frequency to be varied according to the effect upon the stools. Bartholow, indeed, recommends sodium phosphate as a remedy for diabetes mellitus, especially in obese subjects with hepatic disorder. Sometimes he combines with it sodium arsenate, 1-64 grain to the drachm of sodium phosphate. This is a useful expedient. Arsenic is itself useful in the treatment of diabetes mellitus. Lithium salts and various alkaline mineral waters are useful to keep the secretions active and neutralize acidity. Recently I have been using the salts of strontium, and especially strontium bromide, in the treatment of lithæmia and in the treatment of diabetes mellitus in the gouty and obese. In doses of about 30 grains, with 20 drops of

*Extract from a Clinical Lecture in *The Therapeutic Gazette*, May 15, 1894.

glycerin, and infusion of gentian to make a tablespoonful, three times a day, before meals, I have found this drug of great service. It is a stomachic tonic, promotes digestion and relieves flatulence, increases general nutrition and quiets the nervous system; at the same time it keeps the blood moderately alkaline. It can be given for much longer periods continuously than is safe with potassium salts, and is not contra-indicated in lithæmic cases, as most sodium salts are. Strontium lactate is likewise used, but I prefer the bromide. In gouty and rheumatic cases especially, but likewise in hepatic cases, sodium salicylate is useful. It can be alternated with strontium bromide, and I am in the habit of giving it for a week or two whenever the patient complains of arthritic or muscular pains. I prefer to give it in capsule, followed by an ounce or two of water, the dose being from 5 to 15 grains three times a day. From time to time strychnine arsenate, 1-128 grain six times a day, is given as a general nervous tonic-stimulant.

In the case of emaciated patients, or in obese patients temporarily when the sugar is excessive, and does not yield to other measures, I prefer codeine to any other drug. The dose is from ⅛ grain to 12 grains or more daily. It is to be given first in small doses, increased until the point of tolerance is reached or improvement is manifest, and then decreased to the smallest dose at which the gain made can be held. Following Sir B. W. Richardson, I give it in solution with hydrogen dioxide, in some such mixture as this:—

Codeine phosphate,	gr. ij.
Alcohol,	f ʒ iv
Dilute phosphoric acid,	f ʒ ij
Glycerin,	f ʒ vj
Solution of hydrogen dioxide (10 volume), enough to make	f ʒ iij.

Dose.—2 teaspoonfuls in 3 ounces of water. With this an alkaline course is usually conjoined, the patient being given some suitable mineral-water. Arsenic is sometimes added. Hydrogen dioxide, potassium permanganate, ozonic ether, and oxygen have been advocated on chemical grounds in the treatment of diabetes. I believe that any of them would be useful in helping to avert threatened coma, the special indication, as Harley has shown, being disappearance of sugar from the urine. The theory is simply that they bring about increased oxidation of the sugar or secondary products circulating in the blood. Hydrogen dioxide water can be given in much larger doses than I have mentioned,—almost *ad libitum*, in fact,—and oxygen can be conveniently given by inhalation. Ozonic ether can be injected hypodermically.

I have not spoken of diet, taking that for granted. It precedes medication. I will only say: Don't try to cut off bread and potatoes altogether; the patient won't submit. Gluten bread is not reliable and is not palatable. Give small quantities of ordinary bread,—toasted, if you like,—say six small slices or three rolls a day. An occasional roasted mealy potato will be a great treat and won't harm the patient. Beyond this, try to make up by fats for the exclusion of starches. It is now possible to give our patients a certain form of sugar. Last year I had before the class a young, thin man, then in the hospital, to whom I was giving levulose, or fruit-sugar. Careful chemical analysis of his urine by Dr. Henry Leffmann showed that the urinary sugar did not increase, but actually diminished, while the patient was taking this form of sugar. As you know, levulose, so called because it rotates polarized light to the left, has the same empirical chemical formula as glucose, or, as the latter is called from its action on polarized light, dextrose. The rational formula of the two sugars, however, has been recently shown to be different, and the place of levulose is among the ketone group, while dextrose is placed among the aldehydes. This may account for their different relations to the metabolism of diabetics. Twenty years ago Kuelz, of Marburg, showed that diabetic patients could assimilate levulose and inosite, but only recently has the former been produced as a commercial article. I have used it now for nearly two years, and in some twelve cases of diabetes, and in all it has been assimilated. It is sweet,—not quite so sweet as cane-sugar, but sweet enough to enable our patients to gratify their palates,—and it is useful as a carbohydrate aliment. It turns coffee somewhat black. I give it in quantities of about an ounce a day to lean patients; to stout persons simply as a sweetening.

I am making some observations now with lactose,—milk-sugar. Several patients have taken as much as 4 ounces of milk-sugar in a day without increasing the excretion of sugar in their urine. Others can take but a fraction of this quantity. Philip is one of the patients on whom this observation has been made. He can dispose of about two ounces of lactose daily; four ounces cause an increase of about two ounces in his daily dextrose excretion. As a practical deduction from these clinical experiments, I permit my diabetic patients to drink milk freely.

And now, to conclude, I have three words of advice:—

1. Keep your patients warm and protected; cold is their greatest enemy.

2. Examine the urine for organic acids and keep the blood alkaline.

3. In the matter of diet, be strict enough to diminish polyuria and glycosuria, and, if possible, to secure their disappearance, *provided* you can at the same time keep the patient comfortable; but under any circumstances *make the patient comfortable.*

THE NEW CURE FOR DIPHTHERIA, CROUP, ETC.

If the facts placed before the Hygienic Congress held at Budapest last month be not overstated, then the whole world owes a deep debt of gratitude to the young French savant, Dr. Roux, for the patient and heroic researches which have led to the discovery of an effectual cure for croup and diphtheria, and opened the way for further results not less startling. Such is the introductory announcement in the *London Daily Graphic*, which also gives the following:

The distinguished Dr. Marsan points out how the new method was established. Diphtheria is produced by microbes which plant themselves in the membrane of the throat, and multiply; but unlike the bacilli of other infectious diseases, they remain obstinately in the same position, neither penetrating the system nor the blood. But if the deadly animalcules remain at the door, they are still able to secrete a poison of extreme violence, called "toxin," which quickly penetrates the circulation and infects the whole body. This toxin, thanks to the achievements of science, can now be isolated, and in the form of a fine powder will cause almost immediate death when injected into animals. However, it has been found that if a very small dose be introduced into certain animals, especially the horse, only a feeble reaction is produced. By repeating the operation, with gradually increasing doses, the organism of the animal finally revolts, and becomes not only impervious to the toxin, but destroys it, and from this singular result is due the origin of the new substance with which Dr. Roux wages war against diphtheria. In a word, it is the basis of a great revolution in the medical world, which henceforth will recognize in "Serum therapy" a heaven-sent system to root out most of the diseases connected with childhood. As Dr. Marsan well says, there are toxins and anti-toxins for all microbic affections. Serum therapy will eventually discover a remedy for all infectious diseases. Yesterday it was tetanus in animals that it cured, to-day it is diphtheria, to-morrow it will be tuberculosis.

If you go to the Institut Pasteur, you will find comfortably stalled in the garden some ten or a dozen cab horses, in prime condition, aged from six to nine years, whose mission in life is to furnish the precious fluid which every day snatches many a young life from an untimely grave. They are in their measure unconsciously solving the problem of how to stop the depopulation of France. They are well cared for, there is no cruelty in the process, no suffering entailed. The first process is to inject the deadly virus—the toxin—into the shoulder of the horse. This, of course, at first causes a slight indisposition, but after a while no ill effect is felt. The second step, as shown in one of the views, is to draw from the neck of the "prepared" animal a judicious quantity of blood. If the blood be allowed to stand for a while, the red corpuscles settle to the bottom, and the operator can then draw off the fluid, of a yellowish hue, resting above and containing the serum, or antitoxin. This, in its turn, is injected under the skin of the patient by means of a syringe analogous to that used for injecting morphine.

On February 1, 1894, Dr. Roux began operations at the Hospital for Sick Children, Paris. He had a good supply of serum, and each day on making his visit to the hospital, he treated all the children he found there, in whatever state or condition of croup or diphtheria. There was no selection of subjects, a point to be borne in mind, nor was the ordinary treatment in any way modified or set aside. Things went on exactly as they had before, except that a new element had been introduced—namely, the serum. During 1890, 1891, 1892, 1893, before Dr. Roux began his system, 3,971 children suffering from croup and diphtheria were admitted into the Hospital for Sick Children. Of these, 2,029 died of the disease, the mortality thus being 52 per cent. On the other hand, from February 1 of this year up to July 24, the date up to which Dr. Roux furnished statistics to the Congress, the serum was applied to all without exception, and, out of 448 children, there were only 109 deaths—that is, the mortality had decreased to 24 per cent. As the conditions during these periods were the same, the difference between 52 per cent. and 24 per cent. indicates the indisputable benefit derived from Dr. Roux's treatment. If we take the same period at the Trousseau Hospital, Paris, where the old methods prevail, we find that out of 520 children admitted there, 316 died, thus giving a mortality of 60 per cent.

But this is not all. The serum, if applied, say, to a child suffering from quinsy, not only puts that ailment to flight, but renders the subject impervious to croup and diphtheria; and even measles and scarlatina are found to be of very rare occurrence, and then only of slight character, when the system has been fortified by Dr. Roux's wonder cure. The 24 per cent. represents the saving of the lives of 120 children in six months in one institution. The gain would have been more considerable but for the deplorable hygienic conditions of the Hôpital des Enfants Malades. Many of the deaths, too, were the result of further complications, such as heart disease and bronchopneumonia, which made the work of the physician very difficult. Generally speaking, a single injection is sufficient, and Dr. Roux has never given more than two. The dose consists of two-fifths of amount of serum injected itno the side by one puncture. The temperature

then decreases, which is an excellent beginning. The leather-like membrane which is suffocating the little sufferer ceases, within twenty-four hours, to increase, and after thirty-six hours it comes away altogether, and the diphtheritic bacilli disappear. The serum also has a marvelous effect on the appearance of the patient. The dull and leaden complexion, with its accompanying piteous cry, gives place to a healthy skin, and the patient becomes cheerful if not gay.

REPORTS ON NEW DIPHTHERIA CURE.

An Associated Press despatch, from Washington, D.C., dated Dec. 29. 1894, says the officials of the United States Marine Hospital Service are watching with interest the results obtained from the new diphtheria cure. The officials are already in possession of considerable information as to the manner and results of applying anti-toxin in Berlin and Paris. At the Children's Hospital at Berlin, Dr. Kinyoun says the larger proportion of cases suffering from diphtheria are treated. There were about thirty-five cases in the hospital at the time of his visit, and their age was usually 3 and 6 years. The death rate is slightly lower than the figures of the Paris hospitals, for the reason that in the first place the patients are sent to the hospital sooner, and because the little children receive better care than is accorded them in like institutions in Paris. Dr. Kinyoun goes into a very elaborate description of the methods employed in the treatment of the disease.

The matter of the control or supervision of the use of anti-toxin is also engaging the attention of the local authorities, and Dr. Kinyoun reports that Nov. 4 Prof. Koch convened a meeting of the Prussian Board of Health for determining what action should be taken. Prof. Koch has expressed the opinion that there should be some government supervision of the serum, so that it could always be relied upon. If there was no such supervision, it would not be very long before spurious articles would be put on the market, and not only would a good remedy be brought into disrepute, but lives would be sacrificed when they might be saved. It was decided at the meeting of the Board, that all serum intended for use in Prussia should be inspected and tested for its purity and strength before it would be allowed to be used. This step the doctor reports was satisfactory to all parties concerned, and will be the means of insuring a good article of standard strength at all times for Prussia.

In this connection Dr. Kinyoun calls attention to what he says will evidently occur in our own country. Many persons will, during the coming year, commence to prepare this serum as a business enterprise, and there will without doubt be many worthless articles called anti-toxin thrown upon the market. All the serum intended for sale, he believes, should be made or tested by competent persons. The testing, in fact, should be done by disinterested parties. The anti-toxine, he says, will never work miracles ; it has its limits like any other agents, and, like a perfect piece of machinery, will not accomplish the full result unless directed by a skilled hand. "Some persons affected with this dread disease will succumb, it matters not how soon we apply the remedy. The majority will, however, I am sure, recover if the anti-toxin is given early and properly." In closing the report, expresses the hope that soon every State and municipality will take the proper steps to provide facilities for supplying the people. Incorporated in the report are a number of tables or charts showing the effects on the respiration, pulse, and temperature of the administration of the anti-toxin in various cases.—*The National Popular Review.*

TREATMENT OF RENAL DISEASE.

Dickinson (*The Lancet*, February 10, 1894) expresses the following views as the treatment of nephritis :

Acute Nephritis.—The disease has a tendency to recover spontaneously, qualified especially in scarlatinal nephritis by a tendency to fibrosis. Warmth in bed and a liquid diet are essential to recovery. The food should be mild, animal broths and a moderate amount of farinaceous food. Water and aqueous drinks should be given freely. After a calomel purge it generally suffices to give a saline. Digitalis is to be given only if there is dropsy, or if the urine be very scanty. Even though the urine contain blood, no drug should be given to check the flow, as it is rather beneficial than otherwise. The usual diuretics are useless and even harmful, cantharides being especially harmful.

Chronic albuminuria may continue almost indefinitely without much apparent injury to the patient. The heart will hypertrophy as a salutary adjustment, and the dropsy may be indefinitely postponed. In a quiescent case, temperance in diet is much to be preferred to austerity. Farinaceous and vegetable food may be allowed without restriction, milk in abundance, watery drinks freely, and the less alcohol the better. A purely milk diet is advantageous. When urine is scant and of low gravity, large amounts of liquid should be taken. It is often necessary to save life. In movable cases it is well to have the patient in a warm climate with a low relative humidity. So far as medicines are concerned, it is a good practice to give a ferruginous laxative combined with a small dose of strychnine. The normal termination of the granular kidney is by *uræmia*. Sweating should be enforced where the uræmia is indicated by headache, vomiting, etc. A Turkish bath every

ten days may long ward off what would otherwise happen, or a hot-air bath by a lamp under sheet may be used. If the patient be weak, it is much better to give a partial hot-air bath than to envelop the whole body. The legs may be alone enveloped in the sheet, and this will be valuable in many instances.

Treatment of the Dropsy.—Nature's cure is hypertrophy of the heart. Measures which lessen the contents of the vessel and increase the force of the heart are indicated. Digitalis is almost invariably indicated. Most diuretics are useless; some are harmful, as cantharides. Vegetable salts of potash may be used. Hydragogue purgatives have their use. The abdomen may be tapped when there is excessive ascites, but the legs must never be tapped. Renal asthma admits of relief with alcohols, ethers, and amyl nitrite.

SOME NEW ANIMAL EXTRACTS.

I am a full believer in the virtue of animal extracts, and have been making some experiments on my own hook. I am fully persuaded in the efficacy of brains, as a cure for dudes and other functional cerebral troubles. The cortex is of especial value. In assumed blindness the chopped up cuneate lobes I have found of value especially in hemianopsia—indeed, it is only second to gold in rendering a judge capable of seeing the right side of the question.

If the minced organs are good for the maladies of the corresponding parts of men, why, then, the stronger the organ the better the remedy; and if what is true of the parts must mathematically be true of the whole, why, then, the chief characteristic of the entire organism ought to be extracted and capable of imparting its peculiar nature as desired by hypodermic injection.

One of my friends had a pet ostrich, which kept his yard free from tin cans, cobble stones, ancient shoes and such like debris. Often had I, when confronted with Samson hash or Sandowe butter, wished I had the stomach of that ostrich. Acting on that suggestion, I bought the bird and proceeded to make the extract. I pounded him two hours with a pile-driver, macerated him one week in aqua-fortis, triturated him with dynamite, boiled him down, and then carefully filtrated and sterilized his remains. Before trying this mixture on a human being, I tested it physiologically. I found it digested a bride's first biscuit in five minutes; an antiquated spring chicken gave up the struggle in 12 minutes and 42 seconds.

I made a thorough aseptic ten per cent. solution, and injected it into a dyspeptic dude whose chief sustenance had been tooth-pick broth and cigarette puffs, at 11 a.m. At 3 p.m. I was hastily summoned by telephone to see my patient, who had eaten one dozen hard boiled eggs, a plate of sinkers, and had begun on the head of his cane. I think a proper dilution of ostrichine will prove invaluable for dyspepsia. I have sold the right to put up ostrichine to Rustle & Co., of Gotham. I have learned that since then another firm has put up an ostrichine, but I wish to inform the medical public that the real, true, and only original ostrichine is put up by Rustle & Co. Beware of substitution; none genuine without the final e.

A neighbor of mine had a bull pup, who was blessed with a large bump of adhesiveness. Indeed he had been known to adhere so closely to a pair of pantaloons encasing a young man, that he was only removed by an amputation. It occurred to me what a fine thing it would be to change this pertinacity in a good cause, so I purchased the dog, pulverized him, and made a strong limbergery mixture—dog-gone strong my assistant said, and awaited a suitable opportunity to use it. I had on my list an ex-Keeleyite, who was a victim of mania-circulaire-whiskeyi-twice-a-week-abus. After the second injection he was able to pass through the VIIIth ward all hours of the day or night without cracking a "smile." I tried it on a mug-wump, with the result that he voted the party ticket straight, although it was headed by a yellow dog of the most pronounced type. Bullpupine will be in great demand this fall, and I propose to put it on the market in blocks of five about election time.

I was not always so successful in my experiments. From cows' teeth I made a powder which was fine for tooth-ache on the lower jaw, but was not worth a continental red for trouble in the upper. I am now looking for a cow that has not lost her upper front teeth; when I find her, I can manufacture a dead-open-and-shut cure for the toothache every time.

This principle is capable of almost indefinite elaboration. I have some foxine for detectives, dovine for your best girl, and am now at work on horses, hoping I may extract some "horse sense" for strikers. Some owline for statesmen who must stay out all night comes high, but must be had. I have received several orders from Kentucky.

I have made a greater invention than Midshipman Easy's father, who contrived a machine which was to compress the bumps and to suck out the hollows on a person's head until the head reached the height of phrenological perfection. Now medical science will enable us to inject into the system missing qualities, or supply the proper antidotes to any overbalancing propensities. This will be true not only of permanent but temporary conditions, and the doctor of the future will carry concentrated morality in his hypodermic case, just as now he does morphine and strychnine. When he comes home late he will take a dose of dovine that will enable him to complacently listen to wifely admonitions. I hope that I may find many and valuable uses for the animal extracts.—*Southern California Practitioner.* H.A.W.

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MONTREAL, JANUARY, 1895.

REMOVAL OF THE UTERUS BY ENUCLEATION WITHOUT CLAMP OR LIGATURE.

For the reintroduction of this remarkable operation we are indebted to Dr. Pratt of Chicago, who deserves all the more credit for his persistent efforts to bring it into notice, because he performed the operation a great many times before succeeding in inducing other operators to give it a trial. Indeed, most gynæcologists were doubtful as to the possibility of such an operation being performed as that of removing the uterus by the vagina without the use of clamps or ligatures. Recently Dr. Goffe of New York has reported a successful case, and before long the operation will probably become the accepted one. It has the great merit of not injuring the great uterine branches of the sympathetic nerve, the inclusion of which in the ligatures or clamps in the old method is said to be the cause of the reflex disturbances from which such patients suffer for a long time. The secret of performing this apparently wonderful operation lies in keeping close to the uterus all the time, and to use a spud or dull instrument for pushing off the rich vascular network which surrounds the uterus. If this layer of blood vessels be cut, a ligature must be applied; but Pratt claims that he can remove the uterus in every case without losing an ounce of blood. The success of the operation shows that we should not doubt an assertion because we do not understand it. The improbable is constantly happening.

BOOK REVIEWS.

From reading an editorial in our esteemed contemporary the *Journal of the American Medical Association*,—a journal, by the way, which does credit to this continent,—it would appear that some editors ignore or speak ill of a good book because it is from the press of a rival publisher. We could hardly believe that a medical editor could so far forget the duty he owes to his readers to allow himself to be influenced by any consideration except the merits of the work under review. For our own part, we feel unable to criticize the majority of the excellent books which are from time to time noticed in our columns, and we only attempt to keep our readers informed as to what books have lately appeared, and as far as possible to give them some idea as to their contents. The interests of our readers are the first and only ones which we consider in our Review department.

BOOK NOTICES.

PHILADELPHIA, Dec. 7, 1894.

Editor CANADA MEDICAL RECORD,

DEAR DOCTOR:—

I have learned that *The Index Medicus* will cease to be published with the February number, owing to lack of support and the fact that a large number of its subscribers are delinquent, unless an effort is made to continue it.

The value of this publication to those who do any work at all in connection with medical literature is so great, that I take the liberty of writing to you, to express the hope that you will not only become a subscriber, but will urge other of your professional friends to do so.

It is particularly necessary that *The Index Medicus* should be continued, owing to the fact that after the completion of the supplementary volume of The Index Catalogue of the Surgeon General's Library there will be no record of contemporary medical literature, and he who desires to keep pace with it, or who wishes to study a particular subject, will have to resort to the laborious task of seeking in various journals that which he desires if the publication of *The Index Medicus* ceases.

It will be possible to continue *The Index Medicus* if 500 new subscribers are obtained. The subscription price is $10 per annum, which should be sent to Mr. George S. Davis, publisher of *The Index Medicus*, Box 476, Detroit, Michigan.

As *The Index Medicus* can never be made a

success from a commercial point of view because of the peculiar scope of its work, I have no hesitancy in making you acquainted with these facts, and I earnestly hope that you will insert a notice emphasizing the importance of this matter in the columns of your valuable journal.

Yours truly,
H. A. HARE.

CAZEAUX AND TARNIER. The Theory and Practice of Obstetrics, including Diseases of Pregnancy and Parturition, Obstetrical Operations, etc., by P. Cazeaux, remodelled and rearranged with additions and revisions by T. Tarnier, Professor of Obstetrics and Diseases of Women and Children in the Faculty of Medicine of Paris. The Eighth American edition, edited and revised by Robert J. Hess, M.D., Physician to the Northern Dispensary, Philadelphia, with an appendix by Paul F. Mundé, M.D., Professor of Gynæcology at the New York Polyclinic and at Dartmouth College; Vice-President American Gynæcological Society, with chromo-lithograph, lithograph and other full-page plates and one hundred and seventy-five wood engravings. Philadelphia: P. Blakiston, Son & Co., 1012 Walnut street, 1893.

This work will always remain an inexhaustible mine of information, and we rejoice to see it once more accessible to the profession in a new and attractive dress. It is a work of reference which should find a place in every library.

A TEXT-BOOK OF PATHOLOGY, Systematic and Practical, by D. J. Hamilton, M.B., F.R.C.S.E., F.R.S.E., Professor of Pathology, University of Aberdeen. Copiously illustrated. Vol. II, Part I, pages 1 to 514; Vol. II, Part II, pages 515 to end. London: MacMillan & Co., and New York, 1894. For sale by the Copp Clark Co., Ltd., publishers, 9 Front Street W., Toronto.

This is beyond question the most complete work of Pathology in the English language today. The author has accomplished his laborious task most successfully. We have searched in vain for some question in Pathology which the author has not noticed; we cannot better criticize it than by saying that it is beyond criticism. Modern bacteriology, including the staining and mounting of bacilli, is so explicitly dealt with, that no difficulty need be experienced in the general practitioner's preparing his own specimens. There are no less than 700 beautiful illustrations in the two volumes before us, and thousands of references to journal articles and lectures. The get-up of the book is in McMillan's faultless style. We bespeak for the work a large sale in Canada.

NOTES ON THE NEWER REMEDIES, THEIR THERAPEUTIC APPLICATIONS AND MODES OF ADMINISTRATION. By David Cerna, M.D., Ph.D., Demonstrator of Physiology, and Lecturer on the History of Medicine in the Medical Department of the University of Texas. Second edition, enlarged and revised. Philadelphia: W. B. Saunders, 925 Walnut street, 1895. Price, $1.25.

This is a handy little volume of 250 pages, very complete for its size. We have glanced over it, and found a brief but very good account of many drugs which are not to be found in some of the larger works. It is thoroughly up to date, and has a remarkably good index, rendering it useful both to students and busy practitioners. It may be obtained through any bookseller.

PHYSIOLOGY FOR BEGINNERS. By M. Foster, M.A., M.D., F.R.S., Professor of Physiology in the University of Cambridge; and Lewis E. Shore, M.A., M.D., Senior Demonstrator of Physiology in the University of Cambridge. London: MacMillan & Co., and New York, 1894; or the Copp Clark Co., publishers, 9 Front street W., Toronto. Price, $1.00.

This is a beautiful little work, clearly written and printed on good paper, and nicely bound. It is similar to Huxley's Elementary Physiology, but differs from the latter in that it is written for those who have no previous knowledge of the subject. It is fairly well illustrated, but the author insists upon the necessity of the reader seeing the things for himself either with the eye or by the aid of a microscope. He says a serviceable microscope can be obtained for $15. It is just such a one as might be used for school children with the greatest benefit.

SYLLABUS OF GYNÆCOLOGY. Based on the American Text-Book of Gynæcology, by G. W. Long, M.D., Richmond, Professor of Gynæcology in the Medical College of Virginia, etc. Philadelphia: W. B. Saunders, Walnut street, 1895. Price, $1.00.

This book, which is of a convenient size for carrying in the pocket, is after the same plan as Senn's Syllabus of Surgery. It has been written with a threefold object: first, to be used as lecture notes; secondly, to enable the student more intelligently to follow and remember the lectures; and finally, as a convenient reference for practitioners. In either of these capacities the book will be found to be valuable. As a note-book for the teacher, it would render the task of lecturing an easy one, for if he only spoke for a few minutes on each note he would deliver a very complete course of lectures. Being interleaved, the professor can introduce the notes of illustrated cases or any other matter on which he desired to lay particular stress. To both student and professor it will save a great deal of time and trouble.

LABORATORY GUIDE FOR THE BACTERIOLOGIST. By Langdon Frothingham, M.D.V., Assistant Demonstrator of Bacteriology and Veterinary Science, Sheffield Scientific School, Yale University. Illustrated. Philadelphia: W. B. Saunders, 925 Walnut street. 1895. Price, 75 cents.

It is not often that we say of a book that it fills a long-felt want; but in the case of the work before us we can say it truly. By following the plain directions given in this work, the mysteries of preparing, mounting and staining pathological specimens are laid bare, and any practitioner can make his own diagnosis of cancer, diphtheria, tubercle, etc., with very little loss of time. Full and clear directions for making staining solutions are also given, so that work with the microscope becomes comparatively easy. In our opinion, this is just the book that hundreds of earnest thorough physicians have been waiting for, and we predict for it a large sale.

PAMPHLETS.

IMMEDIATE CAPSULOTOMY FOLLOWING THE REMOVAL OF CATARACT. By L. Webster Fox, M.D., Professor of Ophthalmology in the Medico-Chirurgical College of Philadelphia. Extract of a paper read before the State Medical Society of Pennsylvania, May 17, 1894.

EVISCERATION OF THE EYE-BALL. By L. Webster Fox, M.D., Professor of Ophthalmology, Medico Chirurgical College, Philadelphia, Pa. Reprinted from the *Codex Medicus Philadelphia*, November, 1894. Philadelphia: Press of A. Van Horne, 119 North Sixth Street, 1894.

AN INTRODUCTORY ADDRESS TO THE STUDENTS OF THE MEDICO-CHIRURGICAL COLLEGE. By L. Webster Fox, M.D., Professor of Ophthalmology in the Medico-Chirurgical College. Delivered October 3, 1894.

PUBLISHERS DEPARTMENT.

SANMETTO IN DISEASES OF THE BLADDER AND KIDNEY.

To whom it may concern: I have been in the practice of medicine for the past forty four years, and say without hesitation that I have never prescribed any remedy that limits, equals or nears a specific in diseases of the bladder and kidneys as *Sanmetto*, and particularly in cases of urethral inflammation combined with difficult micturition. Much might be said truthfully in favor of *Sanmetto* in all diseases of the genito urinary organs. I think it is *the* remedy for those diseases, and the best now in use.

D. CALKINS, M.D.

East Lyme, Conn.

CYSTITIS AND METRITIS.

W. Warwick, M.D., King's College, Aberdeen, M.R.C.S., England, 1851, L.M. Roy. College, Belfast, 1849, etc., Belfast, Ireland, says: "I have given *Sanmetto* a very good trial in cystitis and metritis, and the results have been most satisfactory. I do not know another remedy which I can rely on for such uniform good results in affections of the genito-urinary organs."

LATE LITERARY NEWS.

An old-fashioned sea story full of interest and adventure, with a strong love motive, is begun by W. Clark Russell in the January *Cosmopolitan*. "Ouida" succeeds Froude, Gosse, Lang, and other distinguished writers, with an instalment of the "Great Passions of History" series, which has been appearing in the *Cosmopolitan*. A discussion is aroused by Mr. Edward Bok's article on "The Young Man and The Church," which will consume tons of ink before it is settled. Just preceding the famous Charcot's death he prepared an article for the *Cosmopolitan* on Pasteur, to be published after Pasteur's death. But Charcot has died first, and so with the consent of Charcot's executors, the article is given now. The present "Theatrical Season in New York" is critically considered by Mr. James S. Metcalfe, editor of *Life*, and there are stories by Tourgée, Howells, and the famous French writer François Coppée.

LITERARY NOTES.

From *The Ladies' Home Journal*, Philadelphia.

DR. PARKHURST AND WOMEN.

Dr. Parkhurst has entered into a contract with *The Ladies' Home Journal*, by which he will practically become a regular editorial contributor to that magazine for some time. The great New York preacher says that he has for a long time past been desirous of saying some very necessary things to women, and he now announces that he will say them through these articles. He will take up all the social, moral and equality questions which are so uppermost in the minds of women to-day. Dr. Parkhurst will begin this work at once, his first article appearing in the next issue of the *Journal*.

Edward Bellamy, the author of "Looking Backward," is to tell in the next issue of *The Ladies' Home Journal* what he believes a "Christmas in the Year 2000" will be like.

At this season of the year, when radical and sudden thermal changes are the rule, it becomes of vital interest to the busy practitioner to have in compact, ready form, such approved medicaments as meet the analgesic and antithermic requirements of the bulk of his patients. As pertinent we call attention to the following combination tablets: "Antikamnia and Codeine," each containing 4½ gr. antikamnia and ¼ gr. codeine; "Antikamnia and Quinine," each containing 2½ gr. antikamnia and 2½ gr. quinine; "Antikamnia and Salol," each containing 2½ gr. antikamnia and 2½ gr. salol; and "Antikamnia, Quinine and Salol," each containing 2 gr. antikamnia, 2 gr. quinine and 1 gr. salol. These, together with the well known "Antikamnia Tablets," of varied sizes, and "Antikamnia Powdered," constitute indispensable factors in the armamentarium of the physician, and are more than ordinarily indicated in present climatic conditions.

The Canada Medical Record.

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CONTENTS.

Original Communications.

RECENT ELECTRO-THERAPEUSIS OF GOITRE, WITH IMPROVEMENTS IN APPARATUS.

BY DR. CHARLES R. DICKSON, Toronto,
Electro-Therapist to Toronto General Hospital, Hospital for Sick Children, St. John's Hospital and St. Michael's Hospital.

[Abstract of paper read before annual meeting of American Electro-Therapeutic Association, in New York, September, 1894.]

About five years ago I formed the opinion, that for the treatment of goitre we had at our disposal an agent which, properly and rationally employed by competent operators, should prove safer, more efficacious and acceptable than any other in a majority of the various forms of this trouble. Electricity had been on trial with very varying results, but it seemed to me that the discrepancies were attributable to the apparatus employed or to the operator, and that we did not fully appreciate its value.

The literature on the subject was conflicting, misleading and most disappointing. Electricity was discredited, and other methods advocated fraught with gravest menace to the patient's future health, usefulness and happiness, in the event of recovery, from the immediate results of the procedures, and recent literature shows little improvement.

Here, surely, was a promising field for research, and I determined upon a careful investigation.

The immediate vicinity of Toronto is not goitrous, yet as a recognized medical and surgical centre it draws many cases from an extensive territory around, and in the great majority of these cases the best known therapeutic measures adopted by the general profession have already been resorted to. My connection with Toronto hospitals places me in a most favorable situation with regard to the supply and character of this clinical material, and a number of our prominent practitioners have very kindly referred to me their private as well as their hospital patients, thus

testifying to the unsatisfactory state of the therapeusis of the thyroid as well as to the success of my labors. This is most gratifying to me, and greatly to the credit of my professional brethren, well illustrating their broad and progressive spirit in contrast to the opposition to methods electrical manifested in other quarters. Improved apparatus and methods have retrieved past failures, and rendered possible results hitherto unattainable.

The discussions elicited by my former papers disclosed a decided variance of opinion as to the value and range of applicability of electrical treatment, and demonstrated the need and incalculable usefulness of our Association. I have again to report progress and state the deductions from a year's further experience. My aim has been to shorten the period of treatment, while extending the interval between *séances*, to improve technique and to discriminate the treatment most appropriate to each case.

The percutaneous method, using strong currents by means of flexible clay electrodes, has received considerable attention. I have found it very tedious, and have come to the conclusion that its chief utility lies in combating the hyperæmic condition, in reducing simple hypertrophy, in stimulating liquefaction and absorption of recent fibroid growth, and lessening the œdema of older cases preparatory to more active measures. It may also be employed where puncture would not be well borne, and occasionally to alternate with puncture treatments.

Thyroid hyperæmia occurring at the menstrual period or during pregnancy, and disappearing at their termination, does not call for interference, unless there be accession of size at each period or gravid state. Galvanization of the sympathetic should then be resorted to, with occasional clay pad percutaneous treatment if necessary. This remark also applies to goitrous cases of amenorrhœa, whether primitive or secondary.

In the slighter forms of hyperplasia, the clay electrode treatment is indicated, the positive electrode at the back and the negative over the goitre, starting with 20m.a. to 30m.a. The patient will, after a few sittings, gradually tolerate 100m.a. to 150m.a. for ten or twelve minutes two or three times a week.

In vascular forms, by diminishing excessive blood-supply and stimulating absorption, we induce a process of partial atrophy. The negative electrode, a large clay pad, is placed at the shoulders, while the active surface of the positive (a properly insulated platinum needle) is introduced within the capsule of the gland alongside a tenotomy knife. Of course, a local anæsthetic i first used. From 50m.a. to 150m.a. should be employed for eight to ten minutes every ten or twelve days.

In distinctly fibroid forms, the nutritive process may be lessened by the positive puncture, with occasional resort to the negative needle to hasten absorption. In some advanced fibroid cases where, owing to the small proportion of healthy tissue left, the process of absorption and atrophy was slow, I have hastened matters by the formation of a central cavity or artificial cyst. This I have done by large negative needles, treating it as an ordinary cyst and maintaining drainage. It requires specially careful manipulation. In very large fibroids, I frequently discard the clay pad, and use instead a second needle in another portion of the growth.

Thin-walled unilocular cysts are the most amenable to treatment. The positive pad is placed at the shoulders, while the negative electrode is an insulated canula, through which the cyst is aspirated and a solution of chloride of sodium introduced. From 50m.a. to 100m.a. is employed for ten minutes, the cyst again emptied and firm pressure maintained by broad adhesive straps. A single treatment may suffice, but frequently in the thick-walled and

multilocular varieties drainage must also be kept up to permit escape of the fluid effused subsequent to the operation. The aim is thus to obliterate the sac by exciting adhesive inflammation of its walls.

Thick-walled fibro-cysts are often very rebellious. Following the above treatment I have introduced a solution of zinc sulphate through a tube which carries a positive platinum wire, and employed 50m.a. to 75m.a. for ten or twelve minutes. I have also used a zinc positive electrode.

When the contents of a cyst are not sufficiently fluid to pass through the canula, some of the saline solution should be forced in, and currents of 50m.a. to 100m.a., or, if the patient will tolerate it, and it is necessary, 150m.a. to 200m.a. employed. This will liquefy the contents, which may be withdrawn immediately or at the following *séance* eight or ten days later.

Puncture of the thyroid, apart from electrical treatment, is not devoid of danger. Considerable dexterity is required, and a slight error may prove disastrous. When in addition to this we consider the power of the agent employed, it will easily be understood that great care is requisite both during and subsequent to the operation. Cleanliness and strict antisepsis are imperative. Drainage should not be unnecessarily prolonged.

With regard to exophthalmic goitre, I have nothing novel to offer. I meet very few genuine cases, and think that the Fellows fully appreciate the value of galvanization of the sympathetic and other electrical methods.

I have modified the canula and attachment of the Potain aspirator by enlarging the lumen to permit the easy passage of No. 3 drainage tubing. I have had the tube of the canula constructed of platinum. It may thus be used with the positive pole; and I have added a second stopcock, which renders it independent of the reservoir.

As the use of chemical solutions corrodes metal parts, I employ for injection a second bottle, with tubes of glass leading to and from it. I have also furnished it with a third tube to facilitate the introduction of the solution. Provision is also made for emptying the sac after treatment without polluting the contents of reservoir.

The possession and care of the necessary apparatus, and the ability to employ it skilfully, minute acquaintance with fundamental laws, and a proper estimation of the power of this agent, are only a few of the factors which militate against the electrical treatment of goitre by the general practitioner, and he will be wise if he resist the temptation to use it.

Finally, the keynote of success is discrimination.

Society Proceedings.

MONTREAL MEDICO-CHIRURGICAL SOCIETY.

Stated Meeting, November 2nd, 1894.

G. P. GIRDWOOD, M.D., PRESIDENT, IN THE CHAIR.

Case of Primary Carcinoma of the Liver.—Dr. MARTIN read for Dr. Adami the report on this case as follows.

During the last session of the Society I brought before the Montreal Medico-Chirurgical Society a case of true adenoma affecting the liver of a woodchuck, and arising primarily, as its structure amply demonstrated, from the parenchyma of that organ.

I have now to describe you a case of very similar nature in the human liver, only here the adenoma has taken on a malignant character, and secondary growths have developed elsewhere.

The specimen was obtained at a post-mortem made at the Royal Victoria Hospital on September 4th. The subject from whom it was obtained, J. B., aged 45, entered the hospital under Dr. Stewart, complaining of weakness and loss of flesh, with pain and swelling in the abdomen. He had been addicted to good living and excessive use of alcohol, and there was a doubtful specific history. About a year before admission there had been a violent attack of jaundice, from which patient gradually recovered.

The liver dulness extended from the fifth rib

to two inches below the costal margin, the edge was sharp, while the anterior surface presented a nodular mass the size of the fist, movable with the liver.

This lump in the right side, noted now to be in connection with the liver, was first observed five months ago.

Without dwelling fully upon the condition of the other organs, it may be added that there was much ascites. The patient was tapped twice, and each time a blood-stained ascitic fluid was removed containing both red and white corpuscles and urea; it was highly albuminous.

With this history a diagnosis was made of cancer of the liver. The autopsy fully confirmed this diagnosis.

In connection with the liver within the substance of the right lobe was the large pale-colored mass seen in the specimen handed round. Upon the surface were several semi-transparent nodules of new growth in the capsule, but upon section the only recognizable focus of new growth within the organ was the one large, well-defined mass. This mass was 10.5 cm. broad and 14 cm. long, sharply separated off from the surrounding liver tissue; it was placed anteriorly at the left extremity of the right lobe and to the left of the gall bladder. This last was greatly thickened and pressed to the right by the growth. Upon opening, it was found to be full of thick, brownish-grey pultaceous mass of mixed pus and bile, with such intense staining power that even now upon November 2nd the nail of my left index finger is stained from exploring the gall bladder of this case upon September 4th. In this mass lay several soft small facetted gall stones, which easily crumbled and broke down when handled. Two larger and firmer stones lay at the opening of the cystic duct, and appeared to completely block it.

The great omentum was greatly thickened and of a deep blood-stained tint, very nodular and brittle. The small intestines presented numerous semi-transparent nodular growths upon their serous surfaces. There were further numerous small nodules scattered through the mesentery, and imbedded in the fat. There was no sign of new growth anywhere within the intestinal tract.

Beyond œdema of the lungs and interstitial nephritis, there was little calling for additional remark.

Upon microscopic examination the new growths here described were typically carcinomatous, of the medullary type. The great size of the mass in the liver, as compared with the minute nature of the nodules elsewhere, appeared to indicate that in the liver was the primary growth, and microscopic examination proved the correctness of this suggestion. More especially towards the growing free surface the mass could be seen to be composed of characteristic liver cells, large, tending to be cubical and pigmented, possessing a tendency to be arranged in an alveolar manner. Elsewhere, deeper down in the tissue, the cells became smaller and the collections were separated off from each other by well formed fibrous stroma. In parts there was a tendency for the cells to be arranged around a central lumen.

The sections, in fact, possessed all the characteristics of an adenoma, or new growths of the liver tissue which had taken on malignant characters. This malignancy was further demonstrated by the abundant new growths in the abdominal cavity.

Primary carcinoma in the liver may be of three types:

1. Generalized carcinoma, the cirrhosis carcinomatose, of Peres.

2. Localized carcinoma orginating from the liver cells proper.

3. Localized carcinoma originating from the smaller bile ducts.

A fourth form, not truly hepatic, invades the liver after primary origin in the larger bile ducts.

Here in this case we are dealing with the second form, that is to say, with a true liver cell cancer, which is of sufficient rarity to be placed on record.

Finally, it is interesting to observe the relationship that in this case appears to exist between the inflammatory disturbance of the gall bladder, which dated back a year, and the cancer which has arisen in close juxtaposition to the inflamed bladder. The suggestion is that some relation exists between the two. It is noticeable that the gall bladder itself exhibits no cancerous growth; it is only chronically inflamed, but immediately outside it, in the region that is of congestion, and over-nutrition of the tissue has originated this new growth.

Primary Carcinoma of the Kidney.—Dr. MARTIN then exhibited a specimen which had been removed from a private case of Dr. McCarthy's, who, with Dr. Finley, in consultation, had diagnosed primary carcinoma of the kidney. The autopsy confirmed this diagnosis. The kidney shown appeared enlarged, the capsule, Dr. Martin declared, was in some parts stripped off with difficulty, and on section a large cancerous tumor was seen infiltrating the medullary portion, filling the pelvis, and extending to the suprarenals. Thrombi were found in the renal vein, although the vena cava was free.

Dr. A. LAPTHORN SMITH presented the following specimens, and related the histories of the cases:

Case 1.—Multilocular Cyst of the Right Ovary.—The tumor measured 24 inches in circumference. The patient, Mrs. L., nullipara, married two years, never pregnant. Abdom-

inal enlargement first noticed sixteen months ago. On examination, all the evidences of ovarian cyst were found. Operation was performed on September 4th, the tumor removed without any difficulty, and she made a rapid recovery, returning home twenty-five days afterwards.

Case 2.—Tubal Pregnancy.—Mrs. W., aged 25, married 3 years, mother of two children, the youngest one year old. Since the birth of her first child she had suffered from repeated attacks of what was probably pelvic peritonitis. Five weeks before coming under his notice she was suddenly seized with a severe pain in her left side and a fainting fit while walking in the street. She began to flow, and continued until time of operation. As she had not missed a period she was sure it was not a miscarriage, and in a few days was about again. Two weeks later she had another fainting attack, accompanied by sharp cutting pain, and a third one week before he was called to see her in consultation. On examination he found a mass the size of a small orange in Douglas' cul-de-sac, and it was exceedingly sensitive to pressure. Tubal pregnancy was at once diagnosed, and operation performed on October 20th. In order to make the recovery more satisfactory, he dilated and curetted the uterus, sewed up the cervix, and performed ventral fixation after the removal of the appendages. The dates of the various hæmorrhages were beautifully illustrated when the specimen was first removed by the clots of blood surrounding it. There was rather bright red blood recently escaped, dark and slightly organized clots, and old hard clots, more dense and firm. Dr. McConnell had made a microscopical examination, and had only been able to find blood-clot, but further search would be made for chorionic villi.

Case 3. Hæmatoma of the left Ovary—Chronic Salpingitis.—Mrs. L., aged 25, has been a chronic invalid since the birth of her only child, eighteen months ago. On examination, deep bilateral laceration of the cervix and on the left side near the uterus a lump about the size of a small orange. After a course of preliminary treatment for reducing congestion of the pelvic organs, operation was performed on September 6th. The uterus was dilated and curetted, the laceration was carefully repaired, and both appendages removed. The peritoneum and fascia were closed with buried silk and a layer of through and through silkworm gut stitches which had been passed previously were tied. The patient made a good recovery. The silk-worm gut sutures were removed four weeks after operation.

Embryo in Sac.—Dr. HUTCHISON exhibited a specimen of an embryo in its sac, surrounded by the liquor amini. It was of interest, he thought, from its rarity, such a complete picture of the early development of the human species not being often seen outside of text-book plates. The abdominal opening could be plainly seen and the small points marking the situation of the eyes, etc., etc.

Stated Meeting, November 16th, 1894.

G. P. GIRDWOOD, M.D., PRESIDENT, IN THE CHAIR.

Drs. J. E. Binmore, Felix Cornu, William Burnett and H. M. Duhamel were elected ordinary members.

Diaphragmatic Hernia.—Dr. ADAMI exhibited the specimen and gave the history of the case.

Dr. MILLS remarked that between the years 1878 and 1881, he, then a resident physician in the City Hospital of Hamilton, Ont., reported a case of congenital hernia through the diaphragm in an infant. He did not remember what organs had passed upward through the orifice, nor whether there were any other Canadian cases on record.

In reply to questions put by the President, Dr. Adami remarked that this would be considered of the congenital variety; that it would seem to be caused by the non-development of the left crus of the diaphragm; and that the most common position of the rupture or orifice in the diaphragm was the tendinous portion of the left side.

Pus Tubes and Hæmatoma in the same patient. Pus Tubes removed during an Acute Attack of Peritonitis. Double Hydrosalpinx, causing Severe Dysmenorrhœa.—Dr. A. LAPTHORN SMITH read the reports of these cases, as follows:—

Case I. Hæmatoma of Ovary with Double Pus-tubes.

Miss C. was referred to me as a case of fibroid tumor of the uterus and as being suitable for electrical treatment. This diagnosis was not without some foundation, for on placing the hand on the abdomen, one could detect a tumor or enlargement of the uterus, extending nearly to the umbilicus. By bimanual palpation the cervix was found to be small, but the uterus appeared large and wedged in the pelvis, and quite immovable. The tubes and ovaries could not be felt. On firm pressure the tumor was felt to be solid, or in places slightly elastic. The history rather supported the diagnosis. She was 26 years of age; had begun to menstruate at the age of fourteen, the flow always having been profuse. It had never been painful until six years ago, since which the pain of the periods had been gradually grow-

ing more severe, until she was at length compelled to go to bed every month. Latterly the pain had been much worse a week after the periods than it was during the flow. She had had several attacks of pelvic peritonitis during the last year. Electricity was discontinued, as the patient did not improve. Nothing remained for me then but to open the abdomen and remove the appendages, which would stop the pain and, it was hoped, arrest the growth of the tumor and the hæmorrhage. Preparations were also made for extirpating the uterus should the necessity for it arise. The abdomen was opened, after the usual preparations, on the 7th September. On introducing my fingers to search for the appendages, the latter could not be felt: the tumor was adherent to the pelvis, and it was covered to a large extent by adherent intestines. The adhesions were broken up, when for the first time it became apparent that the tumor was made up of several different elements. After some difficulty a pus tube was brought out, which was tied close to the uterus, but was so disorganized that the ligature cut through. I then came upon a slightly fluctuating mass, the size of an orange, which was also dissected out, proving to be a hæmatoma of the left ovary, but it broke while being delivered and its dark grumous contents escaped, welling up out of the incision. This was carefully sponged away, and the ovary was tied and removed. A large pus tube was then removed from the right side, and finally the right ovary, which was somewhat enlarged. Nothing now remained of the tumor but a normal-sized uterus, from which the peritoneum was completely removed, and from which there was a good deal of oozing. When this had been stopped, a glass drainage tube was inserted, and the abdomen closed by through and through silk worm gut sutures which were left in one month. Six ounces of bloody serum were pumped from the drainage tube, when the liquid becoming paler the tube was removed in forty-eight hours. The patient declared the following day that the pain which she had suffered for several years was entirely gone, and the pain of the operation was nothing compared to it. She was up in two weeks, and went home on the twenty-third day.

This case was especially interesting to me for several reasons: First, it bore out the truth of Apostoli's assertion, that a patient who cannot bear moderate doses of electricity has diseased tubes, and should be treated by surgery. Second, it bears out the truth of Lawson Tait's assertion, that one can never be sure of what he will find in the abdomen until he has his fingers in it, indeed I might add the words, "and sometimes not even then." When we remember that Lawson Tait has opened the abdomen more often than any other man who has ever lived, and when we consider what enormous experience that meant, no one should consider himself infallible in this respect.*

Case II. Pus tubes removed during an acute attack of peritonitis. Recovery.

The patient was twenty-six years of age, married at twenty and had three children. She had never been well since her marriage, but had been getting very much worse since two years. Her last child was a year old, and she had no miscarriages. While pregnant with her last child she had suffered a good deal, and had had a bad recovery. During the past year she had had several attacks of peritonitis, confining her to bed for several weeks each time. Two weeks before, she was taken with an unusually severe attack, from which her physician did not expect her to recover. She was very emaciated, was constantly crying out with pain, in spite of large doses of opium, while her abdomen, which was covered with poultices, was very much distended, her pulse being thready and fast, and her temperature high. She was at once put on salines and large doses of quinine, with almost immediate relief of the pain and distension. But her temperature remained at 103. On examination, per vaginam, Douglas' cul-de-sac was found to be full of exudation, which was thought to be due to pus tubes and ovaries. As it was the opinion of all that she could not continue very long as she was doing, it was decided to operate that afternoon. The patient absolutely refused to leave her house, so the operation was performed there. Both tubes were dug out with great difficulty, being imbedded in layers of exudation in various stages of organization, but without rupturing them. One tube tore out of the ligament while extracting it, and both cut like cheese when the ligature was applied. Notwithstanding this, there was very little oozing. Owing to the very large area from which the peritoneum was stripped off, I thought it best to put in a drainage tube, which was left in only one day. The temperature took three days to fall to normal, and the pulse improved steadily, although she was not able to leave her bed for five weeks. When last heard from, she was improving steadily.

Case III. Hydrosalpinx and bound down tubes and ovaries, causing severe dysmenorrhœa. Removal. Recovery.

Miss B., 30 years of age, had been under my care for several years for severe dysmenorrhœa, and almost constant pain between the periods. Palliative treatment having proved of little avail, removal of the appendages was suggested, and she readily agreed to have that done. Coeliotomy was performed on the 13th

* Since writing the above, a paper by Dr. J. F. W. Ross, of Toronto, has appeared in the *American Journal of Obstetrics*, in which he reports several cases in which he removed large pus tubes from women who had been sent to him for fibroid.

October. Although the ovaries and tubes were covered with adhesions, the latter were easy to break, and both tubes and ovaries were removed, and the uterus attached to the abdominal wall. No drainage tube was used. The fascia was sewed with catgut, and the silk worm gut previously introduced was then tied. She made a successful recovery, being up in two weeks. On examining the tubes they were both found to be distended with fluid, which could be squeezed out of their uterine ends in a clear stream, but it was impossible to introduce the finest filiform bougie into the uterine ends at all, and only a distance of half an inch into the fimbriated ends. The tubes were bent by adhesions so as to form a number of knuckles, which were probably the cause of the severe pains every month. One ovary had a cyst in it, which ruptured while removing it, and into which one can introduce the end of the thumb. It apparently contained clear fluid. The other ovary has a thick hard surface, due apparently to chronic inflammation of the peritoneal coat. When the ovaries and tubes when first removed were placed in water, they were found to be covered with fringes of shreds representing the torn adhesions. Dr. Joseph Price had a quaint way of saying to his assistant, when he removed appendages like these : " Don't let these tramps out until they have seen the specimens in water, for fear they will go away saying that they had seen healthy ovaries removed."

It will be admitted that if one cannot relieve a woman in these circumstances by the means which were employed during three years of treatment, and if, at the end of that time, she is not able to keep a situation from this cause, we are fully justified in removing the appendages. My experience of tearing the appendages loose and leaving them to contract fresh adhesions has not been favorable, and I have never tried to save distended tubes by opening them and sewing them up again, as I feel sure that fresh adhesions would continue to worry the ovaries, and the tubes would refill. Pozzi and Polk have been doing it, but from recent reports of Polk's cases the result has not been satisfactory.

Primary Carcinoma of the Kidney.— Dr. J. G. McCarthy reported this case as follows:

The rarity of primary carcinoma of the kidney in the adult has induced me to give a short résumé of the clinical aspects of a case, of which the specimen has already been brought before the Society.

The patient, a female, aged 42, was married at 23, and has had eleven children, nine of whom are living. She first consulted me at the latter end of August for recurring attacks of pain in the back and loss of strength. The pain was severe, and extended on the left side from the lumbar region of the spine to the front of the abdomen, and occasionally was felt down the left thigh. She attributed her ill health to the after-effects of her previous confinement. Notwithstanding the number of her pregnancies, and the arduous duties of a large family in one in poor circumstances, she had always been in good health. Two months previous to the birth of her last child, which occurred on the 3rd November, 1893, she commenced to suffer with attacks of pain in the back, and noticed for the first time that the urine was blood-stained and contained blood clots. Her confinement was normal. She was delivered of a healthy child at full term, and, I am told, went to her work on the morning of the fifth day. Two months later hæmaturia returned, and appeared at intervals in small quantities till June, 1894. The pains continued, and she felt weaker and found it difficult to attend to her household duties. In January she noticed a small growth on the left side of her neck, which gradually increased in size, and had occasionally been the seat of pain. The family history contained nothing of importance.

When first seen she presented a pale, care-worn expression, and was somewhat emaciated. The tongue was clean; appetite good; no vomiting; bowels fairly regular, but she had previously suffered from obstinate constipation. The pulse was 115, small and compressible; temperature normal.

In the neck was a growth about the size of an egg, situated in the triangular interval between the sterno-mastoid and the trapezius above and parallel to the clavicle. It was hard and nodular to the feel, and quite mobile. The cephalic vein of that side was dilated, and pursued an unusual course across the front of the chest, over the first intercostal space to the sternum. I looked upon the tumor as most likely a secondary growth, originating in the cervical lymphatic glands. There were no signs of disease in the mouth, throat or thorax. The apex of the heart was displaced upwards and outwards to the lower border of the 4th rib in the mammary line. Percussion dulness was made out at the upper border of the 3rd costal cartilage, nearly two inches to the left of the median line, and extended from the apex to nearly across the sternum. There was no distension of the abdomen. Its walls were soft, flaccid, yielding readily to pressure. A portion of the large bowel, distended with fæcal matter, could be easily felt beneath the abdominal parietes, extending from the ninth costal cartilage in the mammary line, downwards on the confines of the umbilical and left lumbar regions. Beneath the bowel, which I thought was the descending colon displaced forwards, could be felt a large growth, quite hard, non-fluctuating, with a smooth and rounded contour, having at its inferior border a smooth nodular projection.

The tumor extended upwards into the left hypochondriac region and downwards to the left iliac fossa through the left lumbar region; it inclined forwards towards the umbilicus, receding as it did so from the anterior abdominal walls. It could be tilted forwards, without occasioning any pain, by pressure behind over the region of the kidney; in other directions it was quite fixed. Percussion dullness extended to the lower border of the 6th rib outside the nipple line, and posteriorly over the region of the kidney a slight bulging was noticed.

There was no dilation of the superficial veins, and no œdema of the extremities. The urine was examined on two different occasions. The quantity excreted, though not measured, seemed normal. Nothing could be inferred from the sp. gr. or color. It was acid in reaction, and contained neither albumen nor sugar; but, when examined microscopically, blood cells were distinctly visible and urates were present in large quantities.

The disease progressed without any apparent signs of hæmaturia. The patient became more emaciated; there was some increase in the size of the tumor, and the exacerbations of pain towards the end became more frequent and more severe. A slight rise of temperature was noticed, on two occasions, to 100° and 100.3° F.

The last two or three weeks were marked by an uncontrollable diarrhœa. The patient now took to her bed, and from this out, the loss of strength was very rapid, and the emaciation extreme, and she died on the 31st October. Dr. Finlay saw the patient with me at the latter end of her illness, and agreed with the diagnosis.

Remarks.—The invasion of the cervical glands of the left side of the neck, the freedom from disease of the other superficial lymphatic glands, is worthy of note. It was this that gave me the first clue to the possibility of malignant disease. I ordered the patient to bed, and made a thorough examination in search of the primary growth. It was only after this was localized that any mention of hæmaturia was made by the patient. In tracing the course of this secondary infection from the primary disease in the kidney, I believe that it was conveyed by the lymphatics of the kidney to the thoracic duct and by this channel to the lymphatic glands of the left side of the neck. I feel more inclined to this opinion after noting, at the post-mortem, the condition of the retro-peritoneal glands in the neighborhood of the kidney.

Hæmaturia had appeared early, had never been profuse, and for the last five months of the illness, was reduced to a mere trace, which required a microscopical examination to determine.

At the post-mortem the transverse colon was noticed to be uncovered by the great omentum, and extended downwards from the hepatic and splenic flexures to a point below the umbilicus. Although the intestine was at that time quite empty, from the severe diarrhœa that had preceded death, I think now that possibly that portion of the large bowel, which could be so distinctly felt in life, was part of the transverse colon from its mid-point below to the splenic flexure, which in its abnormal position ascended almost vertically in front of the tumor.

Another point which I might mention, though I consider it merely as a coincidence, was the acidity of the saliva. It was tested with strips of litmus paper, placed over the orifices of the ducts. I made four tests at intervals of a few days. Three times the reaction was acid, once neutral.

Pathological Report.—The whole growth manifests the ordinary character of a primary medullary carcinoma of the kidney arising from the epithelium of the renal tubules. It shows in places the true glandular form of carcinoma, first described by Waldages, and indicated clearly, from microscopic specimens, how the tumor cells proliferating from the kidney epithelium becomes gradually smaller and like atypical cells of this organ, while the stroma of the cancerous mass takes its origin from the intertubular connective tissue.

The progress of the case has likewise been of interest, inasmuch as its advance by the lymphatics is the more unusual form of primary renal carcinomata, but the growth in the neck is undoubtedly to be regarded as secondary to the kidney affection, metastases having formed through the thoracic duct and by retrograde advance to the lymphatic glands.

Primary cancers of the kidney do not, as a rule, form secondary growths, and when these occur it is usually by the blood stream. Here the vena cava seemed free, but we are by no means certain as to the condition of the lungs, being unable to examine the thorax for metastases.

Only a partial autopsy was permitted, and that of necessity a hasty one. The abdomen was opened, showing a meagre panniculus. The visible coils of intestines were reddened and the transverse colon displaced downwards and to the left. A large mass was found beneath these intestinal loops, occupying the umbilical and left lumbar regions chiefly, and reaching for about one inch to the left of the vertebral column. This was discovered to be the left kidney and adrenal converted into a large tumor, which lay partly twisted on itself, so that the convex border of the kidney lay rather downwards than outwards. The tumor was easily and rapidly removed, *in toto*, there being no dense attachments to any neighboring organs, but merely thin, loose adhesions.

During removal it was observed that some of

the retro-peritoneal and lumbar glands were involved, and that a thrombus partially filled the renal vein. The vena cava was found free as far as could be ascertained. There was not enough time allowed to dissect up the thoracic duct.

The tumor on removal presented a large mass, divided at the junction of its uppermost and second growth into two unequal parts. The greater and lower portion had the usual renal shape, and was surmounted at its upper end by the remaining portion of the tumour which, as it were, fitted like a cap on top of the kidney.

That this was supra-renal was borne out by its position and relation to the kidney, as well as by the fact that the renal capsule could be stripped off between the kidney and the upper mass. To make further certain, there was no other evidence to be found of adrenal in the neighborhood.

The adrenal was, however, partly joined to the kidney by several areas of new growth, these being the channels of transmission of the growth from the kidney to the other organ.

On removal the whole mass weighed 1250 gram.

Measurement of the kidney alone was 7½ inches long by 5 inches broad, and 2½ to 3 in thickness.

Adrenal alone measured 4 inches x 3 inches x 1½.

The kidney capsule presented numerous dilated lymphatics filled with granular material, and was fairly easily stripped from the organ.

Section into the kidney showed that but little renal tissue remained, the cortex in the upper half being about half its normal thickness and less, and in some places so thin that the contents of the tumor were almost protruding. In the lower portion, however, not only was the cortex about the normal size, but there was further some evidence of medullary pyramids and calices. The hollowed out areas thus left were filled with a large quantity of cheesy looking pultaceous material, composed of fatty cells and free fat globules, granular detritus, cholesterine cells and remains of old hæmorrhages. The pelvis of the kidney and upper part of the ureter were filled with the same mass of degenerated cancerous material, and the renal vein showed the presence of a cancerous thrombus along nearly its whole course.

The adrenal was similarly affected, and its outer covering, which was greatly thickened, formed a kind of capsule to the enclosed mass of detritus, resulting from the retrograde changes and hæmorrhages within of the cancer which had involved this organ in virtue of its contiguity.

Microscopic examination of the remnants of kidney tissue showed masses of columnar and polyhedral small cells of epithelial character, distributed in various portions and situated amid a fibrous stroma. In many places very little evidence of tubules could be found, the whole renal tissue being overrun by the neoplasm. Where, however, tubules or glomeruli could be found, it was evident that from here the growth had taken its origin, while the fibrous stroma arose from intertubular connective tissue.

Sections of the involved suprarenal showed the walls densely infiltrated with cancerous tissue, so much so, that there was but little evidence of the original normal adrenal tissue.

Secondary Enchondroma in a Bitch.—Dr. Adami eighteen months ago had exhibited before this Society the rare condition of an enchondroma of the mammary gland occurring in a bitch. The animal, after its removal, kept in very fair condition for some time; but towards the end of February last, a swelling was noticed in the abdominal cavity, which was thought to be of an obstetrical nature. It, however, continued to grow, extending in a rather transverse direction. There was gradually increasing difficulty of locomotion, and about three weeks ago the animal was killed in the laboratory and a post mortem performed. A hard tumor was found in the abdomen attached to the mesentery; it was not adherent to any of the abdominal viscera, except a portion of the liver, which was found separated from the rest of that organ. Examination showed it to be an enchondroma, hard at the edges, with bony matter scattered here and there; while the whole central portion was essentially myxomatous. It appeared to be attached to the mesentery and to have started there; but we had then these peculiar relations between the tumor and the liver to explain, and altogether it seemed more reasonable to conclude that the growth commenced in the liver, extended until its weight caused that part of the organ which contained it to break off from the rest, and then attached itself to the mesentery. The tumor weighed ten pounds, while the animal in health did not weigh more than twenty pounds, and probably something less than that at the time of the autopsy, as it was much wasted. In addition to this large mass, other secondary growths were seen in the form of cartilaginous nodules in various portions of the lungs, pancreas, abdominal glands and kidney. Dr. Adami regarded the case and specimen as interesting, first, because the condition of primary enchondroma of the mammary gland is a very rare one; secondly, because, in spite of the usual benign character, in this case it had been followed by secondary growths.

Dr. Mills' experience of tumors in dogs led him to believe that any kind of a growth occurring in the mammary glands of dogs is apt to be followed by secondary growths. He

had had quite a number of these tumors examined microscopically, and then, in spite of their benign gross appearance, sarcomatous tissue was pretty generally found in them.

The Late Dr. E. A. McGannon.—The following resolution was moved by Dr. J. Alex. Hutchison, seconded by Dr. J. J. Gardner:

Resolved:—That this Society learns with feelings of sincere sorrow of the death, at the early age of 41 years, of Dr. Edward Aaron McGannon, of Brockville, Ontario.

A member of this Society since 1889, he attended its meetings, contributing papers and entering into the discussions.

He was one of the few members residing at a distance from the city who took an active interest in its deliberations.

His genial disposition and kindly manner made him the friend of all.

SOCIÉTÉ FRANÇAISE DE LARYNGOLOGIE, D'OTOLOGIE, ET DE RHINOLOGIE.

Primary Laryngeal Tuberculosis Acquired by Cohabitation.—M. Cadier, of Paris, reported several cases in which examination had demonstrated the fact that phthisis acquired by cohabitation begins oftenest in the upper portions of the larynx (the ventricular bands, the upper surface of the vocal cords, and the interarytenoid space). In the majority of cases the lesions remain for some time localized in the larynx, and may be diagnosed by an attentive laryngoscopical examination, while their progress may be arrested by topical applications and cauterization. It is indispensable, however, to begin treatment as soon as possible after the turberculous inoculation has taken place.

Results of Castration upon the Female Voice.—M. Moure, of Bordeaux, called attention to the consequence of ablation of the testicles in man and the physiological relations existing between the genital organs and the larynx. He reported two cases of women who had submitted to ovarian castration, and who showed a marked lowering of the timbre of the voice, which at the same time became much stronger. He believed, however, that these changes were not constant, and that it was not easy to recognize them when they did occur, except in singers, and especially high sopranos. It is known that after a certain age the removal of ovaries or testicles has no effect upon the larynx.—*Semaine Medicale*, May 12, 1894.

Intubation of the Larynx.—Dr. Bonain, of Brest, described the instruments invented by O'Dwyer, and insisted upon the importance of possessing these tubes, which he regarded as faultless. He had used them in 23 cases of croup, 21 following diphtheria of the pharynx, and 2 without apparent diphtheria in which the diagnosis was confirmed by bacteriologica examination of the false membrane. In one of the latter cases, a child of 11 months, recovery ensued when the tube had been in the larynx eleven days. There were 7 cases of recovery in children from 20 months to 10 years. According to M. Bonain, intubation presents the following advantages: 1. The simplicity of the operation, its rapidity, and the fact that it is readily accepted by the parents, requiring no special assistance and that it can be done in any surroundings. 2. The expulsive force of the cough, considerable when O'Dwyer's tube is used, which insures better drainage of the trachea and bronchi. 3. The rarity of pulmonary complications. 4. The bloodless character of the operation, preventing enfeeblement of the patient, especially the very young. 5. The fact that the patient can express his needs and wishes in a low voice. 6. The simplicity of the after-treatment, consisting only of alimentation and watching of the patient. 7. The rapid convalescence, without cicatrice of the neck. 8. The fact that the child is not obliged, as is sometimes the case after tracheotomy, to wear a canula for some time,—a permanent danger to the lungs.

Outside of diphtheria, intubation may generally replace tracheotomy in acute or chronic stenosis of the larynx, due to tertiary syphilis or tuberculosis, in subglottic laryngitis, and in burns and fractures of the larynx.—*Médecine Moderne*, May 5, 1894.

Treatment of Epistaxis.—Dr. C. Miot, in discussing this subject, stated that positive interstitial electrolysis should be the method of choice when extensive epistaxis occurred from erectile or varicose tissue. It was also of value in the treatment of more limited hæmorrhagic areas. Electrodes of copper or silver were preferable. The intensity of the current should average from 16 to 20 milliampères, and the length of the *séance* from eight to ten minutes. Three or four applications were sufficient in exceptional cases, one or two in ordinary instances. Hæmostasis in this region is easily secured, although its vascular relations with the brain are important.—*Revue de Laryngologie*, June 1, 1894.

AMERICAN ASSOCIATION OF GENITO URINARY SURGEONS.

Enlargement of the Prostate.—Dr. George Chismore, of San Francisco, read a paper on a "Modification of Bigelow's Operation for Stone in the Bladder, Designed to Meet Cases in which the Prostate is Enlarged." He called attention to the difference in the conditions present in the cases complicated by prostatic enlargement, to the intolerance of such patients to prolonged operative procedures and to trauma of the bladder. He advocated (1) local in preference to general anæsthesia; (2) short sittings;

(3) removal of any remaining fragments after the patient has fully recovered from the effects of the previous operation, and as soon as such fragments can be detected with the vesical sound. His procedure is as follows: The bladder is emptied, and from 1 to 2 ounces (30 to 60 grammes) of a 4-per-cent. solution of cocaine hydrochlorate are injected. The lithotrite should be introduced as carefully as possible, and if spasm is present, a short pause should be made rather than force the instrument in the face of this obstruction. As soon as the stone is found, it should be crushed as rapidly as possible, but no prolonged search should be made for remaining fragments, as this adds every considerably to the gravity of the operation. Any evacuator may be employed, but Dr. Chismore employs a very simple one devised by himself. Usually there are no after-symptoms, and the patient feels relieved at once. Occasionally there is some swelling of the deep urethra. If any fragments are left, the old symptoms gradually return. The operation of crushing these fragments may be done without anæsthesia. Dr. Chismore still employs Bigelow's instrument in cases of hard calculi, as his instrument does not possess the strength requisite for crushing such stones. He maintained that in all cases of vesical calculus, complicated by enlargement of the prostate, the operation described offers every prospect of success, and that any stone which could be removed by perineal lithotomy may be crushed with less suffering and with greater success by this method.

Dr. J. William White called attention to the gravity attending the use of a general anæsthetic in many of these cases, the effect of which was to cause congestion or actual inflammation of the already-crippled kidneys. When the integrity of the kidneys is open to question, he thought the method described would occupy an important place.

Dr. Francis Watson, of Boston, was inclined to consider the method a retrogression. The higher mortality of lithotrity over litholapaxy is due to the retention of the crushed fragments, and he was unable to see how the same injurious effect could fail to follow Dr. Chismore's method if some fragments were removed. He was, however, most favorably impressed with the statistics given, and theoretical objections must be withdrawn when such a good showing can be made. Dr. Watson advocated, in the class of cases alluded to, the method so strongly indorsed by Reginald Harrison, of performing perineal cystotomy and crushing and evacuating by this route.

Dr. William K. Otis, of New York, favored supra-pubic lithotomy in cases of stone in the bladder, in the presence of considerable enlargement of the prostate gland, as this operation gives an opportunity to inspect the bladder and provides for drainage. In many cases, however, he thought Dr. Chismore's method would be very suitable.

Dr. John P. Bryson said he employed the cystoscope with advantage in gaining definite information of the exact intra-vesical conditions present. Local anæsthesia is coming more and more into use, and in many instances is exceedingly satisfactory, while general anæsthetics are in many cases dangerous. Most fatal cases are due to traumatism of the prostatic urethra.

Dr. James Bell preferred the supra-pubic operation for stone in prostatic cases. He was struck by the large amount of cocaine employed by Dr. Chismore, and that, as stated by the latter, no symptoms causing anxiety had appeared.

Some Infrequent Symptoms of Disease of the Urinary Tract.—Dr. Alexander W. Stein, of New York, referred to cases of membranous casts from the bladder and urethra. The cause usually given is retention of urine. Of 50 reported cases, 45 were in women and 5 in men. The causes of retention in the females were either a retroverted uterus or pressure of the child's head during prolonged parturition. The prognosis is usually good; of 45 cases, but 9 terminated fatally. The case was reported of a man, 26 years old, who had frequent attacks of renal colic on the left side, and who on one occasion had retention for twenty-four hours; finally he passed a stone *per urethram* with relief of the retention. The attacks of renal colic continued. Later, he was subjected to litholapaxy for stone in the bladder. Still later, he began to pass "fleshy" masses of large size. The urine was loaded with pus, and was offensive. Improvement followed antiseptic irrigations of the bladder. The patient was lost to observation, and it was reported that he afterwards died. The cause of death could not be learned, but, as the termination was preceded by stupor, it was possibly uræmia.—*Medical News*, June 2, 1894.

BRITISH MEDICAL ASSOCIATION.

Operative Treatment of Gastric and Typhoid Ulcers Associated with Perforation.—Mr. A. Pearce Gould, in opening a discussion on this subject, stated that the pathology of the perforating ulcer of the stomach and duodenum was still obscure. It was common in young and anæmic women of the servant class, and also in middle-aged men. It was usually single, and situated on the lesser, and very rarely on the greater, curvature of the stomach. Its size was that of a sixpence or a shilling; it was of variable depth, the floor

being formed either of peritoneum or possibly of a thickened area, up to the size of the palm of the hand. The symptoms for the most part were agonizing pain after eating, frequent vomiting, hæmatemesis, and melæna. At times the patient made no complaint, and was unaware of suffering any departure from health. In truth, the symptoms were no sure guide to the extent of the disease. In the majority of cases cicatrization took place, although in 25 per cent. perforation occurred. In 85 per cent. the perforation was on the anterior aspect of the organ opening into the peritoneal cavity. Young servant-girls were especially prone to anterior perforation. He disapproved of Billroth's recommendation of timely laparotomy, excision of the ulcer, and suture of the wound, unless it was possible to establish an exact diagnosis. The surgeon's duty consisted in the prevention or arrest of peritonitis. The only hope of doing good lay in cleansing the peritoneal cavity. Hitherto too much stress had been laid on suturing the rent in the stomach and too little on cleansing the peritoneum. The following measures should be adopted: (1) simple washing out of the abdominal cavity; (2) suture of the ulcer; and (3) where that was impossible, suture of the stomach to the abdominal parietes. But he could not too often repeat that the success of these cases depended upon cleansing the peritoneum.

Experience alone could decide the precise period when the operation should be performed. If too long a time were allowed to elapse, the peritonitis became general and intensified. Moreover, under these circumstances, masses of lymph concealed the affected parts and interfered with the cleansing of the sac. The best site for the incision was in the middle line, as this gave the best access to the whole of the abdomen, while the seat of pain was no guide to localization. First among the fluids used for flushing he placed normal salt-solution, and then boiled water. He avoided acid or toxic solutions, and used the water hot, as he found it a powerful restorative. A vital step was the systematic flushing with a large exit-tube; where practicable he sewed up the ulcer, but attributed no particular advantage to paring or excising the ulcer. The stomach might or might not be washed out. The value of exploration with the finger was doubtful. When in doubt, drainage should be resorted to. If the collapse were not relieved by hot water, he practised intra-venous injection. He read the notes of six successful cases of operation in perforating gastric ulcer. With regard to perforation in typhoid ulcers he had collected, excluding doubtful cases, seventeen cases of operation with one recovery. The steps of the operation were the same as those for gastric ulcer. Statistics show that there were from 2½ to 3 per cent. of perforation in all cases of typhoid fever—most frequently occurring in the ileum, often multiple, sometimes so small as to allow no escape of intestinal contents. They usually took place during the third week, but cases were known as late as the sixty-sixth day. The symptoms may be very marked or quite latent. Death may close the scene in ten minutes; the patient rarely survives more than two days. Recovery was exceedingly rare. He concluded by saying that the truest wisdom was the wise selection of cases.

Dr. R. Maclaren, of Carlisle, in operating for gastric ulcer, preferred to make his incision in the left linea semilunaris, four inches in length, which allowed good access to the stomach. He emphasized the point that cleansing of the peritoneum was all important. The conditions of success were system, perseverance, and a patient not on the verge of death from collapse. A detail of much importance in after-treatment was rectal feeding. Again, if the patient were much collapsed, he did not believe much in flushing. He described fully his method of cleansing the peritoneal cavity. In his opinion, the operative procedures in these cases were troublesome rather than difficult. For example, if the intestines were distended, more difficulty was experienced. Great mortality was, however, only to be expected. He mentioned a case, in which he had the advice of Dr. Heron Watson, where perforation occurred in connection with a typhoid ulcer. The only treatment adopted was that of making an incision over the cæcal region and inserting a drainage-tube. The patient, although desperately ill for some time afterward, made an excellent recovery.

Mr. Rutherford Morison, of Newcastle, related a case in which he had operated for gastric ulcer on a woman of 23. She had had a large quantity of bread and milk for her supper, and one hour afterward was suddenly seized with acute pain. On examination the diagnosis was arrived at of gastric perforation, but one of the chief symptoms present was dullness in the flanks. The collapse was extreme. Two hours afterward the abdomen was opened in the middle line over the stomach and the omentum torn through, when a large quantity of fluid escaped, and an ulcer was found on the posterior wall of the stomach. Lembert's sutures were used. The abdomen was flushed out. The patient did well for five days, although there was great difficulty in managing her. Ultimately, however, she became very restless, passed into a collapsed condition, and died on the ninth day. He thought that the collapse at the time of operation in these cases was relieved by the operation and flushing of the abdomen. When the patient, however, was livid, any operation was certainly contra-indicated.

Mr. Gilbert Barling thought that some of the

expressions of opinion with respect to these cases were too optimistic, especially so in regard to typhoid ulcers. His experience was limited to five cases. In three of these he operated; in the fourth he regretted that he had not operated, and in the fifth the patient vomited pus and passed a large quantity of pus per anum, but after a perilous time ultimately recovered. In one of the cases upon which he had operated, recovery followed. He agreed that the less done in perforating typhoid ulcers the better.—*Lancet*, August 4, 1894.

ASSOCIATION OF AMERICAN PHYSICIANS.

TREATMENT OF CERTAIN SYMPTOMS OF CROUPOUS PNEUMONIA, PARTICULARLY IN ADULTS.—Dr. BEVERLEY ROBINSON, of New York, laid special stress upon the management of two symptoms of the first stage of the disease, namely, pyrexia and pulmonary congestion. He does not use the modern antipyretics, except in special cases. Phenacetin he regards as the best of these, for the reason that in addition to its antipyretic action it also induces sleep. The spirit of mindererus, potassium citrate, and magnesium sulphate he uses largely. Quinine, in doses of 2 to 4 grains (0.13 to 0.26 gramme) every three hours, is antipyretic. Cold sponging and cool baths are not especially efficacious; if the temperature of the patient is over 104° F. (40°C.), and the pulse is rapid and delirium is present, a tub-bath may be advantageously employed. He has seen bad results, however, following immersion in a tub-bath; sponging, with friction, is preferable. The advantage of the bed-bath is the avoidance of shock and exposure, and the ease with which it can be given. The bath should last from fifteen to thirty minutes, and is to be repeated whenever the temperature is over 103° F. (39.5° Ci.); prompt relief follows, the temperature falling to 100° F. (37.8° C.).

Aconite and aconitine act by diminishing he heart's action through its motor ganglia. The heart is slowed in a very alarming manner, and may be arrested in diastole; 1-150th grain (0.00043 gramme) of aconitine may produce serious results; hence he does not believe in its uses. The administration of small and repeated doses of antimony oxysulphuret, 1-32n l grain (0.002 gramme), every hour or two hours, is much superior to the use of aconite. It renders the sputum more fluid, and therefore easier of expectoration, and in this way diminishes the dyspnœa. It is also well borne by the aged and by children. It may be used in both the first and second stages of the disease. Nitroglycerin, by the mouth, or, better, hypodermatically, in doses of 1-50th or 1-25th grain (0.013 or 0,0026 gramme), is an excellent remedy in this disease. It strengthens the weak pulse, removes the cyanosis and relieves the dyspnœa. Inhalations of oxygen in pneumonia usually give relief, but in some instances the dyspnœa is increased by its use. Especially in cases of general œdema have unfavorable results been noted. In favor of the right heart inhalations are, according to some authorities, of marked service, though the subject is still open for discussion. The abundant use of cold spring-water, Apollinaris, and other table waters is of service in promoting diuresis and diaphoresis, and in this way reducing the abnormal temperature of the body. Alcohol is beneficial in many cases, not only on account of its nutritive value, but also because it aids the respiratory function. It also gives nerve-force, controlling the adynamia and nervousness. There are only two contra-indications to its employment, namely, when the patient is plethoric and when there is hepatic engorgement and gastric catarrh. In these cases, small and repeated doses of calomel will act in the most beneficial manner. Digitalis or digitalin in small doses may be given to control an irregular heart; otherwise either is not to be used, on account of inducing vascular contraction. Strychine by the mouth or hypodermatically, from 1-30th to 1-16th grain (0.002 to 0.004 gramme), is a very useful drug; at times, however, it may produce nervous irritability. Nitroglycerin acts by bleeding from the veins into the arteries, in this way taking the place of the old method of bleeding, which was often followed by excellent temporary results. In cases of threatened heart-clot, venesection, followed by injections of salt-solution, may yield excellent results. Black coffee is of service when other remedies cannot be borne by the stomach, and may tide the patient over. Caffeine does not replace the use of coffee, for the reason that it is merely an alkaloid, and does not possess the nutritive value of the coffee.

Dr. Peabody, of New York, remarked that pain, with insomnia and cough, is an urgent symptom of croupous pneumonia, that could be controlled by the use of small doses of morphine hypodermatically, as grain 1-6th (0.01 gramme) repeated once or twice during the night. He objects to the too frequent use of water in reducing the temperature. He has very rarely found heart-clot as a pathological feature in this disease, and believes that many of the so-called cases of ante-mortem clot are in fact but post-mortem clots.

Dr. J. C. Wilson, of Philadelphia, b lieved that, owing to the varied clinical manifestations of pneumonia, the treatment must be largely expectant and symptomatic. Cold baths have not been satisfactory in his hands. Local applications of cold to the chest have been advantageous in many cases. In sthenic cases, with delirium and other nervous manifestations, affusions of from one-half to one gallon of cold water, poured over the head and shoulders,

will often act as the turning-point in the disease. Venesection proves beneficial in many cases of pneumonia by attenuating the toxæmia and removing from the blood a quantity of effete material. He indorses the use of small amounts of opium, as, *e.g.*, 2 or 3 grains (0.13 or 0.2 gramme) of Dover's powder, for from every two to four hours.—*Universal Medical Journal.*

CONGRESS OF AMERICAN PHYSICIANS AND SURGEONS.

Sewer Gas as a cause of Throat Disease.—Dr. Beverley Robinson, of New York, thought it was a demonstrated fact that persons ill with diphtheria became more severely ill if compelled to inhale the air from sewers continually. In his opinion, if a person with catarrh of the throat and a tendency to inflammation of this region was exposed to sewer-gas, he would be liable to have an attack of inflammation. This he had seen time and again. The house-physician of the Willard Parker Hospital had recently informed him that, notwithstanding the large number of cases of diphtheria in that hospital, they had not been able to find the Lœffler bacilli in the air about the patients. It had recently been shown that many of the children in the Hospital for the Ruptured and Crippled had been going around the wards with the Lœffler bacilli in their throats, without showing any symptoms of diphtheria.

RECENT SUGGESTIONS IN THERAPEUTICS.

Follicular Tonsillitis.—If seen early and no complications, Dr. Sajou's abortive treatment,—*ammoniated tincture of guaic*, 1 teaspoonful every two hours in sweet milk. If seen later, *calomel*, 10 grains (0.65 gramme); *soda bicarb.*, 20 grains (1.3 grammes). M. ft. chart. no. iii. One every three hours floating on teaspoonful of water. No liquid after for twenty minutes. Follow with 1 or 2 teaspoonfuls of *castor oil* with 10 to 15 drops of *turpentine* every hour (for first 12 hours) excepting hour of powders. Gargle and swallow teaspoonful of saturated solution of *sulphate of sodium* (C. P.). When powders are finished and worked off by *castor-oil*, alternate *sodium sulphate* with *pot. chlorat.*, 1 drachm (4 grammes); *ammon. mur.*, 1 drachm (4 grammes); *tinct. ferri mur.*, 4 drachms (16 grammes); *glycerini*, 1½ ounces (46.5 grammes); *syr. limonis*, 2 ounces (62 grammes). M. Teaspoonful as a gargle and systemic remedy. Reduce all doses for children, and dispense with gargles. (C. C. Slagle, *Therapeutic Gazette*, June 15, 1894.)

Hæmorrhoids.—Cleanse bowels thoroughly with repeated irrigations of *salicylic-acid* solution. Introduce into the rectum a suppository containing 2 grains (0.13 gramme) of *cocaine*, and from ¼ to ⅓ grain (0.016 to 0.02 gramme) of *morphine*, about 15 minutes before operation. If patient is extremely sensitive, inject 1-per-cent. solution of *cocaine* into different portions of mucous membrane immediately before operation. Bring tumors into view by introducing *iodoform-gauze* tampon through small speculum. Inject saturated solution of *iodoform* in *ether* into cellular tissue adjoining each nodule. Injecting on both sides of latter causes formation of scar-tissue and shrinking of circumvenous tissue. Now substitute suppository containing 2 grains (0.13 gramme) *salicylic acid* for gauze tampon. Give *bismuth* and *opium* to prevent movement of bowels. On third day inject 2 ounces (62 grammes) of *olive oil* into rectum, giving *castor-oil per os.* During subsequent weeks, bowels should be kept loose. Treatment successful in eight cases. (Carl Beck, *New York Medical Journal*, July 21, 1894.)

Lemonade for Diabetics.—*Pure water*, 1000 grammes (1 quart); *pure glycerin*, 20 to 30 grammes (⅔ to 1 ounce); *citric acid*, 5 grammes (1¼ drachms). To be taken in small quantities within twenty-four hours. *Journal des Practiciens*, May, 1894.)

Local Anæsthetic Solution.—*Cocaine hydrochloride*, *resorcin*, each 16 grains (1.04 grammes); *distilled water*, 2 ounces (62 grammes). Does not cause systemic disturbances sometimes produced by cocaine alone. (J. H. Lowrey, *New York Medical Journal*, July 21, 1894.)

Lubrication of Catheters.—To facilitate exploration of bladder and urethra: *Powdered soap*, 50 grammes (1½ ounces); *glycerin* and *water*, each 25 grammes (6½ fluidrachms); *mercuric perchloride*, 0.02 gramme (⅓ grain). (Guyon, *Lancet*, July 28, 1894.)

Malakine in Rheumatism.—Dose in acute articular form, 6 grammes (1½ drachms) in twenty-four hours. As much as 10 grammes (2½ drachms) may be given without danger if doses be sufficiently divided. Increases diuresis, facilitates elimination of uric acid, and lowers temperature. No untoward effects. (Montagnon and Dacher, *Loire Médicale*, July 15, 1894.)

Progress of Science.

TORSION OF ARTERIES FOR THE ARREST OF HEMORRHAGE.

Dr. Claude A. Dandore, of Philadelphia, in an interesting paper, describes this method, and credits Amusat with first having observed the effect of torsion of arteries in arresting hemorrhage.

He has used torsion in 113 cases of all kinds, with no signs of secondary hemorrhage, and with fewer cases of delayed tissue unions. He thinks that if the vessel is diseased, that torsion is safer than the ligature, which very often, even when little force is exerted in tying, partially or entirely severs the external coat, thus by hastening the sloughing of the end of the vessel, tending to produce secondary hemorrhage. In cases of diseased vessels, the limited method of torsion should only be used, and the end of the artery should not be rotated more than twice.

In plastic operations, the fact that we are enabled to close the wound without leaving a loop of catgut to irritate or produce sepsis and delay union is an advantage which cannot be too highly appreciated.

Doctor D. ends his paper by stating that he is satisfied that those who will give torsion their practical attention will be amply repaid and thoroughly convinced that as an agent for the averting of hemorrhage it is the equal, if not the superior, of the ligature in many respects.—*Internat. Med. Magazine.*

A NEW TREATMENT FOR HYDROCELE.

A new treatment for hydrocele is proposed by J. Neumann (*Wiener Medizinische Presse*, No. 45, 1893). It consists in the withdrawal of the fluid by means of a trocar and cannula, leaving the latter in the hydrocele sac to act as a drain. A slightly compressing bandage is applied over a small thickness of cotton. Healing is said to occur in a few days. The cannula is removed on the second or third day.—*North American Practitioner.*

FREEDOM FROM RECURRING APPENDICITIS AFTER EVACUATION OF THE ABSCESS AND RETENTION OF THE APPENDIX.

By James M. Barton, A.M., M.D.,
Surgeon to the Jefferson College Hospital and to the Philadelphia Hospital.

[Philadelphia Academy of Surgery.]

At the last meeting of the American Surgical Association I reported nine recoveries from operations for appendicitis in which the appendix was not removed. These were all cases of ruptured appendix with circumscribed abscess, with no general peritonitis and no symptoms of obstruction.

The operation consisted in opening the abdomen and using sterilized cheese-cloth to hold the movable intestines back and to protect the general peritoneal cavity while the abscess was opened and emptied. Drains were then introduced, some of the cheese-cloth permitted to remain, and most of the wound closed. No attempt was made to find or remove the appendix.

Before considering the later condition of the appendix in these cases, I wish to report, briefly, five more cases upon whom I have operated in the same manner, all of whom also recovered.

Mr. B., aged twenty-three years, a patient of Dr. Cline, of Jersey Shore, Pa. He was operated upon August 24, 1893, on the seventeenth day of the disease.

William C. M., aged twenty years. The operation was performed at Jefferson College on August 28, 1893, on the third day of the disease.

Harry S., also aged twenty years. I performed the operation at the Philadelphia Hospital, September 4, 1893, on the seventh day of the disease.

Richard B., aged forty-four years. The operation was performed at the Jefferson College Hospital, September 17, 1893. It was the third attack, and the present one had existed for thirteen days.

Miss V., aged twenty-two years. The operation was performed November 10, 1893, on the third day of the disease. She was a private patient of Dr. M. B. Dwight, of West Philadelphia.

My object in bringing this subject to your notice is to exhibit several of these patients and to read reports from most of the others, to show that none, whose histories I have been able to follow, have been at all troubled by the retained appendix, and to learn if the experience of the Fellows of the Academy have been similar to my own.

It is becoming widely recognized that this method of operation is accompanied by a low rate of mortality. Richardson in this country, Tait in England, and Reclus and Schmidt on the Continent, as well as many others, content themselves in these cases of local purulent peritonitis with protecting the peritoneal cavity and draining. Others, however, still consider that no operation is complete without removing the appendix. In the March number of the *Annals of Surgery*, Fowler advises, in these cases, the removal of as much of the appendix as can be done without separating adhesions, but considers it necessary to remove the rest of the appendix at a second operation.

Of these fourteen cases, eleven were operated upon by myself during the last two years. All on whom I have operated in this manner have recovered, and none, that I am aware of, have had any trouble with the retained appendix since.

As the mortality has been much greater when I have removed the appendix, I now rarely do so unless the appendix is unruptured, or, if ruptured, only when general peritonitis has occurred.

Of these eleven cases I have been able to follow the history of eight, several of whom are here to-night for examination.

The three whom I have not been able to find were hospital cases; two of them were brought to the hospital by physicians. If either of these had had a recurrence needing surgical aid, I should probably have known it.

Of the eight whose histories I have been able to follow, none have had the slightest symptoms referable to the appendix since the operation. No tumor is to be felt and no tenderness. Indeed, they all appear to have been singularly free from diseases of all sorts since the operation.

Mrs. C., aged thirty years, is here this evening, and will permit us to examine the region operated upon. The operation was performed November 29, 1892, and though she has been using the sewing-machine steadily ever since, she has enjoyed the most robust health. The right iliac fossa is apparently entirely free from disease.

I also present Wm. C. M., aged twenty years. I operated upon him at Jefferson College Hospital, August 28, 1893. He has been in perfect health in all respects since the operation, and there is no evidence of disease in the right iliac fossa.

Harry S. has also been kind enough to come here. I operated upon him September 4, 1892, at the Philadelphia Hospital. He also has been in perfect health since the operation, and presents no evidence of disease anywhere.

Dr. Marshall, of Milford, Delaware, informed me a few days ago that the patient, Mrs. S., on whom I operated for him on February 26, 1892, has enjoyed perfect health ever since, and that on examination he has been unable to find any tenderness on pressure or any tumor in the right iliac fossa.

Dr. Beary, of the Falls of Schuylkill, reports that Mrs. R. T., on whom I operated for him, January 20, 1893, has been in perfect health since the operation.

Dr. Cline, of Jersey Shore, Pa., reports that Mr. B. has been in perfect health since the operation; indeed, in better health than for a number of years before.

Dr. Dwight, of West Philadelphia, reports his patient, Miss V., as in perfect health since the operation, and on a recent examination of the seat of the disease there is no tenderness and no tumor to be felt.

Dr. Chandler, of Centreville, Del., reports: "The patient, Mrs. M., on whom you operated for me, April 3, 1893, has made a perfect recovery, and has been perfectly well ever since." He adds, "that from the operations in which he has participated, he thinks the removal of the appendix in these cases is not required if good drainage is established. The appendix will take care of itself."

From the uniformity with which full and complete recovery has occurred in the few cases that have come under my care, it looks as though the appendix is not very liable to give trouble if permitted to remain. Indeed, I think it is quite likely, in cases such as we have been considering, that the opening from the appendix into the intestine is closed early in the attack—closed quite as firmly as any ligature would close it, and there is but little probability that fæcal matters will ever be again able to enter the appendix, either to cause a fæcal fistula to follow the operation or to start another case of appendicitis in the future.

If it were not firmly closed, the pus would never have broken through the walls of the appendix, or, having broken through, the resulting abscess would not have increased in size, but would have emptied itself through the appendix into the bowel.

To further illustrate the strength of this obstruction at the base of the appendix, I have observed, in several cases where fæcal fistula followed appendicitis, that in none did the fæces make their exit through the appendix, but through other portions of the intestines, showing that the inflammatory deposit closing the appendix was even stronger than the healthy bowel.

The mortality following operations for appendicitis is mainly due to general septic peritonitis and to intestinal obstruction.

If we look into the cavity of a fully-developed abscess, such as we have been considering, we can readily see how these complications may follow the search for or removal of the appendix. The cavity of the abscess is lined with a thick layer of gravish, poorly organized, aplastic lymph, filled with micro-organisms. The appendix lies buried beneath this lymph, and its cavity communicates freely with the general abscess cavity. The opening can occasionally be seen, and is often the only guide by which the position of the appendix can be recognized.

To tear up this fragile and infected lymph, and distribute it through the peritoneal cavity while searching for and liberating the appendix, would greatly increase the probability of establishing a general septic peritonitis.

Intestinal obstruction following operations for appendicitis is probably due to kinking of the recently separated intestines. As they reunite, covered and stiffened as they are by inflammatory deposits, they cannot adjust themselves as readily as at the first formation of the abscess.

To avoid any misunderstanding, let me state that it is only in cases of circumscribed abscess that I have been permitting the appendix to remain.

When the appendix is still unruptured, or when it has ruptured and general peritonitis

has occurred, or when obstruction is present, I am in the habit of removing it.—*Denver Medical Times.*

BORIC-ACID INJECTIONS IN GONORRHŒA.

CHRZASZCZEWSKI has had good results from washing out the urethra in the various stages of this disease with a 3 per-cent. solution of boric-acid at 40° C. (104° F.). He applied it by means of a Nélaton catheter (9 to 11 Charrier's scale), introduced as far as the prostatic part of the urethra, injecting a portion of the liquid, and letting it run out slowly, drawing the catheter out three to six centimetres, and again injecting a portion, without drawing the catheter a third time a similar distance, and injecting the balance. Every portion injected contains 100 grammes (3¼ ounces) of solution. The injections should be repeated every second day.—*Przeglad Lekarski*, No. 40, 1893.

THE EXTINCTION OF TUBERCULOSIS.

DR. GEORGE H. ROHÉ, in his presidential address before the Medical & Chirurgical Faculty of Maryland, called attention to the possibility of the extinction of tuberculosis. He considered it an established fact that without the inoculation of the bacillus of turberculosis we cannot have consumption or any other form of turbercular disease; and if by any means this infectious agent can be excluded from the body, the individual is safe from the disease. The principal measures to accomplish this end must comprise, first, immediate destruction of the bacillus in the sputa or in other excretions when the case is not a pulmonary one; second, the disinfection of clothing and bedding, or other furniture liable to be contaminated with the infective material. Accessory measures must be considered, such as notification of the health authorities of all cases of consumption, public disinfection of infected houses and conveyances, and the establishment of special hospitals for the free treatment of indigent consumptives established.

The efficient carrying out of restrictive measures against consumption requires intelligent co-operation on the part of the public. Hence, the education of the laity upon the infectious nature of tuberculosis, and the importance of individual measures of prophylaxis, must precede any successful enforcement of legal enactment looking toward the restriction of the disease. There can be no doubt that the public press can give most effective aid in spreading such knowledge. It is the most powerful auxiliary of the sanitarian. The press makes public opinion. Public opinion makes laws, and until laws have the sanction of public opinion, it is futile to look for their successful enforcement. Popular societies, like the French "Ligue préventive contre la phthisie pulmonaire" and the "Pennsylvania Society for the Prevention of Tuberculosis," are also useful and effective agencies in educating the people upon this subject. By concerted action on the part of physicians, sanitary authorities and the public, tuberculosis may be stamped out and become in the future a matter of interest only to the historian of human progress.—*Maryland Medical Journal*, April 28, 1894.

CASTRATION IN HYPERTROPHY OF THE PROSTATE GLAND.

When Dr. J. William White first suggested to the profession the operation of castration for the relief of hypertrophy of the prostate gland (Address at the Annual Meeting of the American Surgical Association, June 1, 1893, *Annals of Surgery*, August, 1893), on theoretical grounds, although strongly supported by experimental evidence, it is doubtful whether anyone appreciated the full value of the recommendation. Cases of prostatic hypertrophy are of extreme frequency. Sir Henry Thompson found that one man of every three over 54 years of age examined after death showed some enlargement of the prostate; one in every seven had some degree of obstruction present; while one in fifteen had sufficient enlargement to demand some form of treatment. In this country to-day, as shown by the last census, there are more than three millions of men over fifty-four; of these, according to Thompson's estimate, which genito-urinary specialists consider a conservative one, about two hundred thousand are sufferers from hypertrophy of this gland. This number seems very large, but the assertions of Thompson unquestionably express a general rule, and in fact every surgeon must have seen men in whom some prostatic overgrowth existed *before* the fifty-fourth year. The lives of such patients are threatened because, if the obstruction is not removed, the health is rapidly undermined by the retention of urine and the consequent fermentative changes, the deleterious influence of backward pressure on the kidneys, the frequent use of the catheter, and the loss of sleep incident to the incessant demands to void urine. Heretofore the surgeon has been unable to afford distinct relief from the distressing symptoms of an advanced case of this affection. If the patient's general condition would warrant the very considerable risk, some form of prostatectomy was performed. The suprapubic method was recommended for a time, but the difficulties encountered in its performance, the frequency of suprapubic fistula as a sequel, and the high mortality following the operation have led to its almost total abandonment. Perineal prostatectomy is also attended with considerable risk, on account of the free hemorrhage, which cannot be controlled during the operation, and

the prolonged anæsthesia which is necessary. In addition to this, the operation is a bungling one, in which the enlarged gland is removed by cutting, scraping, or gouging, while the instrument is out of sight, and much of the time it cannot be guided even by the finger. Combined suprapubic and perineal prostatectomy enables the operator to reach and enucleate the gland with greater freedom, but it is an operation of such gravity that it would be contra-indicated in the very cases in which the demand for relief was most urgent.

Perineal prostatotomy is little more than a palliative measure, which does some good, temporarily, by draining the bladder and inducing slight contraction of the middle lobe of the prostate in the healing process. All of these operations confine the patient to bed for several weeks, which is, in itself, objectionable, and in addition require the use of the bougie for a long time afterwards.

In view of these facts it is not strange that surgeons should have presented Dr. White's suggestion to patients suffering from the consequences of prostatic hypertrophy, nor is it unnatural that such patients accepted this chance for relief from a condition that in many cases was rapidly and surely impairing the health of a person otherwise vigorous and, apparently, without this trouble destined to enjoy many additional years of life.

With the testes already or soon to become functionless, and with the contemplation of a long period of intense suffering which will be relieved only by death, sentimental objections pale into insignificance, and the problem of securing relief without placing the life in danger is the only one entitled to consideration.

Cases of castration based upon Professor White's deductions soon began to be reported. Ramm, of Christiania, Norway, recorded two in September, 1893; Haynes, Los Angeles, Cal., and White, Philadelphia, each report three cases; Finney, Baltimore, reports two cases; Smith, St. Augustine, Fla.; Powell, London; Mayer and Haenel, Dresden; Moullin, London; Thomas, Pittsburg; Ricketts, Cincinnati; Swain, Bristol, England; and Bereskin, Moscow, each record one case. Thus far eighteen operations have been published. All have been more or less successful, and usually the relief from the distressing symptoms and the shrinking of the prostate have been marvellous. The least favorable cases have experienced infinitely greater relief than has been obtained by any method heretofore employed. At least as many unpublished cases have been operated upon with equally favorable results. There have been no deaths from the operation: of course, few would be expected in the hands of competent surgeons.

To those familiar with these cases, the rapid shrinking of the prostate and the simultaneous relief afforded the patient have been truly wonderful. The operation has therefore passed the experimental stage, and has legitimately established for itself a position among the most successful of operative procedures. Indeed, the results have been so uniformly favorable that castration may now be considered a specific for hypertrophy of the prostate.

It is necessary, however, to utter a word of caution here. Castration is not indicated in every case of prostatic enlargement or urinary obstruction. To secure uniformly successful results, one must be certain that the condition from which the patient is suffering is appropriate for the operation. Cases of prostatic abscess, prostatitis, tumors of the prostate and of the region of the neck of the bladder, and other forms of obstruction in the neighborhood of the prostate must be distinguished from true prostatic hypertrophy. Without careful discrimination, both the surgeon and the patient will be disappointed, and the operation will unnecessarily be brought into discredit.

As it stands to-day, however, in appropriate cases, it appears to mark an advance in the surgery of the prostate, which, when the gravity and the frequency of the condition of hypertrophy are recalled, together with the more or less ineffectual and always dangerous methods of treatment which have prevailed, must be a source of congratulation not only to Professor White but to the profession at large, and to thousands of patients who, having outlived their sexual lives and earned an old age of mental and physical repose and intellectual enjoyment, have had only a few short years of torment and misery to look forward to on account of this hitherto intractable disease.—*Editorial University Medical Magazine.*

CANCER HOUSES AND THEIR VICTIMS.

Dr. d'Arcy Power, in commenting on Mr. Shattock's recent statement, that cancer, like tubercle, may repeatedly show itself in certain houses, adds a series of cases of his own illustrating this point. Miss B., aged 45, lived in a certain house in the suburbs of London for thirteen years, and died of cancer of the stomach in 1884. Miss T., aged 47 years, who had lived in the house for twenty years, then occupied her bedroom, and died of cancer of the liver in 1885. Mrs. J., aged 67 years, who had lived in the house for eight years, now occupied the bedroom, and died of cancer of the breast and uterus in 1893. Each of these patients appeared to be in perfect health until they took one another's place as housekeeper to the barmaids of the establishment in which they had each lived for so long a time. There was no blood relationship between them. One of the sons of the house, a nephew of Miss T., has a keloid which has been removed three times.—*British Medical Journal*, June 9, 1894.

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THE ANTI-TOXIN TREATMENT OF DIPHTHERIA.

From reports gradually coming in from reliable sources, it would appear that the anti-toxin treatment of diphtheria is more than a passing fad. Although it does not save every case, there seems to be no doubt that it reduces the mortality very considerably. The most satisfactory proofs come from the Children's Hospital in Paris, where the treatment is being tested by Dr. Roux himself, and where, in order that other things might remain equal, exactly the same treatment was carried out by the regular physicians of the institution. The result was that the death rate, which had remained steadily for years at a certain figure, has come down nearly one-half. There are, however, unfortunately certain sources of error which must be eliminated before coming to a conclusion. For instance, while the treatment was almost hopeless, only the most serious cases, such as those requiring tracheotomy, would be sent to the hospital; but on parents learning that by sending their children early to the hospital the new treatment was almost sure to save them, many cases in the early stage, and probably many cases which are not diphtheria at all, would be received, and those cases would have recovered under any treatment, so that the normal balance would be disturbed, and the anti-toxin treatment would receive credit to which it was not fairly entitled. Several of our leading practitioners, such as Dr. McConnell and Dr. G. T. Ross, have assured us that they were satisfied that the remedy is a valuable one, as in every case the most marked improvement immediately set in, the membrane coming off and the breathing becoming easy. We think the same method should be followed here as we have noticed above has been followed in Paris, namely, to continue the best treatment hitherto known and to employ the anti-toxin as well. Everyone admits that the latter can do no harm, and those who have tried it believe that it does good. There is one obstacle to its trial being carried out on a large and conclusive scale, and that is the great cost; but this will probably soon be removed by the establishment in Canada of a serum laboratory. In the meantime we should petition the government to issue sharp and peremptory orders to the customs officials, to admit it free of duty until such time that it can be produced in sufficient quantity in the country. We cannot comprehend the calibre of the official mind which taxes anæsthetics, vaccine or anti-toxin.

SHOULD PHTHISIS BE STAMPED OUT?

Although Koch's tuberculin has not apparently fulfilled the high hopes held out by its inventor as a cure for the dread disease in man, it has during the past year come to be recognized as an infallible diagnostic agent of tuberculosis in cattle, and by its aid thousands of tuberculous animals have been discovered and slaughtered in Canada and the United States. The process is an expensive one, but Governments and individuals consider that it will pay in the long run to incur an expense of several million dollars even, in order that the disease may be stamped out from the herds, many of which are of the highest breed, the disease being more common unfortunately in high grade animals than in the commoner ones.

In view of these facts, does it not seem strange that so little has been done towards the stamping out of this greatest of all scourges of the human race? It has taken many hundreds of years to find out that it was not an inherited disease, but that it was on the contrary acquired by contact only. But now that no educated person, either in the profession or even among

the laity, has the slightest doubt of its contagiousness, does it not seem strange that some effort is not made to restrict the number of centres of contagion? When the matter was brought up recently at the Montreal General Hospital by one of the Governors, asking that arrangements be made to put the cases of consumption in wards by themselves, instead of sandwiching them between other patients, who, though not infected with the dread disease, yet were, owing to their anæmic condition, in a very receptive condition for the attacks of the bacilli, one of the staff who opposed isolation received a lesson in bacteriolgy from one of the laymen. In a recent article entitled "The Consumption Scare," the writer strongly opposed isolation, on the ground of the hardships which it entails. But we have pointed out over and over again in the columns of this journal, that isolation of the majority of cases could be carried out with very little hardship by the Dominion Government voting a sum sufficient to maintain a national sanitarium, in which consumptives born or resident in Canada might receive free maintenance and treatment. This would doubtless prove so attractive that the majority of patients would apply for admission of their own accord. Supposing that even one thousand people availed themselves of such an establishment, the cost would not exceed two or three hundred thousand dollars a year. Can anyone deny that the gathering together of that many people under the best sanitary and therapeutic treatment, who are now acting as so many widespread centres of infection, would be a judicious expenditure of public money? If he does deny it, then he must place the value of human life and happiness far below that of the value of animals. The mere fact that such an institution existed would do more to educate the people to the danger of consumptive people spitting in street cars and on the floors of their houses than any amount of talking to them would do. In the meantime, if any more hospitals are to be built and endowed, why should the next one not be one for consumption? It would be equal to extending the capacity of the existing hospitals, many of whose beds are occupied by consumptives at present, to the danger of the other patients. We are glad to learn that one physician at least in this city is devoting his attention specially to consumption with good success, and we hope ere long to see in the leading cities of Canada hospitals established where not only the poor would be treated by the hospital staff, but where those who can pay could enter for treatment under the care of their own physician, and either be cured or die without spreading their disease to other members of their family.

Why do we isolate the insane, for which we pay willingly nearly a million dollars a year? For the public good, to which they are dangerous. And yet are they any more dangerous than those in the last stage of consumption, who are daily producing one of the most fatal bacteria known? If it pays us to spend tens of thousands of dollars in keeping from our shores the national enemy Cholera by our quarantine stations, and to spend hundreds of thousands in isolating even those who are only occasionally dangerous to society, why should we not spend something on the isolation of those who, sound in mind, recognize the danger to which they are exposing their families and who would voluntarily apply for admission?

THE TYPHOID OYSTER SCARE.

An epidemic of typhoid fever having broken out in a Connecticut college, and the students having a few days previously partaken of some oysters which had been transplanted from the sea to a small branch of the Connecticut river, and remained there for two days feeding on sewage, forthwith the luscious bivalve has had its reputation destroyed by the epidemic being laid entirely at its doors. A great deal more is blamed on oysters than they are justly answerable for. We remember an old gentleman who consulted a physician for a headache, which he attributed to his having eaten one oyster the night before. The physician thought the explanation insufficient, when on further inquiry it appeared that the old gentleman had washed the solitary oyster down with a whole bottle of old port. So in the case of the Connecticut college attacked by typhoid, while admitting the possibility of oysters becoming infected by feeding on sewage containing typhoid bacilli, yet we think there were far more likely sources for it to come from. For instance, there were two cases of typhoid at a farm house a little way up the river; did the

farmer or some other with a typhoid infected well supply milk to the college?

During the course of a collective investigation held some years ago in Montreal, nearly all the cases in the city were traced to two milkmen who had typhoid infected wells, and as a result of the investigation one of them gave up his business. If, however, these oysters actually contained typhoid bacilli in their livers at the time they were eaten, would not the disease be much milder in those who ate them than if they had swallowed the bacilli in all their savage ferocity? It has been proved beyond a doubt that nearly all bacilli may be domesticated, so to speak, by being cultivated for a few generations in some animal's blood May it not be that even such a humble anima- as the oyster may serve a good turn in immun izing man against the attacks of wild typhoid bacilli? So that having had a few milder and milder attacks of typhoid from oysters, college students would become proof against all danger of being attacked by a fatal form of bacillus from milk diluted with water from a typhoid infected well. The oyster scare has been a serious matter for the thousands of poor oyster fishermen on the Atlantic coast, the sales having fallen off during the last few weeks as much as four thousand dollars a week. While admitting the possibility of oysters becoming infected by their food, we maintain that they are no more deserving of suspicion than the fish which live on sewage almost exclusively, but which, though eaten in far greater quantities, have so far never been accused of conveying typhoid to their patrons. We would respectfully suggest that a sharper lookout be kept upon the milk and water man, where ample cause for typhoid will in most cases be found.

THE PRACTITIONER OF ST. LOUIS.

The welcome which we always extend to newcomers to the ranks of medical journalism is all the more hearty in the case of the one whose title appears above, because the editor is one of our old students at Bishops College, Dr. R. C. Blackmer, who is now professor of Medical Jurispruduice in the Barnes Medical College of St. Louis. In his opening editorial the editor repudiates the idea that his journal comes to fill a long felt want, or that anybody wants it. But he has something to say, and he says it remarkably well, and he is going to let the profession hear from him and his associate editors once a month. As a student Dr. Blackmer was a favorite with his fellow-students as well as with his professors, due to his geniality of disposition and originality of thought,—qualities which should serve him in good stead in his capacity of a medical editor. We trust that the *St. Louis Practitioner* will do its utmost to raise the standard of medical education in its own State by the formation of a State examining board, if there is not already one, and the compulsory registration of all diplomas from recognized medical colleges before their holders shall be allowed to practise. We wish Dr. Blackmer every success.

THE CANADIAN MEDICAL REVIEW.

We are pleased to welcome to our exchange list this the latestaddition to the ranks of Canadian medical journals. Being edited by such men as Dr. W. H. B. Aikins, A. B. Atherton, J. H. Burns, G. Sterling Ryerson, J. Ferguson, Albert A. McDonald and Allen Barnes, we are not surprised to find that it is a bright and interesting periodical. Although there is always room for one more, we must admit that with eight medical monthly publications, the five thousand doctors of Canada are well supplied with reading, and, all things considered, they receive good value for their subscriptions. With a little more patriotism and a little more energy on the part of the profession, the medical journals of Canada might be greatly improved. For many physicians of Canada subscribe for foreign journals without taking even one of our own, and the majority never write as much as a letter to the home journals, nor contribute an idea, while the few who do write too often send their articles for publication to a foreign publication. Most medical men must have at least one original idea a year, which might be useful to the profession; why will they not jot it down and send it in?

CANADIAN MEDICAL ASSOCIATION.

Those who attended the last meeting of the above Association at St. John, N.B., were all agreed that it was one of the most successful in the annals of the Association. From recent information received from Kingston it would appear, however, that the meeting next year promises to be a still more successful one. The secretary has received letters from all parts of the Dominion, stating that the writers would be present at the Kingston meeting, which will be held on the 28th, 29th and 30th of August.

The American Electro Therapeutic Association, which comprises the leading authorities on the subject from all over America, both in Canada and the United States, will hold its annual meeting at Toronto, beginning the day following the end of the Kingston meeting, so that the members of the Canadian Medical can proceed next day to Toronto and be present at the Electro Therapeutic meeting, where all are welcome without being Fellows. We would suggest that as many as possible would avail themselves of the double opportunity. Few outside of the Association are aware of the advances which electricty has been making during the last few years as a therapeutic agent, and much valuable information might doubtless be acquired at small cost by attending the meeting in which men like Rockwell, Morton, Goelet, Massey, Newman, Dickson, and other well-known writers will take an active part. Every Canadian practitioner of medicine should make the attendance at the meeting of the National Medical Association of Canada at Kingston the one great event of the year.

ACKNOWLEDGMENT.

We have much pleasure in giving credit to Dr. J. B. McConnell of Montreal, for an abstract of his excellent article on the treatment of inebriety by nitrate of strychnine. The journal from which we copied it had omitted to say that it was an abstract of Dr. McConnell's paper, and our printer, not seeing any name mentioned, failed to credit it to anyone. We hope Dr. McConnell will consider it the greatest compliment we could pay him that we printed his article on its own merits without even knowing that it was his.

BOOK NOTICES.

On Preservation of Health in India. By Sir James Fayre, K.C.T.S., M.D., F.R.S., President of Medical Board India Office. London: Macmillan & Co., and New York, 1894. Copp, Clark Co., Ltd., publishers, 9 Front Street W., Toronto.

The lecture by such a distinguished author should be read by all who intend to live in the tropical climate. They would learn how life there may be rendered as safe as anywhere else.

Surgical Pathology and Therapeutics. By John Collins Warren, M.D., Professor of Surgery in Harvard University; Surgeon to the Massachusetts General Hospital. 832 pages, illustrated by 120 engravings and 4 colored plates. Philadelphia: W. B. Saunders, 925 Walnut street, 1895.

As the author truly says in his preface, the scientific portion of a surgical education was formerly regarded as something apart and ornamental, but it has now become an eminently practical feature of the student's curriculum. No young practitioner can be regarded as thoroughly equipped for surgical work who is not both a good pathologist and an expert bacteriologist. The confidence born of a knowledge of pathology and bacteriology enables him to assume grave responsibilities and to grapple successfully with the most complicated problems. It is from men thus equipped that we have a right to hope that the future Masters of Surgery are to be evolved. An attempt is therefore made in this book to associate pathological conditions as closely as possible with the symptoms and treatment of surgical diseases, and to impress upon the student the value of those lines of study as a firm foundation for good clinical work.

It is the author's hope that the following pages will present to a large number of practising physicians, in a readable form, many subjects that received but little attention when they graduated.

The illustrations by William J. Kaula are, with one or two exceptions, original. The drawings of microscopical sections are taken from specimens prepared for the purpose, and are intended to illustrate as closely as possible the results of modern microscopical technique.

We have carefully read over several chapters, and can say without hesitation that this work is thoroughly up to date and written in a pleasant and instructive style. The chapters on tuberculosis of the joints and on tumors are especially well written. We heartily commend this book to our most thoughtful readers. It may be obtained through any bookseller.

Transactions of the College of Physicians of Philadelphia.—Third series, volume

sixteen. Philadelphia: printed for the College, 1894.

We welcome these transactions more than ever; the present volume contains many gems from the pens of the talented members of this Society. There are few societies in the world which can turn out such a volume as this at the end of every year.

A Practical Theory and Treatment of Pulmonary Tuberculosis, by Frank S. Parsons, M.D., editor of the Philadelphia Medical Times and Register. Published by the Medical Publishing Company, 718 Betz Building, Philadelphia, Pa. Price, 25 cents. Paper cover.

This monograph covers seventy-seven pages of a neat little volume. It treats of a subject of universal interest to all scientifically inclined persons.

The author views tuberculosis in a new light, and from a more rational standpoint than any that has recently been advanced. This work, it is safe to say, marks a new era in the study of this disease.

The first pages are devoted to an interesting introductory, illustrative of the present condition of medical thought upon the subject. The causation of tuberculosis is then taken up, and it is admirably and ably shown that the dominant theory regarding the tubercle bacillus as a causative agent is not based on the true pathological condition in the early stage of phthisis. Bacilli are to be regarded only as developments, existing because a favorable medium presents. This medium exists before the bacillus is demonstrable, and consists of the waste elements of the blood congregating in a locality through lymphatic obstructions or stasis.

In the pages devoted to a consideration of symptomatology it is suggested that, in view of the universal dislike of fats by phthisical persons, there doubtless exists a disordered condition of the pancreas, which condition may be congenital or acquired.

Dr. Parsons has based the treatment of consumption on the lines of this new theory, calling attention to the advantages to be gained by elimination, nutrition and oxygenation. The low price of the book places it in reach of everyone, and no physician should be without it.

PAMPHLETS.

Inflammation of the Ureters in the Female, by Matthew D. Mann, A.M., M.D., of Buffalo, from the American Journal of the Medical Sciences, August, 1894.

The Technique of Vaginal Hysterectomy, by George M. Edebohls, A.M., M.D., Gynæcologist to St. Francis' Hospital, New York; Professor of Diseases of Women at the New York Post-Graduate Medical School; Consulting Gynæcologist to St. John's Riverside Hospital, Yonkers, New York. From the American Journal of the Medical Sciences, January, 1895.

Notes on Movable Kidney and Nephrorrhaphy, by George M. Edebohls, A.M., M.D., Gynæcologist to St. Francis Hospital, New York, etc.

A New Method for Anchoring the Kidney. Read before the Columbus (Ohio) Academy of Medicine, Nov. 19, 1894. By R. Harvey Reed, M.D., Professor of Theory and Practice of Surgery and Clinical Surgery Ohio Medical University; Surgeon Protestant Hospital, etc. Reprinted from the Journal of the American Medical Association, December 22, 1894. Chicago: American Medical Association Press, 1894.

The Use of the Galvanic Current in Articular Inflammatory Exudations. By M. A. Cleaves, M.D. Reprinted from the Times and Register, December 19, 1891. Philadelphia: The American Medical Press Company, Limited, 1891.

Electric Light as a Diagnostic Therapeutic Agent. By Margaret A. Cleaves, M.D., Instructor in Electro-Therapeutics, New York Post-Graduate Medical School. Reprinted from the Medical Record, December 8, 1894. New York: Trow Directory, Printing & Bookbinding Co., 201-213 East Twelfth Street, 1894.

The Diagnosis and Treatment of "Floating Kidney." By R. Harvey Reed, M.D. (Univ. of Penna.), Columbus, Ohio. Professor of Theory and Practice of Surgery and Clinical Surgery Ohio Medical University; Consulting Surgeon B. & O. and Big Four Railways; Surgeon Protestant Hospital, etc. A paper read by special invitation before the Sixth Annual Meeting of the Shelby County Medical Society, at Shelbyville, Ind. Reprinted from Columbus Medical Journal, April, 1894.

Une Mission en Belgique et en Hollande: l'Hygiène et l'Assistance Publiques; l'Organisation et l'Hygiène Scolaires. Par le Dr. C. Delvaille, avec une préface de M. Grancher, Professeur à la Faculté de Médecine de Paris. Paris: Société d'Editions Scientifiques, Place de l'Ecole de Médecine, 4, Rue Antoine-Dubois, 1895.

Lois de la Création des Sexes; des moyens de s'assurer une Progéniture Male. Par le Dr. A. Cleisz. Paris: Société d'Editions Scientifiques, 4, Rue Antoine-Dubois, 1895. Tous droits réservés.

THREE CASES OF UTERUS BICORNIS SEPTUS; WITH REPORT OF OPERATIONS PERFORMED UPON THEM. By George M. Edebohls, A.M., M.D., Professor of Diseases of Women at the New York Post Graduate Medical School and Hospital; Gynæcologist to St. Francis' Hospital, New York. Reprinted partly from the New York Journal of Gynæcology and Obstetrics, April, 1893; and partly from the Transactions of the New York Obstetrical Society, Jan. 16, 1894.

POLYCLINIQUE DE L'HOPITAL INTERNATIONALE: DES APPLICATIONS DE LA MICROGRAPHIE ET DE LA BACTÉRIOLOGIE À LA PRÉCISION DU DIAGNOSTIC CHIRURGICAL. Par le Docteur Aubeau. Avec 24 figures hors texte en photogravure. Paris: Société d'Editions Scientifiques, Place de l'Ecole de Médecine, 4. Rue Antoine-Dubois, 1894.

LES NOUVELLES MÉTHODES DANS LE TRAITEMENT DE LA DIPHTHÉRIE. Par le Dr. de Crésantignes, Membre de la Société de Médecine et de Chirurgie Pratiques, Médecin du Ministère de l'Agriculture, Officier d'Académie, etc., etc. Prix 2 francs. Paris: Société d'Editions Scientifiques, Place de l'Ecole de Médecine, 4. Rue Antoine-Dubois, 1895. Tous droits réservés.

PUBLISHERS DEPARTMENT.

LITERARY NOTES

From *The Ladies' Home Journal*, Philadelphia.

—DR. PARKHURST'S first article to women in *The Ladies' Home Journal* has proved so popular that the entire huge edition of the February issue of the magazine was exhausted within ten days, and a second edition of 45,000 copies has been printed.

—LADY ABERDEEN tried a novel solution of the ever-vexing servant-girl problem in her homes in Scotland and Canada, and in the April number of *The Ladies' Home Journal* she will, in an article, explain the method she adopted.

—No Antikamnia "Habit." Some physicians may fear to prescribe Antikamnia in chronic cases for fear of some danger arising from its continued use. But in a letter bearing date Nov. 8, 1894, written to a friend, Dr. Hunter McGuire of Richmond, Va., says: "I do not see any reason why you should not continue to take Antikamnia which you say has done you so much good. I do not believe it will do you any harm."

—To be a constant reader of *Littell's Living Age* is to keep a mind well stored with the best foreign literature of the day. To have read it all one's life, if one has reached maturity, is to have a knowledge of philosophy, art, science and literature, which is of itself a liberal education. These numbers comprise what is most notable in the great reviews and monthlies, such as Sidney Whitman's article on "Count Moltke, Field Marshall," Mrs. Alexander's "Recollections of James Anthony Froude," E. N. Buxton's interesting paper on "Stony Sinai," Prince Kropotkin's "Recent Science," etc., etc. The first number in February shows a delightful table of contents: "A Little Girl's Recollections of Elizabeth Barrett Browning, William Makepeace Thackeray, and the Late Emperor Louis Napoleon," by Henriette Corkran; "The Queen and Lord Beaconsfield," by Reginald B. Brett; "Treasure Islands in the Polar Sea," with Part III. of "The Crimea in 1854 and 1894," by General Sir Evelyn Wood, G.C.B., V.C., etc. The same issue contains also the first instalment of "The Closed Cabinet," a powerful short story which is concluded in the following number.

Any reader desiring to be in touch with foreign periodical literature cannot do better than subscribe for this invaluable magazine. A prospectus with special offers to new subscribers may be obtained by addressing LITTELL & CO., Boston.

—The March number of the *Political Science Quarterly* opens with an exposition of the legal question involved in the matter of "Municipal Home Rule," by Prof. F. J. Goodnow; Mr. Edward Porritt presents another phase of the municipal question in explaining "The Housing of Workingmen in London"; Prof. Simon N. Patten offers "A New Statement of the Law of Population"; Mr. H. C. Emery, of Bowdoin College, discusses at length "Legislation Against Futures"; Prof. W. J. Meyers investigates the cost of "Municipal Electric Lighting in Chicago"; Prof. J. B. Moore presents the first instalment of a sketch of "Kossuth the Revolutionist"; and Dr. Frank Zinkeisen, of Cambridge, criticizes the views of Stubbs and other historians on "Anglo-Saxon Courts of Law." The number contains, moreover, the usual Reviews and Book Notes.—GINN & COMPANY, Publishers, Boston.

MALIGN TUMORS OF THE KIDNEY.

Thorkild Rovsing, of Copenhagen, makes a contribution toward the diagnosis and treatment of malign tumors of the kidney, based upon 7 cases observed by him, of which 5 were operated upon. Of these 5, in all of which nephrectomy was performed, death occurred in 3 shortly after the operation, while 2 recovered. In 1 of these 2 latter cases death occurred three years after the operation, from local recurrence, the primary growth being a round-celled sarcoma. The other patient, a man aged 59, with a spindle-celled sarcoma, was free from recurrence when observed one year after the operation. In both these cases no tumor of the kidney was to be discovered by means of palpation, while in the remaining cases a large tumor could be felt. The author, therefore, thinks that tumors of the kidney, which have reached such a size as to be distinctly palpable, are generally not worth operating upon, the operation itself being dangerous and the radical removal exceedingly difficult. The early diagnosis is, then, of utmost importance, and should be based upon (1) a careful examination of the history of the case; (2) a thorough microscopical examination of the urine (in 3 cases observed by Rovsing the microscopical examination of the urine revealed the presence of elements of the growths); (3) palpation during narcosis (the least reliable of all means of examination); and (4) direct exploration by means of lumbar incision. Finally, the author calls attention to the fact that malign tumors of the kidney most frequently have their primary seat in the upper part of the kidney.—*Hospitals-Tidende*, Nos. 20-22, 1894.

The Canada Medical Record.

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CONTENTS.

Original Communications.

REPORT ON CORONERS' INQUESTS.

THE HONORABLE THE ATTORNEY GENERAL,

Quebec.

SIR,—For the sake of convenience, I have placed in an appendix the information obtained during my recent trip to Coroner's Courts in the United States; and have also added some other statistics, etc., bearing upon the subject of reforming the Coroner law, with comments.

In the past, the chief complaints in regard to the Coroner's Courts of this Province seem to have been that (1) deaths were investigated which were not, in the first instance, strongly suspicious; (2) that the investigations were unsatisfactory and inconclusive; and (3) that the expense appeared excessive in proportion to the results obtained.

The various changes in the Coroner law of the Province do not appear to have removed these objections, and the new arrangement made in Montreal, at the commencement of the present year, of having a lawyer appointed as Coroner, with an official physician to make all medical examinations, has not, as yet, greatly improved matters.

In this connection, it must be remembered that the plan of an official medical examiner has not had a fair trial during the nine months for which it has been in force, as the medical expert has only been consulted in less than one-half of the inquests; and in eighty-five of the eighty-eight preliminary enquiries, made from January to May, 1893, was not consulted at all; owing, no doubt, to the absence of definite instructions from head-quarters upon this point. It is evident that, where the official physician is not summoned, the Coroner becomes responsible for the investigation of both medical and legal sides of the case.

NUMBER OF INQUESTS HELD.

The number of deaths investigated in the Montreal district by the Coroner has been at the rate of 1.3 per annum per 1,000 population, and the number of inquests at the rate of 1.0. These numbers, judging by the experience of cities elsewhere, do not appear to be excessive, the number in all parts of the world ranging between 1 and 3 per 1,000. New York investigates 3.0; Philadelphia 2.7; London 2.0; Pittsburg 2.0; Buffalo 2.0; Baltimore 2.4; Washington 2.5; Birmingham 2.4; Liverpool 3.0; Charlestown 4.0; Newark 2.3; Chicago 1.5; Cleveland 1.3; Wilmington 1.3; St. Louis 2.4; Boston 1.2; New Haven 1.1; and Milwaukee 1.5; while, of a number of the other cities, of which I have reliable returns, there is not one where less than one death is investigated yearly for every thousand inhabitants.

While this, no doubt, shows that about this proportion of deaths may be expected to occur annually in a large city, under circumstances calling for an investigation of some sort, it does not necessarily follow that inquests should be held and a jury summoned in all these cases. It seems customary, in most places, to make a preliminary enquiry, in order to see whether the death is really due to violence. According to the thoroughness with which this enquiry is made, the number of deaths calling for an inquest is reduced to three-fourths, one-half, or even one-fourth of the total number reported for investigation.

The Quebec statute of 1892 necessitates a preliminary enquiry by the Coroner before deciding to hold an inquest; and, if a careful and satisfactory enquiry could be enforced, there would be no grounds for holding inquests in more than one-fourth of the total number of deaths reported as suspicious in Montreal; in other words, less than 100 inquests would be held in each year. The Quebec statute differs materially from that of England, which compels Coroners to hold public inquests in all cases of deaths not due to natural causes, and in all deaths in prison from any cause whatever. In Ontario, where the statute is the same as Quebec, no inquests are held in cases of accident from negligence of the deceased or cases of suicide.

It seems better in the interest of society that inquests should be held in cases of suicide, in order to check its frequency; as, in countries where this is not done, suicide is decidedly more frequent; but the present Quebec statute leaves it doubtful whether inquests must be held on suicides or not.

The idea of the Quebec statute of 1892 seems excellent in principle, as the State can have no interest in investigating deaths not due to violence. The only defect is that, without a medical examination or inquiry, it is impossible, in most cases, to determine whether death is due to violence or not; and a knowledge of the cause of death is, in most instances, the first step necessary.

PRELIMINARY MEDICAL EXAMINATION.

In the United States this fact is taken advantage of, and the preliminary examination is always made by a medical man. Most of the American and Canadian coroners are, on this account, physicians; and when such is not the case, are provided with medical officers who make the preliminary enquiry. The result being, that inquests are only held upon violent deaths.

AUTOPSIES.

The best results are obtained when an autopsy is permissible at the preliminary inquiry. In Massachusetts, in spite of the fact that nearly $40 is paid for each autopsy, the average cost of investigating suspicious deaths is $12.80, or $10 less than in Montreal; and, in New York, the average cost of each death investigated is only $10; including all the expenses of conducting the Coroner's Court.

The Quebec law, instead of attempting to utilize the medical examination as a means of reducing expenses, has avoided all medical evidence as much as possible, and has placed so many restrictions upon the performance of autopsies that the number of these has been reduced to a minimum. This has had the undesired effect of giving a very unsatisfactory service, without securing the economy aimed at, as may be judged from the fact that, in London, where autopsies are ordered in fifty per cent. of all the deaths investigated, the average cost is only $15.35 for each case; while, in Montreal, with autopsies in only 13 per cent. of the cases, the cost has averaged $22.28.

During the period from January 1st to September 30th, there were 301 deaths investigated in the district of Montreal. The expense, after deducting $150 allowed for my trip, amounted to $6,705.85, or $22.28 for each case investigated; in spite of the fact that no medical fees at all were paid in 98 cases, or nearly one-third of the whole.

Of this sum, $295, or an average of 98 cents for each case, was directly spent for autopsies, this amount representing the additional fee of $5 over the cost of an external examination; and the full fee of $10 in 17 cases, where external examination fees were paid to other medical witnesses, and the official physician called simply to do the autopsy. After deducting this $295 and also $200 charged to chemical analyses, arising indirectly out of the results of the autopsies from the total expense ($6,705.85), there remain $6,210.85, or $20.63 spent on an average in each case for coroners' and physicians' fees, constables' fees, clerk hire, transport and care of bodies, rent of rooms, mileage and other incidental expenses before the investigation had reached a stage when an autopsy could be legally authorized:—much more than is spent for the entire investigations in London, although autopsies are performed there in 50 per cent. of all the cases. This looks rather as if article 2689 led to twenty dollars being spent in every ten dollars saved. In 1890-92, the average cost of 240 inquests held yearly was $22 50 each, of which 37 cents was directly paid for autopsies.

On the other hand, the early performance of an autopsy would certainly have shown, in half the cases, that no grounds existed for holding an inquest, and so have saved a large number of inquests; the average cost of which was more than double that of an autopsy, while the verdicts were often absurdly at variance with the facts (or absence of facts) elicited by the enquiry.

It is evident that too large a proportion of the money spent in Montreal for Coroners' investigations is frittered away in fees and expenses (which may be perfectly legal and permissible under the law, but are absolutely useless in furthering the investigation), and this has led to an undesirable economy in which the real objects of the enquiry are lost sight of.

As some doubt existed as to the power of the Province to pass a statute, authorizing the performance of autopsies as a preliminary means of investigating deaths from unknown causes, under suspicious circumstances, I have made careful enquiries on the subject of the Department of Justice at Ottawa. I was informed the Province has a perfect right to authorize this, and that there is nothing in British or Canadian criminal law to prevent it, or render it inadvisable.

I am not advocating the indiscriminate and wholesale performance of autopsies when they are not needed to show whether death was due to violence or not; but no restriction should be placed upon their being made when really called for.

Even without autopsies, a preliminary inquiry and view of the body often yield satisfactory information that death has been

natural, in cases which seem suspicious to persons not having a medical training.

In American cities, where official medical experts are attached to the Coroner's Court, no fees are paid to other medical witnesses. In England no fees are paid to medical officers of public institutions in connection with deaths occurring in them. In all American cities as large as Montreal, the coroner and, usually, the official physician are paid fixed salaries. There were no complaints that the work was neglected on this account.

MEDICAL FEES.

In the Quebec tariff there is no fee arranged for medical evidence apart from that obtained from examination of the body; and there is no arrangement at all for paying medical fees where inquests are not held.

Independent of the examination of the body, the information furnished by physicians who have seen the deceased during life is often of much value. Without this it is often impossible to give a correct opinion as to the cause of death, even after an autopsy, and the testimony of physicians who have attended the case often enables an autopsy to be dispensed with.

While some provision is needed to ensure that all medical opinions should be founded on facts which bear them out, and that such opinions are, generally, more correct when given by an expert, it is equally true that all medical testimony at inquests, whether of fact or opinion, is, in a sense, expert evidence, and is recognized and paid for as such in our Courts.

It has been found elsewhere that proper use of medicalevidence forms the best means of avoiding unnecessary inquests without running a risk of serious mistakes, and any arrangementtending to secure such evidence, before an inquest is decided upon, would certainly lead to economy.

The presence of a medical attendant at an autopsy is often of the greatest assistance to the expert performing it; and affords the additional security that the medical evidence in Court, subsequently, will not suffer in case of absence or death of the official physician. For this reason a special fee is provided in States where the medical examiner system has been adopted for physicians acting as witnesses at autopsies.

In addition, it has been found in the United States that a written statement of medical fact or opinion by a medical man usually suffices for the purposes of an inquest, so that his personal attendance is seldom necessary. This privilege is highly appreciated by the medical profession, and the legal officials did not consider that the interests of justice suffer. Of course, in all cases when the presence of a physician at an inquest is necessary it must be insisted upon.

I think it would be well to provide a special fee, say $2, for a verbal or written statement of medical facts or opinion without examination of the body, and without attendance at an inquest; also to pay a separate fee of, say, $1 for attendance of a physician at an inquest or autopsy. The medical examiner would probably be the best judge of when and to what extent outside medical evidence or assistance is necessary.

I did not find that the practice of obtaining medical evidence *gratis* led to any good results. Unless the co-operation of physicians is secured in preliminary inquiries, unnecessary inquests have to be held at a much greater expense than is incurred by a medical fee.

VIEW OF BODY.

The view of the body by non-medical persons appears to be a perfectly useless proceeding. Such persons constantly detect external signs of violence where none exist, or overlook, or fail to understand them when present. This is constantly seen

under the present regulations which necessitate the jury viewing all bodies, and brings about so much unnecessary intrusion upon households in mourning.

Doing away with the view by the jury has now become general in the United States, and has the advantage of enabling all inquests to be held at convenient hours in a central locality, besides saving the cost of transport in all cases where this is not necessary for the purpose of medical examination, and enabling the body to be buried as soon as the medical examination is completed. In addition, as the jury do not have to be summoned before the evidence is complete, an adjournment is seldom necessary. The establishment of the fact of death and identity by sworn testimony fulfils everything that is attained through the view by the jury. I learned at the Department of Justice that the view by the jury forms no part of criminal procedure, and is not necessary in order to legalize a verdict of homicide in Canada.

MEDICAL EXAMINER SYSTEM.

Nearly all the difficulties in connection with Coroner's law arise from the fact that it is attempted to place both medical and legal powers and duties in the hands of one individual, who very often knows little or nothing about either law or medicine.

A solution of the problem appears to have been found in the United States, by separating, as far as possible, the medical and legal sides of the investigation, leaving all medical matters to competent physicians, known as Medical Examiners ; and all legal matters, either to the regular judicial and police authorities in Massachusetts, or to coroners having legal knowledge in Connecticut.

It seems sufficiently obvious that the deciding whether a death is due to violence or not is a purely medical matter, and deciding whether the violence is criminal or not, a purely legal one. Further, that until death has been shown to be due to violence there is no legal question at all. For this reason, the preliminary investigation is made by the Medical Examiner; who, if he is satisfied that death is due to violence, or, if he is in doubt, refers the case to the legal authorities for further investigation.

I have given, in the appendix, details of the "Medical Examiners'" systems and their results. The Connecticut law, which provides for medical examiners, acting under the direction of the Coroners, appears to me the best; and could be adopted almost as it stands by the Province of Quebec, with the effect of greatly improving medico-legal investigations; and, at the same time, materially lessening the expenses.

In Massachusetts, Coroners have been abolished, with very happy results ; and this could be done in Quebec, if desired, as the office is not constitutional in Canada. If the office is retained, it should be so regulated as to give better results than would be obtained without Coroners.

It is preferable to make the medical examiner, to some extent, independent of the Coroner; instances have come before my notice where Coroners have tried to compel the medical deputies to give certain opinions not justified by the facts, or have prevented them from doing their work thoroughly. The Coroner, however, should have the right to investigate any case not considered suspicious by the Medical Examiner, if he sees fit.

A joint preliminary examination by the Coroner and Medical Examiner appears to be the best means of proceeding in cases not obviously due to natural causes. As a large number of the deaths reported as suspicious are always found due to natural causes, the Coroner would, in these cases, have almost nothing to do; and, in many deaths, especially by those from accidents, where the cause of death was perfectly plain,

a careful inquiry, by the Coroner, into the outside circumstances might be necessary.

On this account, if a joint inquiry were made, either the Coroner or Medical Examiner would, in many cases, have very little work; and, therefore, a reduced fee paid in all cases would be fair to both. One Coroner could easily take charge of a district requiring several Medical Examiners; and, in the country, where the outside circumstances are readily ascertained, the medical examiner might take entire charge of the preliminary investigation, only notifying the Coroner when the case proved really suspicious. In the country, we have, already, medical men now acting as Coroners who could be appointed Medical Examiners.

It is very important that the Medical Examiner should *make inquiry* into medical matters, in addition to examining the body, and should aid the Coroner in making any medical enquiries. In any case, the first thing to be established is whether death is due to violence or not, before the legal question of responsibility can be considered at all.

Juries should only be summoned when their assistance is really necessary. It seems safer to call them in all cases of homicide and, possibly, of suicide, but their real usefulness would lie in considering cases supposed to be due to negligence, especially railway and industrial accidents. The verdicts given in such cases, though they never result in a conviction for homicide, no doubt indirectly tend to ensure public safety.

In many parts of the United States inquests are held privately, but this plan would scarcely be tolerated here. Publicity, by juries, is a protection to a Coroner, as the blame for any mistake, of course, rests with the jury.

DEATH FROM NATURAL CAUSES.

Respecting the large number of natural deaths reported as suspicious, it may be said that the proportion they form in Montreal cases, viz., 42 p.c., is not unusually high;—the number in New York being 68 p.c., in Philadelphia 72 p.c., in Liverpool 72.3 p.c., in Charleston 77 p.c., and in Chicago 47 p.c. In Boston they form 36.6 p.c.

The best means of excluding these cases from Coroners' Courts is by establishing some good system of registration of deaths, and enforcing a preliminary medical investigation by the Local Boards of Health into deaths not properly certified, before reporting them to the Coroner. I am glad to learn that there is a prospect of the charter of the city of Montreal being amended in this respect during the present session.

CONCLUSION.

In conclusion, I have only to state that, in my opinion, what is needed to improve the Coroner's Court of the Province of Quebec is the introduction of a law similar to that now existing in Connecticut, providing for coroners with legal knowledge and official medical examiners, with definite instructions as to the duties of both.

I would, therefore, respectfully suggest:—

1. The appointment, in each district, of official medical examiners, to determine whether death is due to violence or not; and of magistrates or lawyers, as coroners, to decide whether such violence is criminal and calls for inquest before a jury.

2. A preliminary inquiry and examination of the body in all cases reported; made jointly by the medical examiner and coroner in cities, and by the medical examiner alone in rural districts;—the facts obtained to be recorded in writing.

3. Autopsies to be ordered when the cause of death is unknown and the circumstances of the death suspicious. Juries to be summoned when evidence is obtained pointing to criminal violence.

4. Salaries to be substituted for fees in the case of large cities.

If desired to do so, I am prepared to frame an Act which will provide for this

system of investigation; but it appears to me that the Connecticut law is almost exactly what is required. Even, under the present law, a preliminary inquiry would greatly improve matters.

Attempts at economy, by trying to do away with the medical investigation, have only resulted in producing a system which is so inefficient as to be a constant subject of public ridicule, which makes the average investigation much more expensive than in London, Massachusetts or New York, and which has not yet trained in this Province any official whose experience in medico-legal examinations is sufficient to make his opinion, as an expert, of much value.

If the useless fees and expenses now made necessary by the "pomp and circumstance" of coroners' inquests were dispensed with, a more efficient service would be obtained and less money spent.

I have the honor to be,

Your obedient servant,

WYATT JOHNSTON.

Montreal, November 21st, 1893.

Society Proceedings.

MONTREAL MEDICO-CHIRURGICAL SOCIETY.

Stated Meeting, November 30th, 1894.

G. P. GIRDWOOD, M.D., PRESIDENT, IN THE CHAIR.

Drs. J. A. Henderson and E. D. Aylen were elected ordinary members.

Two Cases of Skin Grafting.—Dr. ARMSTRONG showed a man and a boy on whom he had recently performed the operation of skin grafting.

The boy, aged 16, was burned in rather an unusual way some time before. A gentleman walking along the street in front of him, after lighting a cigar, had thrown the match behind, and ignited the boy's clothes, severely burning him about the arm and chest.

The cicatrix following the burn had bound the arm to the chest, in such a manner that he had only the use of his forearm, and the operation was undertaken to relieve this condition. The arm was freed by dividing the cicatrix, and it and the corresponding side of the chest were grafted with skin taken from other parts of the body.

The result was very good; the arm and chest, including even the axilla, over the area corresponding to the cicatrix, were now covered with healthy skin, and the upper arm was quite moveable. Sensation over the grafted area, while not perfect, was all that could be expected, and was improving daily. Sensation in these cases first appeared at the periphery and worked towards the centre.

In the case of the man, there had been malignant disease of the skin in the region of the temple, reported to be endothelioma. It had all the characteristics of a rodent ulcer. Until recently, it had been the custom to wait, after preparing the region, until granulations had appeared before applying the graft. Lately, however, both time and pain had been saved by applying the grafts to the raw surface, and completing the whole operation at once. Dr. Armstrong had adopted the latter method in this case, and the result proved successful. He covered the area, which appeared to be about 1½ to 2 inches in diameter, and fully ⅜ of an inch deep, by a single graft. At the time shown, it was almost on a level with the surrounding surface and approaching nearer to that point daily. He had encountered some difficulty in rendering that portion of the skin which bordered on the hair of the scalp aseptic, not being able to obtain any chemical capable of disinfecting without destroying the tissues, and in consequence the grafting had not done quite as well in this region. The quality of the skin appeared to be very good, it was quite moveable over the underlying tissue, and sensation was present at the periphery and increasing towards the centre daily.

Dr. GORDON CAMPBELL was present at the operation. At the time it seemed to him that the patient, though benefited by removal of the ulcer, would still be disfigured by the depression in the temple, which, as Dr. Armstrong had stated, was fully ⅜ of an inch below the surrounding surface. The amount of filling in that had gone on would hardly be credited by one who had not seen the previous condition.

Aortic Stenosis and Incompetence with Tricuspid Involvement.—Dr. MCCONNELL read the report.

Dr. ARMSTRONG remarked that the apparent cure of the appendicitis had proved nothing. Only a short time before he operated upon a man for this disease twelve hours after the onset, and yet the operation was too late to save the patient. He had had previous attacks, but had been free from any for the past fifteen years.

Dr. JAMES BELL had a student now under his care in the hospital who had an attack of

appendicitis about 15 years ago. He recovered without operation, and felt no further trouble until about three months ago, since which time he has had five different attacks.

Dr. LAFLEUR after examining the condition of the heart failed to see any tricuspid involvement, the valve appeared perfectly normal. He did not, therefore, think Dr. McConnell's diagnosis borne out in this respect.

Dr. FINLEY thought the presystolic murmur here might be explained on Dr. Austin Flint's theory, that in a certain number of cases of aortic regurgitation, a presystolic murmur heard at the apex was the result of the floating upwards of the mitral segments, thus narrowing the orifice, and producing this sound.

Notes on a Cerebral Tumor.—Dr. JAMES STEWART read a paper on this subject.

Dr. C. E. CAMERON said this patient had come under his care two years ago last summer. At that time he had hallucinations; he thought some beasts, as he called them, were crawling round his neck, and wanted the doctor to remove them; he also believed he had worms in his stomach, which he said were interfering with his digestion. Shortly after this he took to bed, and never left it till he died. Latterly, he never made any complaints, never even sought his meals; he lived, but his life was more like that of a vegetable, than animal. He lost control of his sphincters during the last year.

Dr. SHEPHERD regretted that Dr. Buller was not present, as he had for some years under his care a patient suffering from a tumor not unlike this. It grew from the pituitary body, and after lasting some years, involved the ethmoid and the palate bones, until you could finally see the tumor through the mouth. The specimen existed in the museum of McGill University.

Dr. MILLS regretted that the condition of the brain was so far advanced in decomposition at the time of the autopsy, otherwise he believed the microscope should reveal some other degenerated conditions besides the presence of this tumor to account for all the symptoms in the case. Of course it was possible that the connection of the tumor with the pituitary body was capable of causing all these complex symptoms. Some said that this organ was allied to the thyroid, and being a blood viscus it might explain the anæmia. It would at any rate be important to ascertain definitely whether or not the pituitary body was involved in the tumor, and if it was, many of the symptoms could be explained.

Dr. ADAMI, replying to Dr. Mills' remarks, said he had looked carefully through a large number of sections taken from that region, but had been unable to find any pituitary substance, which had apparently completely atrophied.

End to End Anastomosis of Intestines by means of the Murphy Button.—Dr. JAMES BELL read a paper as follows:

I am able to report three cases in which I have used the Murphy button to secure end to end union of intestine after resection. In two the results were completely successful and most satisfactory. In one thus made there was non-union, sloughing of the apposed ends of the bowel, escape of contents, and death from peritonitis. Two of the three operations were upon the same patient, and it was the second operation upon this patient which proved fatal. I am, therefore, enabled to present specimens showing (1) the union which had resulted from the first operation, as well as (2) the sloughing of the bowel which resulted from the second operation. This case is, moreover, a most interesting and puzzling one from a pathological standpoint, although I wish for the present to direct attention specially to the use of the Murphy button.

The second case was one of femoral hernia, in which 39 hours of strangulation had produced complete gangrene of the extruded loop of bowel. Until very recently such cases were the *bête noire* of the surgeon, and the question, "What shall be done with cases of gangrenous hernia?" has been much discussed. This case and others, now a goodly number, of recoveries after resection of the bowel, indicate the only rational treatment, and it is particularly in this very class of cases, where rapidity of operation is frequently such an important consideration, that artificial aids are, if useful at all, of the greatest service.

CASE I.—J. W. McC., male, æt. 40, had always enjoyed good health until June, 1893, when, while in Chicago attending the World's Fair, he was suddenly seized with severe and painful diarrhœa. The diarrhœa subsided in four or five days, but pain remained, and he felt so badly that he came home and was unable to work for six weeks. His bowels had never been quite regular since this attack. He recovered fairly well, however, until December, 1893, when he had another attack of pain and a hæmorrhage from the bowels. Since that time he had never had a natural movement of the bowels without a purgative, and he had suffered greatly from wind, which after rumbling about for some time finally escaped in an explosive manner, giving great relief. In February, 1894, he was seized with faintness, and some hours afterwards passed a large quantity of blood per rectum. A similar attack had occurred once since. On the 14th June, 1893, he was admitted to the Royal Victoria Hospital, with complete obstruction of the bowels of six days' standing, and for which he had been given various kinds of purgatives, as well as enemata, but without any effect. His abdomen was greatly distended. The

principal distress was referred, vaguely, to the hypogastrium, and bimanual examination (with a finger in the rectum) discovered an ill-defined mass in the middle line, about midway between the umbilicus and the pubes. This examination gave a good deal of pain, and was followed by the passage of a little flatus and soon afterwards by a liquid stool. The symptoms were at once relieved, and free evacuation of liquid fæces continued for two or three days. He remained well, with the exception of the wind and constipation, which was relieved from time to time by purgatives until the 14th of July, when he was seized with faintness, and became quite pale. This condition lasted all the afternoon, and the patient stated that he knew from his past experiences that he was about to have a hæmorrhage, and within a few hours a large quantity of dark clotted blood was passed per rectum. I now advised operation, to which he readily consented, and on the 19th of July I opened the abdomen in the middle line below the umbilicus and directly over the part at which the mass had been felt, although it had disappeared with the free evacuation of the bowels and had not since been discoverable. Two loops of small intestine, each acutely bent upon itself, were found attached to a mass which overhung the brim of the pelvis. These were carefully separated, when it was found that they both communicated with a free cavity, bounded posteriorly by the mass above mentioned, and in which lay a long irregular mass of inspissated fæcal matter. The obstruction was at the upper of the two acutely bent portions of the ileum, and the bowel above this angle was three times as large as it was below it. Over a space of two inches in length, and involving one-third of the circumference of the bowel, the wall of the gut was entirely absent. This portion was excised and the ends united by the Murphy button. At the lower attached loop the destruction of the bowel was less, being about one inch in length, and involving a narrow strip along the mesenteric border. These deficiencies in the wall of the bowel were apparently the result of a destructive ulcerative process. It was from this point that the hæmorrhages had occurred, and a small artery, which was ulcerated through, bled very freely. The vessel was ligatured and the opening in the bowel closed by a continuous Lembert suture running obliquely from the mesenteric border to near the free border of the bowel. This, of course, narrowed the lumen of the gut somewhat, and gave me some anxiety as to the possibility of the passage of the button, which, it will be noted, was on the proximal side of this suture. My only alternative, however, was another resection and end to end anastomosis, and I decided to leave it as it was, as I had still to turn my attention to the mass overhanging the pelvis, and which had been in such intimate relation with the bowel already operated upon. Careful examination of the mass led me to the conclusion that it was simply cicatricial, and that it did not involve any other part of the intestinal canal. The subsequent history shows that I was wrong in the conclusion arrived at, as to the character of the mass, but right as to its not then involving any other portion of the bowel. The patient made an excellent recovery, and after a week or ten days his bowels moved regularly and he passed large, well formed stools (showing that there was then no obstruction in the rectum or sigmoid flexure), but the button never came away. With the exception of some discomfort after an enormous dinner of corned beef and cabbage and several summer apples, he continued well, and left the hospital on the 12th of August in first rate condition. (He wrote me the day after leaving the hospital, to say that he had not felt so well for two years.) On the 11th September he returned, again suffering from obstruction. He had enjoyed good health for from one to two weeks after leaving the hospital. Then diarrhœa set in for a few days, after which it was succeeded by constipation and rumbling of wind in the intestines, ending as before in painful and explosive evacuations with temporary relief. This continued until September 18th at 4 p.m., when obstructive symptoms (inability to pass even flatus, vomiting, etc.) came on. These were attributed by the patient to the arrest and impaction of the button (which had never been found), in some portion of the ileum or large intestine. In this condition he reached the hospital on the night of the 11th of September, and on the following day at 2 p.m., forty-six hours after the onset of the symptoms, I reopened the abdomen through the original median incision. The button was found free in the splenic flexure of the colon, and removed through a small incision on its free surface, which was closed by Lembert sutures. I had previously discovered the obstruction in the lower portion of the sigmoid flexure by passing the button down through the descending colon and attempting to expel it per anum. The site of the previous resection could only be located by the irregularity in the mesentery, and the bowel was of uniform size above and below it. The mass overhanging the brim of the pelvis was apparently smaller, and was certainly much more movable than at the previous operation. The site of the obstruction having been located in the lowermost portion of the sigmoid flexure, I proceeded to remove it, together with the tumor overhanging the brim of the pelvis, with which it was continuous. This was finally accomplished after some difficulty, owing to the depth in the pelvis at

which the manipulations had to be carried on. The mass, which was dense and hard, surrounded the bowel as a narrow band (about an inch in width externally), and nearly closed its lumen, leaving only a narrow slit about as large as a waistcoat buttonhole. It was infiltrating, and was evidently either cicatricial tissue or scirrhus cancer. It has since been demonstrated to be the latter. During the operation the bowel was occluded on either side by a piece of hollow rubber tubing. About three inches of the bowel was removed, and the ends united by the largest sized Murphy button. The operation lasted about two hours, and was well borne. There was little loss of blood and no fouling of the peritoneal cavity. A glass drainage tube was carried down to the bottom of the pelvis and exhausted from time to time. A small quantity only of odorless fluid—at first blood-stained and afterwards colorless—was all that was withdrawn from the tube for forty-eight hours, during which the patient did typically well in every respect. Several copious evacuations of dark liquid fæces occurred, the first about three hours after the completion of the operation. There was no vomiting, the pulse ran from 88 to 94, and the temperature from 98.5° to 99.5° F., and with the exception of the thirst and restlessness usually observed after severe abdominal operations, he was perfectly comfortable. About 2 p.m., on the 14th (48 hours after operation), the patient was seized with very severe pain, which was not sensibly relieved by a moderate quantity of Lig. opii sed. (Battley) injected hypodermically. The dressing was removed and the glass drainage tube found filled with liquid fæcal matter. From this time he sank rapidly, and died in about 18 hours. Post-mortem examination discovered a general peritonitis, with quantities of liquid fæcal matter free in the peritoneal cavity. The button remained in situ, but the approximated ends of the bowel were completely gangrenous in their whole circumference, and had given way just beyond the border of the button. I cannot offer any satisfactory explanation of this unfortunate result. Dr. Murphy states, in a letter to me, that "this is an exceptional case," and has not occurred so far, except where there was infection from without, preventing the union, and where the post-mortem showed that there was no effort at union at any portion of the circumference, as well as at the point where the perforation occurred. This condition was certainly shown by the post mortem in this case, but I cannot believe that it was primarily due to infection from without. I cannot believe that with such symptoms as I have narrated in the history of the first forty-eight hours after operation there could have been infection from without. I am much more inclined to attribute it to one of two things, either (1) impairment of the vitality of the ends of the bowel by the use of the elastic ligature; or (2) pressure upon the wall of the bowel between the end of the glass drainage tube externally and the button internally, producing erosion and escape of intestinal contents, and then infection from without. Finally, it is perhaps open to question, whether the vitality of the bowel was not already impaired by its great distension about the stricture, and also whether, considering the thickness of the wall of the bowel in this situation, the button may not have been closed too tightly.

Case II.—Mrs. M., æt 49: strangulated femoral hernia. Operation in the Royal Victoria Hospital, October 20th, 1894, at 11 a.m., thirty-nine hours after onset of symptoms. The patient, a stoutly built woman, had always enjoyed good health. About fifteen years ago a hernia first appeared in the right fermoral region. It had always been reducible, and had never given her much trouble. She had not worn a truss. Symptoms of strangulation came on about 8 o'clock in the evening (October 18th), severe pain, swelling of the mass, which could not be reduced, great tenderness (a specially marked symptom), and frequent vomiting which soon became fæcal in character. On admission these symptoms persisted, but in a modified degree. The pulse was 96 and the temperature 100°F. The abdomen was moderately distended. No attempt was made to reduce the hernia. On making the incision through the skin and fascia, brownish serum exuded from the cellular tissue having a strongly putrefactive odor. The sac was greatly thickened, dark, œdematous and friable, and contained a couple of drams of dark blood-stained serum, which also gave off a strong odor of putrefaction. The hernia consisted of about three inches of ileum tightly caught and quite gangrenous. When the opening was enlarged by incision of Gimbernat's ligament and healthy bowel brought down, the gangrenous part lay collapsed and empty, and almost separated from the healthy gut at both ends where it had been constricted. The bowel was emptied and compressed by the fingers of an assistant, and six and a half inches removed, and the ends united by the Murphy button. The mesentery corresponding to this portion had been ligated off at some distance from the bowel through healthy tissue. In spite of the greatest precautions, however, the mesentery stripped itself away from the bowel at either end. There was no great bleeding, but I felt that I could not leave the patient in that condition, for fear of hæmorrhage in the first place, and secondly, for fear of sloughing of the bowel which had been thus deprived of its vascular supply. I therefore continued my incision upwards, and out-

wards through Poupart's ligament, and opened the abdominal cavity. I again resected; this time five inches, going well within the border of the attached mesentery, united the ends with the Murphy button, ligatured the mesenteric vessels, and brought the mesenteric borders together with catgut sutures close up to the bowel. There were thus 11 inches of bowel removed. The hernial sac was excised, and the peritoneal wound closed with mattress sutures of silk. The muscular borders were next closed with buried sutures of silk-worm gut, and the pectineal fascia was attached to the re-united Poupart's ligament by three sutures of catgut. Finally the skin was closed by a separate layer of silk-worm gut sutures, and a small tent of iodoform gauze introduced at the lower angle of the wound. The operation lasted two hours, and was well borne. The patient never had a bad symptom, and made an uneventful recovery. A liquid motion (with flatus) was expelled at the end of twenty-four hours (after administration of an enema). A regular movement occurred again next day, and on the fifth, sixth, ninth and tenth days. The button was found imbedded in a well formed stool, which was passed at 1.30 p.m., October 30th, just ten full days after operation. The wound was perfectly healed, and the patient allowed up on the 22nd. Healing per primam.

My experience in these three cases leads me to the conclusion that the Murphy button is a valuable aid in end to end anastomosis of intestine. So many artificial aids have been introduced for this purpose, have had their day and have been discarded, that most surgeons are now sceptical about anything of this kind. It is, of course, not to be assumed that union of intestine cannot be secured without such aids, for it undoubtedly can; but the great desiderata, rapidity of operation and accuracy and security of co-aptation are both admirably effected by this instrument. I cannot agree with the view which has recently been promulgated, that the Murphy button is useful in the hands of the tyro and is not necessary to the experienced surgeon. The actual union of the intestinal ends is but one part of the operation, even if it be the culminating point, and the surgeon who is not possessed of the necessary skill to unite the ends of the intestine by suture is certainly not fitted to undertake any such operation by any method. In my experience the most difficult part of such operations, and the part which most requires surgical skill, is that which is preliminary to the intestinal co-aptation. Again the button may be used (as in my second operation) deep down in the pelvis, where accurate union by suture would be almost impossible.

The great want of intestinal surgery at the present time is a suitable clamp, a clamp which will occlude the lumen of the bowel, without too much pressure upon its delicate walls, and without exercising pressure upon the arterial supply at the mesenteric border. Dr. Murphy's ingenious contrivance to exercise a uniform spring pressure gives, I think, a clue which may be utilized to effect this purpose,—I mean to produce a clamp to be locked like an ordinary artery forceps (Péan), with smooth blades capable of being armed with rubber tubing, and upon a spinal spring which will make the pressure indirect rather than direct uniform and capable of regulation. I know of no clamp at present in use which is not open to serious objection. The use of rubber tubing is, perhaps, open to less objection than any other device, but it is not by any means satisfactory. As it surrounds the bowel, the wall must be puckered considerably in order to occlude the canal—especially in the large intestine—hence more pressure is required than should be necessary if applied so as to evenly appose the inner surfaces. It also cuts off the circulation for a time completely, and the proper regulation of the degree of pressure is extremely difficult. If one could always have the ideal assistant, I believe that the best clamp is the thumb and forefinger, but a serious objection to this is, that at best, the assistant's hands are greatly in the way of the operator, and worse still, there is the constant danger that by relaxing or moving his fingers the contents of the bowel may be allowed to escape and prove disastrous to the operation.

THE BALTIMORE MEETINGS.

THE AMERICAN ACADEMY OF MEDICINE. PRELIMINARY PROGRAMME.

The twentieth Annual Meeting of the American Academy of Medicine will be held in one of the buildings of the Johns Hopkins University, Baltimore, on Saturday, May 4th, and on Monday, May 6th, 1895. The "Headquarters" of the Fellows of the Academy and the meetings of the Council will be at the "Stafford."

The meeting will open at ten o'clock on Saturday morning with an executive session of the Fellows of the Academy exclusively; the reading of the papers will begin at about eleven. The morning session will close at one o'clock, and the session of Saturday afternoon will extend from three to six. The "Re-union Session" will be held on Saturday evening. By a standing rule the price of the tickets for the supper is fixed at two dollars. Attendance at the reunion session is not confined to the fellows exclusively, hence any member may bring friends with him by arranging for their tickets with the committee. For the past two years ladies have been present at this session, and have added to the enjoyment. The session

of Monday will begin with a short executive meeting, after which the reading of papers will be resumed; after a recess at one, the afternoon session will begin at three and continue until adjournment.

Members of the profession, and others who may be interested in the topics treated by the papers, are cordially invited to attend the open sessions of the Academy.

The following are the titles of the papers that have been promised:

1. The Address of the retiring president, J. McFadden Gaston, Atlanta, Ga.
2. "Expert Testimony," Henry Leffmann, Philadelphia.
3. "Hospital Management," W. L. Estes, South Bethlehem, Pa.
4. "The Proper Teaching of Physiology in the Public Schools as a Means of Preventing Intemperance and Venereal Disease," DeLancey Rochester, Buffalo, N.Y.
5. "The Problem of Dependency as Influenced by the Chinese in America," W. F. Southard, San Francisco.
6. "What Agencies Conspire to Check Development in the Minds of Children," J. Madison Taylor, Philadelphia.
7. "How to Avoid the Dispensary Abuse?" Emma B. Culbertson, Boston.
8. "Contract Medical Work and Fees," Charles P. Knapp, Wyoming, Pa.
9. "What shall we do with our Alcoholic Inebriate?" J. W. Grosvenor, Buffalo, N.Y.
10. "Life Insurance in its Relation to one of the Dependent Classes." E. O. Bardwell, Emporium, Pa.
11. "Some Results of Competitive Medical Charity," George M. Gould, Philadelphia, Pa.
12. "Criminal Anthropology," E. V. Stoddard, Rochester, N.Y.
13. Title to be announced, Leartus Connor, Detroit, Mich.
14. "The Increase of Insanity," Gershom H. Hill, Independence, Ia.
15. "A Perfect Consultation," L. Duncan Bulkley, New York.
16. "An Analysis of the Reports of the Examinations by the State Boards of Medical Examiners," Perry H. Millard, St. Paul, Minn.
17. "The Limits of a Physician's Duty to the Dependent Classes," James W. Walk, Philadelphia.
18. "The Economic Aspect of American Charities," Bayard Holmes, Chicago.
19. "Is our Financial Relation to our Patients and Community the best Possible," Woods Hutchinson, Des Moines, Iowa.

Partial promises have been made for several additional papers; it is hoped that these can be definitely mentioned when the complete programme is issued.

Members preparing papers are urged to send a copy of the paper, or an abstract, to the Secretary as soon as possible, in order that time may be given him to prepare the press-reports. If others than those mentioned contemplate the preparation of papers, information should at once be sent to the Secretary, as the completed programme must be issued early in April.

EIGHTH FRENCH CONGRESS OF SURGERY.

Contagion of Cancer.—M. Guelliot, of Reims, presented a communication embodying the results of an inquiry as to the contagiousness of cancer, begun in 1891. The number of cases collected by him in which cancer appeared to have been communicated by contagion was forty. In the author's opinion, his facts show: 1. That cancerous affections are unequally distributed in adjoining districts, and that neither heredity nor consanguinity is adequate to account for this. 2. That there are real cancer-houses, the dwellers in which, though having no link of blood-relationship between them, are successively or simultaneously attacked by malignant tumors. 3. That cases of cancer attacking two persons living together are relatively frequent. Of 100 such cases, published and unpublished, in 85 the persons attacked were man and wife; in 8 they were medical practitioners who had been specially engaged in the treatment of cases of malignant disease. According to the author, these facts tend to show that cancer is transmitted, directly or indirectly, and that it runs its course as an infectious disease with an average incubation of from a few months to two years, a primary lesion, then generalization.

Delore, of Lyons, stated that cancer seemed to him capable of being transmitted by pregnancy. Fifteen years ago, at the Congress of Blois, he had brought forward a case in point. —*British Medical Journal*, October 20, 1894.

MIDLAND MEDICAL SOCIETY.

Modern Treatment of Pulmonary Phthisis.—Dr. C. Theodore Williams, in his inaugural address, observed that the various specific modes of treatment of phthisis seem to ignore one great factor,—viz., the resisting power of the organism to disease. A glance at the history of the treatment of phthisis will show that whatever success has been attained has been due to strengthening and fortifying treatment, whether by diet, climate, or medicines, and not by so-called specific treatment. Life in the pure air, judicious exercise, a light nourishing dietary, and such aids as cod liver oil and tonics have effected more than all the bacillicide treatments put together. All act on the old principle of helping nature to help herself against her foes and reducing the vulnerability of the patient to attack.

The problem of treatment resolves itself principally into means to increase the number and activity of the phagocytes, thus rendering more probable the destruction of the tubercle bacilli. To promote the formation of lymph and of blood rich in leucocytes, experience teaches that the surest method is in supplying a large quantity of oleaginous food under conditions which promote its absorption and assimilation. Among this class cod liver oil is pre-eminent, on account of its penetrative power and the ease with which, with pancreatic juice, it forms a rich emulsion capable of absorption. It is probably this which has caused cod liver oil to do so much good in the treatment of phthisis; and when we reflect on the number of poor phthisical patients in the out-patient departments of hospitals, who enjoy no advantage of climate, whose surroundings are the reverse of sanitary, whose food is scanty, and whose trade or occupation is by no means salubrious, yet who hold their own by steadily persevering for months and years with cod liver oil, it must be admitted that it does in some subtle way supply the requisite nourishment and augment the resisting force of the system; the diminution of the usual phthisical symptoms and the rapid gain of weight and strength confirm this. With regard to substitutes for cod liver oil,—and they are legion,—he has given a fair trial to most of them, and has not yet found any at all comparable; but the combination of the oil with the preparations of hypophosphites, of phosphorus, and arsenic have proved very useful. The introduction of a large amount of milk into the dietary is to be aimed at.

The most important factor in the treatment, however, is pure air, and on its thorough application to the system of the patient most success depends. Sunshine and pure air are the best bacillicides. A leaf might with advantage be taken by English physicians out of the book of some of our Continental friends, and phthisical patients be fearlessly trusted to a little more open-air life than is at present done. Undoubtedly the treacherous climate of the British Isles, especially in winter and spring, is the great excuse. At most English health stations a wet or snowy day means confinement to the house, and generally to the fire-side, for the whole twenty-four hours, the usual plea being the great tendency of phthisical patients to catch cold and contract fresh catarrh. From what goes on at Davos, St. Moritz, and Falkenstein, the probability of catching cold, if ordinary precautions are taken, is very doubtful. There phthisical patients almost invariably sleep with open windows throughout the winter, when the thermometer not uncommonly registers 4° F. (15.6° C.), or 36° F. below the freezing-point, care, of course, being taken to heat the rooms with stoves, to provide plenty of blankets and coverlets, and to see that the current of external air is not directed on to the patient, but that it first ascends to the ceiling. The universal testimony of medical men is that no harm, and much good, results from this practice. One effect is that patients accustom themselves to live at a lower temperature without noticing it. At Davos, Leysin, and Falkenstein there are covered terraces, or long, sheltered corridors open on one side to the air and protected from wind, where a large number of phthisical patients in various stages of disease recline on couches for the greater part of the day in all weathers. These galleries are deep and lofty, generally facing the south, sheltered from too much sun and from rain and snow by curtains. The patients lie on well-cushioned basket-work or bamboo couches for from seven to ten hours daily, only leaving them for meals or exercise. In the winter there is no heating apparatus, and warmth is kept up by fur clothing and abundant covering. At Falkenstein, on the slopes of the Taunus, about four hundred and sixty feet above sea-level, this seems to be sufficient. Besides these terraces at Falkenstein there are a number of pavilions in the park-like gardens, some holding two or four invalids, which rotate so as always to insure protection from wind and rain. The patients seem quite at their ease, and may be seen reading, writing, knitting, and playing cards and games all day. They can keep warm even at Davos. Dr. Williams objected to a continued recumbent position, as not favoring expectoration, and as involving a want of exercise. For the cases of consolidation or of excavation with pyrexia, exercise is undesirable, and a continuously-recumbent position the best; but in cases of limited apical lesions and limited cavities without fever, it is desirable for the patient to take as much exercise as his strength will permit, in order to develop and extend the healthy portions of the lung and to increase the muscular power. This, however, need not prevent the patient from spending the resting times of the day in the recumbent position in the open air.

The speaker then made some remarks on the medical treatment of the disease suggested by thirty years' experience. Cough should always be treated by promoting expectoration, one of the best forms of expectorant being the effervescing carbonate-of-ammonia draught night and morning, which will generally clear the bronchial passages for several hours. If there be a good deal of fruitless hacking before expectoration, causing annoyance to the patient, the addition of a few minims of dilute hydrocyanic acid and ½ drachm (2 grammes) of syrup of poppy or codeia will do no harm and considerably allay the reflex irritation. Where the cavities are large, deep, or basic, and consequently require great expiratory effort to clear, combinations of sal volatile and spirit of ether with camphor-water answer admirably, while

for old or feeble persons champagne will often serve the same purpose. But the most satisfactory way to reduce the cough of chronic phthisis is by counter-irritation to the chest-wall—best by blistering. It will be found that relief will follow in proportion to the amount of serum drawn by vesication, and fly-blisters or acetum cantharidis, or the strong, but very efficient, liquor epispasticus, answer the purpose. Night-sweats, when they are a mere flux from the vessels or lymphatics, and not a relief of pyrexial processes, ought to be checked, and this can generally be done by arseniate of iron, $\frac{1}{6}$ grain to $\frac{1}{3}$ grain (0.01 to 0.02 gramme) at bedtime; picrotoxin, $\frac{1}{60}$ grain to $\frac{1}{30}$ grain (0.0013 to 0.0026 gramme); or nitrate of pilocarpine, $\frac{1}{20}$ grain (0.003 gramme); or the old-fashioned oxide of zinc in from 3-grain to 5-grain (0.2 to 0.32 gramme) doses, which generally succeed and do no harm. Preparations of belladonna and atropine, though they are effectual controllers of night-sweats, are less satisfactory, because their continuance for a long period often induces dryness of throat and mouth, dilatation of the pupils, and disturbance of accommodation. The treatment of pyrexia depends very much on its cause. Where it accompanies tuberculization, it probably will subside of itself when the tuberculous process becomes quiescent, and even if persistent will only prevail in the afternoon. An effervescing saline, with a few drops of tincture of aconite or a few grains of quinine, is all that is then wanted. But pyrexia accompanying acute excavation, or acute excavation and tuberculization, is very troublesome and sometimes quite intractable. Antipyretics only give temporary relief, and often do harm by depressing the patient's constitutional powers and producing collapse. The great object is to keep the patient quiet in bed or lying on a couch, and, if possible, in the open air; to feed him frequently; and to supply alcohol to repair tissue-waste, while administering only sufficient antipyretics to keep the temperature within moderate bounds. Quinine in small doses in effervescence before or during the rise of temperature will often suffice, or Henn's well-known pill twice a day. The diarrhœa which accompanies tuberculous ulceration may be checked by sulphate of copper and opium if the ulcerative process be limited in extent, but if there is much ulceration, and the ileum and large intestine are involved, injections are best. The enema opii of the British Pharmacopœia is excellent, but some most obstinate cases yield to large injections of linseed tea, which has a most soothing influence on the irritable ulcers.—*Lancet*, November 3, 1894.

EIGHTH INTERNATIONAL CONGRESS OF DEMOGRAPHY AND HYGIENE.

Diphtheria.—Professor Loeffler, of Greifswald, President of the German Committee on Diphtheria, stated that the etiological importance of the diphtheria bacillus was no longer open to doubt. Certain other affections of the upper respiratory tract present the same clinical picture as true diphtheria, and may have the same evolution: hence statistics of an epidemic of diphtheria and the character of such an epidemic have no positive value unless the differential diagnosis has been made by bacteriological examination. The progress of epidemic diphtheria depends (1) upon the number and virulence of the diphtheria bacilli; (2) upon the pathogenic or non-pathogenic bacteria associated with the diphtheria bacillus, increasing its virulence or weakening the organism by their products; (3) upon individual predisposition. The diphtheria bacillus may be found in the nose or mouth of healthy individuals without causing any lesion whatever, producing disease only when it becomes fixed on the mucous membrane,—a condition favored by previous affections. Atmospheric changes, especially dampness, seems to influence the appearance of diphtheria, which is most frequently transmitted by direct contact, coughing, kissing, hands which have touched the fresh secretion, by food, or linen, and that often after a long period has elapsed.

To prevent as much as possible the spread of the bacilli by the diseased person, local antibacillar treatment should be instituted from the beginning, whenever possible. The most effective means, in the opinion of the speaker, was the use of Behring's antidiphtheric serum.

Dr. Billings, President of the American Committee, believed that the name "pseudodiphtheria" should be reserved for pseudomembranous inflammations of the upper respiratory passages, produced not by the diphtheria bacillus, but by the streptococcus and other bacteria. The mortality of these cases is low, being only 1.7 per cent. in private practice and 25 per cent. in hospitals.

As regards the disappearance of the bacillus, of 752 cases it was absent in 325 three days after the disappearance of the exudate; in the rest it was present from five days to five weeks afterward. In 14 families, with 48 children, where isolation was imperfect or not carried out at all, the bacillus was observed in half the persons, 40 per cent. of whom were afterward affected with diphtheria. In families where the patients were properly isolated, the bacillus was found only in 10 per cent. The inhabitants of an infected house should therefore be regarded as suspects, and, if not isolated, at least frequently examined.

Dr. Edward Seaton, President of the English Committee, remarked that whereas in England, within the last ten years, infectious diseases had diminished as the improvements in drainage had progressed, the contrary was the case with diphtheria, which had greatly increased within the last decade. It was also to be noted

that, while formerly a rural disease, it had now become a city one, the schools being an important factor in its propagation. The investigations of the Medical Department Board show that children from 3 to 12 years are most frequently affected, and that the disease is often associated in the beginning with affections of the upper air-passages.

M. Filatow, of Moscow, President of the Russian Committee, said that, though the contagiousness of diphtheria was undoubted, there were still certain epidemiological facts not explained by contagion alone. Sporadic cases are usually seen long before the appearance of an epidemic. In certain countries, epidemics of diphtheria are observed after fatal throat disease in hogs and other animals. The epidemics are influenced by seasons and local conditions, generally increasing in autumn and diminishing in summer.

Mr. M. A. Adams, of Maidstone, England, concluded that damp, close, stagnant conditions of the atmosphere favored the increase of diphtheria, and that its virulence increased with the soil-air, showing that it depended upon the movements of the subsoil-water.

M. Roux, President of the French Committee, gave the statistics of treatment of diphtheria with antitoxin at the Hôpital des Enfants Malades, Paris. From February 1 to July 24, 1894, 448 children were thus treated, the mortality being 109, or 24.33 per cent. The average mortality from 1890 to 1894 was 51.71 per cent. in a total of 3971 children. The benefit from the antitoxin treatment, the conditions being the same, was therefore 27.38 per cent. Within the same period 500 cases of diphtheria were entered at the Hôpital Trousseau, 316, or 63.20 per cent. of whom died. Of the 448 children treated by antitoxin, 128 were found, by bacteriological examination, not to be suffering from true diphtheria; 20 other cases were in a dying condition when brought in. Of the 300 cases remaining, there were 78 deaths, or 26 per cent., instead of 50 per cent., as in former statistics, before the use of antitoxin. The serum used was taken from immunized horses, with a strength of between 50,000 and 100,000. Of this, 20 cubic centimetres 5) drachms) were injected under the skin of the thigh. This was not renewed if the patient was found not to be suffering from the true diphtheria; otherwise, a second injection was made twenty-four hours later, 0.10 or 0.20 gramme (1½ to 3 minims) being used. This was usually sufficient to bring about recovery. If the temperature remained elevated, however, a third injection of the same amount was made. The average weight of the children being 14 kilogrammes (28 pounds), the amount of serum injected, as a general rule, equaled 1-1000th part of their body-weight, and in exceptional cases 1-100th part. Under the influence of the injections the general condition remained excellent; the false membranes ceased to form within twenty-four hours after the first treatment; in thirty-six or at most seventy-two hours they became detached. In only 7 of the cases did they persist longer. The temperature frequently fell suddenly after the first injection; if it remained elevated in the cases of severe angina, it fell only after the second or third injection in lysis. The pulse returned to normal less rapidly than the temperature. A third of the cases of diphtheria, according to statistics, show albuminuria; and this having been present in only 54 out of the 120 cases treated with serum, it seemed evident to M. Roux that the remedy diminished the frequency of the symptom.

The mortality in cases of croup treated with the serum was also much less than with other methods. The author believes it possible to obtain much better results if the treatment be instituted earlier, and also believes that tracheotomy will become more and more rare, being superseded by intubation, combined with injections of serum.

Dr. Heubner, of Berlin, read a paper in the name of Professor Behring, stating that the action of the antitoxin was all the more certain the earlier it was administered in any given case. The injections should be aseptic, a sterilized Koch syringe being employed, from 0.10 to 0.12 gramme (1½ to 1 4-5ths minims) being injected at a time. Massage is not necessary afterward, the absorption of the liquid being more rapid and the pain less when it is not practised.

Dr. Aronson, of Berlin, like M. Roux, regarded the serum of the horse as the most efficacious, taken from animals immunized with cultures through which a current of oxygen had been passed. This serum is three times stronger than that used by Professor Behring. From March to the end of July he had treated 192 cases of true diphtheria by means of the serum, 14 per cent. dying. Of these children 23 were moribund when brought into hospital, leaving 169 cases with 19 deaths, or a mortality of 11.2 per cent. In the same hospital the mortality was, in 1891, 32 5 per cent. in 203 cases; 1892, 35.4 per cent. in 341 cases; in 1893, 41.7 per cent. in 426 cases; and from January to March, 1894, 41.8 per cent. The serum treatment was also employed in 82 cases in other hospitals, making 274 cases, with a mortality of 15.3 per cent.

Dr. Aronson also made use of the serum to render immune the children of families in which diphtheria had occurred, and, of 130 such, only 2 were affected with diphtheria, and that of a mild form. The dose used was 1 cubic centimetre (15½ minims).—*La Semaine Médicale*, September 8, 1894.

Progress of Science.

TREATMENT OF SEVERE ALBUMINURIA ASSOCIATED WITH PREGNANCY.

In a paper read at the last meeting of the Obstetrical Society, Dr. Herman (*Med. Press and Circular*) concluded a valuable series of observations on albuminuria associated with pregnancy and labor. Every practitioner who observes his cases must have noticed that there are at least two main groups of kidney disease in this association. Albuminuria in a more or less marked degree is a very common complication of pregnancy, but in a large proportion (the majority) of the cases it does not lead to any of the graver symptoms to which pregnant albuminuric women are liable. In a certain number of such patients, however, not only is the disease acute in its onset and violent in its manifestations, but we get the dreaded eclamptic convulsions which threaten the life of the mother and jeopardize that of the unborn infant. The risks dependent upon the renal disease are, then, first, the life of the mother; secondly, that of the fœtus; and, lastly, the danger of the acute phase giving place to a chronic form of Bright's disease after delivery. The main points which still call for discussion are the means of distinguishing between the cases which are likely to import a grave sequel, and the best method of obviating the danger of usual defects and renal disease as a sequel. Dr. Herman tells us that the acute form attacks mainly women who are pregnant for the first time, and he points out that when the albumen in the urine consists mostly of serum albumen the prognosis is grave. It is, therefore, necessary for the practitioner to accustom himself to testing for the presence of paraglobulin as compared with serum albumen. One of the common symptoms associated with the albuminuria of pregnant women, as in albuminuria from other causes, is failure of vision, attributable to the presence of albuminuric retinitis, and possibly subretinal hemorrhages. In the graver cases this may go on to complete loss of perception of light. Although in most cases the opacity passes off more or less when delivery has been safely accomplished, this is by no means always the case, and the preservation or protection of sight becomes one of the points to which treatment must be directed. Now, the treatment of the albuminuria of pregnant females is practically confined to the induction of premature labor. As soon as the uterus has been emptied, the symptoms usually promptly subside; indeed, the promptness of this subsidence is one of the most remarkable features of renal disease associated with pregnancy. The speakers in the discussion that followed accepted this conclusion, and did not hesitate to recommend that the uterus should be emptied forthwith in all really serious cases of albuminuria associated with pregnancy. The child is sacrificed, it is true, but its chances of survival in the presence of eclampsia, or even of severe albuminuria, are small indeed, so that this fact cannot and ought not to be allowed to weigh in the balance, especially as the mother is thereby rescued from one of the most terrible complications that can threaten the pregnant woman. Then, too, in the cases presenting indications of albuminuric retinitis. These are always severe cases, and most of them die if left unrelieved. Moreover, the further the case is allowed to go on the greater is the damage done to the delicate structures of the eye and the greater are the risks of permanent impairment of vision. This is a serious point well worthy consideration; and in future, obstetricians will be well advised if they adopt the suggestion to empty the uterus as soon as, at latest, ophthalmoscopic examination reveals the familiar and easily recognized signs of albuminuric retinitis. There remains as an additional reason for adopting this course the fact that, even in women who either do not have, or who survive, the fits, the kidneys do not always recover from the disturbance to which they have been subjected, and the patient not infrequently remains the victim of chronic Bright's disease. On these grounds, therefore, severe albuminuria ought to be added to the list of indications for the induction of premature labor, without waiting for the supervention of eclamptic convulsions before coming to a decision. This is not a specialist's question. It is one which any practitioner may be called upon to consider at any moment, and it is to be hoped, in the best interests of his patient, that he will henceforth recognize the extreme and manifold gravity of the risks attending the continuance of albuminuria in pregnant women.—*Therapeutic Gazette.*

THE ANTITOXIN TREATMENT OF DIPHTHERIA.

Reports from various parts of England show that in a very large proportion of cases complete success has attended the use of the antitoxin serum in the treatment of diphtheria. Dr. Watkin Hughes, for instance, states that during the present severe epidemic of diphtheria at Barnham Broom, Norfolk, he has attended 40 cases; of the first 30 treated by ordinary methods, 10 died; in the next following 10 cases, which were very severe, the serum treatment was used, and every patient recovered after a single injection. To obtain the best results, experience already accumulated proves that the treatment must be adopted at an early stage of the disease; but at the present time, unfortunately, there is

considerable difficulty in obtaining a sufficient supply of the serum. In France its preparation on a large scale has been undertaken by the Pasteur Institute, and it is hoped that in a couple of months' time the supply will be sufficient for the needs of France. The British Institute of Preventive Medicine expects shortly to be in a position to supply a considerable quantity. The treatment, however, is rapidly passing out of the experimental stage, and in the case of a disease so murderous as diphtheria, which produces annually so fearful a mortality, especially among children, the public may well look to the State to take steps to insure a constant and adequate supply of the remedy at a reasonable cost. Professor Behring, in an address before the German Naturalists' Society of Vienna, stated that in Germany and Austria alone the mortality from diphtheria might be estimated to be about 2,000,000 in every ten years. The serum treatment would reduce this high mortality, amounting to over 50 per cent. of the persons attacked, to 10 per cent., and, if employed in the early stage, to 5 per cent. "In other words," he added, "about 1,500,000 lives may be saved every ten years, but of course the serum must be obtainable in large quantities. This is not now the case, and will not be the case until the State takes the matter in hand and prepares it at the public cost." The mode in which the serum is obtained at the Pasteur Institute is as follows: The animals which are to furnish the antitoxic serum are rendered immune by the injection, under certain precautions, of the toxin of diphtheria. This toxin is formed when the virulent bacillus is grown in broth, and in practice the rate at which it is produced is increased by drawing a current of air through the culture liquid. After three or four weeks the culture is sufficiently rich in toxin to be used. The animals employed are horses in good health, and previously tested by the injection of mallein to prove that they are free from glanders. The culture, filtered through a porcelain filter, yields a clear liquid, with which the horse is inoculated by injection under the skin. Gradually, by repeated injections over a period of two or three months, the horse is brought into a condition in which its serum possesses very high antitoxic properties. The animal does not suffer in health at all, or only to a very slight degree. The efficacy of its serum having been ascertained by a test experiment on a guinea-pig, the animal is bled. It suffers little from this operation, and it is possible, if necessary, to bleed it again in two or three weeks, but it is advisable in the interval to strengthen its immunity by some further injections of the toxin. The animals used are cab-horses, sound in constitution, but broken down in limb, who after inoculation live a life of ease and luxury, varied by a periodical phlebotomy, such as our grandfathers submitted to voluntarily two or three times a year.—*British Medical Journal*, Oct. 6, 1894.

Behring's Antitoxin.—Dr. H. U. Walker, in reporting a successful case, states, with regard to Behring's solution, that it has been proven that if a mixture of 0.001 cubic centimetre (1-64th grain), with the same amount of poison, is subcutaneously administered to guinea-pigs, not only are no symptoms of disease caused, but also no local symptoms are observable, especially no infiltration at the place of injection. The antitoxin solution contains 2 to 2.5 per cent. egg-albumen and a further admixture of 0.4 per cent. trikresol for preservation purposes. For the immunization of adults and elder children 1 cubic centimetre (15½ minims) of the solution is injected subcutaneously by means of a Pravaz syringe, which has been previously sterilized by alcohol and 3-per-cent. carbolic-acid or 1-per-cent. trikresol solution. For young children up to 2 years the dose should be 0.55 cubic centimetre (8 minims). The above quantity of antitoxin thus administered to persons threatened by diphtheria is at least ten times as much as is required to render them immune. The immunity from diphtheria is therefore much more lasting.—*Lancet*, October 6, 1894.

Manner of Using Antitoxin.—In order to arrive at any satisfactory conclusions, it is all important that in every instance where antitoxin is used there should be a bacteriological examination of the throat. It is also important that the urine of the patient should be examined for albumen before and after the injection. The dose for procuring immunity, according to some observers, is 1 cubic centimetre (15½ minims) for any age over 3 years, and half that for younger children. For a cure of the disease during the first 2 or three days, under 2 years of age, 2 to 3 cubic centimetres (31 to 46 minims); from 2 to 10 years, 5 cubic centimetres (1¼ fluidrachms); over 10 years of age, 10 cubic centimetres (2½ fluidrachms). After the third day, in a severe case, twice as much may be used with positive advantage. If the disease does not seem to be ameliorated by the first dose, a second should be given in twelve hours. The question of dosage is one that can only be decided by a more extended use of this agent. In the account of the cases treated there is no evidence of any distressing or annoying symptoms caused by the injection One advantage of this treatment is that, after the injection, into the back or abdomen, there is no interference with the patient; no swabbing of the throat; no tearing of the mucous membrane. It is stated that even in the worst cases that proceed to a fatal end there

is a marked amelioration in the suffering; that the dyspnœa is relieved to a certain extent. If the patient dies, his death is comparatively painless. In regard to the kind of syringe that should be used, it must be said that the common subcutaneous syringe is not adapted for the purpose, because it cannot be properly sterilized by heat. Koch's syringe, which consists of a detachable rubber bulb, a glass barrel, and a needle, is the most satisfactory instrument for this purpose. The barrel and steel needle can be put into a test-tube, in the bottom of which a little cotton is placed, the tube plugged with cotton, and then put in the oven of a cooking-stove and kept at a temperature of 150° C. (302° F.) for half an hour or more, or until the cotton is slightly singed. A syringe prepared in this way will remain sterile for four or five days.—*Boston Medical and Surgical Journal*, September 20, 1894.

FOREIGN BODY IN THE GULLET; SUBHYOID PHARYNGOTOMY; RECOVERY.

The foreign body removed by E. Schmiegelow, of Copenhagen, consisted of a plate of India rubber, with an artificial tooth, 4 centimetres long and 3 centimetres broad, which had been lodged in the œsophagus of a peasant, aged 38 years, for four weeks. The symptoms caused were sudden fits of suffocation during the night, the India-rubber plate being missed the following day. There was considerable dysphagia.—*Ugeskrift for Læger*, No. 14, 1894.

CASTRATION FOR HYPERTROPHY OF THE PROSTATE.

Ramm, of Christiania, successfully castrated two patients for hypertrophy of the prostate, a third patient dying from pyæmia a fortnight after the operation. He advances the following conclusions, based upon his own and other investigations: (1) the prostate belongs to the genital organs; (2) it retains its infantile size in cases of malformations of the genital organs and in castration before puberty; (3) it shrinks in adults after castration; (4) an hypertrophied prostate shrinks after castration, the diminution of volume beginning a few days after the castration and continuing later on; (5) this diminution of volume is of therapeutic importance in cases of dysuria caused by mechanical obstruction from an hypertrophied prostate.—*Norsk Magazin for Lægevidenskaben*, No. 3, 1894.

ELECTROLYTIC TREATMENT OF TUMORS.

J. Kaarsberg, of Copenhagen, has tried treatment with electrolytic currents of very considerable strength in cases of different tumors. In cases of large, subcutaneous, cavernous angiomata he applied two or more needles connected with either electrode for a few minutes in different parts of the tumor, using a strength of 50 to 135 milliampères, the patient being under chloroform. The advantages of this method of treatment are: 1) that it is without any danger, (2) that there is no loss of blood, (3) that the loss of substance is very slight, and (4) that one or a few *séances* are sufficient. Kaarsberg also tried this method in cases of superficial angioma, the results being excellent, especially in cases of large subcutaneous angioma of the face in children. The cosmetic results, however, were not so satisfactory.

In four cases of fibrous growths of the nasopharynx, the author increased the strength of the current to 140-340 milliampères, generally using two steel needles (No. 10 Charrière), of which the one was introduced through the nose, the other through the mouth, each one being connected with each of the two poles. The patient was placed under chloroform, and the head lowered so as to prevent blood from flowing down into the trachea, the hæmorrhage often being considerable. During the after-treatment it was sometimes necessary to use the galvano cautery or scissors to remove fragments which could not be reached by means of the needles. In all cases complete recovery occurred after one or, at the most, two *séances*, and there has been no recurrence.

In two cases of inoperable cancer of the breast, death took place from recurrence, but the examination showed that the tissue of the axilla treated by electrolysis was transformed into firm connective tissue, free from all traces of cancer except around the sheaths of the nerves, and the author is inclined to think that recovery would have been permanent if the electrolytic treatment had been instituted before the growth had invaded the nerves. In a third case of inoperable cancer of the breast recurrence has not taken place for three years. In the three cases mentioned, the strength of the current applied was enormous, once reaching 680 milliampères. Before commencing the treatment with currents of such great strength, the author made experiments on rats and dogs. The highest strength which could be obtained was 760 milliampères; this current a large dog was able to stand without showing any ill effects.—*Hospitals-Tidende*, Nos. 6-8, 1894.

ACETANILIDE FOR VOMITING.

Among the many uses to which acetanilide has been put, other than that of an analgesic, we desire to call attention to its employment in the treatment of obstinate vomiting, particularly when that vomiting seems to be due chiefly to nervous disturbance or marked gastric irritability. In the treatment of the vomit-

ing following operations, acetanilide is particularly useful, and the administration of 2 grains every hour until 6 grains are taken will often prevent this unpleasant sequel of operative interference. We have used acetanilide for this purpose a number of times with very satisfactory results, our attention having first been called to it by Dr. Brown, of Sioux Falls, S.D., who told us that it was his custom in country practice to leave acetanilide with the nurse after the operation, with instructions to administer the drug should vomiting after recovery from the anæsthetic be an annoying symptom.

Whether it is of value in the treatment of the vomiting of pregnancy we do not know, but we would suggest its further trial. Probably the best way to administer it is to place the powdered drug in a little brandy, and then to add to a spoon some ice which has been finely pulverized. In this way we not only get the stimulating and anti-emetic powers of the brandy, but we aid in the solution and therefore in the rapid absorption of the acetanilide. It is possible that the drug exercises its anti-emetic effects chiefly by its influence upon the stomach itself, but we are inclined to think that the benefit is derived not only from this, but also from its influence on the nervous system after it is absorbed.—*Therapeutic Gazette.*

THE VALUE OF CHLOROFORM IN INTERNAL MEDICINE.

We are so apt to regard chloroform as a pure anæsthetic when taken by inhalation, that many of us are wont to overlook its value as an internal medicament, and, as a result of this oversight, lose a valuable aid to treatment in many affections, some of which are apt to obstinately resist the ordinary remedial measures. One of the most important applications of chloroform is its internal use for the relief of pain either in the chest or abdomen, pain in the latter region yielding naturally more readily to its influence. Particularly is this the case where the pain is of a griping character, either due to irritability of unstriped muscular tissue in the wall of the intestine or to the presence of irritating foods or large quantities of flatus. Under such circumstances 20 to 40 drops of the spirit of chloroform added to two tablespoonfuls of water, and perhaps aided by 10 to 20 drops of the spirit of camphor, is one of the very best prescriptions that we can give. Further than this, those of us who believe in the value of antiseptic medication will recognize the fact that chloroform, under the circumstances which we have named, not only relieves the pain, but acts as one of the most powerful antiseptics which can be taken internally with moderate impunity. It is a well-recognized fact in therapeutics that many volatile substances seem to exercise very considerable power in checking all forms of watery diarrhœa, and where pain in the abdomen is associated with liquid movements, chloroform possesses a third scope for usefulness. Not only is it of value in the forms of pain which are due to direct irritation or inflammation in the abdomen, but it is also useful in those pains which are due to nervous disturbance, such, for example, as in ordinary neuralgia of the stomach or true gastralgia. In obstinate vomiting, 2 to 5 drops of pure chloroform in a little water, taken in teaspoonful doses, will often act advantageously, and when the vomiting is due to the ingestion of bad food, particularly food which has undergone some decomposition process, it is especially indicated. In the vomiting of pregnancy, with some practitioners, it is held to be the best remedy. Another very valuable application of chloroform is its employment externally in liniments in cases of muscular rheumatism for stiffness of the muscles due to strain or excessive exercise. Possessing, as it does, not only counter-irritant, but anæsthetic effects, its employment in this manner is most advantageous. Another use to which it is too rarely put is for the production of counter-irritation varying from slight reddening to actual blistering of the skin. Slight reddening is rapidly produced by applying a cloth saturated with chloroform to some portion of the skin so remote from the respiratory apparatus as to avoid inhalation in any large quantity, and the blisters may be formed by placing chloroform on the skin under a watch-glass, so that too rapid evaporation will not take place. For those who are unable to take opium in any combination for the relief of pain in any part of the body, a prescription composed of 30 drops of spirit of chloroform and 10 minims of the fluid extract of a good cannabis indica is a valuable prescription.—*Therapeutic Gazette.*

FISTULA IN ANO.

Dr. John E. Platt has analyzed 76 cases of this affection treated by him, and concludes that fistula is very much more common in men than women, only 8 of the 76 cases being females. The great majority occurred between the ages of 20 and 50 years, only 4 being under 20 years. There were definite signs of phthisis in 21 (28.7 per cent.), and a family history of consumption in 5 or 6 others who themselves showed no sign of the disease. As pointed out by Allingham, phthisical fistulæ usually present certain well-marked characteristics. The internal opening is large and open, being often large enough to admit the tip of the finger. The external opening is also large and irregular, its edges livid and flapping, and the surrounding skin undermined. The discharge is thin, watery, and curdy; the sphincter muscles are weak, the ischial tuberosities are

prominent from wasting of the fat in the ischio-rectal fossæ, and the hairs of the part are long, soft, and silky.

He calls attention to the necessity of carefully exploring the fistula and laying it open. He met with many cases which would not heal because this measure had been neglected. If the track be lined with indolent granulations or low vitality, these should be scraped away with a Volkmann spoon. This is especially necessary in phthisical subjects. The cases should be carefully watched after operation, until the wound is perfectly healed. Phthisical fistulæ require a longer time, after operation, for healing than non-phthisical fistulæ, the average time required being nine and seven weeks respectively. The bad results said to occur after operation in phthisis are almost, if not quite, non-existent. Operation can be performed with safety and with good results in a larger number of cases than is usually supposed. The activity of the lung disease should determine the question of operating. If this is great, operation should not be undertaken unless the fistula is the cause of much pain and distress. If the phthisis is comparatively quiescent, the results of operating may be good. Cavitation of the lungs is not an absolute contra-indication to surgical treatment of the fistula, which is often followed by improvement in the general health.—*Medical Chronicle*, June, 1894.

ON THE USE OF ANTIPYRIN IN LARGE DOSES.

The writer advocates the use of very large doses of antipyrin in certain neurotic cases. He says that personally he has hardly any experience of its deleterious effects—at least of a serious nature—when employed with due precautions. He details the case of a boy, aged nine years, who had suffered for the previous two and a half years from severe fits of hystero-epileptic character, sometimes as many as 30 or 40 attacks occurring in a day. The treatment consisted of rest in bed, regulation of the bowels, and the exhibition of antipyrin in gradually-increasing doses, commencing with five grains, thrice daily. In three weeks he was taking twenty-five grains three times a day, with complete cessation of the attacks. The dose was then slightly lowered. The lad was dismissed from the hospital in two months as quite well, and it was reported later that there had been no recurrence of the attacks. In another case a lad of thirteen years, suffering from choreic movements of the right side, received under gradually increasing doses as much as 50 grains thrice daily. He left the hospital in six weeks quite well. In another violent case improvement was very rapid under similar treatment. Dr. Anderson sums up his experience in the following aphorisms: 1. Antipyrin is not the dangerous drug that some observers have led us to suppose. 2. It may be given with safety in large doses, but the initial dose must be small, and it must be slowly and cautiously increased under careful supervision. 3. In large doses it often yields surprisingly good results, and in chorea it is the only medicine from which cures may confidently be expected.—*Brit. Med. Jour.*

POTASSIUM NITRATE IN THE TREATMENT OF PHLEGMASIA ALBA DOLENS.

Hovnanian describes his use of nitrate of potassium in this affection in the *Medical News* of July 28, 1894.

It has fallen to his lot to treat three well-marked cases of phlegmasia alba dolens with potassium nitrate with such gratifying results as to seem to justify publication.

Mrs. H., twenty-three years old, was delivered of her first child by her family physician with instruments, and sustained extensive lacerations of the cervix uteri and perineum, which at the time were not repaired, but were left for a secondary operation. Twelve days after delivery she complained of pain and heaviness in the left leg, and within three days there developed well-marked phlegmasia. On the fourth day of this complication the writer saw the patient in great agony, with a temperature of 105.2° F., a pulse of 130, and respirations 25. The limb was so turgid and swollen that there seemed to be great danger of gangrene or rupture. The woman was at once given morphine sulphate (⅓ grain) hypodermically, and her limb was wrapped with cotton and placed on a feather pillow at a very obtuse angle. Hovnanian then prescribed a solution of potassium nitrate in water, representing 5 grain doses, to be given every hour until his return. Seven hours later he found his patient in better condition, with a temperature of 103° F., a pulse of 112, and respirations 22, and with less pain and discomfort. The swelling seemed to be less tense and the veins less engorged. The nitrate was continued as before until morning, when he found her in yet better condition. She had slept well during the night, although she had been wakened regularly for her medicine. Her temperature was 100° F., her pulse 95, her respirations 20. The swelling was reduced to less than half, and the returning circulation was fairly well established. There was no pain whatever and but slight tenderness on pressure. The medicine was continued every two hours during the day, until the author saw her late in the evening, with a temperature of 99° F., a pulse of 90, and respirations 18. The swelling had almost entirely gone, and everything was in good condition. The nitrate was continued

for two days in smaller doses and at longer intervals, and then discontinued.

Two other equally typical cases are also recorded in this paper.

PHYSIOLOGICAL REST IN THE TREATMENT OF PROLAPSE OF THE RECTUM.

Bryant (*Mathew's Medical Quarterly*, vol. i., No. 4) reports the case of a man operated on seven times for the relief of extensive prolapse of the anus, with its attendant distressing symptoms. Until the last operation, surgical intervention had been of little benefit. Bryant, to whom he finally came, made an artificial anus in the left groin, putting the patient to bed for two weeks, meaning to proceed to further treatment. But this operation was followed by so much relief and by such a marked diminution in the pressure that he was content to adopt no further procedure. He submits the following propositions as a conclusion to his paper:

That the proper performance of the physiological functions of the rectum contributes greatly to the advancement of rectal disease and to the sufferings of the afflicted.

That the complete vicarious discharge of the fæces through an artificial anus located in the sigmoid flexure reduces the physiological demands on each structure of the rectum to a minimum.

That the lessening of the physiological requirements is commonly in direct proportion to the diminution of the fæcal flow through the rectum.

That the cessation or lessening of the fæcal discharge per rectum exercises a palliative and curative influence on diseases of the rectum.

That in certain cases of obstinate rectal prolapse the formation of a vicarious channel for fæcal discharge is justifiable, both as a palliative and curative measure.

That the preliminary establishment of such a channel for the purposes of cleanliness and the prevention of infection is justifiable in many grave operations for the prolapse of the rectum.

That the dangers attendant on the formation of an inguinal anus are much less than those invited by the contact of fæcal discharges with large operative surfaces of the rectum.

That the case just presented has been, without special risk, greatly benefited, and may be finally cured, through the agency of an artificial anus.

That when cure takes place, great care must be exercised thereafter, otherwise the prolapse will return.

DIAGNOSIS OF APPENDICITIS BY PALPATION.

Dr. George M. Edebohls strongly advocates this method of diagnosing disease of the vermiform appendix. He uses the right hand only, externally, for palpation, placing two, three or four fingers, palmar surface downward, almost flatly upon the abdomen, at or near the umbilicus. While he draws the fingers over the abdomen, in a straight line from the umbilicus to the anterior superior spine of the right ilium, he notices carefully the character of the various structures as they come beneath and escape from the fingers passing over them. In doing this the pressure exerted must be deep enough to recognize distinctly the resistant surfaces of the posterior abdominal wall and of the pelvic brim. Pressure less than this will fail of its object. The appendix is recognized, on exerting this necessary pressure, as a more or less flattened, ribbon-like structure, when normal, or as a more or less rounded and firm organ, of varying diameter, when its walls have been thickened by past or present inflammation. When it is the seat of inflammatory changes, it is always more or less sensitive on pressure; normally it is not so. A good guide is formed by the right common and external iliac arteries, the pulsation of which can easily be felt. The appendix is generally found almost immediately outside of them. Its origin is practically always at McBurney's point, and at its base it is separated from the iliac arteries by a space of one-half to one inch, while lower down in its course it usually crosses very obliquely the line of the arteries. Starting from McBurney's point, any deviation from its usual course can easily be recognized.

The author gives one broad rule as regards operative interference in appendicitis: not to operate in chronic cases unless you can feel the diseased appendix, nor in acute cases unless by palpation you can recognize either the diseased appendix or the presence of a tumor. Anæsthesia, in some exceptional cases, may be necessary to decide the question.—*American Journal of the Medical Sciences*, May, 1894.

THE DANGER OF ANÆSTHETIZING DIABETICS.

Baxer (*Dent. Med. Woch.*, 1894) calls attention to the danger of narcotizing diabetics. He has reported three of his own cases and nine collected from medical literature. Even in slight cases of diabetics the patients became comatose and died. Coma did not develop until after the chloroform narcosis had passed off, in twenty-four to forty-eight hours. The patients then became indifferent, stupid, and confused. Finally, lost consciousness, urine and fæces were passed involuntarily, and they perished in coma. This communication is important, since it shows that the administration of chloroform is dangerous even when there is a slight degree of diabetes, it being impossible to predict whether or not coma will develop.

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MONTREAL, MARCH, 1895.

THE SAMARITAN HOSPITAL FOR WOMEN, MONTREAL.

A new hospital for women, with the above name, was opened by Her Excellency the Countess of Aberdeen, wife of the Governor General of Canada, on the 17th of January, 1895.

It is non sectarian, and supported entirely by voluntary contributions, of which latter enough were handed in during the first month to carry on the work during a whole year. It is the only special hospital for diseases of women in Montreal, and will be moulded on the pattern of the celebrated New York State Women's Hospital in New York city. It is managed by a board of thirty of the principal ladies of the city, assisted by an advisory board of three laymen and three physicians. The staff consists of Sir James Grant, M.D., K.C.M.G., consulting physician; Wm. H. Hingston, M.D., LL.D., consulting surgeon; A. Lapthorn Smith, B.A., M.D., M.R.C.S. England, surgeon in-chief; H. Lionel Reddy, C.M., M.D., surgeon; S. F. Wilson, C.M., M.D., assistant surgeon and registrar; Dr. Sylvester, assistant surgeon, and Dr. Letellier de St. Just, assistant surgeon. An anæsthetist and a pathologist will be appointed shortly. The outdoor service is attended to by the assistant surgeons from 4 to 5 p.m. every day, at which hour the surgeon-in-chief makes his daily visit, and the most urgent cases are admitted. The hospital is absolutely free to women who are poor and sick, and who are residents of the city. Patients from outside the city will be admitted on payment of a nominal charge. The operation days are Tuesdays and Fridays at 10.30 a.m., when physicians who have not been attending infectious diseases will receive a hearty welcome. The hospital is situated in the choicest and healthiest part of the city, 1000 Dorchester street, near Mackay street, and may be reached by the St. Catherine and St. Antoine St. cars, which each pass within one block of the door.

OVERCROWDED PROFESSIONS.

We have more than once called attention to the overcrowded condition of the Medical Profession in England, and we have expressed the hope that a similar state of affairs will never be seen in Canada. From the letter which we copy hereunder from a recent issue of the *Mail and Empire* of Toronto, it appears that the profession in Canada is rapidly becoming filled to overflowing. The Medical Colleges of course have no interest in curtailing the number of students, so the profession must look to the Medical Council of each province to either raise the license fees or raise the standard of the entrance examinations in order to keep down the number of practitioners to 1 per 1000 of inhabitants. Neither should we admit graduates from other countries who have not complied with the same requirements as are demanded from our own graduates. The simplest and best standard for admission to study is the B.A. degree of a recognized University, simply because it is a guarantee that its possessor has gone through a long course of intellectual training, which is of great advantage to those who are to be the Medical men of the future.

"Sir,—A very serious problem has arisen of late years—What are the professions coming to? Every farmer wants his sons to embark upon the troubled sea of professional life, and cheap education, together with the glittering clap-trap literature with which this province is flooded by the Medical Colleges, is doing untold harm to hundreds of young men who might make successful mechanics, farmers, or business men, instead of disappointed, starving lawyers or doctors. The *Canadian Medical Review*, in an editorial headed 'Wanted—A Medical Practice,' draws a dark picture of pros-

pects of success in medicine. When we consider that the proportion of doctors is as 1 to 100 of the population, and that the medical schools of the cities are crowded with hundreds of boys scarcely more than children, who are galloping carelessly into a profession which doesn't even promise a living, we may well consider it time to utter a word of warning to parents who have their sons' welfare at heart."

You often hear people say "Look at the fine houses medical men live in." In the past, no doubt, such was the case; but at present a vast number of city doctors are running boarding houses or taking rooms with families. A friend of the writer, who recently advertised for lodgings, received forty replies, of which eighteen were from medical men in the city, offering every inducement to a prospective boarder or lodger. In the editorial referred to we find the following:

"One doctor to every 900 inhabitants is an abnormal proportion—greater than that of lawyers, who are as 1 to 1,100. What are the causes? Over education is the main one. Ploughboys and mechanics aspire to higher things, and get them: so that poor doctors take the place of good mechanics.....There are medical men in this city who are not making $2 a day, mechanics' wages, yet they pour in." The writer can assure the readers of *The Mail and Empire* that there are over 100 medical men in the city who do not make even $2 a day, and meets with many clever men in the prime of life who eight or nine years ago were doing fairly well, and find themselves scarcely able to support themselves by their profession at present. This is as true of law as of medicine.

The struggle for existence is so keen that every day we see the pitiable and degrading sight of men struggling and fighting for lodge practice at one dollar per head a year.

You may rest assured of one fact, that every young man who is making $50 a month in business or teaching school is much better off and can save more money than can the possessor of a legal or medical degree who finds it necessary to keep up a brave front on an insufficient income. You don't, as a rule, see the young men in the cities going into professions. It is the peasantry who desire to live in the cities and imagine the streets are paved with gold. Let the boys stick to the farm or stock raising, and help to build up their country, instead of becoming unproductive drones of society, dragging out a sour, embittered existence. To the young man who enters the portals of a medical college, with the few exceptions of those having great influence and personal ability, the writer would say: "Abandon all hope who enter here."

MEDICAL ITEMS.

Sir William Savory, the celebrated London surgeon, and for many years an examiner of the Royal College of Surgeons, has recently died at an advanced age.

Mr. J. W. Hulke, who was President of the Royal College of Surgeons at the time of his death, has also passed away.

A new medical journal, *La Clinique*, has been established by Dr. H. M. Duhamel.

Dr. Roddick, who has been having a delightful trip to the Mediterranean, is shortly expected to return to the city.

Dr. F. W. Campbell's beautiful residence on Sherbrooke St., Montreal, will be ready for occupation next month.

Beaver Hall Terrace, Montreal, which was for many years first the fashionable residence quarter of rich merchants, then became the stronghold of the principal doctors, was then gradually abandoned to the dentists, and is now being filled with shops. Union Avenue is going through the same process, the older physicians retiring to Sherbrooke Street and other residence streets in the West End. The centre of the city has moved at least a mile westward during the last ten years.

BOOK NOTICES.

DISEASES OF THE EAR.—A text-book for practitioners and students of Medicine, by Edward Brandford Dench, Ph.B., M.D., Professor of Diseases of the Ear in the Bellevue Hospital Medical College; Aural Surgeon New York Eye and Ear Infirmary; Fellow of the American Otological Society, of the New York Academy of Medicine, of the New York Otological Society, of the New York County Medical Society, etc. With eight colored plates and one hundred and fifty-two illustrations in the text. New York: D. Appleton & Company, 1894.

The author gives the aims and scope of the work in the following terms:

In the preparation of the present work it has been my aim to adapt it to the needs both of the general practitioner and the special surgeon. For this reason minute pathology has not been considered extensively.

In detailing the various manipulative procedures, I have preferred to err on the side of prolixity, for the benefit of those not familiar with the subject. It has also been my purpose to keep constantly before the reader, the fact that many diseases of the ear should not be

considered by themselves, for the reason that they are often local manifestations of systemic condition.

Many works upon otology have failed to emphasize the importance of a thorough functional examination; and none have placed the results of recent investigations at the disposal of the reader in such a manner as to enable him to use them in diagnosis. In consequence, I have written at length upon this subject.

In advocating operative procedures upon the middle ear, and in devoting much space to the subject of middle ear operations, I am aware that I shall not have the support of many distinguished colleagues. As a careful reading of the chapter will show, I have written from personal experience; and if my results differ from those of other operators, I suggest that the selection of cases suitable for operation, according to the principles detailed in previous chapters, may account for the favorable outcome of the operations.

In illustrating the gross pathological lesions of the conducting mechanism and the various manipulative measures instituted for their relief, I have adopted the plan of showing the auricle, meatus, and middle ear in the same drawing. The drawings are of natural size, and the technique of the various procedures seems to be made more clear in this manner than by any other method.

In the colored plates of the membrana tympani, the adjacent portion of the meatus is also shown, thus reproducing as completely as possible the picture seen upon speculum examination, and rendering the relative position of the parts more intelligible.

The absence of extensive bibliographical citations may seem a defect, but in a work intended as a clinical guide, a complete bibliography would be impossible, and unless complete it would be useless. No attempt has been made, therefore, to collate the entire literature of any subject, and the citations have been limited to those necessary to give individual investigators the proper credit for their researches.

We may add that the work does credit alike to the author and publishers. It is one of the most complete works on the subject that we have yet seen, and the printing and binding are up to the usual high standard maintained by the Appletons. It may be obtained from their agent, Geo. N. Morang, Traders Bank building, 63 Yonge Street, Toronto.

PUBLISHERS DEPARTMENT.

CASCARA SAGRADA.

Among the many drugs which have been brought to the notice of the profession during the last ten or fifteen years, how few have come to stay? The majority of them have had but a brief period of popularity, and after having been tried and having disappointed those who pinned their faith to them, they have finally disappeared. This fate has not fallen to Cascara; it has been found to be such a reliable and gentle laxative or cathartic, and acting in such small doses, that it has become a general favorite with the profession, which, now that it has proved the virtues of the drug, would be loth to be without it. If any of our readers have not yet employed Cascara, we would urge them to give it a trial, as there is now no longer the slightest doubt as to its value. Hitherto the only objections that could be raised against it were its bitterness and the uncertainty as to its effective dose, more being required to produce the effect where certain preparations of it were used. These objections have been entirely removed by Messrs. Kenneth Campbell & Co., wholesale druggists of Montreal, who have placed a fluid extract of Cascara on the market, the bitterness of which is entirely disguised, and which we have invariably found, after repeated trials, to be effective at the uniform dose of ten minims 3 times a day. Added to preparations of iron, it entirely counteracts the latter's constipatory effect, and enables persons to take iron mixtures who for the above reason were formerly unable to take them. Cascara also acts like a charm in many cases of hemorrhoids, which, as we have often pointed out in these columns, are in many cases due to constipation alone. By softening the solid masses of fæcal matter, the obstruction to the circulation in the hæmorrhoidal veins is removed, and the little blood tumor gradually disappears. Care must be taken to employ the smallest possible dose, as active catharsis in hæmorrhoids greatly increases the patient's sufferings. Cascara is an especial boon to those patients with constipation who cannot swallow a laxative or cathartic pill. It is also claimed for it that its effect is permanent,—that is, that after having taken it for a time, the intestines become so toned up that they no longer require any artificial stimulus; but for this we cannot answer positively. All we can say is that Kenneth Campbell's Cascara is a pleasant and reliable laxative. We may add that these remarks are written more for the sake of our readers than for the benefit of the manufacturer, although we have known him and used his preparations for nearly twenty years.

NEW REMEDY IN OPHTHALMOLOGY.

The newest remedy in ophthalmological practice is Antikamnia. It will afford prompt relief in those cases of intense pain in and about the eyes, where heretofore nothing but the strongest anodynes would answer. This is well illustrated in the case of the Editor of the *Southern Medical Record*, Dr. D. H. Howell. Under date of Dec. 5th, 1894, Dr. Howell writes that he has been a great sufferer with his eyes for a number of months, at times suffering the most intense pain. After trying a number of remedies in vain, he thought he would try Antikamnia. Relief followed in less than two hours, and now he says he carries Antikamnia in his pocket all the time.

LITERARY NOTE.

"The Beautiful Models of Paris," in the March *Cosmopolitan*, satisfy a long-felt curiosity in regard to the women who have been posing for the world's famous paintings. The *Cosmopolitan* has carefully gathered a collection of the most famous of these portraits, and used them to illustrate an interesting article by a distinguished French critic, Fr. Thiébault Sisson. Nor does the beauty of the originals fall short of the ideal on the painter's canvas. In the same number is a delightful article about the famed sea-girt isle, for so many centuries a fortress and prison—Mont-Saint-Michel. "Pearl-Diving and Its Perils," by an English naval officer, written from personal experiences, is perhaps the most thrilling tale of exploration of the ocean's depths ever put on paper. The fiction of this number is unusually entertaining.

The Canada Medical Record.

VOL. XXIII. MONTREAL, APRIL, 1895. No. 7.

CONTENTS.

Original Communications.

ABSTRACT OF A PAPER ENTITLED OBSERVATIONS ON THE TREATMENT OF FIBROIDS OF THE UTERUS.

Dr. O. S. Phelps of New York (*Am. Medico-Surg. Bull.*) reports an unusually complicated case of uterine fibroid in a girl 17 years of age who came under his care in July, 1894. She was sent from the West to New York by the family physician to have a hysterectomy performed, and came directly to his sanitarium. The tumor was 8 to 10 centimeters in diameter, and crowded the uterus well over to the left side. The uterine cavity measured 5 inches, and the organ with its appendages was surrounded and bound down by an inflammatory exudate. The bladder was impinged upon so that it could not hold more than one or two ounces of urine, causing the patient great agony to evacuate it. The whole mass, including tumor, exudate, uterus and appendages, filled the pelvis, and rose well up to the umbilicus. The patient was much emaciated, weighed 60 lbs. (normal weight 125 pounds), could not stand or walk, nor could she turn in bed without great pain. Temperature 100° to 103°. Dr. A. H. Goelet was called in consultation, and confirmed the diagnosis; he also agreed that no operation could be considered at that time, but thought ligation of the uterine arteries might be resorted to later. The treatment adopted was the high tension faradic current, 15 minutes thrice daily, vagino-sacral and abdominal. At each séance the temperature was reduced ½ to 1 degrees, lasting 1 to 2 hours. A system of feeding was adopted under the guidance of microscopical observations of the blood and secretions to determine the correct choice of food. In two months the temperature remained normal, and the weight had increased 30 lbs. Galvanism was then begun, with anode to tumor per vaginum, by means of a special clay electrode with cathode closely adapted to tumor over abdomen; 20 to 30 milliamperes of current, 7 to 10 minutes every five days. January 15, tumor was reduced to a mere nodule, about the size of a small

walnut, exudation gone, uterine cavity measured 2¾ inches. Patient's weight was then 125 pounds.

Conclusions, the writer ascribes the favorable results in this case :

First, to a systematic plan for restoring the nutrition, under such favorable conditions as are afforded by a sanitarium.

Second, to the persistent use of the high tension faradic current to allay pain, reduce inflammation, and induce absorption.

Third, to the galvanic current, so applied as to concentrate its action upon the fibroid growth.

Society Proceedings.

MONTREAL MEDICO-CHIRURGICAL SOCIETY.

Stated Meeting, November 30, 1894.

G. P. Girdwood, M.D., President, in the Chair.

Dr. Adami, reporting on Dr. Bell's cases, remarked that with regard to the first specimen, the portion of the intestine removed had been examined by Dr. Shaw, who made a series of sections, which showed that the cicatricial band in the intestines was not of the nature of simple fibrous tissue, but of fairly fibrous columnar-celled carcinoma. The post-mortem, which was made several hours after death, took place on Sept. 15th. Upon opening the abdomen, acute inflammation was noticed throughout the abdominal cavity. Fæces were first seen coming up through the region where the drainage tube had been, with gas bubbling up through them. Working down in this region they came to the sigmoid flexure, and the portion of the intestine where the "button" had been inserted, and found that sloughing had taken place between the upper half of the button and the attached intestine, which opened up the bowel, and allowed its contents to escape. The mesentery in the region of the slough was enormously thickened. It seemed to Dr. Adami that the slough had occurred more in the region of the rectum than in that of the sigmoid flexure.

Dr. Shepherd congratulated Dr. Bell on his success in the last case. The fatal result in the first he thought was not the fault of the operator, but was owing to circumstances over which he had no control. It would be interesting to know what caused the non-union of the bowel. He had performed several operations of resection, but had always done the end to end suture. His difficulties had been with the mesentery, which tears, especially in regions where it is short, such as near the ileo-cæcal valve. The use of the clamp is another difficulty. Very little pressure is required to keep the bowel closed while the resection is progressing, and some instrument which will exercise exactly the right amount is much needed. He either used a rubber tube, or the hands of the assistant; the latter are best, but they are apt to be in the way; the rubber tube often exercises too much pressure. It is not the actual approximation of the bowel which takes up the time, but these other difficulties, which will exist just the same, notwithstanding the use of the Murphy button.

Dr. James Bell, after explaining the manner in which the Murphy button was used, remarked that in the old method of simply suturing, he always felt considerable uneasiness as to the danger of the sutures giving way. It was true he never had such an accident occur in any of his cases; but when one considered the friable nature of the tissues united, it was not an improbable danger, and the increased security which the "button" gave in this respect was an advantage in addition to its saving of time. In concluding, Dr. Bell remarked that he began to use the Murphy button with some prejudice against it, but after trying it, he was bound to admit it a very useful instrument indeed.

Dr. Adami, commenting on Dr. Bell's theory as to the cause of the sloughing in his fatal case, said that at the post-mortem the glass tube was found rather to one side of the bowel, towards the middle line. It was found passing down to the portion of the bowel which held the button, which latter could be felt at the end of the tube when it was pressed down into the wound. It is possible, therefore, that there might have been some undue pressure on the bowel between the button and the tube, but as the tube at most could, from its position, press against the inner (or medial) side of the intestine, and the gangrene was equally developed all round the organ, save at the mesentery, it seemed to him more probable that the cause of the sloughing was the pressure of the elastic ligature on the intestine during the operation.

Dr. Armstrong remarked that he had no special experience with the Murphy button; but that he had this last summer seen one post-mortem where it had been used, and where a good deal of sloughing had taken place around it. He frankly admitted himself a little prejudiced against the instrument. He did not think it saved much time, it could only economize in this way, in the matter of suturing, and in operations of this kind, his experience was that it was not the end to end suturing which caused most trouble in competent hands, but the dealing with the mesentery. The old me-

thod had given good results, and when properly performed, leakages from the bowel very seldom followed the operation. He, however, could conceive of cases where the button might be an advantage, namely, when resection had to be performed in portions where the bowel was not easily accessible to the hands, such as deep down in the pelvis; but in any situation where the intestines could be brought up, and conveniently sutured, he would prefer the old method. His great objection to the "button" was the manner in which it separated. This must of necessity be by a process of ulceration, which seemed to him a very undesirable condition occurring around the two ends of a lately united bowel.

Dr. JAMES BELL closed the discussion by answering some of the principal objections to the use of the Murphy button, and giving a brief *résumé* of the complications existing in his fatal case. It was easy, he said, to see why the button did not in this case come away. In the first place, he had narrowed the bowel before it, and in the meantime the stricture which occurred in the sigmoid flexure effectually prevented it. With regard to the saving of time, this came in, in the fact that in the purse string suture, there were not more than a dozen needle punctures to be made. The only suture that required to be accurate was that which brought the two folds of the mesentery together. This certainly saved time over the ordinary suturing method, where the needle had to be entered four or five times as often. Referring to the first case, he said the sequence of events was as follows: (1) A perfectly healthy man taken with diarrhœa; (2) following this was constipation, with evidence of obstruction, of pain, and of hæmorrhage. At the first operation it was found that the obstruction existed in the small intestine, loops of which had been destroyed by a destructive ulceration. At this time there existed no obstruction in the descending colon or rectum, and after the disease of the small bowel had been removed, perfectly formed stools were passed regularly, showing the functions of the intestinal tract to be normal. Now, the interesting part of the problem is, how all this trouble could have developed. Dr. Bell's idea was that it must have originated in the peritoneum over the brim of the pelvis, and that it afterwards extended to the bowel. From a mechanical point of view this seemed the most probable sequence of invasion.

Spitting on Floors.—The following resolution was moved by Dr. MILLS, seconded by Dr. MCCONNELL, and carried unanimously:

Inasmuch as spitting on floors is a practice not only filthy but dangerous to health.

It is hereby resolved, to urge upon the Montreal Street Railway Company the desirability of prohibiting spitting on the floors of their cars by notices posted prominently.

Discussion on the Management of the Third Stage of Labor.—Dr. J. C. CAMERON opened the discussion. The third stage of labor being the separation and expulsion of the placenta and membranes, it became necessary to enquire, what were the placenta and membranes? to what were they attached, and how were they attached? He described briefly the decidual lining of the uterine cavity which prepared for the reception of the impregnated ovum; the arrival of that ovum, with its chorionic covering, planting itself in the portion of the decidua, afterwards called serotina, and the development of the decidua reflexa; the parttaken by the decidua in the formation of the placenta; the formation of the amniotic sac; the growth of the ovum until it finally fills the whole uterine cavity, and unites the decidua reflexa with the decidua vera, or original decidual lining of the uterine wall. The membranes then were three-fold, and together they form a tripartite bag which is filled with fluid in which floats the embryo. Considering the character and texture of the separate membranes, and taking them in the order of their occurrence commencing from the inside, he said the (1) amnion was elastic and strong; (2) the chorion was thicker and more friable, and connected very intimately with the (3) decidua which was composed of two layers,—an internal dense and firm, an external of a more spongy character. Summing up the character of the membranes as to strength, the latter decreases from within outward; the amnion very strong, the chorion less so, the decidua, being least of all, has very little cohesion.

When labor is about to begin, the uterus is an ovoid body, with walls of tolerably equal consistence, except at the lower part where the body joins the cervix. About one-fifth of its cavity is lined with placenta, and the remaining four-fifths with the membranes. The cervix at this time is completely closed, but with the onset of pains, the bag of waters is forced down upon the internal os, and gradually opens up the cervix by a process of bulging. In order to bulge and dilate the cervix, the membranes must separate from their uterine attachments; during the first stage we find that they are separated from the lower uterine segment. At the beginning of the second stage they rupture, and there is no further separation of the membranes till after the birth of the child. At the beginning of the third stage we find the uterus reduced considerably in size, and differentiated into two parts, an upper thick-walled contractile part, a lower thin-walled dilatable part; the function of the first is to contract, and expel the placenta; of the second, to expand, and give passage to it. There is no foundation for the statement that the placenta begins to separate normally when the head is being born. How then does the separation take place? Let us first recall how the different membranes are joined together. The amnion is loosely at-

tached to the chorion; the chorion is intimately connected with the decidua; and the decidua is attached to the uterine wall in pretty much the same manner as the mucous membrane is attached to the non-pregnant uterus. Having then very firm union between the chorion and decidua, and a more feeble union between the chorion and amnion, and between the decidua and the uterine wall, it is only natural to expect that the lines of cleavage, or separation of the membranes, would be either between the amnion and chorion or between the decidua and uterine wall. The latter is where separation usually takes place. What is the mechanism of the separation of placenta and membranes from the uterine wall? Various factors are concerned: (1) the contraction of the uterus; (2) the retraction of the uterus; (3) the effusion of blood. Dr. Cameron then dwelt upon the two theories which were put forward to explain the expulsion of the placenta. The one claimed that the contractions of the uterus during labor caused the placenta to arch or bulge downwards into the uterine cavity, causing a partial separation from the uterus with effusion of blood into the concavity of the arch, between the placenta and uterus. The pouring out of this blood caused by its pressure a still further increase of the arching process, until finally the whole placenta separated and descended with its fœtal aspect presenting. The other theory was that rupture of vessels played no part in the separation and expulsion, which were solely the result of the contraction and retraction of the uterus. The speaker thought both explanations were right in certain cases, the situation of the placenta as well as its extent determining the mechanism of separation and expulsion. When the uterine wall contracts, the placenta contracts also, it moves with, but not to the same extent as, the uterus. The placenta can be diminished in area by contraction about one-half on the average. Having reached the limit of its reduction in size, it remains rigid, while the uterus goes on contracting, and draws itself off from the placenta. Some authors believe this separation begins in the centre, some at the side. It was then explained how it may occur in either way. In studying the mechanism of separation, it is important to remember that the whole uterus contracts, not the placenta only, so that not only does the placental surface decrease in size, but the whole uterus contracts and grasps it on all sides. The method of separation depends largely upon whether the uterus contracts upon the placenta evenly all around, or whether the contraction is irregular; and upon whether the placenta is uniformly adherent to the uterus or has some points at which it is more firmly adherent than others. Irregular uterine action and abnormal or pathological attachment of the placenta modify the mechanism of the separation and expulsion of the placenta.

Another point to be borne in mind is that there is not normally a true uterine cavity into which the placenta may bulge. As soon as the child is born, the uterus contracts and the anterior wall comes against the posterior wall. It is this absence of an actual cavity which makes the theory of the arching of the placenta untenable in most cases; sometimes when it is situated directly over the fundus, its central portion may bulge down towards the os which is the point of least resistance. But if the placenta is situated upon the side of the uterus, arching does not take place, but the lower edge glides downwards and presents at the os. Coming then to the separation and expulsion of the membranes, it will be remembered that the portion over the lower uterine segment was separated during the first stage; the rest which constitutes about four-fifths of the whole is attached. The membranes are separated (1) by retraction of the uterus during the second stage and the beginning of the third stage. As the uterus is emptied, it retracts by drawing the uterine wall together; the membranes are thus thrown into wavy folds which are most marked close to the uterine surface or in the decidual layer. The crest of each of these folds in the decidua tends to separate from the uterine wall, and a little hæmorrhage follows, which still further separates the membranes. This, however, is only capable of carrying the separation a certain distance, and the process has to be completed by the traction of the placenta which drags the membranes after it as it descends.

We have here a fair statement of the problem before us. The mechanism varies according to where the placenta is situated on the uterine wall, its extent, the existence of pathological adhesions, the uniformity of uterine contraction, the relative strength of the union between amnion and chorion as compared with that between chorion, decidua and uterine wall.

In concluding his introduction, Dr. Cameron hoped the discussion would be narrowed down to the two following questions: (1) Are drugs of any value, do they help us in the management of the third stage of labor; if so, what are they? What are their indications and contra-indications? (2) Are manipulations of service; if so, what manipulations and when are they of use? What are their indications and their contra-indications?

Dr. H. L. Reddy then took up the drugs used in the third stage of labor; his paper on the subject was as follows:—

The part assigned to me in to-night's discussion is the use of drugs, or rather the drugs used, in the third stage of labor.

I find that it is impossible to limit myself to the third stage in some cases; as, for example, chloroform, which is so commonly used in the second stage, and so frequently produces un-

pleasant effects in the third. Therefore, I hope you will pardon me if I take up your time, to some extent, in considering these drugs outside the stage under discussion.

I have endeavored to give the opinions of standard authorities, and have also taken the trouble to write to a number of the leading obstetricians in the United States, more particularly with regard to the use of ergot and chloroform, and have received replies to all of my enquiries. This, I think, will perhaps make what I have to say slightly more interesting.

The time allotted to me is, I am sorry to say, entirely too short to give more than a short résumé of the subject. I, therefore, have only taken up for consideration the most commonly used drugs.

ANÆSTHETICS.

Firstly, what is the indication for them?

Relief of pain;

Relaxation of parts;

Prevention of untimely movements.

In looking up the matter we find Donhöff, in the Archives for Gynæcology, shows the influence of chloroform upon the course of normal labor by the tachadynamometer to be as follows:

The administration of chloroform, even in diminutive doses, exercises a retarding influence upon the progress of labor. Time prevents us taking up his experiments fully.

Playfair, the English standard authority, says:

"The tendency of the present day is to give too much anæsthetic during child-birth, and a common error is the administration of chloroform to an extent which materially interferes with uterine contractions, and predisposes to postpartum hæmorrhage. In considering anæsthesia in the third stage, or the effects produced in the third stage, the subject would not be complete without referring to its use in the earlier stage of labor. Generally speaking, we do not think of giving chloroform until the os is fully dilated, the head descending, and the pains becoming propulsive. It has often been administered earlier, in order to aid in the dilatation of a rigid cervix, and while it may succeed well, chloral answers the purpose better. There is one cardinal rule to be observed: in giving chloroform during the propulsive stage, it should be administered intermittently and not continuously. When the pain comes on, a few drops may be scattered over a Skinner's inhaler. During the acme of the pain the patient inhales it freely, and at once experiences a sense of great relief. As soon as the pain dies away the inhaler should be removed. Indeed, if properly given, consciousness should not be entirely abolished, and the patient between the pains should be able to speak and understand what is said to her, or, in other words, the chloroform should be administered to the obstetric and not to the surgical or profound insensibility, except, perhaps, just at the moment the head is passing over the perineum. The effect of the chloroform on the pains must be carefully watched. If they become materially lessened in force and frequency, it is necessary to stop the inhalation for a short time, until the pains get stronger. This effect may be often completely and easily prevented by using Dr. Sanson's mixture, one-third absolute alcohol and two-thirds chloroform, this diminishing the tendency to undue relaxation. Bearing in mind the tendency of chloroform to produce uterine relaxation, more than ordinary precautions should always be taken against postpartum hæmorrhage, in all cases in which it has freely been administered. In cases of operative midwifery, it is usually given to the extent of complete anæsthesia, and in all such cases it should be given by another medical man, not by the operator."

Winkel believes that chloroform should not be used in all obstetrical operations, unless they are of a difficult nature, and believes the best method even here in order to avoid difficulties is to carry the anæsthesia only so far that the patient feels the pains at the completion of the operation and awakens with the crying of the child.

Dr. E. Montgomery, Philadelphia, makes it a rule to give an anæsthetic to every patient during the second stage of labor. The anæsthetic he uses is the bromide of methyl, which has the advantage over ether and chloroform that it acts quickly and its effects pass off quickly, thus producing less influence than either ether or chloroform. It is not necessary that the patient should be brought so profoundly under its influence as is necessary under chloroform. He says: "I have never found it to have any unpleasant influence upon the third stage of labor, as is claimed to arise from the use of chloroform."

Dr. Parvin uses anæsthetics possibly in one-third of his cases, usually ether. He finds that it blunts the sharp edge of the pain, the patient bears down better, and it lessens the resistance of the soft parts. He believes that it neither induces hæmorrhage nor delays uterine contraction if given in moderate quantities, so as only to produce obstetrical, not surgical, anæsthesia. For prolonged operations he uses ether always.

Dr. H. J. Garriges, of New York, uses anæsthetics in every case in the second stage of labor, unless the patient objects,—generally chloroform. He considers that it is apt to invite want of contraction and hemorrhage. He considers ether safer if the kidneys, lungs and brain are healthy.

Dr. Wm. Polk does not use anæsthetics if he can evade it, and then only at the close of labor, never in pathological cases. He con-

siders, outside of the relief of pain, the effect is a bad one, as it both induces hæmorrhage and delays uterine contraction in the third stage.

Dr. E. H. Grandin as a rule uses an anæsthetic when the presenting part reaches the pelvic floor, always in primiparæ. He uses chloroform, except in cardiac cases, and then ether. He finds that it produces relaxation of uterine spasms and of spasm of the muscles and fascia of the pelvic diaphragm. "If the anæsthesia be prolonged," he says, "I am on the lookout for excessive hæmorrhage and delayed uterine contraction." He uses chloroform in prolonged operations when a careful anæsthetist gives it, otherwise he uses ether.

Dr. Reynolds uses anæsthetics in the second stage of labor when the contractions are good. He finds the action to be relaxation of the os and the muscles of the perineum, with diminution of the force of labor, in slow cases this latter being one of the disadvantages of the use of the drug. He says he generally carries ether to the point of unconsciousness so soon as he can control the chin per rectum, in the belief that he can more often by this method save the perineum. He believes that the use of an anæsthetic in the second stage causes an increase in the relaxation of the uterus and consequent hæmorrhage. He has never had a fatal case of post-partum hæmorrhage. He uses ether entirely, because the opinion of the community in which he lives is against the use of chloroform.

Dr. Clifton Edgar does not use anæsthetics as routine in the second stage of labor. When he does use an anæsthetic he uses the A. C. E. mixture, sometimes sulphuric ether. He finds that it relaxes a rigid cervix, often rendering the subsequent pains more efficient. Chloroform, he finds, is likely to produce both hæmorrhage and delay in uterine contraction when used in excess. In prolonged operations he uses ether, and his chief objection to chloroform is that one not thoroughly familiar with its administration will abuse its use by giving too much.

Dr. Charles M. Green almost always uses anæsthetics in the second stage of labor and uses Squib's sulphuric ether. He finds the effect produced to be a relaxation of the soft parts, better success in saving the perineum from laceration, both on account of relaxation and because he has complete control of the patient. Personally he has had no bad effects, but believes that long continued anæsthesia does predispose to uterine inertia and hæmorrhage. In prolonged operations he states that all the Boston men use ether to the exclusion of chloroform, his chief objection to chloroform being that it is more dangerous to administer.

Dr. E. P. Davis uses anæsthesia in nine cases out of ten, usually chloroform for normal cases and version, for all the other operations ether. He finds that it produces better uterine contraction by removing the cerebral inhibition from conscious suffering, partial relaxation of the uterus when pushed, facilitating manipulation. He believes that chloroform when properly used produces neither hæmorrhage nor delayed uterine contractions in the third stage.

It is generally agreed that the operator must always begin the anæsthesia if no skilled assistant is present. After anæsthesia has been begun, the nurse may hold the inhaler, although the physician must himself pour on the fresh chloroform if needed. For the want of following this rule I have known of a fatal case happening. In chloroform narcosis the contra-indications are cases of anæmia in the dying, well-marked goitre, in myocarditis, in cases of dyspnœa or extreme collapse, heart disease, or placenta prævia.

To sum up, with regard to anæsthetics, in this country and the United States the majority of practitioners seem rather to favor its use, although in England and abroad they do not recommend its use to nearly the same extent, and almost every one of the authorities consulted agree that it undoubtedly predisposes to uterine inertia and consequent hæmorrhage in the third stage. This more particularly applies to chloroform, which is most commonly used. Anæsthetics are hardly ever used in the third stage, unless in cases of severe operative procedure.

Dr. J. C. Reeves, of Dayton, Ohio, one of the best authorities on chloroform in the United States, and author of the chapter on the subject in the *American System of Obstetrics*, Vol. I., uses chloroform frequently whenever the pain is severe or the soft parts give slowly. He says he believes that it has an injurious effect likely to be marked in proportion to the length of time used and the depth of narcotism. He expects to watch a patient more closely after anæsthetics.

Dr. George L. Engelmann, of St. Louis, uses anæsthetics moderately in the second stage of labor, always chloroform, depending upon the sensitiveness and nervousness of the patient and relation of the pelvis to the head. He finds the effects vary with the case, pains more regular, powerful and efficient in many cases, especially in nervous women. He believes no ill effects arise in the third stage, unless overdone, and care is necessary.

Caseaux finds that chloroform is of service both in relieving pain and causing relaxation of the parts, but predisposes in the third stage to uterine inertia and p.p. hæmorrhage.

Such, I may say, is my personal experience both in private and hospital work. I consider towards the end of the second stage, where the pain is very severe, it is apt to cause inversion of polarity, thus delaying labor and con-

sequently unnecessary suffering, therefore an anæsthetic should be given, and its use when the head is stretching the perineum will very often save it from rupture. But to give it beyond the obstetrical degree and for long periods is not only unnecessary, but absolutely bad practice.

ERGOT.

We will next consider ergot, one of the most common drugs used in the third stage.

Playfair believes that it is thoroughly good practice to administer a full dose of the liquid extract of ergot in all cases after the placenta has been expelled, to insure persistent contraction and to lessen the chance of blood clots being retained in utero. He prefers, as a rule, personally to give a subcutaneous injection of ergotine in cases where there is a history in previous labors of hæmorrhage after the birth of the child, when the presentation is so far advanced that we estimate that the labor will be concluded in from ten to twenty minutes, as we can hardly expect the drug to produce any effect in less time. In cases of post partum hæmorrhage the dose may be repeated, but here the hypodermic use of ergotine offers the double advantage of acting with greater power and much more rapidly than the usual method of administration. It should therefore be always used in preference.

Chahbazain, of Paris, recommends an aqueous solution of ergotine the one two-hundredth of a grain in ten minims of water as acting more energetically.

Dr. Engelmann, of St. Louis, says in obstetric practice it does good service if given after the contents of the uterus have been expelled, to stimulate contraction when labor is completed, and as a safeguard, especially after the physician has left his patient.

Dr. J. C. Reeves, of Dayton, Ohio, does not use ergot as routine practice, but when he does give it, it is only after the expulsion of the child, in doses of one fluid drachm. He finds that irregular contraction of the uterus is caused, imprisoning the placenta very frequently after its administration.

Dr. Norris, of Pennsylvania, recommends in every case the administering of one drachm of fluid extract of ergot in the treatment of the third stage.

Dr. H. Grandin, of New York, uses ergot as routine practice in obstetrics, after the uterus has been thoroughly emptied, and finds that its routine use prevents undue relaxation and appears to promote proper involution. He uses a half to one drachm of fluid extract of ergot for three days, and then twenty drops three times a day for a week.

Dr. Wm. M. Polk, of New York, does not use it as routine, but when he does give it, it is always after the second stage of labor, and he finds that it produces uterine contraction. He uses one drachm of the fluid extract.

Dr. Edward Reynolds, of Boston, uses ergot as routine practice, never before the delivery of the placenta, and finds that it hastens the occurrence of tonic contractions, and thus lessens the likelihood of post partum hæmorrhage. He uses the fluid extract, Squib's, one drachm.

Porro recommends ergot in cases of hæmorrhage, or where hæmorrhage is likely to occur.

Dr. Marx, of New York, in large hospital experience, has in nearly every case given ergot by mouth, at or toward the end of the second stage of labor, and has never seen a bad result from its use, certainly never a case of accidental hæmorrhage. He finds that there is no better remedy to regulate the pains of labor than ergot. Possibly large doses of quinine, but this remedy does not increase the frequency of pains as much as it increases their vigor. It is impossible to wait for the administration of ergot until the uterus is absolutely empty, for then it would never be given, as there are always shreds of decidua and blood.

Dr. Nash, of Washington, does not approve of the administration of ergot after the placenta has been delivered, or that of promoting the process of involution by the daily display of ergot, digitalis and quinine, as is suggested in practice in some institutions.

Reynolds, in his work on midwifery, declares the efficiency of ergot in producing tonic retraction of the recently delivered uterus is undoubted, and since its use is productive of no possible harm, it is the usual custom, and the author believes should be the habit, of all onstetricians, to administer to the patient a teaspoonful of the extract immediately after the birth of the placenta. This is to be recommended as a routine procedure, because the action of ergot is too slow to render it of value if its administration is delayed until after the occurrence of hæmorrhage, unless it is given hypodermically, a procedure which it is wise to avoid, in view of the fact that the hypodermic use of ergot is not unfrequently followed by subcutaneous abscess. If it is so used, it should be deeply injected into the substance of the thigh, as this method decidedly diminishes the risk of subsequent suppuration. The use of ergot by the mouth is occasionally followed by nausea, which is, however, rare, if no more than a drachm of the fluid extract is given in about two ounces of cold water.

Dr. Clifton Edgar does not use ergot as routine practice, but if given, always after the third stage. He finds it produces good uterine contractions, and possibly the prevention of after-pains. He gives one drachm of fluid extract at a dose.

Dr. Charles M. Green, of Boston, uses ergot as routine practice, after the delivery of the

placenta, never before, and finds that it promotes the contraction and retraction of the uterus and thus helps to prevent hæmorrhage. He generally uses a drachm of the fluid extract at a dose. He considers that grasping the fundus after the use of ergot causes a succession of rhythmical contractions and consequent retraction, which latter action permanently closes the uterine sinuses.

Dr. E. P. Davis, of Philadelphia, does not use ergot as routine practice, but only when the uterus fails to properly contract and remain contracted. He finds the effect produced to be that it promotes uterine contraction and furthers involution, and when given in small doses after the third stage it increases blood pressure in the breast and furthers the secretion of milk. He uses the fluid extract in doses of from one drachm to ten minims.

Dr. Parvin, of Philadelphia, does not use ergot as routine practice in obstetrics. He occasionally gives it in the second stage of labor in small doses when the contractions are weak. After the delivery of the placenta, if the uterus fails to contract sufficiently, he gives from half to a teaspoonful of the fluid extract to provide against hæmorrhage. He finds that there is an increase of force in intermittent contractions from small doses, continuous action from large. In some cases he finds no beneficial results at all.

According to Wernich, ergotine lessens the tension of the veins and increases their dilatation. This produces arterial anæmia of the uterus and its nerve centres, which increases the duration and intensity of its contraction; after strong doses the intervals cease altogether and a condition very like tetanus uteri sets in.

According to Kobert, this action is due to sphaoelic acid contained in ergot, while the ergotinic acid has no effect on the uterus whether gravid or not. The third constituent part of ergot, cornutin, a pure alkaloid, was, according to Grafe's and Erhard's experiments, given repeatedly in the first stage of labor in doses of 5 mg., and in nearly two-thirds of the cases improved the pain and did the mother no harm.

Schatz declares that the action of ergot begins fifteen minutes after its administration by the mouth, is greatest in thirty minutes, and the effects of a single dose last for an hour.

Winkel says its use in placenta prævia, before and during labor, is still sub judice. Auvard used it with unsatisfactory results, mortality being 42 per cent. of the mothers and 77 per cent. of the children. On the other hand, Wilson had a mortality of 6.6 per cent. of the mothers and 26.6 per cent. of the children, using it before labor.

Counter-indications, I know of none, unless it be its administration during the progress of the first and second stages of labor, or in cases of known idiosyncrasy, where it causes severe and exceedingly painful tonic contractions, amounting almost to tetanus uteri.

Caseaux recommends ergot for use in the third stage, as causing firm uterine contraction, promoting involution and tending to prevent hæmorrhage.

To sum up with regard to ergot, it is used by the great majority of practitioners, as well as recommended by the standard authors at home and abroad. They nearly all agree that it undoubtedly produces firm contraction of the uterus at the completion of the third stage, if given in doses of one fluid drachm, grasping the fundus, assisting in keeping up not only the contraction but the polarity of the uterus, and inasmuch as it takes 15 to 20 minutes to act, it had better be given immediately on the completion of the second stage. None of them speak of any bad effects resulting from its use, and I fail to see why any sensible practitioner should refuse or object to its use. My own practice certainly is, both in private and in the hospital, to give one fluid drachm at the conclusion of the second stage, and in the hospital I give for the following week ten drops of the fluid extract three times a day, combined with both digitalis and quinine. This latter, I believe, both tends to close the sinuses and regions from which infection might occur, and to promote involution as well as slightly to increase the blood pressure. The latter I consider to be a distinct advantage.

STYPTICS.

Dr. Playfair states that in severe cases where the uterus obstinately refuses to contract in spite of all our efforts—and do what we may, cases of this kind will occur—the only other agent at our command is the application of a powerful styptic to the bleeding surface to produce thrombosis of the vessels. The latter, says Dr. Ferguson in his preface to Gooch on Diseases of Women, appears to be the sole means of safety in those cases of intense flooding in which the uterus flaps about in the hand like a wet towel. Incapable of contraction for hours, yet ceasing to ooze out a drop of blood, there is nothing apparently between life and death but a few soft coagula plugging up the sinuses. These form but a frail barrier indeed, but the experience of all who have used the injection of a solution of perchloride of iron in such cases proves that it is thoroughly effectual, and its introduction into practice is one of the greatest improvements in modern midwifery. The dangers of the practice have been strongly insisted on, but there are only one or two cases on record followed by any evil effects. Its extraordinary power of instantly checking the most formidable hæmorrhages is well known to all who have tried it. Indeed, Playfair goes so far as to say that no practitioner should attend a case of midwifery without having his styptic

with him, and the best and most easily obtainable form is the liquor ferri perchloridi fortior of the B.P., and should be used diluted with six times the bulk of water. It is important that the air should be got rid of out of the syringe with which it is introduced into the uterus, and to get the best effect the uterus should be emptied of all clots, etc., before its use. After its use for some days, intra-uterine injections should be used to remove the coagula which are certain to form, and thus avoid sapræmia.

Winkel says, in severe cases of hæmorrhage where other means have been tried and failed, equal parts of the liquor ferri perchloridi and water may be slowly injected into the uterus with good effect, or it may be applied by means of a sponge or piece of absorbent cotton to the site of the hæmorrhage.

Reynolds, of Boston, recommends that in severe cases of hæmorrhage, Monsell's solution or liquor ferri persulphatis diluted with four times its quantity of water should be passed into the uterine cavity on a ball of absorbent cotton, the uterus being first cleared of all clots.

Dr. Norris, of Pennsylvania, considers that styptic salts of iron are dangerous, as the coagula produced by them may extend into the vessels, and must be broken up by putrefaction, exposing the patient to septic poison.

To sum up with regard to the use of iron in postpartum hæmorrhage, several of the standard authorities, such as Playfair, Winkel, etc., recommend its use as being the only remedy that is invariably successful. My own experience has been most favorable to the use of iron, and in the Women's Hospital, as well as in private practice, the invariable rule is in all cases of alarming hæmorrhage, to use liquor ferri perchloridi diluted with from six to ten times its bulk of water. I have never had an accident during or after its use; the results have been invariably gratifying. A common objection has been raised, and that is air being injected into the vessels. I fail to see that it is any more likely to be injected with the iron solution than with any other injection, although one could perhaps understand air being imprisoned in clots, but this perhaps is far fetched and harmless. I think the chief danger, if not the only one, that is the clots which form in the uterus are firm and do not easily come away, and are apt to set up sapræmia, unless they are washed away by intra-uterine douches given at least twice daily. Another danger might perhaps be if the end of the nozzle were applied directly to a sinus, the solution might be pumped directly into the circulation. I can find a record of but three fatal cases from its use, two mentioned by Playfair and one witnessed by Dr. J. C. Cameron at the Rotunda, Dublin.

Noeggerath recommends tincture of iodine, 1 to 5 of water.

Dupierries 30 water, 15 tincture of iodine, potassium iodide 5. These do not seem to be greatly used, though they doubtless act as styptics.

Reynolds refers to tincture of iodine being used preferably to Churchill's, and states the advantage of iodine over the iron solution is its more stimulating character, and the lesser liability of causing an extensive thrombosis formation and a consequently increased danger of septic infection.

Penrose strongly recommends strong vinegar, which has the advantage of being always readily obtainable. He speaks highly of its hæmostatic effect. He soaks a clean handkerchief in it and introduces it by the hand into the uterine cavity, and squeezes it over the endometrium. He says the effect of the vinegar flowing over the sides of the cavity of the uterus and vagina is magical. The relaxed and flabby uterine muscle instantly responds, the organ assumes what is called its gizzard-like feel, shrinking down upon and compressing the operating hand, and in the vast majority of cases the hæmorrhage ceases instantly.

Playfair remarks that it might be worth trying before using the iron solution.

Reynolds advises a 1 to 100 hot water solution of the officinal acetic acid as a prompt styptic.

Creolin if added, even in the quantity of a few drops, to the hot water injections used in post-partum hæmorrhage, acts as a powerful styptic as well as a good antiseptic; or carbolic acid may be added to the hot douche about the strength of 1 to 40 or 80, and would be found to act as a hæmostatic by its stimulating contraction of the uterus.

DISINFECTANTS.

The use of disinfectants in the third stage is at present a vexed question, and the use of douching either before labor or after labor, unless for cause such as a severe leucorrhœa or one that is suspected of being infected by gonococci, is at present rather condemned than advised. In one of last numbers of the *Archives for Gynæcology* are statistics very unfavorable to it. Probably the most commonly used disinfectant is corrosive sublimate.

Winkel says the use of corrosive sublimate for irrigating the uterus is to be avoided, as poisoning is liable to supervene; but if used, a 1 to 5000th corrosive sublimate solution at a temperature of about 110 to 115° F., that is, at that which is distinctly but not uncomfortably hot for the hand.

Playfair says that a solution of 1 in 2000th solution of perchloride of mercury may be used, if needed, to diminish the danger of sapræmia.

Reynolds recommends a 1 to 5000th corrosive sublimate solution at a temperature of 110 to 115° F.

Dr. Howard Kelly writes: "The best disinfectant in puerperal cases is pure warm water. The trouble of all drugs applied intra-uterine is that they only reach the less superficial area, and if there are any foci of infection, the germs which lie deep in the tissues are neither destroyed nor removed. For this reason I consider the mechanical means, with pure and free drainage, the best. The bichloride of mercury I consider dangerous and inefficient, and ought never to be used under any circumstances intra-uterine."

Dr. Norris, of Pennsylvania, says the bichloride of mercury is effective but dangerous. Creolin is as powerful and safer, and is therefore to be recommended.

My own experience of the use of corrosive sublimate post-partum, in similar and even weaker solutions, is most unfavorable, although followed by large douches of warm water, which but few authors recommend to be used. In a solution strong enough to be of service, most authors agree it is dangerous to use intra-uterine, and it ranks no higher in the comparative table than does creolin and probably strong solution of permanganate of potash. Therefore it ought to be discarded, except for external use.

Ice and iced water are recommended by many authors to be used in cases of p.p. hæmorrhage, the ice introduced to be not larger than a walnut. There are several objections, I think, to its use: it increases the shock already existing, although it undoubtedly checks the hæmorrhage for the time being, and as soon as it melts or is removed, the hæmorrhage often returns as severely as before, the uterine vessels which it contracted now dilating. Great care would also have to be used that no sharp, irregular pieces were introduced, as the contraction produced by the ice might possibly drive the sharp points through the uterus. In winter in this country some practitioners make a hard snowball and introduce it, thus avoiding the danger of perforation.

Hot water is probably the most commonly used and best means for checking p.p. hæmorrhage at a temperature of from 110° to 128.75° F., this latter temperature being, in my opinion, much too warm, being decidedly uncomfortable to the hand. The water should have been boiled and been allowed to cool. It has the advantage of being always obtainable, of, as a rule, stopping the hæmorrhage, and of allowing afterwards some other means to be used if desired. The quantity to be used should be at least from one quart to half a gallon, and if given by a douche bag held sufficiently high, at least six or seven feet, will not only check hæmorrhage, but also remove the debris from the uterus. One point about giving the hot douche is that a metallic nozzle should never be used, preferably a perfectly aseptic German glass tube.

The question may be asked: what would you consider a dangerous hæmorrhage? This is only a relative term, for what to one would be but a slight hæmorrhage might to another, or to the same under certain conditions, be a dangerous hæmorrhage. Generally speaking, a slight hæmorrhage would be from 500 to 1,000 gms. of blood lost, a profuse hæmorrhage from 1,000 to 1,500 gms., and a dangerous from 1,500 to 2,000 gms.

STIMULANTS.

Amongst the stimulants used in p.p. hæmorrhage, probably none will be found to act more promptly or satisfactorily than the nitrate of strychnia, in doses of from one-fortieth to one-twentieth of a grain hypodermically, within a very short period the pulse rate becoming much slower and fuller.

Opium in cases of hæmorrhage is highly recommended by many of the authors, and seems to have a direct action as a stimulant upon the heart. It is best given in the form of a hypodermic of Battley.

Brandy or ether are used hypodermically, either after severe hæmorrhage with heart failure, or heart failure from any cause in the third stage or immediately after it. It is given hypodermically in half drachm doses, repeated as often as needed. Most authorities recommend its use.

A solution of chloride of sodium, although seldom used directly in the third stage, may be needed, and is a most excellent remedy immediately after severe cases of hæmorrhage, whether post-partum or in cases of placenta prævia. Its use is found in supplying fluid to the arterial system depleted by the hæmorrhage, and perhaps preventing too great absorption of noxious fluids. It may be best administered in the strength of a dessert spoonful and a half to a quart of tepid water, and allowed to trickle into the rectum from the douche bag placed at about the level of the anus, the attendant every half hour lifting the bag and allowing a small quantity to enter. As much as a gallon and a half may thus be given and absorbed in thirty-six hours, the effect on the pulse being most gratifying, being not so compressible and much more full. The advantage of the solution of sodium is that it is readily absorbed by the rectum.

In conclusion, I beg to thank you, gentlemen, for the patience with which you have listened to me. The brief which I have held for the use of drugs in the third stage I have endeavored to defend, and I hope to convince any sceptics, if it be possible there are such, that drugs are not only useful, but on occasions absolutely required, and anyone not using them places himself against the weight of authority in the medical world.

Dr. A. A. Browne took up the manipula-

tive processes which might be required in management of the third stage. These were: (1) Manual expression of the placenta by the hand externally, and (2) removal of retained placenta by the hand in utero. He thought that after the child was born and the cord tied, gentle pressure should be made, the uterus followed down as it contracted, while the patient was allowed to rest and the placenta to become separated. In an absolutely normal labor the uterus would expel the placenta without further assistance in from 15 to 20 minutes; if it did not, expression was done probably best by the method of Credé. This is carried out in the following manner: The uterus should be grasped in the hollow of the left hand, the ulnar edge being well pressed down behind the fundus, and when it was felt to harden, strong and firm pressure should be made downward and backwards in the axis of the pelvic brim. If the first attempt were unsuccessful, the manœuvre should be repeated at the next contraction, and on a second failure a vaginal examination made, and the placenta, if found lying wholly in the vagina, withdrawn. If, however, it were still in the uterine cavity, he would again attempt to expel it by pressure and not by traction on the cord. The membranes were best removed by twisting and gentle traction.

Dr. Browne divided retained placenta into two kinds: (1) Simple and (2) where due to morbid adhesions. The former might be caused by inertia, large size of the placenta, hour-glass contraction, traction on the cord, or ergot. The latter was due to endometritis before or metritis or placentitis during pregnancy.

He recommended introducing the hand into the uterus with strict antiseptic precautions, and separating the placenta gently with the ulnar side of the hand, making a to and fro motion, the back of the hand being towards the uterine wall. On any portions not coming away, they might be peeled off by using the finger nail as a curette, but in many cases it was quite impossible to get all removed without using undue violence. Then it was better to give intra-uterine douches of hydrargyrum perchloride, followed by carbolic or creolin, and allow it to come away by necrosis.

In conclusion, Dr. Browne spoke very strongly against the following methods of removing the placenta:—1. Dragging on the cord. 2. Forcible dragging out of the placenta by the hand in utero.

Dr. F. W. Campbell, even after hearing the previous speakers, believed that his own experience of 32 years was as reliable as any knowledge he could acquire from the text-books of to-day. He thought that the uterus itself by contraction and retraction expelled the placenta, and had often found a cough or the application of a binder very useful. He desired to enter the strongest possible protest against the modern practice of employing chloroform. A few drops on a towel sufficient to partially stupify might be an advantage, but few women would be content with this, and very little more produced unconsciousness, with entire cessation of uterine contractions. Moreover, he believed it to be invariably followed by a tendency to hæmorrhage, and he never gave it except when compelled to do so, and then only when the head had been pressing on the perineum for some little time. Quinine in full doses decidedly increased uterine contractions. As styptics, he preferred vinegar, ice, or hot water. With regard to the expulsion of the placenta, ten minutes he thought had been the average in his own cases, where he used manipulation, and traction when the placenta was in the vagina. He quoted Sir James Simpson's rules. Dr. Campbell separated an adherent placenta with the front of the hand towards the uterus instead of the reverse, as recommended by Dr. A. A. Browne.

Dr. G. A. Brown used chloroform in the vast majority of his cases in the latter part of the second stage. It was contra-indicated in those who were anæmic, who suffered from chronic uterine trouble, and who had weak pains and flabby tissues, as then it was apt to be followed by hæmorrhage after the expulsion of the placenta. He was inclined to think that during the third stage, ether given by means of the Clover inhaler was preferable. Owing to the time necessary for the absorption, he now gave ergot immediately after the birth of the child instead of at the end of the third stage, and cited three cases in which a post-partum hæmorrhage, occurring with the latter method in previous labors, had been prevented at subsequent ones. He believed that if the accoucheur took the precaution of completely emptying the uterus, styptics could be to a great degree dispensed with; when necessary, he used hot water or the insertion of a piece of alum. He strongly objected to perchloride of iron, as it greatly increased the danger of sepsis. As a stimulant after excessive hæmorrhage, he used strych. nitrate gr. 1-60 hypodermically. He considered Credé's the only scientific method for expulsion of the placenta, and in cases of retention followed the plan adopted by Dr. A. A. Browne.

ACADEMIE DE MEDECINE.

Sudden Death on the Bicycle.—M. L. H. Petit reported three cases of sudden death following the use of the bicycle, all in persons suffering from a cardiac affection. The first case was that of man 60 years, robust in physique, who had practised with his teacher

for a month, and who, during a lesson, feeling indisposed, called the teacher and died in his arms. The second case was that of a physician, who wished to reduce his size by bicycle-riding. He had never had any cardiac trouble. At the end of several months he was attacked with dyspnœa and excessive pain in the heart. He descended from his machine, seated himself on a bench, and died shortly after. The third case was that of a clubman, about 40 years old, who died on his bicycle on one of the streets of Paris. He also had a cardiac affection.

From the 1st of January to the 27th of August, the Prefecture of Police issued 32,996 permits for the use of the bicycle. As many persons do not apply for permits until compelled to do so, it may be said that there are about 100,000 persons in Paris who use the velocipede. It is probably not an exaggeration to estimate that of this number 1 in each 1000 suffers from some cardiac trouble, and it is therefore well to call attention to the risks which they run in this sport.

Old age in itself, according to M. Petit, should be regarded as a contraindication, without any reference to heart disease. The use of the bicycle requires a suppleness, an attention, and an expense of strength which cannot be permitted to elderly persons without fear of bad results.—*Gazette des Hôpitaux*, September 11, 1894.

Progress of Science.

TREATMENT OF STRANGULATED HERNIA.

Dr. G. E. Wherry is of the opinion that all cases in which signs of strangulated hernia have existed for less than twenty-four hours should be relieved by coughing-taxis, especially in inguinal hernia previously reducible. If taxis fail, chloroform should be given and herniotomy performed, with an attempt at radical cure. In cases in which taxis is successful, an operation for radical cure should be advised before the return of the patient to an active life.—*Practitioner*, September, 1894.

EFFECTS OF THYROID ADMINISTRATION.

In a paper upon myxœdema and thyroid extract, Dr. Geo. W. Crary, of New York, expresses the belief that many so called idiots, imbeciles, cases of arrested development, etc., among children, are in fact cases of functional inactivity of the thyroid gland, and hence susceptible of treatment by thyroid extract, with improvement and perhaps even cure. He summarizes as follows the effects of thyroid treatment: Increased metabolism, shown by: (1) elevation of temperature; (2) increased appetite, with more complete absorption of nitrogenous foods; (3) loss of weight, with nitrogen excreted in excess of that taken in the food; (4) growth of skeleton in the very young; (5) marked improvements in body nutrition generally; (6) increased activity of mucous membranes, skin, and kidneys. The rheumatic symptoms and the anæmia are not only not relieved, but are most frequently aggravated.—*American Journal of Medical Sciences*, May, 1894.

DIAGNOSIS OF TUBERCULOSIS IN CHILDREN.

Dr. E. Weill, of Lyons, has observed a special syndroma in three cases of infantile pulmonary tuberculosis which he believes to have been as yet unnoted. It consists in a sensation of cold with perceptible lowering of the peripheral and central temperature, marked cyanosis of the extremities with noticeable modification of the radial pulse, considerable alteration of the number of red cells in the cyanosed portions and in the composition of the urine. These conditions are readily produced by having the patient leave his bed, and they slowly disappear when he lies down. They are transitory symptoms, of an intermittent character, independent of the clinical form of the tuberculosis, of the stage of the disease, of the season, or of the diet.—*Lyon Medical*, May 20, 1894.

CHLORAL HYDRATE—SOME OF ITS USES.*

By Ben. H. Brodnax, M.D.,

Of Brodnax, Louisiana.

In conversation with physicians at various times, I have noticed they viewed chloral as merely a hypnotic, and had used it only for the purpose of relieving pain, thereby inducing sleep. I have been a little surprised at this want of knowledge of its other equally valuable properties. Early in my practice I tried to make a few medicines, combined or by themselves, do all that they would for me, and was led into experimentation with them. Chloral came in for its share, because it relieved pain, quieted the nervous system, and did not paralyze the bowels.

As a *hypnotic*, five grains of chloral combined with laudanum or with one-eighth or one-quarter grain of morphine acts splendidly, the combination intensifying the effects of each and depriving the opiate of its stimulating property. With children, by itself, in sweetened water, it

* Read before the Philadelphia County Medical Society, by Oscar H. Allis, M.D., June 13, 1894.

has no equal; mixed with paregoric, it is also good.

I *prepare* it as follows: I just cover the amount in my case vial with glycerin—this dissolves it, and a drop is about a grain. In this form it mixes readily with oil or water and is more quickly prepared, and more easily divided into doses, large or small. With castor oil the dose one to five grains renders it less nauseating, and does not gripe, at the same time producing quiet and rest.

Applied to the skin in eruptive diseases—measles, urticaria—as follows: Chloral, 10 grains (drops); carbolic acid, 10 grains (drops); water or oil, 1 to 2 ounces, almost instant relief is experienced of the intense itchings. Or chloral, 10 drops; glycerin and water, each ½ ounce, produces the same effect.

As a mouth-wash: Chloral, 10 grains; glycerin and water, each ½ ounce (a teaspoonful), produces a pleasant, cool sensation in salivation, or as a gargle. After holding it for a moment in the mouth, it should be rejected, and an equal amount of the fresh solution may be swallowed. Carbolic acid (10 drops) added makes it more effective in ulceration of the mucous coverings. It seems to act on the nerves locally, the same as chloroform by inhalation does on the body.

In toothache: Chloral, camphor, glycerin, carbolic acid, equal quantities, applied on a small piece of cotton after cleaning the cavity, will relieve the pain. (Cover with more cotton to fill the cavity.) I keep the mixture, ready made, under the name of "Toothache drops," in my medicine case. If the patient has lost sleep I give a full dose of chloral by the mouth.

For ulcerated sore-throat, or ulceration from any cause, such as scalds: Chloral, 10 to 15 drops (grains); water, 1 to 2 ounces, as to age: sugar, to make it palatable to children, a teaspoonful, repeated at short intervals until sleep is induced, then on waking to keep them fully under its influence. My first experience was on my only daughter, four years old. The case was so severe I feared I would lose her, and to get rest for her, gave as above, after having tried everything else I knew of. The almost immediate relief of all the bad symptoms led me to think the medicine acted *otherwise than merely as a rest-producer*. Since then, for ten years I have used it with the utmost satisfaction to myself and patients.

Earache: Camphor, 10 grains; chloral, 10 grains; carbolic acid, 10 grains; castor oil, ½ ounce. Drop into the ear warm. Fill the ear full, apply a piece of cotton wet in warm water to fill the external ear, then a cloth wrung out in hot water as warm as can be borne. I have seen some almost crazy children go to sleep in two or three minutes, and awake free of their troubles.

As an aid to chloroform in surgery or obstetrics, 10 to 15 grains, given 20 minutes before administration of the anæsthetic, seems to intensify the effect, and less than one half of it is needed to produce the desired effect. In my obstetric practice for the last fifteen years I have used it, and observed but one case where any unpleasant effects were induced. This was in a woman with her tenth child. I gave the chloral to relax the system, 10 grains; in half an hour 5 grains more; in half an hour the chloroform. It affected her almost immediately, and the child advanced and came away in good style, but the woman seemed to be dead drunk and incapable of moving herself. She slept soundly for several hours and awoke all right. She was conscious and would answer questions, but could not use herself. This was the first time she had taken either of the drugs, and she may have been susceptible—easily affected. Chloral, given before the anæsthetic, seems to tide them over the excited stage of anæsthesia. The first few whiffs of the anæsthetic produce quiet without any excitement. I have used it in a few surgical cases with the same effect. In children a full dose of chloral, and when sleep comes on they are anæsthetized in that state, and the force, often necessary otherwise, is avoided.

In coryza, where the Schneiderian membrane is very irritable, chloral, 10 grains (or drops); castor oil, ½ ounce, used with a soft mop, applied over the surface, after being dried, acts to check the excretion of mucus, and lulls the irritation and head-pains.

The supposed influence of the drug on the heart has been urged by my friends against its use. I have not seen any unpleasant effects. In any case where there is a chance of any cardiac trouble, it is an easy matter to fortify the heart with a 1-50 grain of nitroglycerin. In one delicate woman I did this as a precaution, but even in her case I believe it was not necessary. This summarizes my experience with chloral, and when I tell you I use from five to six pounds a year, you may know that it has a very considerable scope. I never prescribe it in any quantities, so as to create a "habit." In fact, I do not know of a single case of the kind.—*College and Clinical Record.*

SOME RECENT VIEWS ON APPENDICITIS.*

By J. William White, M.D.,

Professor of Clinical Surgery, University of Pennsylvania.

1. The explanation of the great frequency of inflammation of the appendix is to be found in the following facts:—

(*a*) It is a functionless structure of low vitality, removed from the direct fæcal current; it

*Conclusions of an address delivered before the Surgical Section of the College of Physicians of Philadelphia.

has a scanty mesentery so attached to both cæcum and ileum that it is easily stretched or twisted when they become distended; it derives its blood-supply through a single vessel, the calibre of which is seriously interfered with or altogether occluded by anything which produces dragging upon the mesentery.

(*b*) In addition, there is almost always present a micro-organism—the *bacterium coli commune*—capable of great virulence when there is constriction of the appendix or lesions of its mucous coat or of its parietes.

2. The symptoms in a case of mild catarrhal appendicitis—general abdominal pain, umbilical pain, localized pain and tenderness on pressure in the right iliac fossa, vomiting, moderate fever, and slightly-increased pulse-rate—cannot at present with any certainty be distinguished from the symptoms, apparently precisely identical, which mark the onset of a case destined to be of the very gravest type.

3. It must be determined by future experience whether or not operation in every case of appendicitis, as soon as the diagnosis is made, would be attended by a lower mortality than would waiting for more definite symptoms indicating unmistakably the need of operative interference. At present such indication exists in every case if the onset is sudden and the symptoms markedly severe, and whenever in a mild case the symptoms are unrelieved at the end of forty-eight hours, or, *a fortiori*, if at that time they are growing worse.

4. It must be determined by future experience whether cases seen from the third to the sixth day, which present indications of the beginning circumscription of the disease by adhesions, and which tend to the formation of localized abscesses, will do better with immediate operation with the risk of infecting the general peritoneal cavity, or with later operation when the circumscribing wall is stronger and less likely to be broken through. At present, operation is certainly indicated whenever a firm, slowly-forming, well-defined mass in the right iliac fossa is to be felt; or, on the other hand, when a sudden increase in the sharpness and the diffusion of the pain and tenderness points to perforation of the appendix or breaking down of the limiting adhesions.

5. In the beginning of general suppurative peritonitis, operation offers some hope of success. In the presence of general peritonitis with septic paresis of the intestines, operation has thus far been useless.

6. Recurrent appendicitis of mild type, like acute appendicitis, frequently results from digestive derangements. Several attacks may occur followed by entire and permanent recovery, but it is as yet impossible to differentiate these cases accurately from those which do not tend to spontaneous cure. Operation is certainly indicated whenever the attacks are very frequent.

7. Chronic relapsing appendicitis is characterized by the persistence of local symptoms during the intervals and by more or less failure of the general health. It usually indicates operation.

8. In either the recurrent or the chronic relapsing variety, operation should be advised according to the following indications formulated by Treves: whenever (1) the attacks have been very numerous. (2) The attacks are increasing in frequency and severity. (3) The last attack has been so severe as to place the patient's life in considerable danger. (4) The constant relapses have reduced the patient to the condition of a chronic invalid, and have rendered him unfit to follow any occupation. (5) Owing to the persistence of certain local symptoms during the quiescent period, there is a probability that a collection of pus exists in or about the appendix.—*College and Clinical Record.*

TREATMENT OF POTT'S DISEASE.

An interesting and valuable paper on the above subject by Phelps appears in the *Journal of the American Medical Association* for October 27, 1894, in which the following treatment is advised:

In lateral curvature of the spine, effort should be made to develop the muscles of the back by massage and proper gymnastic exercises. The general condition is improved by appropriate food and exercise; and in cases where deviation of the spine amounts to more than half the diameter of the vertebra, a support to prevent absorption of the vertebra at point of curvature is imperatively demanded. In Pott's disease of the spine, however, the principle of treatment is the reverse; it consists in absolute immobilization and extension to the point of comfort to relieve the pressure between the diseased vertebræ.

The plaster-of-Paris corset, or the wood corset with lacings, so that it can be removed at night, are the best forms of brace devised. Aluminum corsets are excellent but expensive. In muscular forms of curvature, corsets with steel stiffening, particularly for young girls, are very satisfactory. These appliances are made while the patient is suspended to the greatest amount possible. This relieves pressure upon the bodies of the vertebræ, and stops absorption. The corsets are removed at night, extension being obtained in the recumbent posture. When the patient is in an upright position, with the corset adjusted, pressure is relieved and absorption must necessarily stop.

In Pott's disease of the spine, the patient is fixed in an apparatus while in the position of suspension, to the point of comfort. The corset which is adjusted is not allowed to be removed; it is put on and permanently worn. The nurse or mother can remove it, which cannot be done with the steel brace. It is worn with comfort, and holding the spine, as

it does, in an extended position, and fixing it better than it can be fixed in any other way, anchylosis will take place.

No brace or corset of any description that will support the spine can be applied effectively to a child under three years of age, owing to the narrow hips. For that reason the writer has devised a plaster-of-Paris portable bed, in which the child is placed; this permits of removal into the open air. Bonet's wire cuirass is a most efficient apparatus, but is more expensive than the plaster-of Paris portable bed, and no better. If the disease is located above the third dorsal vertebra, no corset or brace without the aid of the jury-mast can be adjusted so as to be a support, owing to the fact that the weight of the head and shoulders operate upon the point of disease or curve. In these cases the jury-mast should always be so adjusted as to transmit the weight of the head through the corset to the hips.

To make proper corsets from plaster-of-Paris, suitable material must be used. H. B. Claflin & Co. make for the author a special crinoline, known as No. 100 hospital crinoline; it has the proper amount of sizing and material and a total absence of indigo. The plaster of Paris is furnished by the White Dental Manufacturing Company, put up in fifty-pound tin packages, fresh from the oven. This cloth and plaster of Paris, when properly united, make a perfect plaster bandage. The crinoline should be torn in strips six inches wide and six yards long; the cloth is drawn over a pile of plaster of Paris on a table, and all rubbed off excepting enough to simply fill the mesh of the cloth; the bandage is loosely rolled, that it may take water quickly. A tight fitting shirt is now adjusted to the patient. The patient with lateral curvature suspends himself to the greatest possible extent. In Pott's disease the arm-pieces are used and the patient suspended to the point of comfort. The dinner-pad is placed under the shirt; three or four bandages placed in water; one of these is wound snugly around the body just above the crest of the ileum, making two or three turns; then the hips are enveloped down to the great trochanter, using one or two bandages at this point. We should begin at the bottom of the corset each time, and roll on the bandages up to the armpits, rubbing each layer until there is no longer air in the meshes of the cloth. Six bandages will do for a child under seven years; from eight to twelve for adults. When the plaster is setting, we should stand behind the patient and gently press the corset in over the crest of the ileum and firmly against the ribs. After the corset has firmly set, the dinner-pad is removed and the corset sprung antero-posteriorly, to throw it off the antero-posterior spinous process, to prevent excoriations. The corset is cut off at the bottom and top, being left on permanently in case of Pott's disease. In lateral curvature the corset is cut off, the edges trimmed with lacing, and an elastic durable spinal brace results.

If the patient desires a wood corset, fill the plaster-of-Paris corset with plaster, which makes a cast of the body, upon which the wood corset is made.

The corset in Pott's disease should be worn from six months to a year without removal; in lateral curvature it should be removed each night. Proper exercise, forcible redressment, gymnastics, and so on should be used.

The plaster-of-Paris corset is sent to the foundry in case an aluminum corset is desired, the anvil is made, and upon this the aluminum is worked; this is the most beautiful corset made.—*Therapeutic Gazette.*

THE ANTITOXIN TREATMENT OF DIPHTHERIA.

The topic which just now is absorbing the attention of the profession and the laity almost to the exclusion of all else medical is diphtheria and its treatment by means of Behring's antitoxin. No society meets that the theme is not brought up for discussion, while the writers, the talkers, and the hospital attendants are daily producing an amount of matter so great that the medical press groans to get quit of it, but without avail.

Already the literature of the subject is heavy and voluminous, and he who attempts to read it finds it crude, chaotic, and confusing.

Much winnowing, sifting, and condensing will have to be done before the conscientious doctor who wants the truth, and desires to apply it in practice, can settle the question as to whether he shall inject or not inject, putting his patient to the extra expense of forty or fifty dollars for drugs in each case, or saving him from what is a manifest extortion on the part of the producers of the new remedy.

What is the duty of the general practitioner at this writing can scarcely be set down. If he fail to apply the remedy and the patient should die, he will be severely criticized. If he employ it, and the patient die, he will be accused of having experimented upon the victim with a fruitless and expensive fad. If, however, the patient should recover under the new remedy, it may still be said that many patients have gotten well, and probably this one would have done so without the antitoxin, and that still the doctor is experimenting with expensive and fruitless fads.

Just what the doctor's duty in the case is cannot be stated till time shall give us a great number of reports, and some gifted compiler shall deduce from the vast accumulation of literature upon the topic a volume of statistics reducing the question to a mathematical certainty. Till then we think the practitioner would do well to lay the question of the new

treatment fairly before each patient or his friends, and to advise its use in all cases wherein the financial condition of the family will allow of it.

Statistics to date, so far as they are attainable, pronounce the treatment effective in the saving of life; but the usual liberal discount must be made in drawing conclusions from the reports of enthusiastic experimenters with new remedies.—*American Practitioner and News.*

PERNICIOUS ANÆMIA AT THE AGE OF TWENTY-ONE.

Pernicious anæmia is not often met with during the first twenty five years of life, and a case observed by Dr. W. R. Gowers, of London, is therefore worthy of mention. The patient, a young man aged 21 years, seen February 19, presented the appearance of extreme chlorosis, the skin having the characteristic tint, the gums and conjunctivæ being very pale. He was feeble and readily rendered short of breath. The condition had come on gradually during the previous six months, before which time the patient had seemed in good health, though he had been delicate as a young child. The percentage of hæmoglobin was but a little over 30, and of red corpuscles only 25 per cent. Examination of the eyes showed numerous flame-shaped hæmorrhages in each retina, and one or two, of more irregular shape, near the disc. Hæmorrhages had occurred a month previously. In spite of careful treatment the patient steadily failed. There was some elevation of temperature for a few days, and pyrexia returned on March 19th, when a large hæmorrhage occurred in the right eye. Vomiting set in, and the patient died on March 21st.

Such a case, says Dr. Gowers, lends itself to the current tendency to associate all sorts of diseases with specific organisms; but another hypothesis deserves consideration, viz., the failure of tissues soon after they complete their development, not unknown in other structures, —an inherent defect of vital endurance on the part of the blood-making tissues.—*British Medical Journal*, May 12, 1894.

MENINGITIS OF OBSCURE CAUSATION.

Dr. F. Carr Bottomley, of St. George's Hospital, London, in a study of this subject, arrives at the following conclusions: 1. It is difficult to say whether certain cases of meningitis have been due to turbercle or not. Meningitis may probably be turberculous without any turbercles being visible in the meninges,—at any rate, to the naked eye. Bacteriology helps us to decide whether this has been the cause. 2. It is also difficult to decide whether certain cases are due to ear disease; the presence of signs of old or recent otitis media does not necessarily show that the meningit is was secondary to this; bacteriology probably helps us to decide the question only in the case of old ear disease. 3. Some cases of meningitis following broncho-pneumonia and empyema are probably of a septic nature. 4. There is no evidence of Bright's disease being a cause of meningitis. 5. Idiopathic cases are characterized by the following points: (*a*) Both brain and spinal cord are frequently attacked, and spinal symptoms are common; these symptoms are rare in other varieties of meningitis which attack both brain and cord, if we consider retraction of the head to be not necessarily a spinal symptom. In some cases spinal appear before cerebral symptoms. (*b*) The duration of illness varies from one to four weeks, the variation depending mainly on the stage of the disease at which the cerebral membranes become affected. (*c*) Recoveries are fairly frequent. (*d*) The best treatment seems to consist in the administration of mercury and iodides. (*e*) The affection of the cerebral membranes may be either at the vertex or the base, or both. (*f*) The cases occur perhaps most frequently in the cooler part of the year. 6. There is some evidence for considering these cases to be associated with epidemic meningitis, and for considering that the cause of both may be the *diplococcus pneumoniæ*.—*Practitioner*, June, 1894.

A CASE OF TÆNIA NANA IN A CHILD.

Dr. Rasch, of Bangkok, had under his care a girl of 7 years, in whom disturbances of digestion, conbined with an insomnia which could not be accounted for, led him to suspect the possibility of helminthiasis. Examination showed the presence of oxyuris and the eggs of tænia. Male fern was administered, and a large quantity of white filaments, fifty or eighty in numbe and one or two centimetres in length, were passed, which proved to be the tænia nana. The child has never been out of Siam.

Tænia nana is rare in the human subject, but three or four cases having so far been reported by Bilharx, of Cairo; Blanchard, of Belgrade; and Grassi, of Sicily.—*Deutsche medizinal-Zeitung*, No. 13, 1894.

THE VALUE OF SUGAR AND THE EFFECT OF SMOKING ON MUSCULAR WORK.

As the result of a series of experimental researches in the Physiological Institute, Turin, upon this subject, Vaughan Harley has come to the following conclusions: 1. The periods of digestion as well as the kinds of food taken have a marked influence on voluntary muscular energy. 2. Irrespective of the influence of food, there is a periodical diurnal rise and fall in the power of performing muscular work. 3. More work can be done after

than before mid-day. 4. The minimum amount of muscular power is in the morning about 9 A.M., the maximum about 3 in the afternoon. 5. Regular muscular exercise not only increases the size and power of the muscles, but has the effect of markedly delaying the approach of fatigue. 6. The amount of work performed on a diet of sugar alone is almost equal to that obtained on a full diet, fatigue, however, setting in sooner. 7. In fasting, large quantities of sugar (500 grammes) (16 ounces) can increase the power of doing muscular work during 30 voluntary contractions from 26 to 33 per cent., while the total gain in a day's work may be 61 to 76 per cent., the time before fatigue sets in being also lengthened. 8. The effect of sugar is so great that, when added to a small meal, it can increase the muscular power during 30 contractions from 9 to 12 per cent., white the total increase in work may be from 6 to 39 per cent., the approach of fatigue being at the same time retarded. 9. When added to a large mixed meal, sugar can increase the muscular power of 30 contractions 2 to 7 per cent., the increase in total work being 8 to 16 per cent., and a marked increase in the resistance to fatigue is shown. 10. Two hundred and fifty grammes (8 ounces) of sugar taken in addition to a full diet increase the day's work; the work accomplished during 30 voluntary muscular contractions shows a gain of from 6 to 28 per cent., the total day's work giving an increase of power 9 to 36 per cent., and the time before fatigue sets in being lengthened. 11. Moderate smoking, although it may have a slight influence in diminishing the power of doing voluntary muscular work, neither stops the morning rise nor, when done early in the evening, hinders the evening fall. 12. Sugar taken early in the evening is capable of obliterating the diurnal fall in muscular power that occurs at this time, and increases the resistance to fatigue.—*Journal of Physiology*, vol. xvi, Nos. 1 and 2, 1894.

SCORBUTUS IN INFANTS.

Dr Wm. P. Northrup advances the following conclusions, based on an exhaustive study of the subject; 1. Scurvy may appear at any period of infancy or early childhood, but is most common between the ninth and fourteenth months. 2. The lesions are hæmorrhagic in character, due probably to diapedesis. The most characteristic are subperitoneal hæmorrhages. Hæmorrhages into the muscular tissues, the skin, and mucous membrane are more or less constant. 3. It occurs in every grade of the social scale, but is more frequent among the rich than the poor. The neglected child who eats everything at table may become rachitic or marasmic, but he obtains enough fresh food to protect him from scurvy. It very rarely occurs in asylums and hospitals, because in recent years feeding in such institutions has been more rational than in many private families. 4. Lack of fresh food is the most important cause. The use of the proprietary foods and condensed milk produces more scurvy than all other causes combined. Even fresh milk in small proportions is not sufficient to insure protection. 5. Anæmia and malnutrition are almost invariably present; a peculiar sallow complexion is common. 6. Scurvy is frequently superadded to rachitis, but in a considerable number of cases no evidences of rachitis are present. So-called acute rickets is in most cases, probably in all rickets, complicated by scurvy. 7. Pain is a constant symptom; it develops early and is usually intense. 8. A varying degree of immobility of the extremities is common, and is frequently so marked as to simulate paralysis. This pseudo-paralysis disappears with the subsidence of the scorbutic symptoms. 9. Subcutaneous hæmorrhages, as well as hæmorrhages from the cavities of the body, are very common, but are not necessary to a diagnosis of scurvy. 10. The condition of the gums is characteristic. They are purplish, soft, spongy, and bleeding, and frequently show decided ulcerations. When the teeth have not been erupted, changes in the gums are usually slight or entirely absent. 11. Painful swelling of the lower extremities is the most constant symptom; the upper extremities are rarely involved. The thigh is affected more frequently than any other region. 12. Children suffering from scurvy commonly present the following symptoms: anæmia, intense pain on motion, spongy and bleeding gums; swelling of the lower extremities, usually at the thigh. There may also be purpura or ecchymoses, discharge of blood from the various cavities of the body, and pseudo-paralysis. 13. Scurvy, when untreated, is a very fatal disease; when recognized and properly treated, a rapid and complete cure is usually effected. The result of anti-scorbutic treatment is, in fact, one of the most certain means of diagnosis. 14. Scurvy may be mistaken for rheumatism, stomatitis, rickets, sarcoma, osteitis, and infantile paralysis. 15. Scurvy is a dietetic disease, and must be cured by dietetic treatment. Fresh milk, beef-juice, and orange-juice are the most effective remedies.—*New York Medical Journal*, May 26, 1894.

SUBCUTANEOUS INJECTION OF ARTIFICIAL SERUM IN SERIOUS HEMORRHAGE.

Lemoine reports the case of a young woman, who lost a large amount of blood during pregnancy, cured by the injection of artificial serum.

The liquid employed has the following composition:

Sodium phosphate,
Sodium chloride, of each, ʒii;
Water, Oii.

He injected 1½ pints of this fluid into the buttocks of the patient, and three hours afterwards the symptoms, as well as the fluid, had totally disappeared.—*Revue Médico-Chirurgicale des Maladies des Femmes*, August 25, 1894.

CLASS-ROOM NOTES.

—*Digitalis*, Prof. Hare says, is a powerful stimulant to the heart, and not a sedative.

—*Colchicine*, Prof. Hare says, does not disorder the stomach as easily as colchicum.

—*Appendicitis*, Prof. Keen says, occurs about three times as often in the male sex as in the female.

—Prof. Hare says the *Oil of Copaiba* is not as therapeutically active as the balsam of copaiba.

—Prof. Keen says *Gall-stones* that escape from the gall-bladder will often be the cause of obstruction at the ileo-cæcal valve.

—Prof. Hare is of the opinion that some cases of *Pneumonia* can be aborted if they are seen early enough.

—Prof. Montgomery says *Lacerated Perinæums* sewed up during the period of lactation often do not heal well.

—*Chloral*, according to Prof. Hare, is the best and purest hypnotic, but it will not relieve pain.

—*Fungous Growths* at the stump of the umbilical cord, Prof. Parvin says, can generally be gotten rid of by dusting with burnt alum.

—Large doses of atropine, Prof. Hare says, should not be administered to *Nursing Mothers*, since it is largely eliminated in their milk.

—Prof. Parvin believes that an excessive and overworked condition of the kidneys is the cause of *Albuminuria* in the pregnant woman.

—*Convulsions* at the outset of pneumonia, Prof. Wilson says, are of very common occurrence in children, taking place in almost one-half of all the cases.

—According to Prof. Parvin, if, after eighteen hours from time of delivery, the mother does not voluntarily empty the bladder, she should be catheterized.

—Prof. Montgomery says the dressings in a case of *Abdominal Section* should not be removed for ten days after the operation, unless complications set in.

—Prof. Parvin does not think that hamamelis is a safe remedy to administer to a woman in the treatment of *Hemorrhoids*, if she be in a pregnant condition.

—In a *Depressed Fracture of the Skull*, Prof. Keen says, even if no nervous symptoms manifest themselves, the skull should be trephined and the depressed part elevated.

—If the temperature in *Diphtheria* remains high for days at a time, Prof. Wilson says it is due generally to some pulmonary or other complication and not to the diphtheria itself.

—One of the most prominent symptoms of *Fracture of the Clavicle*, Prof. Brinton says, is that the patient is unable to place the hand of the injured side on the shoulder of the sound side.

—Prof. Wilson says the chill which, as a rule, is present at the outset of an attack of *Pneumonia* often does not manifest itself in children, but is supplanted by nervous symptoms.

—Prof. Brinton does not favor, in cases of *Fracture of the Humerus*, the splinting of the upper arm only, and leaving the forearm without any splint or support other than a sling.

—For *Enlarged Thyroid Glands*, Prof. Parvin recommends the local application of an ointment consisting of from twenty to thirty grains of the biniodide of mercury to half an ounce of simple ointment.

—Prof. Brinton says, in examining the *Scapula* for possible fracture, the arm should be carried behind and upward on the back, which will cause the scapula to extend prominently.

—Prof. Wilson says a peculiarity of *Rheumatic Fever*, which in obscure cases becomes an important diagnostic point, is the occurrence of irregular sweats, which bear no relation whatsoever to the fall of the temperature.

—Prof. Hare says there is no drug which has as good an influence on true *Gout* as colchicum. The best preparation to use in these cases, he thinks, is the wine of the root of colchicum, in the dose of from five to twenty drops.

—When *Diphtheritic Exudations* are laryngeal or sublaryngeal, Prof. Wilson says steam inhalations, consisting of one part alcohol and five parts of water, will be found not only to give much relief, but to be also very beneficial.

—In any case of *Injury to the Head*, in which a patient vomits blood, Prof. Keen says a fracture of the base of the skull will be found in nine out of every ten cases. The vomited blood will be blood that has trickled from the fracture and has been swallowed by the patient.

—Prof. Parvin says that one of the differential diagnostic signs between *Hydræmia* and *Albuminuria* in the pregnant woman is that the œdema of the lower limbs in hydræmia disappears when the patient is at rest, while if it be due to an albuminuria, it does not disappear.

—Prof. Wilson says in a case of *Croupous Pneumonia*, when the disease extends itself from one lobe of the lung to another, or when it travels from one lung to the other, we do not have a chill such as manifests itself at the outset of the disease.

—In cases of *Injury to the Head*, Prof. Keen says if at the edges of the wound a ring is formed by the effusion which is hard and well marked, it will no doubt be found to be a contused wound ; while if the margins of the wound are found to be soft and not well marked, the chances are that a depressed fracture has taken place.

—Prof. Parvin says if *Excessive Uterine Contractions* occur, and on account of the unyielding condition of any portion of the birth canal, a tear is likely to take place from rapidity of the labor, free inhalations of chloroform must be given in order to moderate the uterine forces.

—Often in the new-born, Prof. Parvin says, within a week, both in the male and in the female child, a *Secretion of Milk* occurs ; this is best gotten rid of by bathing the breast in hot water and then applying a warm mixture of three parts of sweet oil and one part of camphor.

—Prof. Hare does not think that chloroform is a very good remedy in cases of *Puerperal Eclampsia*, on account of the danger of post-partum hemorrhage due to the relaxation of the muscles of the uterus. There is also the danger from its use of cardiac failure brought on by a sudden exertion due to the convulsive movements of eclampsia.

—In *Pneumonia*, when the disease attacks the lower lobes of the lungs, Prof. Wilson says the pain is more severe than if another part of the lung is attacked.

—Prof. Hare says cases of *Tonsillitis*, especially if associated with rheumatism, will very often be relieved by guaiac, when all other drugs seem to yield no effect.

—Prof. Parvin says that it has been noted that *Eclampsia* manifests itself with special virulence at times in a certain territory, and at special times more than at others.

—In the intermitting form of *Malarial Fever* the paroxysms of fever last from three to four hours, while in the remittent form they last from fifteen to eighteen hours, according to Prof. Wilson.

—Any case of *Epilepsy* developing suddenly in a patient who is passed thirty-five years of age, and who gives no history of injury, Prof. Hare says is almost invariably caused by syphilis.

—The most efficient remedy that can be employed in cases of *Cystitis* in the female, according to Prof. Parvin, is the washing out of the bladder with a weak solution of creolin.

THERAPEUTIC BRIEFS.

—Iodine has been found to be one of the most effective agents for destroying the parasite upon which RINGWORM depends. (*Modern Medicine.*) An excellent method of applying it is the following: Thoroughly cleanse the scalp with soap and water. Dry perfectly, then apply a solution of one part of pure iodine in thirty parts of flexible collodion. Renew the application each day for four days. At the end of fifteen days, remove the collodion, wash the scalp first with soap and water, then, after thoroughly removing the soap, wash with a hot solution of bichloride of mercury, 1-2500. After allowing the bichloride solution to remain in contact with the scalp for half an hour, wash with pure water, dry, and apply vaseline or zinc ointment. If necessary, repeat the application.

—For relief of PRURITUS, the following application suggested by Bronson has been found useful :—

℞.	Acid. carbolic.,	
	Liquor. potassæ,	āā f℥j
	Olei lini,	f℥j
	Olei bergamot,	gtt. ij. M

SIG.—Shake well and apply locally.

—ICHTHYOL is proving itself to be one of the most valuable drugs in the materia medica. (*Modern Medicine.*) An ointment consisting of twenty-five per cent. of ichthyol and seventy-five per cent. of lanolin is the very best remedy for erysipelas. Ichthyol is also useful in rheumatism, in the form of an ointment consisting of equal parts of lanolin and ichthyol.

—The following is an excellent ANTISEPTIC SNUFF-POWDER (Dr. L. A. Dessar, *International Journal of Surgery*) :—

℞.	Menthol,	10.0
	Tannic acid,	2.0
	Boracic acid,	30.0
	Bismuth subnitrate,	20.0
	Starch,	50 0
	Cocaine,	
	Aristol,	āā 0.5

SIG.—Make a fine powder.

—FOR CHILBLAINS (*Amer. Med. Surg. Bulletin*) Dr. James R. Wood employs the following :—

℞.	Zinci oxidi,		℥j
	Camphoræ pulv.,		
	Myrrhæ pulv.,		
	Opii pulv.,	aā	gr. xxx
	Adipis,		℥j. M.

—FOR PAINFUL DEFECATION, attending inflammatory pelvic conditions, Dr. Murray (*Norsk Magazin for Lægevid*) recommends the following :

℞.	Bismuth subnitrate,	gr. ijss
	Mercurial ointment,	gr. iss
	Extract of belladonna,	gr. iv-v
	Cacao butter, q.s., for one suppository.	

SIG.—Two suppositories a day. The bismuth is added to prevent irritation of the mucous membrane of the rectum.

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MONTREAL, APRIL, 1895.

CANADA MEDICAL ASSOCIATION.

From recent letters received from one of the local officials of the next meeting of the Canada Medical Association at Kingston at the end of August, as well as from the venerable and esteemed President, Dr. William Bayard, of St. John, we have every reason to believe that the Kingston meeting of our national Association will be one of the most successful yet on record. The time chosen for the meeting is a most convenient one, and every physician in Canada should feel it his duty, as well as a pleasure, to be present. Of course it entails financial sacrifice at the moment, but the expense should be looked upon as a good investment, which will bring in a large dividend, in the shape of increased health and strength, mentally and physically, for the following winter's work.

The physicians of the Province of Quebec, especially, who have no provincial society of their own, should all the more feel bound in honor to attend the national society at Kingston, during the latter part of August.

If each one would hand in a brief report of a case occurring in his practice, the success and interest of the meeting will be doubly assured. It is a mistake which many general practitioners make, in thinking that the Association only wishes to hear profound and learned disquisitions on rare or unknown diseases. What seems to please these meetings most are papers full of rich experience, or simply and briefly recording a case, with its treatment and results. Most of those who attend these meetings are general practitioners, and what interests the general practitioner generally interests the whole meeting.

THE INTERNATIONAL LANGUAGE OF THE FUTURE

We regret to see by an editorial of one of our big New York contemporaries, that the editor speaks quite seriously of the advantages of Greek as the universal language of the future. While admitting that modern Greek is a very beautiful, soft and flexible language, yet the mere fact that it is one of the least spoken languages of the world, that is to say, spoken by the fewest number of the people in the world, renders it unsuitable for a universal language. We have always maintained that, as the English language is already spoken by the vast majority of the inhabitants of the earth, it would entail the expenditure of the smallest amount of energy if those who do not speak it should make a point of becoming familiar with the English language. The present method of having a great number of different languages to express their views in consumes an enormous amount of energy among those who are writers of medical literature.

THE OUTLOOK FOR MEDICAL STUDENTS.

From recent statistics it appears that the supply of medical students for the United States is, at the very lowest, three times as great as it is in Great Britain or France. It is no wonder that medical men complain of hard times when competition must necessarily be so keen. We presume that a rather large percentage of American medical students fall by the wayside, or, if they graduate, fail to pursue their profession. It is at best hard to understand how 800 new members every year can earn a living. It is, in fact, becoming constantly harder for a young medical man to get a foothold. He must either begin practice in a country village, or, if he is desirous of practising in the city, he must have private means to enable him to keep up a good appearance for three or four years, without his having been able to earn a cent.

THE DUTY OF NAVAL SURGEONS.

Quite a little tempest in a teapot has been raised in naval and military circles in the United States over the charges brought against a naval surgeon, that while on board his ship in the West Indies, he declined to take charge of a sick man on a Nova Scotia ship, the captain of which had signalled to the man-of-war to send its surgeon on board.

It is evident that if the man-of-war had not been there at the time, no one would have thought of having it sent there for the purpose of attending this sailor on the merchant ship; so that if the naval surgeon declined to take his case in hand, the sailor was no worse off than he was before having met the American man-of-war.

The naval surgeon, in defending himself, said that he was employed by the government to attend to the heal h of those on board, and he was in no way responsible for the health of the inhabitants of another ship. The idea of bringing a charge against him for not leaving his own patients and taking the care of a patient about whom he knew nothing, and that while in the employ of the United States Navy, seems extremely absurd.

THE NEW YORK ACADEMY OF MEDICINE.

We are pleased to see by the treasurer's report for last year, that this institution is in a prosperous condition, having assets of nearly half a million dollars. The number of resident fellows is 774; the bureau for nurses has been self-sustaining, and added something to the treasury. 350 nurses have been registered and 180 calls for nurses have been responded to.

We hope that the time is not far distant when Montreal will also have its Academy of Medicine. The Medico Chirurgical Socieity alone has a membership of 125, or about one-sixth of the number of members of the New York Society. If Montreal had even one-sixth of that which represents the assets of the New York Society, it would have some $80,000.00. Could not this amount be raised among the wealthy merchant princes of the city? There seems to be no difficulty in raising $100,000.00 every now and then for various educational institutions. Does any institution do more to educate the medical profession than the Medico Chirurgical Society of Montreal, or is any institution more deserving of support?

We think the time has come now when the members should begin to collect a fund for the purpose of obtaining a permanent home for the Medico-Chirurgical Society, worthy of its high-class personnel, and worthy of the excellent work which it performs.

The bureau for nurses is still more urgently needed in Montreal than the home for the Society. For at present, medical practitioners have the greatest diffuculty in hunting around for a nurse, when needing one in any emergency; while, if a bureau for nurses in connection with the Medical Society were established, a superintendent, who might be one of the nurses themselves, in turn and without salary, might always be on hand, night and day, and knowing from day to day exactly which nurses were disengaged, she could at once send them a message where to go, by means of a telephone messenger. We hope that our influential contemporary, the *Montreal Medical Journal*, will take this matter up.

PATENT MEDICINES.

During the last year or two, many a hard-working, struggling practitioner must have felt keenly the rivalry or the competition of the wealthy patent medicine manufacturer. While the physician cannot say one word in his own defence, the patent medicine man fills the daily papers with column after column of certificates, real or fictitious, of cures which his medicine has worked, and even in many cases the physician is publicly held up to contempt. Many of the statements in these advertisements are utterly false, as indeed are most of the testimonials. The public in general take everything they see in the papers for gospel truth, not knowing that the man who contracts for so much space, at an enormous cost, is at liberty to insert anything he pleases in those columns, without any regard whatever for the truth. So that we see thousands of people resorting to the drug store to purchase these patent medicines, the value of which has been vouched for by certificates from clergymen, acting in good faith, but unable to judge of the truth of their statements; from lawyers and

literary men, the latter of whom, of course, are well paid for their contributions.

The family doctor feels still more aggrieved when the patient whom he sends to the drug store to have a prescription filled comes back sometimes without the prescription, but with a bottle of patent medicine which the storekeeper has told him was much better for his case.

We have often thought that something should be done by the profession to protect itself from the insults heaped upon it in the text of these advertisements, but, according to the New York *Medical Record*, the sale of patent medicines has reached its highest point, and will gradually fall little by little as commercial prosperity returns. He has it on the authority of the editor of a large daily paper that the sale of patent medicines always increases during hard-times, for the simple reason that people cannot afford to employ a doctor, or think that it is more economical to prescribe for themselves, and thereby save a doctor's fee. He believes that the great sale of patent medicines is only one indication of the hard times, and as soon as general business revives, the people will again indulge in the luxury of medical advice for minor ailments.

We have on more than one occasion ventured to suggest to our readers that they should accommodate their fees to the requirements of the times, and that when every one is more or less out of employment, or has his wages cut down, it will pay the doctor to reduce his fee in proportion, and to obtain the medicine for his patients at the lowest possible price consistent with quality.

Another thing which might be done to diminish the injury done to the profession by patent medicines would be for the physicians of a city to unite in patronizing a druggist who would undertake not to keep any patent medicines or proprietary articles, or, in other words, not to dispense on his own account, but to limit his business to the filling of physicians' prescriptions only.

MEDICAL ITEMS.

Post Graduate Course in Gynæcology.

At the request of a number of practitioners, both in Montreal and in neighboring towns, Dr. Lapthorn Smith will, on the 1st of June, begin a post graduate course on the diagnosis and treatment of gynæcological diseases. Only a very limited number will be taken, so that each one may become thoroughly familiar with this department of medicine. Those desiring to join the class should apply early.

We were sorry to learn that Dr. Lockhart was in poor health and had been obliged to relinquish practice for a time in order to take a rest and to recuperate abroad. Accompanied by his wife and her sister, he left a month ago for a trip to the Mediterranean, from which we are glad to learn he is soon about to return much restored in health.

A very successful entertainment was given this month at the Queen's Theatre, in aid of the Samaritan Hospital for Women. Lady Aberdeen came down from Ottawa to attend it, and there were present almost all the leading people of the city, all the boxes as well as every seat in the body of the theatre and the balcony being filled. The result financially was all that could be desired, the receipts amounting to seven hundred and fifty dollars.

Dr. Macphail, who, for some years, has had his office on St. Catherine street, has moved into his fine new residence on Peel street. The Doctor is a general favorite with the profession, and we wish him many years of health and prosperity in his new home.

BOOK NOTICES.

CLINICAL GYNÆCOLOGY, MEDICAL AND SURGICAL. For Students and Practitioners. By Eminent American Teachers. Edited by John M. Keating, M.D., LL.D., and by Henry C. Coe, M.D., M.R.C.S., Professor of Gynæcology, New York Polyclinic. Illustrated. Philadelphia: J. B. Lippincott Company.

This, the latest work on gynæcology, was begun under the joint editorship of two of our most brilliant workers; but before it was very far advanced, Dr. Keating died, and the whole of the onerous duties of editing fell upon Dr. Coe. That he has had a remarkable success in accomplishing them is evident from a careful perusal of the book which lies before us. First of all, it is up to date, and those who are keeping abreast of the wonderful advances in gynæcology know what that means, for books that were thoroughly modern three or four years ago are already behind the times now. The next point that impresses us is the ability and high standing of the collaborators. First, there

is the introductory chapter by Dr. Goodell, who has since died—a chapter which should be read and re-read by every practitioner of medicine. His voice is like that of a prophet crying out in the wilderness, warning us of the errors and abuses into which those who practise in this department are too ready to fall. His great motto is: attend to the general health first before attacking the ovaries or womb; and he points out the causes of diseases of women with the wisdom of a master brain and the skill of a master hand. Dr. Goodell is dead and has gone to his rest, but his words in this beautiful introductory chapter will live after him. We were almost going to say that it alone was worth the whole price of the book. He warns us that the Anglo-Saxon stock of Americans is dying out, owing to the avoidance of conception and the production of abortion among the better classes, and he shows how unhealthy and unwholesome is the present education and mode of life of our women. The article by Drs. Baker and Davenport, of Boston, on "Methods of Gynæcological Examination," is one of the best of its kind that we have ever seen, every point being richly illustrated. Dr. Hunter Robb's article on "Gynæcological Technique" is also very good, occupying some eighty pages. Then follows Dr. Bache Emmett's article on "Gynæcological Therapeutics," and Dr. Mann's on "Traumatic Lesions of the Vulva, Vagina and Cervix." Dr. Polk has an elaborate article of one hundred pages on "Inflammation of the Female Genital Organs," and Dr. Whitridge Williams a short, but entirely new, chapter on "Genital Tuberculosis," about which very little has hitherto been known. Then follows a fine article by Boldt on "Neoplasms of the Genital Tract as far as the Uterus," while Dr. Coe himself contributes over a hundred pages on "Neoplasms of the Tubes, Ovaries and Broad Ligaments." Dr. Coe's article is the gem of the whole work, and should be read by every one before attempting pelvic surgery of any kind. The other articles by Lusk, Jewett, Palmer and Montgomery are all good. The writers of these chapters are all teachers, and the result is that all they have to say is of an exceedingly practical nature. In the few instances in which they tread upon each other's ground, it is rather an advantage than otherwise, for it gives one a better idea of how two different men accomplish the same work. Altogether, we have thoroughly enjoyed the reading of this book, so elegantly written and so profusely illustrated with nearly one thousand engravings. In this respect, as well as in the printing, paper and binding, the publishers have treated their authors generously. The book can be obtained through Mr. Renouf, St. Catherine street, Montreal.

SAUNDERS' NEW AID SERIES. Dose-Book and Manual of Prescription-Writing, with a list of the official drugs and preparations, and also many of the newer remedies now frequently used with their doses. By E. T. Thornton, M.D., Ph.G.; Demonstrator of Therapeutics, Jefferson Medical College of Philadelphia; Acting Assistant-Surgeon United States Marine Hospital Service. Philadelphia: W. B. Saunders, 925 Walnut street. 1895.

This is a very handy volume, suitable for the doctor's office desk, as it contains in an accessible form an immense amount of information on the dosage of drugs, but gives many valuable suggestions on prescription writing. The price is $1.25.

A MANUAL OF BANDAGING, Adapted for self-instruction. By C. Henri Leonard, A.M., M.D. Professor of the Medical and Surgical Diseases of Women, and Clinical Gynæcology in the Detroit College of Medicine. Sixth edition, with 139 engravings. Cloth, octavo, 189 pages. Price $1.50. The Illustrated Medical Journal Co., Publishers, Detroit, Mich.

The main feature for commendation of this book over other similar works is that each illustration shows the direction of the various turns of the bandage with arrow-heads, and each turn is properly numbered; this renders the book a self-instructor to the reader of it, who has but to put the various bandages about the limbs of an office companion a few times, when the "trick" of its application upon a patient has been learned. It takes the place, in this way, of hospital drill. Besides the "Roller Bandages," the various T's "Cravats," "Slings," "Tailed," "Adhesive" and "Plaster" bandages, and "Immovable Dressings" are given. The book is divided into sections treating of "The Bandages of the Head," of "The Body," of "The Upper Extremity," of "The Lower Extremity," "Knots," "Strappings," "Compresses" and "Poultices" with full description of making and applying the same. There is an illustration for nearly every bandage described. It has been recommended as a text-book in various medical colleges and hospitals in this country, and has had two editions sold abroad. A medical student could profitably spend his vacation evenings in mastering the application of bandages by using this book as a guide, and to a practitioner it would not come amiss.

THERAPEUTIC SUGGESTION in Psychopathia Sexualis. (Pathological Manifestations of the Sexual Sense.) With especial references to Contrary Sexual Instincts. By Dr. A. von Schrenck-Nolzing, Practising Physician in Munich. Authorized Translation from the German. By Charles Gilbert Chaddock, M.D., Professor of Diseases

of the Nervous System, Marion-Sims College of Medicine; Member of the American Medico-Psychological Association, Member of the St. Louis Medical Society, Attending Neurologist to the Rebekah Hospital, Fellow of the Chicago Academy of Medicine, Corresponding Member of the Detroit Academy of Medicine, etc. One volume, royal octavo, 325 pages, extra cloth: $2.50 nett. Sold only by subscription to the medical profession only. Philadelphia: The F. A. Davis Company, Publishers. London: F. J. Rebman.

PAMPHLETS RECEIVED.

RESECTION OF THE KIDNEY. By M. Stamm. M.D., Fremont, Ohio, Professor of Operative and Clinical Surgery in the University of Wooster, Cleveland, Ohio. Read before the Detroit Medical and Library Association. Reprint from Columbus Medical Journal, September 18, 1894.

IMPRESSIONS OF AMERICAN MEDICAL SCHOOLS. An Address delivered to the Medical Students of Queen's University, by Kenneth N. Fenwick, M.A., M.D., Professor of Gynæcology, Queen's University, Kingston, Ont.

THE SURGICAL TREATMENT OF INGUINAL HERNIA. Marcy.

PUBLISHERS DEPARTMENT.

LATE LITERARY NEWS.

RUDYARD KIPLING TO RETURN TO INDIA.

Rudyard Kipling will shortly return to India, where he will prepare, for *The Cosmopolitan*, twelve articles to appear in the American and English editions of that magazine. India is one of the most interesting of countries, and Mr. Kipling is able to write of it as no one else. His work will be looked forward to with world-wide expectation.

Perhaps the most beautiful series of pictures ever presented of the Rocky Mountains will be found in a collection of fourteen original paintings, executed by Thomas Moran for the May *Cosmopolitan*. To those who have been in the Rockies, this issue of *The Cosmopolitan* will be a souvenir worthy of preservation. This number contains fifty-two original drawings, by Thomas Moran, Oliver Herford, Dan Beard, H. M. Eaton, F. G. Attwood, F. O. Small, F. Lix, J. H. Dolph, and Rosina Emmett Sherwood, besides six reproductions of famous recent works of art, and forty other interesting illustrations—ninety-eight in all. Though *The Cosmopolitan* sells for but fifteen cents, probably no magazine in the world will present for May so great a number of illustrations specially designed for its pages by famous illustrators. The fiction in this number is by F. Hopkinson Smith, Gustav Kobbé, W. Clark Russell, Edgar W. Nye, and T. C. Crawford.

A SPRING-TIME MAGAZINE.

Women's colleges receive Dr. Parkhurst's attention in the May *Ladies' Home Journal*, and the vigor with which he treats the subject is unmistakable. His words open up new phases of college training for women which will unquestionably command not only wide attention but wide discussion. The fact that Florence Nightingale reaches the ripe age of seventy-five this month is made the basis for an interesting sketch of "The Angel of the Crimea," as she is to-day, showing a new portrait of her and a view of her London home. Elizabeth Stuart Phelps is tenderly reminiscent of her father, the late Austin Phelps, in the series of "The Man Who Most Influenced Me." Edward Bok answers, with much force and directness, a page of "Problems of Young Men." There is a strong flavor of interesting biography to this number of the *Journal*—sketches, with portraits, of the home lives and personalities of "The Wives of Three Authors," Mrs. George W. Cable, Mrs. Conan Doyle and Mrs. Thomas Hardy, being given on one page, while Frank S. Guild gives a sketch of the popular artist, Alice Barber Stephens, and Ethel Mackenzie McKenna writes of Marie Corelli. John Kendrick Bangs is irresistibly funny in his report of the sixth meeting of "The Paradise Club." The full score of the "Concert Mazurka," by the well-known composer, Bruno Oscar Klein, the piano composition which won the second prize in the *Journal's* musical series, is given. Exquisitely illustrated and timely articles are Mrs. Mallon's "Dainty Commencement Gowns" and "The Silks of the Summer." Miss Hooper writes of "The Newest Dress Designs," and Mrs. Hamilton Mott contributes a valuable article on "The Art of Travelling Abroad." Women who are ordering their summer stationery will be interested in Mrs. Garrett Webster's article on "The New Circle for Stationery." "Ecclesiastical Embroidery," by Harriet Ogden Morrison, is illustrated from original designs. The cover of this May *Journal* is a reproduction of one of Albert Lynch's beautiful girls, set into an artistic frame. This beautiful magazine is sold at ten cents per number and at one dollar per year, by the Curtis Publishing Company, Philadelphia.

The four weekly issues of *Littell's Living Age* for April are as usual overflowing with the best things that current foreign literature affords, and present a wider range of thought and style than is to be obtained in any of the monthlies, as may be seen by the partial table of contents given below:

"Some Recollections of Robert Louis Stephenson," by H. Bellyse Baildon; "The Method of Teaching Languages," by John Stuart Blackie; "John Lyly and his 'Euphues,'" by H. Lacey; "The Referendum in Switzerland," by Numa Droz; "Lord Randolph Churchill," by Sir Herbert Maxwell; "A Visit to the Buddhist and Taoist Monasteries on the Lo Fau San," by E. A. Irving; "Robert Southey," by George Saintsbury; "The Crisis in Newfoundland," by William Greswell; "Women of the French Revolution, the Great Citoyenne (Madame Roland)," by M. Dale; "The Romance of a Stuart Princess," by Mrs. W. E. H. Lecky; "The Sancho Panza of Madagascar," by Julian Corbett; "Two Modern Poets," by H. D. Traill; "Up the Yangtsze," by Lise Boehm, with many other papers of nearly equal value, besides poetry and fiction.

The fiction in these numbers is by Charles Lee, M. R. James, D. Storrar Meldrum and E. Chilton. The authors of poetry include Vida Briss, Austin Dobson, Edith Rutter, J. A. Coupland, J. W. H. Crossland, etc., etc. Published by Littell & Co., Boston.

The Canada Medical Record.

VOL. XXIII. MONTREAL, MAY, 1895. No. 8.

CONTENTS.

Original Communications.

THE PRESENT STATUS OF THE ELECTRICAL TREATMENT OF FIBROIDS.*

BY A. LAPTHORN SMITH, B.A., M.D., *Montreal, Canada, President of the American Electro-Therapeutic Association; Fellow of the American Gynæcological Society; Member of the Royal College of Surgeons, England; Surgeon in chief of the Samaritan Free Hospital for Women; Gynæcologist to the Montreal Dispensary; Surgeon to the Western Hospital, etc.*

At the full flow of the tide of the most successful surgery the world has ever known, one must possess a good deal of the courage of his convictions to rise in the presence of such a distinguished audience as this, to even discuss, far less to advocate, the treatment of tumors, even the most benign ones, by any other method than the surgeon's knife.

Appearing on the programme of this meeting, surrounded as this paper and its author is by papers and surgeons advocating every kind of surgical treatment, from tying the uterine arteries to removing nearly all the pelvic contents, my position is a peculiarly difficult one, the more especially as I have been trained as a surgeon and occupy the position of surgeon in three hospitals where circumstances often compel me to treat fibroids by surgical procedure.

It is only fair that I should say at the outset, that I did not choose this topic for my discourse; it was assigned to me by our esteemed chairman, who, in order to preserve the high reputation for impartiality which should characterize the conduct of the presiding officers of all scientific meetings, and which has been possessed to an

* Abstract of paper read before the Obstetrical and Gynæcological Section of the American Medical Association at Baltimore, 7th May, 1895.

eminent degree by the chairmen of this section of the Association in the past, no doubt wished that justice should be done to all methods of treatment at present employed.

So strong is my own personal taste for surgery, especially of the abdomen, that I might have been tempted to disobey the chairman's command, but as I reflected upon my work during the past seven years, there passed before me the image of some fifty women whom I had treated for fibroids by electricity. First, as they appeared when I saw them, with faces anxious with pain and blanched with hæmorrhage, and then after their pain had been relieved, and their bleeding had been stopped by galvanism, and their cheeks had resumed a rosy hue, these fifty women's faces encourage me to do justice, though the heavens may fall, to the treatment which has cured them.

Then there pass before me the dying faces of *ten* women, who were treated by total extirpation, at two of which operations I was the executioner, at six of which I was the first or second assistant, and at two of which I was only a spectator. True, the majority of the ten operations were performed in the pre-antiseptic days, though by a great master in this department of our art; but four of them were performed within the last few years, under the most rigorous aseptic precautions, by men who have a low mortality in general for abdominal surgery.

The memory of those fifty women who have been cured by electricity—many of whom I could find if required, and many of whom to this day stop me in the street to thank me and it for their rosy cheeks—and the memory of these ten women who are now no more, all tell me that I would be a traitor to the cause of truth if I remained silent, not only out of season, but in the very hour when it most needed to be spoken.

True, I can quiet my conscience when circumstances compel me to operate, by the reflexion that one woman died while under electrical treatment, not through electricity, but through an error of diagnosis (in mistaking a tense impacted liquid tumor for a fibroid), which would not have been made if the abdomen had been opened, or, in other words, if the treatment had been surgical instead of electrical. This is the one and only case in which, as far as my experience goes, I have ever had to seriously regret the use of electricity. I can still further soothe my conscience when I am compelled to operate, by remembering that I have operated on ten women, seven by abdominal hysterectomy, treating the stump by having it transfixed at the lower angle of the incision, and three by removal of the appendages tying the ovarian arteries low down, and of several others treated in the latter manner, at which I was first assistant, all of whom recovered and are now in good health.

When I visit the city of Brotherly Love, where the surgeons have declared war to the *knife* upon the *electrode*, I am often placed in an awkward predicament. When I tell my friend, Dr. Jos. Price, that I am going to spend a few hours at the electrical clinic with Dr. Massey, he is "surprised that a man of my intelligence can waste his time in such fiddle-faddling nonsense," and it is useless for me to assure him that I can show him many women in Canada, from Manitoba in the West to New Brunswick in the East, who are the picture of health and who have been cured by electricity.

On the other hand, when I tell my friend Dr. Massey that I am going to spend the morning with Dr. Jos. Price, extirpating fibroids, he looks with pity on my blood-thirsty taste and misguided energy. In vain I tell him that life is too short to treat all my fibroid cases by electricity.

In this somewhat peculiar position which I occupy, I have one consolation:

and that is, or at least I hope that it will be so, that the conclusions which I shall presently lay before you are those of one who is entirely unbiassed and non-partizan, and consequently to be accepted, as far as they go, in good faith.

My own opinion on the present status of electricity in the treatment of fibroids is fully made up, and I shall now endeavor to lay it plainly and honestly before you.

During the last year especially, although it has been growing gradually for several years, the conclusion has become evident that electricity is not suitable for every kind of case nor for every kind of doctor.

It is as true to-day as it ever was, that for the cure of pain in and bleeding from the uterus, the application of the positive pole of the galvanic current, properly applied and of sufficient strength to the uterine mucous membrane, is in the majority of cases effective. The percentage of successes is greatest in those cases in which the fibroid growth is interstitial, not quite so great in the cases of submucous growths, although in several of these cases a few applications have been followed by the expulsion of the tumor from the uterine cavity. The earlier the cases come under treatment the more surely are they cured, many patients with small interstitial tumors in the anterior wall having been cured by me, and still more under the care of others. So that the plea for the early treatment of fibroid tumors by electricity is just as just a one as is the early plea for operative treatment—indeed, it is even more so. For while we can truthfully say that the electrical treatment, when undertaken early, and with a correct diagnosis, is at the present day entirely devoid of danger, no one can truthfully say the same of the treatment by operation. In fact, I am sorry to say that no one knows what the death rate of the latter treatment stands at. Three of the ten deaths which I have above mentioned have never been reported, and six of them were only reported at my urgent solicitation. May there not be many other similar cases?

When a woman comes to a doctor for menorrhagia, and he discovers a small fibroid, is he to urge her to submit to an operation when he knows that with the greatest skill and care she runs the risk of dying from the operation, while if let alone the death rate is not more than one per cent., while with electrical treatment the risk is absolutely nil?

When she tells me that she will not submit to operation, will I assure her that I can do nothing for her, when I carry in my pocket the record of fifty similar or worse cases which have been cured by electricity? Surely that were dishonest. And yet the temptation to operate in spite of the danger of surgical and the safety of electrical treatment is very great; too great in some cases for us to resist.

Ours is a busy life, and there is not one of us here who has not often felt that life was far too short to accomplish all the good that we would wish to do, and for the want of a few more hours in the day much work of value to our fellow-beings must go undone.

With this feeling strong within us, a poor woman applies at the out-patient department of our hospital, with a small interstitial fibroid which has, however, doubled or trebled the bleeding surface of the uterine mucous membrane. We believe that we could cure her by a long and tedious course of treatment with electricity, from ten to fifty applications, either at the hospital, or if there are no facilities at the hospital, then at our office. If atthe hospital, the time required for this one case would seriously encroach upon the time allotted to our service there; if at our office, there is the same as well as other objections. And when we have made the sacrifice and cured the woman, what is our reward?

Perhaps, but not always, the woman's thanks. Our own feeling of having done well, surely. But when we turn to our brethren, whose esteem is and should be the greatest incentive that we can look for to good work well and conscientiously performed, what do they say? We have no fresh and bleeding tumor to take to the medical society,—as an Indian waves a white man's scalp,—before our admiring brethren as a trophy of our powers and our skill. I have shown the women over and over again; I have shown their clothing, which had to be taken in as much as seven inches owing to their decrease in size; the women themselves have offered to state on oath that their bleeding had been arrested and their pain removed, and their general health improved. How were these triumphs of therapeutic skill received? With loud applause, you will say. No, indeed. The praise bestowed upon the exhibitor of even an apparently healthy appendix, the removal of which was followed by the death of the patient, is received with acclamations wild in their enthusiasm when compared with the manner in which is received the report of a case of cure by electricity. Indeed, a sincere friend and admirer in our Society warned me privately that my reputation was injured every time I showed a woman who had been cured by this means, and he urged me to show no more. But I must continue to cure them by that means as far as my time limit and life limit will allow.

How different when we report an operation, whether the patient lives or dies. Everybody seems pleased, and praises us in proportion to the danger to which our patient has been exposed. But if she dies, there are two at least who must regret that it was performed: the patient and the doctor; and sometimes there are the husband and the little children who are very much concerned.

But how much easier to take the patient into the hospital, and in a few days perform hysterectomy, which we can do in a quarter of an hour sometimes. It is, as the French say, "un mauvais quart d'heure," but it is soon over, and the patient's fate is sealed for weal or woe when we have put in the stitch which closes the peritoneal cavity. After that the house surgeon and nurses take care of her, and an average of three minutes a day for the next twenty days is the very most she requires of us. But with the electrical treatment, what with getting the patient ready, carrying out the asepsis of the vagina, and adjusting the apparatus, I have spent as much as one hundred precious hours on one single fibroid case. But the ovaries remained, and many of these ladies are now happy mothers of children, and others are happy wives though childless.

I have lately asked several well-known men, men of the highest surgical reputation, —you would be astonished if I mentioned their names,—whether they had employed the electrical treatment with good results. And when they assured me that they had, although they have never reported them, and I asked them what was the principal objection to it, they replied in confidence that it took too much of their time. And this I admit is a serious objection to it, but not an insurmountable one. There are two ways in which it may be surmounted: one is by having an assistant, whose time is less precious than our own, who has been trained to carry out the treatment with accuracy and care when we prescribe for the disease which our more experienced touch has diagnosed; and the other is by having several rooms, and a nurse to prepare the patient, including the antiseptic vaginal douche, and by devoting two afternoons a week, and having those patients come only at that hour, as many as six treatments an hour might be administered.

Never before has it been so well demonstrated as it is to-day, that by the division

and sudivision of labor the artists become more and more expert. It does not surprise me therefore that the best results of the electrical treatment of fibroids is obtained by such men as Apostoli and Massey who employ this treatment alone. They both obtain results which neither I nor any other operating gynæcologist can hope for. In every large city we should encourage some one man to establish an electro therapeutic clinic, where our poor patients at least might obtain the benefit of his skill in electrical technique after having obtained the benefit of our experienced diagnosis. In time his reputation would reach the ears of the rich, and he would then have some substantial reward.

The present status of electricity is suffering, as did the status of abdominal surgery a few years ago, because they have been tried by men without sufficient experience, and have, as a consequence, been found wanting. The electrical treatment of fibroids requires the gynæcologist's knowledge of the pelvis and its contents, as well as the electrician's knowledge of the power he is wielding.

I must trespass on your time yet a little more while I refer to two points: one, a claim which has recently been made by Apostoli for the electrical treatment, which I can heartily endorse; and the other, an objection which has been made to it, which I can as heartily deny.

Apostoli has discovered that the very failures of electricity can be turned to advantage in the following manner: It has been found that in those cases where the electrical treatment has been badly borne, and has been followed by febrile reaction, so that the patients have been turned over to the surgeon for operation, the presence of pus tubes and pelvic peritonitis has been discovered. Apostoli has pointed out that electricity may be employed as a diagnostic agent for the purpose of detecting diseased appendages. A remarkable instance of this came under my notice a little over a year ago. A young woman, who had been employed in a restaurant in a New England town, gradually lost her health with pain and hemorrhage. She suffered agony with her periods, which came too often and lasted long, so that her face was blanched and haggard. There was no difficulty about the diagnosis, as the tumor was large, round, symmetrical and in the median line, extending up to the umbilicus, and could be easily seen and felt bulging up the abdominal wall. Several physicians in the United States, her family physicians in Montreal, as well as myself, all agreed that it was a fibroid. One of them had tried electricity several times, but always with bad results, and so did I. As she was laid up in bed for several days each time, I concluded that the appendages were diseased, and after three applications I decided to stop and to perform cœliotomy. On opening the abdomen the tumor was at once seen surrounded by adherent intestines, but it still appeared a symmetrically pear-shaped fibroid. I could not, however, detect the ovaries and tubes, and while digging around for them I made a line of cleavage, which being followed up I was able to dissect out a portion of the tumor, which proved to be a sausage-shaped pus tube, which was delivered intact, tied and cut off. Then followed a large cystic ovary, then the other tube which broke and inundated the field with pus, and then the other ovary, by which time the supposed fibroid was gone and only a moderate sized uterus remained. The pelvis was carefully washed out and drained, the patient made a rapid recovery, and is now at work and enjoying perfect health. So that in this case Apostoli's doctrine, that when the application of his method causes febrile reaction the tubes are badly diseased, was fully borne out. Now, the objection to electricity which has so often been made to it, especially by one of my most

esteemed friends in Philadelphia, that it causes adhesions, is not true. I maintain that one has no right to bring that charge: 1st, if fibroids which have *never* been treated with electricity do have adhesions; and 2nd, if fibroids which *have* been treated with electricity can be proved not to have become adherent.

Now, I am in a position to prove both of these facts. When in Baltimore I saw the abdomen opened for fibroid, but it was so adherent to everything, intestines and abdominal walls, that the operator, one of the ablest in the world, did not consider it possible even to get the ovaries out, and the abdomen was sewed up. Now, this case, the most covered with adhesions I have ever seen, you will say, had received many applications of electricity, and so I thought, judging from these statements, must have been the case. But careful enquiry elicited the fact that she had never received a single application of electricity. But that is only negative evidence. Let us see about some positive evidence.

Three or four years ago I treated a lady, head mistress of a large public school a thousand miles away, for hemorrhage and pain, by means of intra-uterine positive galvanism. She had received one year's leave of absence from her important duties, and the commissioners had advanced her a year's salary in order to regain her health, she being utterly incapacitated for work. You may imagine that she was peculiarly anxious to get well, and therefore submitted to a very rigorous application of the treatment three times a week with great fortitude, as high as 200 milliamperes being frequently given at a time. And this was not for once or a dozen applications, but for one hundred times. By this time the bleeding and pain were nearly, if not entirely, arrested, and I advised her to complete the cure by a few months rest at her old home down by the sea in New Brunswick. This she did, and came back to me in July with rosy cheeks and sparkling eyes. She and I would have been perfectly satisfied with the result, and I should have reported her among my cures, had it not been for one thing, and that was that she asked me the question: "Can you promise me that the awful hemorrhages will not return after I have gone to my far away home in the West?" This I could not answer her affirmatively.

Her next question was: "Is there any other treatment by which you could guarantee that result?" My reply was: "Yes, one only, and that is hysterectomy."

Although the operation was not required by her then present condition, yet owing to her financial situation, which would preclude her ever coming to Montreal again, at her urgent request I removed her uterus.

Now, if the charges against electricity have a vestige of truth in them, I must have found the tumor covered with adhesions, in fact, the tumor and intestines and appendages must have been one agglutinated mass, requiring some hours of patient toil to detach them, and for this I was prepared. But what was my astonishment on opening the abdomen and screwing a corkscrew into the tumor, to be able to lift it out smooth and shining as the top of a bald man's head; the transfixing of it with pins and circling it with the serre-nœud was the work of a few moments, and in a minute more the tumor was off. She ran her five or ten per cent. of risk of death safely, and made a splendid recovery, and was at the head of her school once more on the 1st of September.

One such case carries more weight than a thousand assertions that electricity causes adhesions.

But I can duplicate it. A young lady, who is now a trusted nurse in a New York hospital, came to me, the first year I used this treatment, for hemorrhage and pressure symptoms caused by a large fibroid. She improved so much, that I decided that

she might go home by the time she had received fifty applications. But after the last application she began to flow before her time, and I asked her to wait until it stopped. It lasted 17 days, a steady little stream of dark blood. I became momentarily discouraged, and advised operation, which was accepted, and I handed her over to a more experienced operator than I was at that time, but assisted at the operation. The tumor came out without the slightest difficulty, and was removed in the same way as the one mentioned above. I examined it most carefully, and the only trace of an adhesion to be found was a spot about the size of a silver five cent piece where the tumor had rubbed upon the brim of the pelvis on the right side, and where she had often complained of pain before coming to me. But there was not a sign of adhesion in the track of the electric current, nor anywhere else, except at this one spot. The hemorrhage was due to a tiny opening in a uterine sinus caused by the end of the electrode.

I dislike electricity personally, because it takes up my precious time; but I want it to get fair play, and not to be blamed for sins that are not its own.

There is one charge, however, which was frequently brought against the electrical treatment of fibroids, or rather against a method of applying it, in the past, and which was well deserved, but which is no longer applicable, because no longer employed—I refer to the method by galvano puncture.

The greatest claim for the electrical treatment of fibroids that can be made for it is that it has no mortality, that it is absolutely safe. If it is not more safe than any other treatment, or in fact unless it is absolutely free from danger, there remains only one advantage in its favor, namely, the saving of the ovaries. But galvano puncture, no matter how performed, whether by the vagina or through the abdominal wall, must ever be a procedure fraught with danger, and is to-day practically abandoned. If anyone still uses it, in the cause of the electrical treatment of fibroids, I beseech him to use it no more. The positive pole of the galvanic current gently introduced into the uterus will accomplish our object by unseen but no less certain means. It dries up the juicy bleeding mucous membrane, and by its tonic action upon the muscular tissue through which must pass the vessels carrying nourishment to the tumor, its blood supply is cut off just as surely as though we tied the ovarian arteries which supply the body of the uterus.

The action of the electric current as applied to fibroids is threefold. The first is not mysterious; it is but the arrest of circulation in dilated capillaries by an electro-chemical cautery. The second is no more difficult to understand than the action of ergot or strychnine; it not only tones up the vaso-motor system, making the calibre of the arteries less, but it calls into play the special and remarkable power which the uterus possesses of controlling its own circulation when it has the strength to contract.

The third effect of the current, its electrolytic action, is, I admit, as mysterious as it has ever been, but not more so than the invariable absorption of syphilitic gummatous deposits following the administration of iodide of potassium. Whether what we call electrolysis means the actual breaking up of an organic tissue into inorganic atoms, or whether it means, as seems more likely to me, that the growth deprived of its blood supply undergoes fatty degeneration, and is partly eaten up by phagocytosis stimulated to greater activity by the trophic nerves, no one with a large experience with this subtle fluid can deny that a uterus infiltrated with and enlarged by the deposit of fibrous tissue, whether localized in the form of fibroids or dif-

fused as in areolar hyperplasia, so that the sound will enter four or five inches, will invariably diminish in depth by means of electrical treatment.

Then again, what is the enormously enlarged uterus after delivery but a bleeding myoma? Does it not stop bleeding when the arteries which supply it with blood are squeezed by its contracting walls? Does it not rapidly get smaller when, for the want of blood and exercise, that immense mass of muscular tissue silently undergoes fatty degeneration and returns to the blood from whence it came?

Wonderful and almost incredible as the total disappearance of a fibroid or myoma may seem to some, it is no more mysterious than this wonderful process of nature which we call involution.

Have those who doubt, and even worse, deny the power of electricity to work a change in fibroids, never reduced the size and weight of a uterus which nature had failed to involute? Has Emmett never reduced its size by repairing a lacerated cervix? Have Churchill and Athill and ten thousand others with honored names never reduced the quantity of tissue in the uterus by the application of iodine? Have not a hundred thousand others never reduced the weight of blood and muscle and areolar tissue in the heavy uterus by means of glycerine and hot water and other therapeutic measures? Then why, in the name of reason and justice, will you deny that an agent, which we can see blanching tissues before our eyes, and making muscles of every kind contract, why will you deny, I say, that it can diminish the blood supply to and favor the fatty degeneration and absorption of the fibrous or myomatous uterus?

Gentlemen, the electrical treatment of fibroids, reduced to the above simple equation, and stripped of all the extravagant claims which were at first made for it, in darkness, but in good faith, stands to-day upon a foundation so strong and true, that it will find an honored place in the treatment of fibroids as long as women shall dread to die by the surgeon's knife, which I think will be as long as the world shall last.

INDICATIONS FOR TOTAL HYSTERECTOMY.

An abstract of a Paper read in the Section of Obstetrics and Diseases of Women at the Forty-sixth Annual Meeting of the American Medical Association held in Baltimore, Maryland, May 8, 1895. By AUGUSTUS P. CLARKE, A.M., M.D., *of Cambridge, Mass., U.S.A., Dean, and Professor of Gynæcology and Abdominal Surgery of the College of Physicians and Surgeons, Boston, Mass.*

The author, after making some introductory remarks in reference to his interest in the work of total hysterectomy, speaks of a new method of operating by a vagino-abdominal incision. He says, by the advantages that may be gained by this method of operating it is not unsafe to say that total hysterectomy is indicated in cases in which the uterus may be in a position opposite to that of prolapse, and in such a state of immobility, superinduced by previous inflammatory processes affecting the appendages, as to necessitate for relief operative interference. By the facility with which the whole organ can be removed by the operator's adopting the improved method of technique, the danger usually attendant on the carrying out of such radical measures will be greatly lessened. Total hysterectomy should be had recourse to in cases of rapidly growing interstitial fibroids, or in cases of large subperitoneal growths developing from a broad sessile base.

The operation is indicated not only from the hæmorrhage which they occasion, but also from the pressure which may take place upon the surrounding parts. Fibroids

have a tendency to take on malignant degenerative changes.

The removal of a fibroid should not be deferred because it appears, or is first observed, at or near the menopause, for it is not infrequent for such a tumor to continue to develop long after the occurrence of that period, and it may assume all the phases and present all the untoward results that are attendant on one that has had an earlier beginning. A nodular fibroid of a slower growth should not be regarded with unconcern, for the pressure that may be exerted on the uterus or other parts may be productive of most serious results. Uterine myomata in all their various stages call for removal; this should be effected as early as possible.

In certain cases the curette can be advantageously employed; if this mode of treatment proves unsuccessful, total hysterectomy should be the next surgical expedient. The author makes mention of a case of multilocular fibroid which was not cured until hysterectomy was tried, though Hegar's method for removal of the uterine appendages had been resorted to. Total hysterectomy offers the best advantage for the permanent relief of uterine adenoma. The malignant nature and unfavorable tendencies of uterine sarcoma are unquestioned. The presence of such a growth calls for speedy action.

As in the early stages of cancerous disease, before the para-metrian tissue has become involved, so in sarcomatous developments partial removal of the organ by a supra vaginal method will prove inaquedate; nothing less than total ablation of the uterine tissue will be sufficient for a cure. Carcinomata and sarcomata in all of their various forms call for immediate and thorough removal; this should be done as soon as the diagnosis of the condition can be made. Total hysterectomy is absolutely necessary for uncontrollable prolapse after anterior and posterior colporrhaphy and other plastic operations have been repeatedly tried but have failed to produce permanent relief. In such cases the vaginal method is the operation to be preferred. Total hysterectomy is the only safe surgical expedient to be adopted in cases of hæmorrhagic polypi, which present suspicious microscopic appearances after removal, and which leave as a result an enlarged uterus, as may be determined by palpation or by the sound.

Total hysterectomy is called for in ectopic pregnancy; in such cases the hæmorrhage can be more safely controlled, and the patient is enabled to make a more rapid recovery than when other methods of procedure have been adopted. This method of treatment should be undertaken in ovarian abscess, in pyosalpinx, in old inflammation of the appendages, in a post-clinical severed uterus which has been productive of pain, and has been a source of disablement. The operation should be resorted to in all suspicious diseases of the adnexa, and in cases of large cysts as well as in papillomatous developments, in otherwise irremoveable cysts, and in intra-ligamentous fibroids and tumors of the broad ligament. Late experiences show that total hysterectomy can be accomplished with as little danger as may be attendant on many other important surgical measures. When properly performed, there is often but little tenderness left about the vicinity of the broad ligaments. When done in ectopic pregnancy, in ovarian abscess, in pyosalpinx and in purulent liquifaction of a uterine fibroid, better drainage can be established. On the other hand, when the uterus or a portion of it is left, the condition resulting is liable to be followed with many complications,—with uterine catarrh, malignant degeneration, certain neuroses, and with other sequelæ of a painful or of a clinically depressing nature. Another advantage total hysterectomy insures is that the posterior and anterior folds of the

pelvic tissue can be brought together and united by suturing, so as to secure better results than when other surgical methods are employed. In bringing together the folds after the uterus has been totally removed, their margins can be turned outward and downward; this arrangement of the parts will thus practically invest the operation with all the advantages that can be secured by the choice of the extra-peritoneal method.

Society Proceedings.

MONTREAL MEDICO-CHIRURGICAL SOCIETY.

Stated Meeting Nov. 30, 1894.

G. P. Girdwood, M.D., President, in the Chair.

Dr. Lapthorn Smith strongly advocated the use of anæsthetics, and employed the A. C. E. mixture, giving the bottle to the patient, and instructing her to sprinkle a few drops on a handkerchief and inhale it as she required it. In this way the patient never became entirely unconscious, and the employment of the anæsthetic did not necessitate calling in another physician. He admitted that it prolonged labor and increased the tendency to postpartum hæmorrhage, but he felt no anxiety on this score, while he possessed the fluid extract of ergot, which he administered in hot water immediately after the birth of the child, to prevent it. He also believed strongly in quinine and strychnia for increasing and maintaining the tonicity of the uterus. The latter he gave, where possible, for a month previous to labor.

Dr. Proudfoot referred to the use of laudanum in labor, it diminished pain, acted as a strong tonic and prevented post-partum hæmorrhage.

Dr. England endorsed Dr. G. A. Brown's method of giving ergot. He thought that in some cases the drug was not absorbed by the stomach, and therefore dependence should not be placed solely upon it. Chloroform, in his experience, in suitable cases accelerated rather than delayed delivery. He differed from Dr. A. A. Browne in his method of detaching a retained placenta, keeping the pulp of his fingers towards the uterine wall, because he believed there was less danger of damaging it thus. As a styptic he considered the hand in the uterine cavity the best means of bringing about contractions, and after this injections of hot water.

Dr. A. A. Browne, replying to Drs. England and Campbell, said that if an adherent placenta were detached from above, their method would be most convenient. He, however, spoke of detaching from below and working upwards, in which case he believed the best way was to have the back of the fingers towards the uterine wall and the pulp towards substance of the placenta, which was separated by a to and fro movement.

Dr. J. C. Cameron, in closing the discussion, explained that in making the arrangements for dealing with the subject, different parts had been allotted to different speakers, and those to whose lot it had fallen to treat of the nervous aspect of the subject had been unable to attend. He had no hesitation in putting himself on record as favoring the use of anæsthetics in the latter part of the second stage when the head was down on, and bulging, the perineum. It then not only relieved the pain, but rendered laceration less likely. He, however, would only use it to the obstetrical degree. Speaking of the employment of ergot, he said his own custom was to give it after the birth of the placenta; but he saw no very great objection to giving it earlier in some cases (that is, after the birth of the child), especially when absorption is thought to be slow. It is a good rule not to give ergot until the uterus is empty, or can certainly be emptied in half an hour. In regard to this slowness of absorption, he thought we would not hear so much about the worthlessness of ergot, if more care were to be taken to keep the patient's stomach reasonably empty. It is not at all hard to understand why the drug has no effect in some cases, when we consider the mass of stuff, in the way of food and drink, with which some patients load themselves during labor. As a prophylactic against post-partum hæmorrhage, there were two classes of cases in which ergot should always be given: (1) in *precipitate* labor, where the uterus acts in an hysterical sort of way, the uterine muscle not having attained its rythmic power, and where relaxation and flooding are apt to set in as suddenly and acutely as the contractions did previously; (2) *prolonged* labor, when the uterine muscle is apt to become exhausted, and the relaxation results from weakness. If you wish to be sure of getting the full effect of ergot, it should be given hypodermically, because when given by the mouth its action is apt to be slow. Speaking of the spontaneous delivery of the placenta, he thought some seeming contradictions which had arisen during the discussion might be easily explained by a consideration of a few of the factors which play a part in the act. When the placenta is in the upper part of the uterus, the uterine muscle or the hand of the operator may serve to force it downwards; but directly it reaches the lower uterine segment, the action of these forces is much lessened. Its further progress depends then upon gravity, supplemented by the contraction of the

voluntary abdominal muscles. It was through the action of these last that the cough, so favorably mentioned by Dr. F. W. Campbell, obtained its potency. So also the abdominal binder, by strengthening the lax abdominal wall, steadied the uterus, and allowed it to act in a direct line, hence increasing its expulsive powers. A uterus wabbling about in a lax abdomen could not be acted on so effectually by the abdominal muscles, as one that is steadied and kept in its proper place. Referring to traction on the cord, he said, of course, when we are positive the placenta is in the vagina, no possible harm could arise from gentle traction on the cord; but it is the possibility of making a mistake in this regard that is dangerous, and he believed that a placenta which was still in the uterine cavity might sometimes be erroneously thought to be in the vagina, and the traction upon the cord would be a mischievous practice. Of the danger of drawing on the cord while the placenta was still attached to the uterine wall, he need not speak; and in no case should any but the gentlest traction ever be employed. As to cases of retained placenta, he believed that most of our cases of retention occurred in the early days of our practice; and as experience ripens, they become rarer. Retention is very often caused by undue haste in trying to expel the placenta, or to improper manipulation. Referring to the method of dissecting off the placenta, it seemed to him that the one mentioned by Dr. A. A. Browne was the right one. A careful dissector always dissected towards the debris, and from the tissue he wished to save, in like manner a careful obstetrician should work from the uterine wall which he wants to save towards the placenta which he does not care to save. Then as to the difficulty experienced in separating and removing the placenta, he believed it was due to the fact that the operator did not commence his work in the right place. He should remember that the line of cleavage is in the decidual plane, and to reach this it is necessary to get down to the uterine muscle. Most men commence the operation of digital separation by following the cord. This brought them, of course, in contact with the fœtal surface of the placenta, and the only way to separate it easily from this point was to push the fingers right through it until the uterine wall itself was reached, and then commence the "peeling off" process. It would be better to begin at the edge of the placenta rather than at the attachment of the cord, or better still, to follow up the membranes, which, it will be remembered, were separated from the lower uterine segment during the first stage of labor. By passing the finger beneath them, the edge (not the centre, as in the case of following the cord) of the placenta may be reached in the plane of natural cleavage, and then the process of peeling off will be comparatively easy. If these points were kep in mind, he believed the breaking up of the placenta into pieces during its removal, with the consequent danger of leaving some bits behind, would not so often occur. Coming then to the expression of the placenta, and the question of how long should we wait before doing so? It should be remembered *why* we wait. We wait to give the uterus time to separate the placenta. To do this requires pains; and the number will depend on their strength. A man's clinical experience, therefore, upon feeling the uterus, should always inform him where the placenta is, and when and how he should interfere. Above all, manipulation should not be applied to "separate" the placenta, but to expel it, unless the uterus is incapable, or the placenta abnormally adherent. A little thought, and a thorough knowledge of what we are doing, was all the speaker believed necessary to guide one in such cases. As to the position of the patient in expelling the placenta, he preferred the dorsal; the lateral allowed the uterus to topple to one side, and pressure cannot be applied so correctly in the axis of the pelvis. The Crede method of manipulation is by all means the best method; but it is not so generally practised as one would think; many only imagine they are using it, while only the few really fulfill all its conditions. The fingers should be got well behind and thumbs in front of the uterus, grasping and compressing the fundus before downward pressure is made. If you simply press upon the organ, as a whole, without compressing the fundus, you will only flatten out the fundus and fail to move the placenta. Speaking then more particularly of the membranes, he remarked that if they are ruptured too early, separation from the lower uterine segment does not wholly take place, owing to the dilatation of the cervix being completed by the head of the child; they are then likely to remain attached even after the delivery of the placenta. In such a case the fingers should be passed up, to separate them from around the internal os, taking care that all are removed. In closing, Dr. Cameron made an appeal for gentle manipulation of the uterus during the third stage, saying it was one thing to support, another to injure the fundus; and that a great deal of harm was often done by rough handling of the uterus and its peritoneal covering.

Stated Meeting, December 28th, 1894.

G. P. Girdwood, M.D., President, in the Chair.

Dr. A. G. Morphy was elected an ordinary member.

Tubercular Ulceration of the Stomach.—Dr. Adami exhibited this specimen taken from a child of ten, born in Montreal, who, until within three months of her admission to the Royal Victoria Hospital, was in one of the charitable homes in the city.

At the beginning of October she began to be depressed, and suffered from a violent attack of abdominal pain, with frequent vomiting after meals. The attack passed off, to recur again a fortnight later; there was a third attack the next week, and since then there have been several others. A fortnight before admission, the seizures became very frequent and violent, two or three daily. The vomiting did not recur after the first attack.

During the last two months the emaciation had been most rapid, until upon admission, on December 7th, the little patient was little more than skin and bone. The abdomen was full and slightly distended and painless upon entrance into hospital, later there was diffuse tenderness upon palpation. The bowels were regular, but slightly loose.

A diagnosis was made of tubercular peritonitis. It was worthy of note that the family history in this case was good. The father had died of a "tumor in the neck," the mother and three children were alive and healthy. While in hospital the child stated that a cow at the house had become sick some few months before, and at last ceased to give milk.

The child became weaker and yet more emaciated, and died upon the 22nd instant.

At the autopsy, the body presented the most extreme emaciation, with a petechial eruption upon the lower part of the thorax and upper half of the abdomen, and upon examination presented advanced tuberculosis. Upon opening the abdomen there were abundant signs of dry tubercular peritonitis. The omentum was adherent in several places to the walls. Scattered through it were several small hæmorrhagic spots and occasional large tubercles. In the centre of the hæmorrhagic spots miliary tubercles could frequently be detected. The coils of the small intestines were dotted over with similar petechiæ. In the serous coat of the stomach also were at least four whitish tubercular masses. In the small intestines were typical transverse tubercular ulcers which had broken down, exposing irregularly the muscular coat. The mesenteric glands were enlarged and caseous, as were also the retro-peritoneal glands.

Before passing to the consideration of the state of the stomach, Dr. Adami concluded, describing the general post mortem appearance.

Dissecting out the thoracic duct, a tubercular mass was found in its walls opposite to the body of the sixth dorsal vertebra.

The bronchial glands were found enlarged, and some of them entirely caseous. There were small cavities, the largest the size of a brown bean, in the upper lobes of both lungs, with tubercular broncho-pneumonia, and further a condition of fairly recent dry tubercular pleurisy, the membranous adhesions being not pale and bloodless, but of a reddish color, and removable with moderate ease. Tubercles were present in both visceral and parietal pleuræ.

There was then a condition of advanced and very generalized tuberculosis, which, from the extremely caseous state of the mesenteric glands, he was inclined to regard as having first manifested itself in connection with the alimentary tract, although it would certainly be possible to urge that the disease began in the lungs. It was easier to explain intestinal tuberculosis succeeding pulmonary than *vice versa*. It must, however, be remembered that in this case the earliest symptoms were abdominal.

The petechial eruption and hæmorrhagic condition of the omentum and the serosa of the small intestines gained an explanation by the discovery of growths of the pyococcus aureus in cultures, made from the spleen and other organs. There had been secondary infection on the day immediately preceding death.

Turning to the stomach, this was found fairly full of curdled, milky matter, and upon examination of the walls there was found, as shown by the specimen, a certain amount of post-mortem digestion, so that in one place the wall was almost eroded through. In addition, in the centre of the great curvature was an ulcer 13 mm. in diameter, with raised and irregularly thickened edges, and with a comparatively smooth base, formed of the muscular coat of the viscus. The smoothness of the base might have caused doubt as to the tubercular nature of the ulcer, but that this was truly tubercular was shown by the fact that corresponding to it in position upon the serous coat was an area of confluent tubercles.

Tuberculosis of the inner coats of the stomach was a rare condition. Why this should be when the affection was so common in the intestines it was difficult to explain, unless it was that the acid excretion of the cells of the mucosa hindered the proliferation of the tubercle bacilli, just as acids are known to hinder the growth of the microbes outside the body. This theory would help to explain the rarity of tuberculosis within the brain substance and in muscle-tissues, which also are characterized by their active development of acid substances. That there was no great lack of production of acid on the part of the gastric mucosa, as a whole, in this case was evidenced by the post-mortem digestion.

Multiple Intestinal Anastomosis of Tubercular Origin.—The same case exhibited no less than four fistulous communications between different portions of the gut. The uppermost of these was in the lower part of the jejunum where the opening passed between the floors of two ulcers at points distant, the one four

inches lower down the gut than the other; the lowest was between the lower end of the ileum and the first inch of the ascending colon. The fistulæ had occurred at regions where the serous surfaces of ulcerated areas had come into apposition, and where the extension of the inflammatory process on to the serosa had apparently resulted in the formation of adhesions anterior to perforation.

Tuberculosis of One Suprarenal.—Dr. ADAMI exhibited this case of chronic tuberculosis affecting the left suprarenal, the right being normal. The affected organ presented a mass 2.5 c.m., or roughly an inch in diameter, showing on microscopical examination a central very chronic and fibroid tubercular growth with areas of caseation and frequent giant cells.

The specimen was from a case from Dr. Stewart's wards at the Royal Victoria Hospital, of mixed syphilis and tuberculosis in an elderly woman, the latter manifesting itself also in the lungs, where evidently it was of old standing, and in the pleura where it was of relatively recent advance.

Within the last eighteen months there had been a short discussion at one of the meetings of this Society concerning Addison's disease, associated with affection of one suprarenal. In the present case, as is most usual, unilateral disease of the organ was associated with no bronzing of the skin, vomiting, and progressive loss of mental and bodily vigor.

Generalized Tuberculosis with Affections of Back of Tongue, Soft Palate, Pharynx, and first two inches of Œsophagus.—The last specimens were from a case of extremely widespread tuberculosis in a man of 22 years of age, who died in Dr. Stewart's ward of the Royal Victoria Hospital. The larynx, trachæa, pleuræ, pericardium, large and small intestines, peritoneum, liver and kidneys, all showed signs of the disease, and with this was extensive ulceration of characteristically tubercular nature in the above more unusual positions.

Two Complicated Breech Cases of Labor.—Dr. G. A. BROWN read a paper on this subject, as follows:

Two difficult breech cases of labor having occurred in my practice within a short space of time, and having the same complication, I thought I would report them, and at the same time say something of the method of treating the complication.

Case 1.—Mrs. B., aged 32, medium-sized woman; has been fairly healthy; has had two children, the first was an eight months' child, and the second went to full term. During all the time that she carried her children she complained of persistent vomiting, and when pregnant five years ago the vomiting was so severe that artificial abortion was performed for her relief. When she became pregnant this last time I put her on small doses of chloral and bromide, which controlled her vomiting, and she had good health after the third month. About one month before labor she fell down-stairs, which might account for the complication present during labor. Her labor began Wednesday, October 3rd, at 2 p.m.; pains were strong and frequent; membranes ruptured at 4. At 5 o'clock I saw patient and made an examination, and found the breech presenting in the left dorso-anterior position and well down, almost touching the perineum. Fœtal heart was strong. From 5 to 9 o'clock there was no change in the position of the breech, although the pains were very strong and frequent. At 9 o'clock the pains began to grow weaker, and as there had been no advance of the fœtus, I decided to give chloroform. After the patient was anæsthetized I made an examination, and found the legs were extended, forming a wedge with the arms and head. The forceps were applied to the breech several times without moving it to any extent, and always ending in slipping. Traction by means of a finger in each groin was made without any result. I then succeeded in introducing my hand in utero, and seized the foot of the anterior limb by the instep, flexed the left leg on the thigh by sweeping it across to the right side of the child's chest, and at the same time rotating the knee outwards and everting the thigh. The limb was delivered by internal rotation of the thigh and extension of the leg. The fœtus having turned cynotic at this time I endeavored to deliver it hurriedly, but it seemed to be still further arrested, and on examination the arms were found to be extended. The posterior arm was easily delivered, but on making traction on the fœtus the anterior arm became locked between the head and the symphysis pubis. As the child was dead and the arm could not be dislodged, I severed it from the chest wall, and delivered by tying a noose around it. The head became extended during my manipulations, and I had difficulty in causing flexion before delivering the child. The time for these manipulations was about one hour and a quarter. The patient made a good recovery. Her temperature rose to 100° F. on the third day and fell to normal on the sixth.

Case 2.—Mrs. F., primipara, age 44, is a large, well developed woman; has been fairly healthy, no illness of any extent; has been married twenty years; family history tubercular, one brother and sister having died of phthisis. Patient came to me in August complaining of an abdominal tumor, which on examination proved to be pregnancy. Her last menstrual period was January 20th, and vomiting did not set in until the end of March. Felt life about the end of June. On October 18th I made an examination of the patient, as

she was complaining of severe pains in the abdomen. The breech was found presenting in the left dorso-anterior position. At this time no abnormality was discovered. Pains having ceased I did not see patient until November 29th. She had complained of œdema of the legs and frequent micturition during the intervening time, and two days previous to her labor had severe pains off and on. Labor began at 2 a.m. Thursday. The pains were good and strong up to 6 a.m., when I saw the patient and made an examination; found the os dilated to about the size of a fifty-cent piece and the breech presenting in the left dorso-anterior position. Fœtal heart normal. Pains continued strong and frequent up to 11, when they began to grow weaker and less often. On examination the os remained about the same, and there was no advance in the breech. Patient was feeling pretty well played out, and complained of severe headache. I decided to give her chloroform and deliver the breech. Patient being anæsthetized, on examination there was found extension of the legs forming a wedge with the head and arms. As in the former case, I decided to introduce my hand and break up the wedge. The os being dilated manually, the hand was with difficulty introduced, and the instep of the anterior limb seized and the leg delivered as before. After this the arms were delivered before traction was made on the fœtus, thus avoiding the accident which occurred in the previous case. After delivery of the arms, traction was made without result, as the fœtal head was arrested at the brim. I attempted to apply forceps, but failed, and on bimanual examination the head was found very large and fluctuating, and the diagnosis of hydrocephalus was made. I then severed the vertebral column in the dorsal region, and passed up a gum-elastic catheter to the cranial cavity, and drew off one gallon of fluid. The fœtal head was then easily delivered by traction on the body. Time for manipulations was about thirty minutes.

The measurements of the fœtal head were as follows:—Occipito-parietal 20½ inches, bregmatic 21 inches, occipito-mental 21¾ inches. The placenta was about 3½ by 4½ inches, and was very soft and friable. About two hours after labor, patient had post-puerperal convulsions, which were very severe and which lasted for three hours and were controlled by chloroform, chloral, bromide and a purge of hydrarg. subchlor. with pulv. jalap co. The urine contained 2 per cent. of albumen. Patient made a good recovery. Lactation was established on the fifth day, and with it a little rise of temperature, which fell to normal on the following morning. Albumen disappeared on the sixth day.

As will be seen by the method adopted in the second case, I profited by the experience gained by the first. Had I followed this method in the first case, I am sure I could have delivered a living child. There are several methods of dealing with this complication: First, forceps; second, soft fillet or hook; third, introduction of the hand up to the fundus, seizing a foot and delivering it, thereby breaking up the wedge by causing extension of the vertebral column.

Forceps are recommended by many good authorities, as Tarnier, Lusk, etc; but I think that it is a waste of time to apply them, as they are fitted to the thin end of the wedge, and in nine cases out of ten are bound to slip and cause a great deal of damage to the maternal tissues. Besides, traction cannot be made in the right direction, that is, usually to the right or left side, in order to change the flexion of the vertebral column to extension, which is a most important thing in breaking up the wedge. Another danger of repeated application of forceps is perhaps to stimulate the child to breathe and cause its death in utero.

The soft fillet is still recommended by different authorities, but there is often great difficulty in applying it, and it takes a great deal of time, and even then one is not always successful. There is also danger of lacerating the child's tissues and fracturing the femur. The third method seems to me to be the most scientific, and is therefore the best, as it breaks up the wedge, is quickly performed, and causes less damage to the fœtus and maternal soft parts. If one should fail to introduce his hand owing to contraction of the pelvis or tetanic spasm of the lower uterine segment, I think that the soft fillet would be the best and surest method of delivery.

The second case having had a complication of hydrocephalus, the cause of which is obscure, I would suggest a possible explanation of this case, and be glad to have an expression on this subject from the members.

We had here disease of the mother's kidneys and of the placenta, which performs the same function in the child. Why should not local dropsy occur in the cranial cavity in the child, just as ascites occurs without general œdema in the adult? The fact that the head receives the freest circulation in the fœtus would determine the site of the fluid effusion.

AMERICAN ELECTRO-THERAPEUTIC ASSOCIATION.

The Treatment of Goitre. — Dr. Chas. H. Dickson, of Toronto, stated that in the early stages of simple hypertrophy, a current of 100 to 150 milliampères should be given for ten minutes at a time, a clay electrode being applied over the goitre, and a large wire-

gauze electrode between the shoulders. When puncture is resorted to, one should not be content with a current of less than 50 milliampères applied for eight or ten minutes, and care should be taken to observe antiseptic precautions, and to see that the portion of the needle outside of the capsule is thoroughly insulated. In his experience, pure cystic goitres had proved to be the most amenable to treatment. His method was to aspirate the contents of the cyst, inject a hot solution of chloride of sodium (1 drachm to the ounce—4 to 31 cubic centimetres), apply through a trocar a current of from 50 to 100 milliampères for ten minutes, and then withdraw the salt solution. It should be remembered that puncture alone involves some risk, and that change of residence and attention to hygiene are important adjuncts to all forms of treatment.

Dr. Robert Newman, of New York, referred to a method of treatment employed by Dr Watkins, of New York City, with good results A needle was connected with each pole of the battery, and currents of only from ¼ to ½ a milliampère were found to answer.

Dr. Rockwell objected to the strong currents advised by Dr. Dickson.

Dr. Morton said the object of using these strong currents was to secure adhesion of the cyst-walls, but the same object could be attained with a current of only 5 or 10 milliampères by calling to our aid metallic electrolysis.—*Universal Medical Journal.*

Progress of Science.

THE TREATMENT OF SCIATICA.

Græme Hammond, in discussing the treatment of sciatica in the *Post-Graduate* for September, 1894, states that the pain of sciatica varies in accordance with the severity of the disease. In mild cases, from 10 to 15 grains of phenacetin will afford prompt relief, but in the majority of cases the anæsthetic properties of this drug fall far below what the patient requires. If the pain is moderately severe or intense, it is better to inject morphine. Enough morphine should be given in one dose, if possible, to thoroughly arrest the pain. It has been claimed that the morphine should be injected directly into the sciatic nerve, because it not only relieves pain, but also exerts a beneficial effect upon the inflammatory process. There is no proof that morphine possesses any such power. The writer has injected it repeatedly into the sciatic nerve in many cases, but never observed that it had any antiphlogistic properties. Puncturing the sheath of the nerve in a number of places by piercing it with a needle has in some instances afforded relief. This is accomplished by permitting the serum which is poured out between the sheath and the nerve to escape through the puncture made by the needle, thus relieving the pressure and consequently the pain.

Having made the patient comfortable, the neuritis is best treated in the following manner: Absolute rest of the afflicted leg cannot be too strongly advocated. Mild cases of sciatica sometimes get well in spite of this rule being flagrantly violated, but the course of every case will be shortened, and, in many instances, the disease will be prevented from becoming chronic by the rule of absolute rest being strictly enforced. The patient should not only be confined to bed, but the leg must be made almost immovable by being confined in a splint. The author prefers the old-fashioned hip splint, as recommended by Weir Mitchell. A piece of board about three inches wide, and long enough to reach from the axilla to the sole of the foot, should be properly covered, and then applied by attaching it to the body by a few turns of a bandage, and in the same manner to the leg from the knee to the foot and from the knee to the hip.

Having thus secured almost perfect rest for the inflamed nerve, the next most important feature of the treatment is the application of heat. The most common seat of the neuritis is in the upper part of the nerve, from its exit from the pelvis to the middle third of the thigh. Hot-water bags should, therefore, be placed under the back of the thigh and kept there continuously until all signs of inflammation have ceased; the constant electric current is also very serviceable in relieving pain. In almost all cases patients will speak of the improvement they feel after each application. A large electrode, fully the size of the foot, should be fastened to the sole of the foot by straps or elastic bands. Another large electrode, fully six inches square, should be placed under the hip while the patient is reclining. This electrode should be connected with the positive pole, the one on the foot with the negative pole, and the current should then be gradually turned on, being careful not to break the circuit until the patient is receiving enough to give rise to a moderate sensation of burning. The current may then be allowed to flow uninterruptedly for about five minutes, and should be gradually diminished until it is taken off entirely. This ought to be repeated daily, and in severe cases it can be used advantageously twice a day. By these three methods—absolute rest, continuous application of heat, and daily applications of galvanism—the most severe acute cases will promptly yield, the average cases not lasting longer than seven or eight days. At the end of that time treatment can be discontinued,

but the patient should remain in bed two or three days longer. If, in that time, he can move the leg without pain, he may then be allowed to walk a little and to gradually increase the distance until further restriction becomes unnecessary.—*Therap. Gazette.*

THE STOMACH-TUBE IN GASTRIC AFFECTIONS.

In discussing the question as to what can be done without the use of the stomach-tube in the diagnosis and treatment of gastric diseases, A. L. Benedict, of Buffalo, pronounces the tube as practically useless for determining the motion as well as the sensation and absorption of the stomach, except that the chemical examination of the stomach-contents assists in determining the motor and absorptive power. It is in investigating the secretions and the course of digestion that the tube becomes important, being the least distasteful and most practical of any method suggested. Still, in weak patients with irritable stomachs, who vomit frequently, the stomach-contents accidentally furnished may be made use of and the tube avoided. The question as to whether the fats and carbohydrates are innocuous or whether they are fermenting is answered unfavorably by finding bacteria and yeasts microscopically, and butyric and acetic acids chemically, in the stomach contents. But, knowing that fatty and starchy substances have been taken, that certain foods of these classes habitually cause trouble, finding the stomach tympanitic with gas, and noting the eructation of sour gas or liquid, in which we may smell butyric and acetic acids, the diagnosis of fermentation is quite as well established.

The change of cooked starch into sugar is not in itself an important one. If the pancreas can provide for any reasonable quantity of raw starch, it will probably not be overtaxed if the salivary function also devolve upon it. If the saliva is suspected of being at fault (which is rarely the case), let the patient chew a bit of raw potato and spit into a test-tube, in which, after a few minutes, the ordinary sugar-test will show whether or not enough ptyalin is secreted.

It has been shown that the presence or absence of pepsin and rennet has not much practical importance, a little of either seeming to act as well as a good deal. The author protests against the indiscriminate use of pepsin, and believes that, as Ewald says, it should be restricted to cases of advanced mucous catarrh and atrophy. The most important fact to be determined is the quantity of hydrochloric acid. Gastritis of all grades, carcinoma, and usually dilatation are marked by a downward tendency in the secretion of this acid: ulcers, by a marked increase. So far as gastritis is concerned, the stomach-tube is clearly contra-indicated.

Subacute gastritis can scarcely ever require the tube, either for diagnosis or treatment, unless it is excited by foul, fermenting, soft masses. Chronic gastritis can usually be diagnosed from the state of the circulation and the history of the case; still, the tube is desirable in order to verify the diagnosis, and is invaluable for treatment. Copious hot alkaline drinks taken before meals are of some service in stimulating the sluggish circulation and washing away the tenacious mucus which dams up the feeble secretion of the glands, but one experience with lavage will teach us that the stomach must be filled and emptied several times before it is properly cleansed.

Dilatation of the stomach can be diagnosed without the aid of the tube, although the alternation of tympany and flatness and the metallic tinkle of bubbles bursting in the half-filled stomach are valuable tests, possibly only when the tube is used. In the treatment, the tube is almost indispensable to relieve the concomitant catarrh and to remove undigested remnants of food. Still, much good may be accomplished by giving predigested foods and antiseptics.

In cancer, the continued absence of hydrochloric acid, as determined from the analysis of the gastric contents, is diagnostic but not pathognomonic, as was at first claimed. Few cases of cancer fail to present other indications of their nature, and, without confirmatory evidence, the non-acidity would scarcely warrant a positive diagnosis. There are cases, however, in which every hint as to the true condition must be eagerly sought. All treatment, except possibly operative, is palliative, yet the tube is useful for the treatment of the accompanying catarrh and fermentation. However, there comes a time when any mechanical interference is dangerous.

As regards subacidity or, occasionally, non-acidity, loosely termed atonic dyspepsia, it must be borne in mind that, although 80 or 90 per cent. of the cases will be relieved by the administration of hydrochloric acid, there is danger, in the 10 or 20 per cent. of cases remaining, of giving inappropriate treatment unless the stomach-contents be examined. Acid neurosis, or supersecretion of hydrochloric acid, may be suspected from the occurrence of dyspepsia in a neurotic individual, from the account of sharp gastric pain temporarily relieved by taking food, from highly-acid eructations, and from the general characteristics of a state of over-excitement rather than depression of an organ. Still, the diagnosis needs the confirmation of chemical examination. The same neurosis culminates in peptic ulcer. The occurrence of a large hæmorrhage scarcely needs the assistance of the tube to establish the diagnosis, and the treatment both of the neurosis and of the organic lesion consists of physiological rest of the stomach and remedies to calm the overwrought secretory

nerves. Ewald refrains from introducing the tube in all cases of ulcer in which the diagnosis can be made in another way, the more so since in these cases the examination of the stomach-contents does not establish the diagnosis nor aid in the treatment.—*Therapeutic Gazette*, September 15, 1894.

A CASE OF AGGRESSIVE SURGERY.

A most interesting case of abdominal section for multiple gunshot wound of the intestines, with recovery, is described by Dr. M. L. Bennett, of Watkins, N.Y., in the *N. Y. Medical Journal* of Jan. 19. This case goes to show that surgical triumphs are by no means the exclusive prerogative of surgeons living in the great centres of population and surrounded by all the facilities which the presence of highly trained assistants, a full armamentarium, and nursing of a high order place at their disposal. The aggressive courage of a trained surgeon may develop wonders, whatever the surroundings may be, and the man who keeps in touch with the progress, with the surgical advance and the methods of the age, is at a much smaller disadvantage than is generally thought, even when he exercises his profession in villages and smaller towns. The case we refer to was that of an Italian laborer, suffering from a bullet wound an inch and a half to the right and a little below the umbilicus, and found by the surgeon lying on the grass, with a distended abdomen, a quick and feeble pulse, and a respiration of 40. The patient was sent home, a mile and a half, and preparations were made to operate without loss of time. As soon as all aseptic arrangements had been made, and assistants procured, the operation was begun. Between two and three pints of clotted blood were turned out of the abdominal cavity. Beginning at the descending colon, the intestines were methodically examined. Sixteen wounds of the intestines, located in the cæcum, ileum and jejunum, were found and closed with Lembert stitches. The peritoneal cavity was then carefully washed out. The wound was closed, leaving at the lower end an iodoform gauze drain. The patient quickly rallied, and improved every day. Twenty days after the operation a pain in the left sacral region revealed the presence of the bullet, which could be felt beneath the tissues, and was removed. A month and a half after the accident the patient was able to resume his occupation as a section hand upon a railway, —a rather extraordinarily short time after such an extensive operation.—*International Jour. of Surg.*

THE TREATMENT OF VOMITING IN CHILDREN.

The *Journal de Clinique et de Thérapeutique Infantiles* publishes the following directions and formulas to be used in the treatment of vomiting in children; Very young children should be made to swallow small pieces of ice before nursing; milk, diluted with a little Vals or d'Alet water, should also be given. Before the child is nursed, 3 grains of bismuth subnitrate should be put on its tongue. The diet should be restricted, the milk sterilized, and the time of nursing properly regulated. For older children, iced drinks, ice, and effervescent waters are recommended. A teaspoonful of each of the following mixtures is to be mixed and swallowed while effervescing: 1. Potassium bicarbonate, 30 grains; syrup, 4 drachms; water, 1½ ounces. 2. Citric acid, 30 grains; syrup of citric acid, 4 drachms; water, 1½ ounces.

Fonssagrives recommends the following: Essence of cajuput, from 6 to 12 drops; sugar, 30 grains. When this is thoroughly mixed, add an ounce of syrup of Tolu and 3 ounces of Melissa water. From a teaspoonful to a tablespoonful of this is to be taken every hour. Huchard prescribed 75 drops of tincture of iodine and 4 drachms of saturated chloroform water, of which from 2 to 6 drops are to be taken in a little sweetened water.

For nervous children over twelve years old, Ewald prescribes cherry-laurel water, 2 drachms; tincture of belladonna, 75 drops; cocaine hydrochlorate, 4½ grains; morphine hydrochlorate, 3 grains. From 5 to 10 drops are to be taken every hour. The following formula is recommended by Guibourt: syrup of lemon, 6 drachms; lemon-juice and orange-flower water, each 4 drachms; linden water, 2 ounces; Sydenham's laudanum, 9 drops; sulphuric ether, 15 drops; potassium bicarbonate, 30 grains. The bottle should be corked immediately, and from a quarter to a third of the mixture is to be taken at once. Le Bariller advises the use of the ether spray over the epigastrium; also blisters or the actual cautery over the same part.—*New York Medical Journal*, September 15, 1894.

Preferable to any of these we have found the following mixture, which has proved efficacious in vomiting of nearly every variety, including vomiting of pregnancy:

Cocaine Hydrochlor .....gr i
Aquæ cinnamomi ..... ℥ ij

Sig.—One teaspoonful every half hour until vomiting is stopped.—(Ed. *Can. Med. Record.*

TREATMENT OF PLACENTA PRÆVIA.

In an interesting article by Temple in the *International Medical Magazine* for September, 1894, the following conclusions are reached: In treating a case of placenta prævia, the very first question that forces itself upon us is to decide as to the advisability or otherwise of endeavoring to prolong gestation. Undoubtedly, in all cases of labor it is the duty of the accoucheur to endeavor, if possible, not only to save the mother's life, but also to give

every chance to the child. In all cases where both the mother's and child's life are in danger, the author gives the greatest chance to the mother, as her life is of far more importance than that of the unborn child. The question is one of the greatest importance, and one that deserves the most careful consideration at the hands of the attending physician. The line of treatment best to be adopted is not altogether a settled one; there are some who advise the immediate termination of the gestation on account of the real risk to the mother's life, and there are others who advise temporizing in the interests of the child.

No absolute hard-and-fast rule can be laid down; each dose may possibly present some peculiar feature, calling for some special line of treatment. At the same time the weight of evidence is in favor of the termination of the gestation when the first attack of hemorrhage, especially if it be a severe one, occurs before the seventh month, for the following reasons:

1. The supposition is in favor of the placenta being centrally transplanted when the first attack of flooding is severe and prior to the seventh month.

2. The tendency of all such cases is of themselves to end in abortion and consequent death of the child.

3. When the hemorrhage occurs, even in the latter half of gestation, the tendency is towards abortion. It is estimated that only one-third of all such cases reach the end of gestation.

4. The liability to a recurrence of the hemorrhage at any moment is very great: consequently the woman's life is hourly in danger.

These are all weighty arguments against prolongation of the gestation. The great fatality from placenta prævia is in the occurrence of sudden severe hemorrhage in the absence of the physician. The first attack is usually slight, but it should be taken as a serious warning to us of the possibility of the next attack being very severe, if not fatal, before assistance can be got. The occurrence of hemorrhage in the early months of gestation so reduces the chances of saving the child's life that its welfare ought not to be considered at all alongside that of the mother. The wisdom of prolongation of gestation is open to serious question. Should the first attack of hemorrhage occur after the viable period of the child, then there should be no hesitation in the mind of the physician as to what he should do for his patient, as he should without doubt terminate the gestation as soon as possible. By so doing, the child and mother both have a much better chance of ultimate recovery. To delay is to increase both maternal and fœtal mortality. On this point the words of Robert Barnes are worth quoting: "If the pregnancy have advanced beyond the seventh month, it will, as a general rule, I think, be wise to proceed to delivery, for the next hemorrhage may be fatal. We cannot tell the time or extent of its occurrence, and when it occurs, all, perhaps, that we shall have the opportunity of doing will be to regret that we did not act when we had the chance."

These are very significant words from a man of vast and varied experience. The few cases where it may be deemed advisable to prolong gestation in the interests of the child should present some, if not all, of the following features:

1. That the woman be very near the seventh month of pregnancy.

2. That the first attack of hemorrhage be but a slight one.

3. That the placenta be but laterally implanted.

4. That the woman be within easy reach of medical assistance.

Under such conditions the patient should be put to bed, kept absolutely quiet, free from all surrounding excitement, and possibly given an occasional dose of opium.

There is no virtue in the so-called astringents, such as acetate of lead, gallic acid, etc. The writer's own practice is not, even under such circumstances, to advise the attempted prolongation of pregnancy; the risks to the mother are too great and the chances of saving the child's life too small. Presuming the case to be one occurring after the seventh month, the attack of hemorrhage to be a severe one, and the cervix undilated, delivery should be accomplished as soon as possible. For this purpose he would advise that the membranes be ruptured; this allows the uterus to contract, and will of itself frequently be sufficient to check further loss of blood. The objections raised against this plan of treatment are that the normal means for dilating the cervix is removed, and that the chances against the child's living are increased. Still, it is the quickest way of securing rapid contraction, and thus stopping further loss of blood. If the flooding continues and the os is not sufficiently dilated to admit of version readily, and especially if the patient is much exhausted and not in a fit state to admit of version, the next best step is to separate the placenta by the finger from around the cervix as far as the finger will reach, as recommended by Robert Barnes. This, as a rule, answers promptly. It checks the flooding and it also favors dilatation of the cervix, for so long as the placenta retains its attachments to the lower zone of the uterus the cervix will not readily dilate. The internal administration of ergot may be resorted to from the first.

In the event of these means failing, and if the flooding still continues, while the cervix is still not dilated so as to admit of version, plugging the vagina firmly with antiseptic tampons should be resorted to. Before plugging, the vagina should be carefully syringed out with an

antiseptic lotion; this method, if properly applied, is very efficient. The plugs, however, must be carefully inserted, one after another; the first one should be placed within the cervix itself, and then the others in rotation till the vagina is perfectly full. The plugs may be made of clean strips of cotton or wool, previously soaked in some antiseptic solution. On no occasion should a sponge be used which has been in use in the house for other purposes. After the vagina has been carefully packed, a firm pad should be placed over the uterus, and the whole kept in position by a carefully applied bandage. The tampons should not be left in longer than six or eight hours, and when removed the vagina should again be syringed out.

Lastly, if on removal of the plugs the os be found sufficiently dilated to perform version, and the woman herself be in a fit state for the operation, it should be done. The bipolar method being used, if possible, the leg of the child when brought down will both form an efficient plug and further assist in dilating the cervix. The operation of version by the bipolar method may be undertaken at any time in the course of the treatment whenever the cervix will permit of it.

In Berlin it is claimed that by this method of treatment the mortality has been reduced to four and one-half per cent. of women and sixty per cent. of children,—a marvellous reduction as compared with what it used to be.—*Ther. Gazette.*

SKIN-GRAFTING OF STUMP AFTER AMPUTATION.

By Charles McBurney, M.D., *Professor of Surgery at the College of Physicians and Surgeons.*

The case upon which I will operate is one that requires skin-grafting in order to cover a large, granulating surface on the arm. It is an interesting one, because it illustrates the best method of treatment in a good many cases of traumatic surgery. By means of it we can often save large portions of tissue, which, treated according to ordinary principles, would surely be sacrificed. Take, for instance, a case of compound fracture of the thigh, with extensive laceration of the bone and soft parts. The injury was inflicted perhaps in a railroad accident, or by heavy machinery; the wound is filled with coal dust or filth, and the patient is brought to the hospital in a state of profound shock. Formerly, the approved method of treating such a case was to get rid of all the septic material by performing an immediate amputation above the wound. One serious objection to this is that, as these patients are usually suffering from shock and hemorrhage, an immediate and prolonged operation often proves fatal. The way in which we have treated quite a number of such cases here, among them the one upon which I am about to perform skin-grafting, is as follows: If there are any bleeding vessels, they should be secured at once; then, with the scissors, any shreds about the stump are snipped off, and the whole area cleansed as thoroughly as possible. The wound is left wide open—not a single stitch being put in—and dressed with sterile gauze, just as though you were dealing with a clean wound and expected primary union. All this can be done within ten or fifteen minutes, and without the aid of an anæsthetic. These wounds, no matter how dirty they are, if thoroughly cleansed and kept wide open, do very well indeed. Perhaps, at the end of a month or two — or as soon as the patient has recovered from the effects of the injury —an amputation can be performed, if necessary,

This patient, about six weeks ago, had his left arm caught in a cog-wheel, producing great destruction of the tissues, and almost severing the forearm about three inches below the elbow joint. The wound was treated very much in accordance with the principles above laid down, and we now have, as you see, a fairly good stump, with an extensive granulating surface extending almost up to the elbow joint. The question now arises whether it is better to remove this stump, or make an attempt to preserve it by skin-grafting. Even such a small portion of the forearm as this is of enormous value, while if we amputate at or above the elbow, the left arm will be practically useless. The best method of skin-grafting is that of Thiersch, which I have shown you here a number of times. One point in connection with this operation is the absolute necessity of complete asepsis. Both the wound for which the grafts are intended, and the surface from which they are taken, should be carefully prepared; in cleansing these surfaces, we employ warm normal salt solution, not strong antiseptics, which are apt to produce necrosis of the tissues and prevent healing. When we have a granulating surface to deal with, the question comes up, shall we put the grafts directly on the granulations, or first produce a raw surface with the knife or curette? The latter plan, I think, gives the best results, and in granulating ulcers of long standing it is advisable to first excise the ulcer, making an entirely fresh surface.

Before scraping this wound with the curette, I shall apply the Esmarch bandage. The statement has been made that in making skin-grafts on the extremities, the use of the Esmarch is contra-indicated, the writer claiming that it cuts off the blood supply from the surface, and thus interferes with the growth of the grafts. I do not agree with this statement. We have tried both methods here, and I do not think that the use of the bandage interferes at all

with the grafts. On the contrary, if they are applied to a fresh surface from which the blood supply is not cut off, the accumulation of blood underneath the grafts may lift them, and cause them to necrose. The grafts in this case I shall take from the patient's thigh. Two parallel incisions, about five or six inches long, are made through the skin, the tissues are then put on the stretch, and the grafts cut off with a razor and immediately transferred to the arm. This is repeated until the entire wound is covered. This newly grafted surface should be kept moist, and for this purpose we cover it with thin rubber tissues, which in turn is covered with compresses moistened in salt solution. This dressing is removed in 48 hours, and a similar one applied. This is repeated every two or three days for about two weeks, when a dry dressing with gauze will usually suffice. The Esmarch is left on for about half an hour. The process of dressing the wound on the thigh, from which the grafts were taken, is very simple. It is covered with a layer of rubber tissue and dry gauze, and the bandage is left undisturbed for seven or eight days, by which time the entire surface is usually covered with epithelium.—*The Intern. Jour. of Surg.*

CATHETERIZATION OF THE STOMACH AND ŒSOPHAGUS.

In his recent work on gastric diseases, Dr. Bouvret, of Lyons, gives a careful study of catheterization of the stomach, and we are indebted to *L'Union Médicale du Canada* for the following interesting particulars:

The author advises the use of the soft instruments, made like the familiar Nélaton catheter, but quite long, and, of course, of a much larger calibre. The olivary bougies with a flexible stem are also of use, but the soft instruments are preferable in most cases, as they allow of the injection of alimentary liquids, when a stricture has been overcome. A calibre of 12 millimeters is the most generally useful, although it is well to have several sizes on hand. It is an error to think that the smallest sizes are most easily introduced. These instruments must be kept aseptic. Before being used, they are dipped in a solution of boric acid, and are then placed in warm water for a few minutes. In cases of syphilis, tuberculosis and cancer, a special instrument should be kept for the exclusive use of the patient. The indications for catheterization are: Symptoms indicating a possible stricture or the existence of œsophageal diverticula; dyspeptic phenomena requiring investigation of the chemical condition of ingesta, and symptoms showing the necessity of washing out the stomach, either in poisoning or for the usual therapeutical purpose. The author gives a long list of contra-indications to gastric catheterization; these consist in senility, pronounced cachexias, pregnancy, various cardiac and arterial diseases, pulmonary conditions associated with dyspnœa and an enfeebled heart's actions. Disturbances of the cerebral circulation and recent hemorrhages, especially from the brain, the stomach and the respiratory system, are of great importance in this respect. While patients seldom refuse to lend themselves to this procedure, there are a certain number who will not consent. The longer the duration of the disease, and the more unsuccessful previous treatment has proved, the more readily will patients consent. It is rather important to succeed at the first attempt, as a failure to pass the tube discourages the patient, and causes him to refuse any further trial. The heart should be auscultated before practising this proceeding, as well as the lungs and aorta. An aneurism of the latter may be the cause of a stricture. All artificial teeth should be removed, unless firmly attached. The author describes the procedure to his patients before introducing the tube for the first time. He tells them that notwithstanding a temporary sense of contriction in the throat, they will be able to breathe quite well, since the tube does not go into the wind-pipe. When beginning the operation, the patient is told to breathe quietly and rather deeply, and to look at the operator, who himself begins to breathe in this manner. The suggestive effect of this causes the patient to do the same, and is of material benefit. The patient's head must not be thrown back, for this position does not facilitate the introduction and disturbs the cerebral circulation. The author has never found it necessary to anæsthetize the pharynx, which may be done by spraying or swabbing with cocaine solution.

With a soft instrument it is unnecessary to introduce the finger into the patient's mouth. The tube is placed upon the tongue and gently pushed backward. The upper orifice of the œsophagus is the difficult place to pass. The patient must be told to swallow. If he fails to perform this act, the physician waits, exerting meanwhile a gentle pressure, and soon an involuntary movement of deglutition takes place. The tube then penetrates, and is gently and steadily pushed home. The possible accidents due to this procedure have been much exaggerated. They arise from inattention to the contra-indications that have been mentioned, from the rupture of a diseased œsophagus, or from passage of the tube into the larynx,—a rather inexcusable accident. In some cases the instrument produces sharp, gastric pain. This is always due to the existence of a local gastric lesion, ulcer, cancer, or the pressure on an adjoining diseased organ.—*International Jour. of Surg.*

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MONTREAL, MAY, 1895.

SIR WILLIAM H. HINGSTON.

During the past year the CANADA MEDICAL RECORD has on several occasions in its editorial columns drawn the attention of the Government to the fact that the Medical Profession of Canada was not receiving its fair share of imperial honors ; that while there were a dozen of political knighthoods and half a dozen legal ones, this honor had so far been conferred upon only one medical man. We are glad to be able to announce that the Government of Canada, recognizing the justice of our claim, pres ed it firmly upon the British Government, with the result that one of the most distinguished members of the Profession in Canada was selected and recommended to Her Majesty ; on the 24th of May, the Queen's birthday, the honor of knighthood was conferred upon Dr. Wm. H. Hingston. We are in a position to state that this action of the British and Canadian Governments has given the greatest possible satisfaction, not only to the profession of Montreal, but of the whole of Canada, and indeed wherever Sir William H. Hingston's noble and gentle qualities are known. He had already received the highest honor which his brethren could confer upon him when they elected him many years ago President of the Canadian Medical Association. A similar honor had also been conferred upon him by the Medico-Chirurgical Society and the Union Médicale of Montreal, while the citizens of Montreal testified their esteem by electing him their Chief Magistrate or Mayor. But this last honor which has fallen to his lot, coming as it does from the hands of our beloved Sovereign, not only honors the individual but honors the whole noble profession to which he belongs. There is an old French saying, *Noblesse oblige ;* let this honor which has come to our profession be an incentive to the rank and file of us to elevate and uphold its nobility by burying the few petty jealousies and differences which may exist among us. It has often been claimed, and, we believe, justly, that nowhere on the continent of America is there a more honorable feeling governing the relations of medical men to their brethren and the public than in Montreal, where the loyal observance of the golden rule of doing to others as we would have others do to us has almost done away with the necessity of a code of ethics. For this happy state of affairs we are largely indebted to the precept and example of our elder brethren, and to none more so than to Sir Wm. H. Hingston. That he may long be spared to enjoy the honor which he so well deserves is the CANADA MEDICAL RECORD's most earnest wish.

THE AMERICAN MEDICAL ASSOCIATION.

The recent meeting of the above Association was one of the most successful in its history. The papers and discussions in the sections were of a high order of merit, and many mooted points in practice were fairly well decided upon as a result. Work began punctually each morning and afternoon at the appointed hour, and the proceedings were never allowed to drag for one moment until the hour for adjournment came. So keen was their thirst for knowledge, that several hundred members each day devoted the lunch hour to attending operations at the Johns Hopkins and other hospitals, where, especially at the former, every facility that art could suggest and wealth could procure have been placed at the disposal of the operators. The general sessions were presided over in a courteous and, we might almost say, elegant manner by Dr. Donald McLean of Detroit, whose Presidential address was a gem of Medical literature which we have since read over several times without its losing any of its interest. Although we attended the meeting

as an American, we could not suppress a little feeling of Canadian pride when we remembered that Dr. McLean was for many years a professor in a Canadian college. It was a matter of gratification for all connected with the Association to see so many members present from the most distant cities of the Continent, Portland, Ore., Portland, Me., Los Angeles, Atlanta and San Francisco, one member from which last city, Dr. Beverly Cole, having attended nearly thirty meetings, and after having travelled on many occasions twelve thousand miles by sea to do so, was fittingly rewarded for his devotion by being elected president for the coming year. Dr. Beverly Cole is a courtly old gentleman of fine address, and will doubtless fill the exalted position with credit when the Association meets at Atlanta next year. There was a notice of motion to throw the membership open to Canadians on the programme ; but owing to the absence of the mover, Dr. Reed of Cincinnati, it was left over till next year. In the meantime, the few Canadians who were present were received with that generous hospitality for which our brethren in the United States have obtained a world-wide reputation. The social features of the meeting were not the least successful ones. The leading officials were the recipients of much private hospitality, while the members generally and their wives were lavishly entertained by the profession of Baltimore at their homes, and also at a banquet and concert in the largest music hall of the city. Dr. Rohe's banquet to the Gynæcological section at the Maryland Insane Asylum was one of the most enjoyable ones we have ever attended, and will long be remembered. What with listening to papers, attending operations, renewing charming acquaintances with the members and their wives, and attending entertainments, the general opinion which we heard expressed on every hand was that it would be difficult or impossible to surpass the 1895 meeting in the city of Baltimore.

THE KINGSTON MEETING OF THE CANADA MEDICAL ASSOCIATION.

The life of every physician is a particularly anxious one, and one which is unusually wearing. Not only working often as many as sixteen hours a day, but from the very nature of his work, dealing as he does from day to day with questions of life and death, the doctor more than any other working man especially needs a holiday. When and where to take it is a good deal a matter of taste. It is said that a New York street car driver, when given a week's holidays, spent it in riding up and down on the street cars with another driver who was on duty ; some physicians feel that they are benefited in body and mind by visiting their brethren in other cities and watching them at work. Others derive most recreation by a week or two communing with nature by forest, lake or stream. This being a complete change probably does the most good. But the wisest way of all is a combination of these two methods, an opportunity for which is afforded by the meeting of the Canada Medical Association in Convocation Hall, Queen's University, Kingston, on the 28th, 29th and 30th of August, which promises to be one of the most successful meetings in the history of the Association. The place of meeting is about the centre of Canada, and the time the most convenient possible. The meeting will be presided over by Dr. William Bayard, a hale and hearty doctor over eighty years of age. It is expected also that Sir Charles Tupper, M.D., the first president of the Association, will also be present. The programme will also be of exceptional interest, so that what one learns at such a meeting repays him many times for the time and expense. Kingston is the centre of tourist trips, so that before or after the meeting one can retire to some secluded spot, or take a series of trips on the rivers and lakes in the vicinity, until a good stock of health has been laid in to meet the demands of the hard winter's work. For those who take an interest in electricity, which is now assuming so much importance in the treatment of nervous and female diseases, a hearty invitation is extended to attend the meetings of the American Electro-Therapeutic Association which meets in Toronto on the first three days of September. If for no other reason, finally at least from motives of patriotism, let each individual member of the Canadian medical profession feel that the success of our national organization depends upon our presence there. Out of six thousand physicians in Canada there should at least be six hundred present. The railway and steamboat companies will allow the usual rates of one fare and a third for the return ticket.

THE BUFFALO MEDICAL AND SURGICAL JOURNAL.

There are very few medical journals in this new country that have lived to reach the age of fifty years. Those which have done so have been founded well and been ably managed, for only the fittest can survive. This is no exception to the rule. No one can have read the above journal regularly for the last ten years as the writer has done, without having felt that a man of more than usual energy and ability was at the head of it, while all who know Dr. William Warren Potter will recognize at once that he is just such a man as could bring these results about. We congratulate the *Journal* on its jubilee, and we wish for the *Buffalo Medical & Surgical Journal* at least another fifty years of such prosperity as it has had in the past, and we trust that its editor may long be spared to direct its usefulness. Its reading pages will, we are informed, be largely increased, and other improvements will be made which will greatly increase its value to its readers.

BOOK NOTICES.

INDEX OF MEDICINE. By Seymour Taylor, M.D., Member Royal College of Physicians, Senior Assistant Physician to the West London Hospital. In one large 12mo. volume of 801 pages, with 35 engravings. Cloth, $3.75. Philadelphia: Lea Brothers & Co.

The author has prepared a work of great value alike to physicians and students. In a certain sense the name "Index" is a misnomer, for the volume is in fact a concise "Practice of Medicine," the diseases being grouped systematically in order to secure for the reader the many advantages resulting from rational arrangement. After valuable chapters on "Disease," "General Pathology," "General Diseases," "Specific Infectious Diseases," and "Specific Fevers" the various organs and systems of the body are considered, and the cause, symptoms, pathology, treatment and prognosis of each affection are succinctly stated. Numerous illustrations, together with tabulations of differential diagnosis, tests, etc., elucidate the text and condense a great amount of necessary knowledge in the clearest manner. The work is one which merits and will doubtless obtain a wide popularity.

The author enjoyed during many years the privilege of listening to the lectures of Peacock, Bristowe, Ord and Shand-Smith, and he states in his preface that his work is largely prepared from his own notes taken at their didactic and clinical lectures. This has given to it a decidedly practical aspect, and we cannot read even the first chapter without being charmed with the clearness and conciseness of the author's style.

A BOOK OF DETACHABLE DIET LISTS. For albuminuria, anæmia and debility, constipation, diabetes, diarrhœa, dyspepsia, fevers, gout or uric acid diathesis, obesity, tuberculosis, and a sick-room dietary. Compiled by Jerome B. Thomas, A.B., M.D., Visiting Physician to the Home for Friendless Women and Children and to the Newsboys' Home; Assistant Visiting Physician to the Kings County Hospital; Assistant Bacteriologist Brooklyn Health Department. Published by W. B. Saunders, 925 Walnut Street, Philadelphia, Pa. 1895. Price $1.50.

With this book on his desk, all that the physician has to do is to tear out a list, check off the food prescribed, and hand the list to the patient. Many a time the physician feels that it would be much better for the patient if he had his dietary written out; but being pressed for time, he is often reluctantly compelled to leave his orders in a verbal manner. This book of detachable leaves meets this difficulty. No one could think of all the suitable and unsuitable articles of diet for a given case on the spur of the moment; but everything will be found in these complete lists. The lists are numbered, and the key to the numbers is reserved for the physician. They will be found exceedingly handy.

THE TREATMENT OF WOUNDS, ULCERS AND ABSCESSES. By W. Watson Cheyne, M.B., F.R.S., F.R.C.S., Professor of Surgery in King's College, London. In one 12mo. volume of 207 pages. Cloth, $1.25. Philadelphia: Lea Brothers & Co, 1895.

This little work owes its brevity and its widespread usefulness to the fact that it is devoted wholly to the treatment of affections which, though nominally surgical, are yet so common as to form part of the daily work of every practitioner. Antiseptic methods have revolutionized surgical procedures and have added vastly to their successes. Moreover, by throwing light upon formerly unexplained failures, they have increased not only the knowledge but also the confidence of the surgeon, an element which must be recognized as having an important influence upon results. Professo Cheyne has long been known as one of the foremost of London surgeons, and as a critical student of antiseptic procedures in their practical bearings. In this volume he has described the methods of treatment which he

employs, and which he knows "to be efficient and to be the simplest consistent with certainty in results."

THE YEAR BOOK OF TREATMENT FOR 1895. A comprehensive and critical review for practitioners of Medicine and Surgery. In one 12mo volume of 501 pages. Cloth, $1.50. Philadelphia: Lea Brothers & Co., 1895.

The eleventh consecutive issue of this annual summary of medical progress will interest the wide circle of readers who have learned its substantial value. To have the real advances in treatment in all departments of medical practice culled by recognized specialists from the immense mass of medical literature, and presented with critical remarks in a classified form for immediate use, is assuredly a help towards success which busy practitioners will not neglect, and which other practitioners will consult for the soundest of business reasons. The reader interested in a special subject can quickly post himself on whatever is new and good in treatment by a perusal of the chapter devoted to it, and the general practitioner can with facility turn to any topic by a glance at the index. Those desiring to read up the literature of any subject can find no more convenient guide than the selected list of new books, new editions and translations. The volume is exceedingly cheap in proportion to intrinsic value and serviceableness.

CLASS-ROOM NOTES.

Prof. Keen says warty tumors are best removed by the application of a caustic, such as sulphuric acid or nitric acid: and if removed by mechanical means their bases should invariably be touched by a strong caustic.

In cases of rheumatic fever, Prof. Wilson says the heart may become affected in all kinds of cases. The mildest cases suffer as well as the severest. The heart may also become affected at any stage of the disease, but very seldom during the earlier stages of an attack.

PUBLISHERS DEPARTMENT.

A NEW ART EDITOR.

WILLIAM MARTIN JOHNSON, who illustrated the "Garfield" edition of "Ben Hur" for the Harpers, and also their editions of "The Cloister and the Hearth" and "Hypatia," becomes the art editor of the *The Ladies' Home Journal* on June 1st, leaving New York to reside permanently in Philadelphia. Mr. Barton Cheyney, a clever newspaper man, who has been attached to the press of Delaware and Pennsylvania, is also added to the *Journal's* editorial staff as one of Mr. Bok's principal associates.

JULIA MAGRUDER'S NEW NOVEL.

MISS JULIA MAGRUDER, whose story of "The Princess Sonia," in the *Century*, is attracting such favorable comment, has given her new novel to *The Ladies' Home Journal*. It is called "The Violet," and deals with the question of second marriage. Mr. C. D. Gibson, the illustrator, is making a series of pictures for the novel.

The Canada Medical Record.

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CONTENTS.

Original Communications.

HOME AND FOREIGN CLIMATE IN CONSUMPTION.*

Prepared for reading at 15th Annual Meeting of Ontario Medical Association, June, 1895. *By* EDWARD PLAYTER, M.D., *Ottawa.*

There are three principal points to which I propose to draw attention in this brief paper,—namely: the empirical and uncertain nature of a change to a different climate as a remedy for consumption; (2) acclimatization; and (3) the easy dispensability of the remedy.

(1) That change of climate in the treatment of consumptives, in the present state of our want of knowledge of the influences and effects upon the human functions of the many and various atmospheric conditions which go to make up climate, is a very uncertain and empirical remedy, I shall not here enter into a discussion to prove, but simply quote the following few words from two recent authorities. H. S. Davis, jun., A.M., M.D., of Chicago, in a recent work on Consumption, remarks: "Often a choice of climate is no easy matter. The selection is frequently made easier by watching the effect, in a given patient, of different kinds of weather." Frank S. Parsons, M.D., editor of the *Times and Register*, in a recent paper, "A Practical Theory and Treatment of Consumption," says: "The only way to test a given location for a phthisical person to reside in is for such person to test the various locations;"—that is, personally, by a brief sojourn in each.

(2) Acclimatization is a physiological process, the possible injurious effects of which upon the already deranged con-

*(Mostly Extracts from Original Manuscript of a Work on Consumption, now in Printers' hands for Publication.)

stitution of the consumptive, it appears to me, are too commonly overlooked. It is very well known that healthy, vigorous persons are sometimes injuriously affected by a change of climate. Hence we can never be certain that benefit received will fully compensate for any detrimental effects the altered conditions may produce upon the organism. Parkes writes: "How soon the body when it has become accustomed by length of residence for successive generations to one climate, can accommodate itself to, or bear the conditions of, the climate of another widely different place, is a question which can only be answered when the influences of climate are better known. The hypothesis of 'acclimatization' implies that there is at first an injurious effect produced, and then an accommodation of the body to the new conditions. Probably we do not know sufficiently the physiological conditions of the body, under different circumstances." The effects on the human body of a change to a great elevation, when not made gradually, are remarkable and sometimes alarming.

(3) Is a change to a warm or an elevated climate in the treatment of consumption necessary? In my opinion, based on a somewhat limited experience, yet a good deal of observation and study, it is very rarely necessary, although a change of locality, as from a heavy, damp soil to a dryer perhaps more elevated one, or from an urban to a rural, is frequently desirable and essential. In certain advanced, incurable cases, doubtless life may be rendered more comfortable and perhaps prolonged, by residence in a warm, equable, and, in laryngeal cases, humid climate. And again, in a very few cases, such, for example, as that of a young man in a pretubercular condition, or in the early stage of the disease, who, indifferent about his health, will not attend properly to the practice of lung gymnastics, and who has the means, and no objection, to go from home, a change to an elevated region, where the rarefied atmosphere with its small bulk percentage of oxygen will *compel* him to exercise a kind of lung gymnastics, may be advisable.

Time and science, theory and practice, have at length taught us that what the consumptive needs, first of all,—indeed, last of all, and always,—is *more pure air*, or, to be more definite, more oxygen, and this element in its best, most vitalizing condition, for it evidently has several conditions. This need, this essential, cannot be best supplied by a warm atmosphere nor by a rarefied or thin atmosphere.

The consumptive, whether from heredity or habit, is an imperfect breather. In the development of the soil for the tubercle bacillus an imperfect respiratory function plays the chief part. In the development of the soil for tubercular phthisis, all other causes are remote, and contribute to this one—an imperfect respiratory function. The air cells or air chambers of the lungs, and the blood and tissues of the body, have become clogged with the debris or products of imperfect tissue metabolism from want of oxygen; while it seems not improbable that in the decomposition of the accumulated waste, not only are inorganic substances formed which constitute food for the bacilli, but also possibly organic toxines, which transform non-virulent saprophytic bacilli into virulent pathogenic infections; an analogue of which we find in respect to a like transformation in the bacillus coli communis, from the toxines of fæcal matter. In the rarefied air of high mountains, with perhaps, too, the climbing, there is great and forced expansion of the lung membrane,—the subject is compelled to actually gasp widely for breath, expanding the lungs to their utmost, the whole function of breathing is aroused, the air chambers of the remotest recesses of the apexes are opened

up, and the walls of the chambers everywhere attenuated and purified. Thus an improved breathing function is established, while there is in the expansion full compensatory action, perhaps for the time more than full, for the thin atmosphere, and so not infrequently improved general health follows.

As already intimated, however, and as we all know, great elevation is not necessary for the cure of consumption. Not only is this the case, but the indications can be better fulfilled at much lower levels where the proportion of oxygen in the same bulk of air is much greater.

The benefits which may be sometimes derived from compressed air—air containing an excess of oxygen—in the treatment of consumptives need not be dwelt upon here, nor need the fact that at sea, at which level the proportion of oxygen in the atmosphere is greatest, the mortality from this disease among sailors between the ages of 15 and 45 has been found to be sixteen times less than on land,—a fact not attributable alone to the purity of sea air.

There is no doubt whatever, as Davis, already quoted, in a later work, on Diseases of the Lungs, Hearts and Kidneys, remarks : " That the chest can be gradually enlarged by lung gymnastics quite as much as by high altitude life, provided only one will be sufficiently persevering." Dr. Davis in no measure opposes altitude ;—on the contrary, he favors it. And, furthermore, not only can the respiratory function be quite as effectually developed and improved by suitable gymnastic exercises at home or in one's native climate, but increased and improved more safely. There is considerable risk in conveying persons somewhat advanced in the disease, with hæmorrhage, directly to a great altitude ; with proper and careful lung expansion at home, no risk whatever.

The purer atmosphere of great elevations is an important condition. But in large regions of Canada we have a pure and highly ozonous atmosphere at all seasons, while over our snow-covered expanses during many months of the year is an atmosphere practically germless, or about as near to it as is sea or mountain air,—a fact which seems to be entirely overlooked.

Respecting the cold of our Canadian climate, the colder the air breathed, the more oxygen it contains, and the more invigorating it is, while at the same time, on becoming warmed in the lungs, it expands, in a proportionately greater degree, the air chambers. Consumptives here, who in nearly all cases have acquired a predisposition to the disease by means of indoor occupations or a habit of housing in overheated rooms, may be almost without exception, and notwithstanding the cold, gradually habituated back again to an outdoor life. By proper attention to the skin, suitable clothing, and, especially, by means of the cool bath, the most susceptible of such patients may be gradually inured to living outdoors, almost constantly at all seasons ; more easily if the inuring process be commenced in the autumn, although it may be commenced at any time. Patients advanced in the disease, who had not been out doors for months, because, as they said, going out made their cough worse, I have induced to go out and spend much time out, in cold weather, sometimes with a little inconvenience at first, always with much permanent after-benefit ; and never once have I known anything like serious harm to follow, the chief points to be attended to being, the daily cool bath, abundance of clothing, especially when exercise cannot be taken, and breathing through the nostrils.

The sudden changes from heat to cold in our Canadian climate, while invigorat-

ing to persons in fair health, are sometimes trying to the already debilitated consumptive; although most consumptives bear great changes of temperature wonderfully well if not directly exposed to strong drafts of air. Such changes, however, are less marked and sudden here than they are at high altitudes. At Davos (Switz.), for example, less than 6,000 feet above sea level, the thermometer has registered 166° F. by day in the sun, and fallen at night to 16° F.—a "drop" of 150° F.

In conclusion it may be said, then: we have at our own doors, in Canada—in Ontario and Quebec,—probably some of the best localities for consumptives on this planet; and it is my opinion that, not in one case in a hundred need there be a change to another climate by any consumptive, being a native Canadian, in whom there is a prospect of recovery.

Of special localities more particularly favorable to this class of persons there are several in these provinces. Muskoka has acquired a reputation for being a highly favorable place for consumptives. It is sufficiently elevated, has a pure, invigorating atmosphere, and a large number of sunny days.

The ideal place of all for promoting health and vigor, so far as I have been able to learn, and which I beg leave to here very briefly describe, is a somewhat limited locality in the Gatineau Mountains, a few miles from Ottawa, in the neighborhood of Chelsea station and Kingsmere and Kings Mountain—Kings Lake Mount, and, it may well be named, Kings Plateau. It is about 1,000 feet above the sea level and 500 above the adjoining country, the mountain side rising rapidly, somewhat precipitously, although providing for a good driving roadway. Hence it affords the best of drainage and freedom from malaria, while any possible atmospheric impurities gravitate to the lower strata of air. It is most pleasantly exposed to sunshine by a southeastern aspect, while behind it, protecting it from northern and western blasts, is a well wooded ridge towering paternally and kingly up 300 feet higher. According to the meteorological record of the locality, the number of sunny days is about one-sixth greater than in Toronto and one-third greater than in Montreal. The air is of the purest and most exhilarating character, and Kingsmere is a very pretty, though small, body of clear spring water, and speckled trout. From this plateau one may view about 4,000 square miles of a beautiful country—from 40 to 50 miles in each of the three directions—to the right, to the left and in front. hill and dale, cultivated fields, meadows and woodland; the Ottawa, Rideau and Gatineau rivers, their valleys, windings and waterfalls; with our beautiful capital city, built on the hills at the junction and mingling of the three waters, and our stately Parliament buildings, as if silently watching their tumultuous meeting, a very Greek (or Persian) Παραδεισος (park or paradise) of health and beauty.

THE ETIOLOGY AND TREATMENT OF INFLAMMATIONS OF THE UTERINE APPENDAGES.

Dr. Augustin H. Goelet, of New York, read a paper on this subject at the recent meeting of the American Medical Association at Baltimore, in which he stated that the contention was not that these inflammations of the tubes and ovaries can always be cured, but that it is frequently possible, and unless immediate operative interference is absolutely demanded, the patient should be given the chance, and the attempt should be made before submitting her to a radical operation. This he thought particularly important since treatment directed toward attaining this end did not militate against a subsequent

operation for their removal should it become necessary, but, on the contrary, improved the chances of an ultimate successful result. He called attention to the fact that when once removed these organs cannot be replaced, and asked the question if it was not a serious error, in the light of recent developments in the etiology and pathology of the inflammations of the appendages, to remove these organs without previous attempt at a cure or removal of the cause which may be operating to maintain such condition. It may be denied that diseased tubes and ovaries are removed unnecessarily, but it must be admitted that they are too often removed for disease which is amenable to patient and persistent treatment, or which may be cured by a minor surgical operation, involving no risk, such as curettage or repair of a lacerated cervix.

If these cases are submitted to careful treatment instituted for the purpose of clearing up the surrounding exudation and favoring drainage through the natural channel (the uterus), in many instances the necessity for a radical operation would be removed, and the woman would be restored to a life of usefulness and happiness.

In corroboration of these views, he reported 12 selected cases which had come to him from other gynæcologists, who believed that removal of the diseased organs was the only method to be adopted for restoration of their health, yet these patients recovered completely without the loss of these organs.

The writer stated that these were not the only cases with such an unfavorable outlook which he had been able to cure in this manner, but they had been selected from among a number of others because they had consulted other gynæcologists before they came under his observation.

A PLEA FOR EFFICIENT LEGISLATION REGULATING MEDICAL PRACTICE.*

By Perry H. Millard, M.D., of St. Paul.

During the last decade no question in medical sociology has attracted greater attention than medical education. The requirements of our colleges not being upon a par with those of other countries, nor with other departments of education in this country, it was but natural that the profession as a whole, the medical press and organized bodies of medical men, should join in a demand for needed reforms. During the formative period of our history it is but natural that abuses should have arisen in methods of education and obtain a firm rooting. A spirit of criticism exists that will not subside pending the definite determination of a question of such vital interest to the profession of the country.

As a nation during the first century of our history, we have established a system of common school education that challenges the admiration of the civilized world. It is a subject of regret, however, that in certain advanced lines of education our methods have proven most defective. This is true of medical education ; a system having secured foothold with us, that is indeed anomalous.

Having no support other than the fees of students ; without university or college connection ; without support from the State, generally accorded other systems of education ; without restraining legislative enactments ; without laws regulating the granting of charters for purposes of medical instruction ; it is indeed little wonder that at the end of the first century of our history as a nation, chaos should reign supreme.

The agitation of the question of medical education is bearing fruit, however, in that a majority of the schools situated in the northern States demand at the present time evidence of preliminary fitness before matriculation, and that in a period of five years all colleges known to the writer have extended the period of time of study, with a change of the minimum length of term from five to six months. After the present year every medical school of recognized standing will require attendance upon four courses of lectures in different years, of six months' duration each course, before conferring the degree of M.D. The reforms thus far accomplished have only been secured in the face of determined opposition at the hands of the representatives of the low grade institutions. Future opposition will result in disaster to the participants. Professional sentiment is decidedly with those schools now operating under the advanced curricula. This is particularly manifested by the increased number of matri-

* Read Before the American Academy of Medicine at Baltimore, May 6, 1895.

culates in the last three years at schools operating under the four years' course. The fiscal matriculation at the University of Pennsylvania and Columbia is, approximately, eight hundred, Harvard five hundred, and others in proportion; while that of the recognized low-grade institutions have sensibly fallen off.

Notwithstanding the trend of public opinion, we are firmly of the conviction that our only safety consists in the establishment of efficient legislative acts in substantially every State. The high grade schools are undergoing a period of evolution, and are determined to inaugurate greater system in methods of work; with low-grade schools little evidence is at our command pointing to improvement.

The elevation of the standard of requirements in the latter class of schools have seemingly been entirely in response to the requirements of the respective State boards of medical examiners.

The indifference of the profession to methods of medical education has been far-reaching in its pernicious influences. Blinded by our own shortcomings, we did not awaken to a realization of our environment until our interests were greatly jeopardized. We found ourselves drifting, in the estimation of both the public and profession, towards a condition of professional inefficiency, not unlike that of French medicine in the seventeenth century, so graphically described by Molière. One of the greatest evils of our system was the flooding of our ranks with a horde of poorly educated practitioners far in excess of our legitimate demands. The latter assertion is convincingly illustrated by the statistics gleaned from the recent excellent paper of Professor Pepper on Medical Education, affording comparative statistics relating to the proportion of practitioners to the population in different countries of the globe.

TABLE INDICATING PROPORTION OF PHYSICIANS TO THE POPULATION.

Austro-Hungarian Empire	1 to	3,857.
Belgium	1 to	2,841.
France	1 to	2,666.
German Empire	1 to	3,038.
Italy	1 to	3,536.
Netherlands	1 to	2,484.
Norway	1 to	3,961.
Russia	1 to	8,551.
Spain	1 to	3,375.
United States	1 to	500.

The number of medical colleges indicates a similar disproportion.

NUMBER OF MEDICAL COLLEGES TO THE POPULATION.

Austro-Hungarian Empire	1 to	5,153,917.
Belgium	1 to	1,534,111.
Brazil	1 to	7,601,167.
Canada	1 to	3,336,877.
Chili	1 to	2,887,552.
France	1 to	5,477,591.
German Empire	1 to	2,471,923.
Great Britain	1 to	2,358,767.
Italy	1 to	1,445,109.
Netherlands	1 to	660,249.
Norway	1 to	1,988,771.
Sweden	1 to	1,600,917.
Russia	1 to	14,403,317.
Spain	1 to	1,950,027.
United States	1 to	440,151.

It will be observed from the above that the proportion of practitioners and the number of schools are greatly in excess of other countries. Medical colleges in foreign countries are likewise independent financially, being, as a rule, directly supported by the State, or possessing a direct university connection.

An investigation of this subject revealsbeyond the possibility of successful controversion that the most efficient profession is found in those countries protected by efficient legislation; while a correspondingly low standard of professional fitness exists in countries not similarly protected.

At one time considerable opposition existed to the regulation of medical practice by legislative enactments. With the defeat of attempts to destroy the effects of this form of legislation by litigation and the moral support afforded by the recent decision of the Supreme Court of the United States and Supreme Courts of the several States, as well as the apparent benefits from the successful operations of the law in a large number of States, it is pleasing to note a decided change of sentiment in favor of this form of legislation.

The existing opposition to this form of legislation is greatly disappearing, being greatly confined at present to the charlatan, the faculties of a few of our low grade schools and the public press. We can trace the existence of statutes regulating medical practice from the thirteenth century; in the year 1237, licenses were only obtainable in Italy upon attendance at medical lectures for a period of five years, with preliminary entrance requirements demanding three years' work in philosophy.

The first degrees in medicine were evidently conferred in Italy in 1384. Laws regulating medical practice have existed in all civilized countries for many centuries. It is unfortunate that in this country the diploma has been given a legal interpretation; in foreign countries it is simply an evidence of scientific value. With the advent of statutes regulating medical practice this custom upon the part of the courts is becoming abrogated. We cannot but conclude that in the older countries we have a superior profession in point of intelligence, with a more desirable environment; while with us we have, as a whole, men somewhat inferior in their preliminary training,

a number triple that of any other country and a professional environment most undesirable.

The essentials of efficient medical legislation will incorporate the following features:

(1) The adoption of more rigid rules governing the admission of students to medical schools.

(2) The determination of the applicant's fitness to practice by an examination upon all the branches of medicine.

(3) The right to refuse or revoke licenses for unprofessional or dishonorable conduct.

(4) An adequate penalty for violation of the provisions of this variety of legislation.

(5) The boards of examiners to be appointed by the Governor, with proportionate representation by different schools of practice. In support of demands for an adequate entrance requirement, it is conceded that medicine is now more nearly practised from a scientific basis than at any time in its history. Without adequate preliminary fitness, the broad field cannot be grasped nor its practice entrusted to persons without well trained minds.

Persons contemplating medicine as an avocation should give the scientific branches particular attention in preparation. A thorough course in the scientific department of our better equipped colleges or universities will permit of the successful accomplishment of the course now provided in the four years' curricula in a period of three years. I fully concur in the position taken by Professor Vaughan, however, in that the classical course does not prepare the student in a manner that he can safely abridge the work now required in the four years' curricula. The necessity of a thorough college training is more apparent now than at any previous time. While an immediate attempt, looking to the demand as above suggested, would probably meet with defeat, I am of the opinion, however, that by concert of action we can secure the adoption at this time of an elevation of the standard of fitess, requiring a college or university matriculation, or its equivalent, of all students wishing to commence the study of medicine. If the student cannot furnish a matriculation ticket from a recognized college or university, he or she should be required to undergo an examination that would admit to such course.

Under existing relations we cannot safely entrust this examination to the representatives of the teaching body. Except in a few of our high grade schools the entrance examination has been a farce as at present conducted. The factors leading to this condition are the same as outlined earlier in this paper. It is the result of college competition with an unnecessary multiplication, in recent years, of the number of teaching bodies. It is my judgment, based upon a somewhat varied and extended experience, that the majority of the schools in this country exists to serve the personal interests of the respective faculties rather than to serve the legitimate demands of the people. About twenty-five per cent. of our schools have a matriculation of less than sixty pupils.

The determination of the fitness of the students to commence the study of medicine should be placed in the hands of a body of men entirely disinterested. I know of no body better qualified to superintend the execution of this important trust than a State board of medical examiners. If not such a body, then a committee composed of members of a faculty of a college or university.

The minimum of entrance requirements should be uniform between the different States. Under the operations of the New York law regulating the examination of students commencing the study of medicine, much good is being accomplished. I desire to urge upon the profession the necessity of provisions in future acts looking to a rigid protection of the gateway to the study of medicine.

(*To be Continued.*)

Society Proceedings.

MONTREAL MEDICO-CHIRURGICAL SOCIETY.

Stated Meeting Dec. 28, 1894.

G. P. Girdwood, M. D., President, in the Chair.

Dr. J. C. Cameron, speaking in regard to the treatment, said the proper course to pursue, in these cases depends (1) upon where the arrest has taken place—whether it is at the brim, or whether it is low down; (2) whether the liquor amnii is present, whether it has only a short time escaped, or whether it has been long drained away. When the arrest is high up (at or above, the brim) which is a common occurrence, and the hand can be introduced, the manual breaking up of the wedge is indicated. He did not, however, think it necessary to pass the hand up as far as the fundus for this purpose; by passing the fingers along the posterior surface of the thighs, the flexure of the knees could be reached, then abduct the limb, pressing at the same time on the thigh, and the leg will generally fall into the operator's hand. This treatment, known as Pinard's manœuvre, is also indicated when sufficient liquor amnii is present to permit the introduction of the hand. When, however, the breech has descended, or when the liquor amnii has all drained away, leaving the uterus contracted round the fœtus, it may be impossible to introduce the hand

sufficiently to make such manipulations; the forceps are then indicated. The fillet and nook are apt to do too much injury to warrant their use. Tarnier's Axis Traction Forceps are the best for such cases, the blades being introduced so as to grasp exactly the lateral diameter of the breech. If care is taken as to the direction in which traction is made, Dr. Cameron thought slipping not so likely to occur. It is the position of the arms after all that constitute the real difficulty in such cases. If they happen to be flexed outside the legs, or if the elbows project, delivery is almost impossible.

Dr. Geo. Brown, in reply to Dr. Cameron, thought it made very little difference once one succeeded in getting the hand inside the uterus, which method was adopted, provided the operator delivered a leg, the difficulty being in getting the hand in. He had very little faith in the use of forceps in such cases; he found that no matter how accurately applied, or how well fitted, slipping occurred on the least force being used. It was only to be expected, as the blades could not, from the nature of the case, get a secure hold of the breech. Moreover, if Tarnier's forceps were used, and a lot of traction exercised, fracture of the child's ilia would almost certainly result.

Stated Meeting, 11th January, 1895.

J. B. McConnell, M.D., First Vice-President, in the Chair.

Dr. R. A. Bowie, of Brockville, was elected an ordinary member.

Death from Chloroform.—Dr. James Bell reported this case as follows:—

Mrs. T., æt. 30, suffering from cerebral tumor involving the lower portion of the left motor area, was prepared for operation December 6th, 1894. The administration of chloroform was begun at 2 p.m. by Dr. Davidson, with Dr. Fry watching the radial pulse. Chloroform was given on an Esmarch's wire mask, covered with thin stockinette. From first to last the amount of chloroform which escaped from the bottle was seven drams, but on two occasions the bottle was upset and some of its contents spilled. The seven drams, therefore, represent not only the chloroform which was poured upon the mask, but the quantity which was spilled on the two occasions above referred to. The whole period during which chloroform was administered was thirty-three minutes. The patient passed quietly into the anæsthetic state without any unusual or untoward symptoms. At 2.30 the pulse was 100, respiration 28, pupils contracted. At 2.35 lines were drawn on the shaven scalp with the scalpel to indicate the position of the Rolandic and Sylvian fissures. These incisions were very superficial, but the patient struggled a little, showing that she was not then fully anæsthetized. It was also remarked that there was very little bleeding from these slight incisions. (I am now inclined to attach some importance to this fact.) From this time 30 drops of chloroform were dropped upon the mask, 10 drops at a time. At 2.39 the pulse stopped suddenly and without warning. Six respiratory movements occurred after the pulse ceased to be felt,—at first full and strong—and gradually diminishing until they ceased altogether. There was then full dilatation of the pupils, and general lividity developed rapidly. The patient was inverted, hot applications were applied to the precardium, the tongue was drawn forward and artificial respiration carried on for fifteen minutes, when respiration was restored. Six natural respirations occurred in a minute, during which the lividity was decreased considerably. The pulse could not be felt, but some cardiac movement could be recognized by Dr. Stewart with the stethescope. With the return of respiration I began to feel that the danger had passed, but at the expiration of one minute respiration became slow and shallow. Artificial respiration was resumed, 1-50 gr. of strychnia was given hypodermically and three capsules of amyl nitrate (5 minims each) were applied to the nostrils. At this time, however, respiration had practically ceased, so that the amyl nitrate had probably no effect whatever. Respiration ceased entirely and deep lividity supervened. Restorative measures were abandoned at 2.58.

At the autopsy, seven hours after death, all the chambers of the heart were found moderately full of blood, the brain tumor was found to be an infiltrating sarcoma, diffused over a wide area of the left hemisphere with secondary nodules in the peritoneum,—an inoperable growth.

The coroner was notified and an inquest held, the result being a verdict fully exonerating the hospital and all concerned.

In this case, which was carefully observed throughout, death very clearly began at the heart, and also very clearly was not due to overdosage, which, I believe, is a much more frequent cause of death in chloroform administration than is generally recognized. In cases of death from over dosage, moreover, the respiratory function is the first to fail, and the widespread belief that chloroform frequently, if not generally, kills through arrest of the respiratory function is, in my opinion, largely based upon the observation of such cases. This was a conspicuous fallacy in the experiments of the Hyderabad Commission. They chloroformed several dogs to death (over-dosage). These dogs all died through arrest of respiratory function, and upon those experiments the

Commission laid down the rule that deaths from chloroform *always* occurred in this way, entirely ignoring such cases as the one here reported. Throughout the whole history of chloroform as an anæsthetic, cases of sudden death have occurred from time to time in patients with sound organs, often during slight operations or before operation was begun, and at an early period of anæsthesia, in which arrest of heart's action and cessation of respiration were noted at the same moment, or in which the arrest of heart's action was first noticed. Now, it must be borne in mind that in strangulation, asphyxia or paralysis of the respiratory centre, causing complete cessation of respiration, the heart's action continues and the radial pulse can be felt for an appreciable space of time—often for some minutes. On the contrary, sudden and complete arrest of the heart's action is *immediately* followed by cessation of respiration. It is, therefore, highly probable that when pulse and respiration appear to fail at the same moment, the primary failure is in the heart. The fact already noted, that the slight incisions in the scalp bled only slightly, has led me to think that perhaps there was, even then, some inhibitory process at work affecting the capillary circulation, and apparently beginning at the periphery, as the pulse was still full, strong and regular. Besides, the heart failure was not complete, when the radial pulse first became so weak as to be inappreciable, as cardiac movements were recognized later, and there was a return of respiration for a little more than a minute.

Dr. JAMES STEWART remarked the cause of death was heart failure. This, he believed, was the usual cause, according to the investigations made in this country and in Great Britain. Surgeon Laurie had made various attempts to prove that death was due to respiratory paralysis; but since his paper on this subject in connection with the Hyderabad Commission appeared, many others have closely investigated the subject, and almost all agree that death takes place, not through the respiratory, but through the cardiac centre. The matter is of special importance, as Laurie's teaching is now so widespread that the administrator is led to pay greater attention to the respirations, to the neglect of the pulse; whereas in reality it is the latter which should be the more closely watched as the source of danger.

Dr. GORDON CAMPBELL thought that in the case under discussion there must have been some recovery of the heart, temporarily at all events. Dr. Bell said that after the stoppage of the heart the lungs continued acting for six or eight respirations, then they also ceased and the patient became very livid. However, after artificial respiration and other restorative measures had been adopted, the patient again began breathing naturally, and after a certain number of full respirations the lividity became diminished and the appearance of the patient so far improved as to lead Dr. Bell to believe all was well. This improvement could not occur from the mere æration of the blood in the lungs. To relieve the congestion of the peripheral circulation the heart must have acted also, and on this account Dr. Campbell believed that here at least the initial paralysis of the heart was not final or permanent.

Dr. MCCONNELL remarked, that according to a report of some investigations recently undertaken in the United States by Hare and Thornton, the Hyderabad theory was confirmed, and death did seem to occur through respiratory failure.

Dr. BLACKADER said that the present opinion of investigators with regard to the action of chloroform in animals, especially dogs, was that its first toxic effect was not upon the heart, but upon the respiratory and vasomotor systems. He thought this view must be now generally adopted. Its action upon man, however, seemed occasionally to differ from this. From the clinical reports of several fatal cases it seemed to have been shown that chloroform clearly in certain cases had a primary toxic action upon the heart in man. He thought these contradictory results might be reconciled by the fact that the former dealt with lower animals in a healthy condition, whereas the latter had to do with the human species, and often where pathological conditions existed.

Dr. JAMES BELL said that in accepting the results of these experimenters we must not lose sight of the fact that although the usual mode of death from a narcotic drug, such as chloroform, ether or opium, may be, and very likely is, through the respiratory centres in cases such as he had now reported, the death is not the result of the narcotic qualities of the drug, but is something which occurs once in about three thousand times, or perhaps only once in fifty thousand times. The experiments alluded to have never gone beyond a couple of hundred cases, and therefore were not likely to meet with this special result of chloroform. He believed it very likely that where death was produced by narcotic action of the drug, it occurred through the respiratory centres, and he had no doubt at all that accidents often arose from an overdose of chloroform given by a careless administrator. He had seen instances of such accidents himself where, though they did not end fatally, they might have done so. The point is, however, that once in a certain number of cases where you least expect it, in minor operations, or even before the operation has begun, where only a little of the drug

has been given and where every possible precaution has been taken, cardiac failure supervenes and is not recovered from, whereas in other cases it is recovered from. He reported a case last summer of a boy whose pulse stopped and gave him a great scare, but who fully recovered. In the present case Dr. Bell thought the fact that so little bleeding followed his preliminary scratching of the scalp, a region where bleeding should be profuse, was of considerable significance. This took place four minutes before the heart stopped, and might go to show that even then there was some inhibitory process at work in the circulation at its distal extremity which travelled towards the centre. This was to him a new thought, as he had not been accustomed to think of the arrest of the heart's action being brought about in that way, from the periphery towards the centre; still, he was confident the scratches he made in the scalp did not bleed as they should have done, and their not doing so he believed of some significance.

Dr. ELDER recalled the objection made by Dr. Campbell. He could not believe that the mere æration of the blood in the lungs could so affect the lividity of the general surface as to lead Dr. Bell to think everything was coming right.

Dr. LAFLEUR asked if rythmic traction on the tongue, after the method used by Laborde and in great favor with the Parisians, had been tried.

Dr. JAS. BELL, in answer to Dr. Elder, re-read the portion of his written report bearing on this point. He further said, the apparent recovery was never so complete as to give them any hope of resuming the operation; the cardiac impulse never returned. Dr. Lafleur he answered in the negative.

Dr. MILLS believed that though Dr. Campbell's point had been well taken, it might be pressed too far. Very few people properly estimated the importance of the respirations on the venous circulation; thus, to dilate the lungs was to enlarge the arterioles, and to allow blood to get out of the right heart, and some to take its place, so that it is not impossible to understand how a certain amount of lividity might disappear were the heart beating ever so faintly. He thought the investigations heretofore had been conducted on far too narrow a basis, and the conclusions drawn from altogether insufficient data. He thought the experiments of Gaskell and Shore proved that the heart may not only fail, but fail early. With reference to Dr. Bell's suggestion of some failure of the peripheral circulation first, it is possible to understand some derangement of the vaso-motor centres by which great dilatation of the vessels of one region may take place, while the heart still beats, causing a corresponding anæmia in other parts. The vessels of the abdominal area, for instance, may be so dilated as to suck up all the blood of the body, and there would then be practically no circulation elsewhere. Other points which he thought Dr. Bell might have laid more emphasis upon were: (1) the fact that the surgeon is dealing with individuals diseased, or at least not perfectly normal as to health, whereas the experimenters dealt with animals generally in good health; (2) the influence of psychic impressions of dread, which, existing in the mind and kept under control during perfect consciousness, may be revived in their full force as the individual sinks under the influence of the drug. Something akin to this is seen in hypnotism, where impressions made in one state of consciousness were revived and acted upon in another; (3) there were the special peculiarities of the heart muscle itself to consider. This was seen in the fact that we may act with chloroform upon hearts completely severed from their nervous connections, and get results as diverse and inexplicable as when we act upon the heart *in situ*

Dr. BLACKADER remarked so far as pharmacologists were concerned, he believed he was justified in stating their opinion to be that the experiments of Gaskell and Shore were altogether too complicated to be relied upon.

Dr. ADAMI agreed with Dr. Blackader that the work and experiments of Gaskell were very complicated. Nevertheless in some cases where the experiment came off successfully, the results were striking, as instanced in the case of the cross-ligatures and anastomosis performed between two dogs, so that the blood of one dog exclusively supplied the cerebral vessels of the other, while his own cerebral vessels received their supply from the other. They then chloroformed one of them, and as a result of the cross anastomosing, the dog who received the chloroform had his brain supplied with pure blood, while the dog who did not inhale it had his cerebral blood supply charged with the drug. In some of these experiments it was found that the animal inhaling the drug, although his nerve centres were supplied with pure blood, died of heart failure, that showing that chloroform had a direct action upon the heart itself. Some experiments of his own were in the same line. He found that when certain quantities of chloroform were given, sudden and great dilatation of the chambers of the heart followed; this occurred so rapidly as to seem as though we had here an action upon the muscle fibres themselves, or upon the fine nerve endings (which Berkley and others have now shown to be more common than supposed hitherto), rather than upon the nerve centres in the brain or cord. Dr. Adami thought the conclusion to be drawn from the observations of Gaskell and Shore was that chloroform could act directly upon the heart.

Dr. WILKINS believed the untoward action of chloroform in cases like that under discussion was in the heart muscle itself, and gave his reason as follows: some years ago, when performing experiments upon animals, he frequently had stoppage of the heart occur among dogs, which he was able to resuscitate afterwards by artificial respiration. This resuscitation proved the action to have been upon the heart itself, because the cardiac and respiratory centres being close to each other in the medulla, if the lesion was central, recovery could not take place in such a short space of time. Most of the members would remember those drowning experiments, where dogs were submerged, some with corks in their trachæ, some without; the former were capable of being resuscitated, as they could properly aërate their blood and the heart resumed its action, the latter were not. In collapse from chloroform, if artificial respiration were kept up for three or four minutes, the heart might resume its action, showing the collapse to have been the result of the action of the drug upon the heart muscle itself rather than upon the cardiac or respiratory centres.

Dislocation of the Ninth Dorsal Vertebra treated by Extension.—Dr. ARMSTRONG showed a man in whom he had successfully reduced a dislocation of the dorsal vertebra. The patient was brought into the hospital with what appeared to be a fracture and dislocation of the eighth or ninth dorsal vertebra. The accident occurred in the following way: The man driving under a gateway on top of a load got himself jammed between the latter and the arch. There was no evidence of destruction of the cord at that time, he could move his legs, etc., and sensation seemed normal; but his body was doubled up, bent much forward and he was unable to straighten himself. A depression was observed at the point of injury and the supra-spinous ligament seemed broken. He put the patient under an anæsthetic, had a large pillow placed under his abdomen, and with the assistance of two men attempted extension and reduction. To his great suprise the dislocation was reduced almost at once, slipping right in, the two vertebræ came together, and the depression and deformity disappeared. The man felt quite relieved upon coming out of the chloroform, and although seven weeks had passed he had had no bad symptoms since. From this experience he would therefore advise surgeons always to try extension of the spine with manipulation of the vertebræ before proceeding to operate, no matter what their previous experience of such cases may have been.

Arthrectomy.—Dr. ARMSTRONG showed a man upon whom he had performed arthrectomy about a year before. The patient had been exhibited shortly after the operation, when only slight motion in the joint was present; now, however, it was capable of a great deal more. The operation consisted of opening the knee-joint and removing the articular surfaces of both condyles and a portion of the tibia. He had cut across the patella, which was united by ligamentous union. The case was one of caries sicca, with marked atrophy of the muscles. The object in bringing him again was to show how much improvement had taken place since the operation. The man had been working on a cattle ship all summer, and enjoyed apparently a very useful limb.

Dr. MILLS mentioned a case which he had seen in Baltimore a short time ago, under the care of Dr. A. W. Clement. It was dislocation in the horse of the middle cervical vertebræ, the deviation from a straight line being so great that the neck had the shape of a bent arm, and yet there never had been a symptom referable to the nervous system.

Dr. ADAMI reminded the Society that to a Montreal physician, the late Dr. Campbell, belongs the honor of what was believed to be the first case of successful reduction of dislocation of the cervical vertebræ. Dr. Campbell, while making his rounds, observed a child to fall from a tree, noticed the characteristic attitude of the body on the ground, pulled upon the head and brought the parts back into original position immediately.

Dr. JAS. BELL said he believed Dr. Campbell's case to be true. He himself saw a case of undoubted dislocation of the cervical vertebræ, without any symptoms of pressure on the cord. On first seeing him the patient refused to take an anæsthetic. On the following day, while undergoing an examination, in turning his head from side to side, suddenly his neck shot back, and he was as well as ever. It apparently reduced itself during the slight manipulation. Dr. Bell always felt there was danger of doing serious injury to the cord in attempting to reduce a dislocation; it was hard to imagine how one in the dorsal region could be reduced without injuring the cord.

Scurvy in Children with notes on two Cases.—Dr. A. D. BLACKADER read a paper on this subject as follows, :—

It is only recently that the symptoms of scurvy in children have received recognition by the profession in America. Scarcely a twelvemonth ago, Dr. Northrup of New York, previous to the presentation of a paper on this subject before the New York Academy of Medicine, wrote letters to physicians in various parts of the States and elsewhere, asking their experience with infantile scurvy. Along with others I was asked to communicate what I could, either from my own personal experience, or from that of my *confrères*, in reference to the prevalence of this disease in Montreal. I had

to reply that personally I had not up to that date recognized a case, and careful enquiries made from many connected with the larger of our English and French hospitals and children's institutions received everywhere the same answer, that no cases had so far been recognized in Montreal.

This autumn, however, I had the satisfaction of seeing two fairly distinctive cases, and as the symptoms of scorbutus, unless looked for, are liable to be either unnoticed or mistaken and attributed to other causes, it seemed to me that a report of the cases, with a short review of the literature, might prove of some interest to this Society.

My first case was seen by me about the middle of last November. The infant, 12 months old, had at birth been a small but well-nourished infant, and for the first six weeks was nursed almost entirely at the breast. Then the supply failed, and the infant, under the supervision of the attending physician, was fed with a mixture of milk, barley water and lime water. Under this artificial feeding it failed to thrive; vomiting, curdy motions, and almost continuous colicky pain, attested the failure of digestion. One by one the more popular infant foods received a trial: Cardinal Food, Lactated Food, Neave's Food, Nestlé's Food, Horlich's Malted Milk, Peptogenic Milk Powder. Then the infant was taken to the country. Milk was again tried, but failing to agree, recourse was had to Carnick's Soluble Food, which appeared for the time to be digested and assimilated. The child under this commenced to gain weight, the motions improved, sleep was more restful, while during the day the infant appeared bright and contented. About the first week in October, the mother noticed that the child cried on any attempt to move the lower limbs. Shortly afterwards, a swelling was observed about the right knee, and later a bluish-colored spot appeared an inch below the head of the tibia. This was shown to the attending physician, who told the mother the child must have had a fall, and prescribed a liniment to be rubbed over the swelling. Five or six days afterwards a similar bluish spot appeared on the other knee, and the mother, on again consulting the physician, was told that probably both knees had been injured by the fall, that accidents like this required time, and quietness was enjoined for the baby.

Two weeks afterwards the child was brought to my office. The notes taken at the time are as follows: Infant, twelve months old, rather small for its age, pale, but with a fair amount of subcutaneous fat. Head well shaped, anterior fontanelle not abnormally large; slight beading of the ribs; chest well shaped; abdomen slightly prominent; infant cries at once on movement of the lower limbs. On the right knee, one inch below the head of the tibia, there is a bluish-green spot of ecchymosis about the size of a half-dollar piece; just above the joint the limb appears slightly swollen, and firm and resisting to the touch. The skin is pale and cool, but the surface is apparently tender. The circumference of the limb here is $\frac{3}{8}$ inch larger than that of the corresponding limb. Below the left knee there is another spot of ecchymosis considerably larger than on the right knee; here the limb is tender and slightly swollen. No attempt is made by the child to move the limbs, and since the onset of the trouble, four weeks ago, the infant has refused to make any attempt to stand, although previously it was eager to do so. The patellar reflexes are active. Another spot of ecchymosis, about the size of a ten-cent piece, is present on the left ear. An inspection of the mouth shows the two lower incisors cut, but the gum surrounding them is of a deep bluish-red color, bleeding easily when touched. The upper incisors are not yet through, but the mucous membrane over them is reddened, and over the edge of the two teeth almost through, it is of a deep bluish tinge. Otherwise the child appears well. The tongue is slightly furred, the motions are somwhat pale in color, the urine is said to be scanty, and the thermometer taken in the rectum records 99° F.

The infant was ordered to be given about a tablespoonful of fresh orange juice, slightly sweetened, and diluted with water. Artificial foods were stopped, and a mixture of creamy fresh milk with thin barley water was directed to be given. Once a day the child was to have a dessertspoonful of the red juice of a lightly broiled steak. The knees were to be kept covered with cotton wool and a light bandage.

Three days later, the mother reported that the infant appeared to be almost well. Tenderness on movement had passed away, the ecchymosis had almost disappeared, and on the second night after the change in his food, the child passed the quietest night of its life. Eight days after the first visit the child was brought again to my office. The gums were perfectly healthy; there was almost no difference to be made out in the girth of the two lower limbs, both of which it moved of its own accord. The infant was now given a mixture of cod liver oil and iron, and a little carefully mashed potato was added to its diet. I have not seen it since, but on telephoning to the mother a few days ago, the child was reported to be the picture of health.

The second case was an infant aged 11 months, the last of a family of six children, all strong and healthy, and all of whom had, as the mother told me at the time, been brought up on the bottle and thriven on it, giving little or no trouble. This one had been perfectly well up to five weeks previous to my visit, when it was noticed to show signs of pain on move-

ment of the legs. This, it was thought by the mother, would pass away, but on its continuance, the family physician was called in, who examined the limb carefully and found no sign of any injury. Two weeks afterwards the child was again seen, the diagnosis of rheumatism made, and a salicylate mixture prescribed. No improvement followed, the child became very restless at night, and I was asked by the attending physician to see the infant. I found the child very pale, almost earthy in color, but with a fair amount of subcutaneous fat. On examination, there was evidence of slight rachitis. The chest was well shaped, there was no ecchymoses anywhere to be seen, and there was no distinct enlargement in any place of either of the lower limbs. The child made no effort to move its limbs, and cried bitterly when any forcible attempt was made to disturb them. The reflexes were normal. On examination of the mouth, the gums were found in a very similar condition to that described as met with in the previous case. Around the two lower incisors there was a broad line of inflammation of deep bluish hue, bleeding easily when touched. The lungs, heart and abdominal organs all appeared healthy. On enquiry, I found that while the other children had been fed on various mixtures of milk and flour, for this child the mother had been instructed to boil all the milk given. This she had endeavored to do thoroughly, the better to kill the germs. So the boiling continued over several minutes.

In the way of treatment I prescribed as before, a little orange juice, and the red juice of underdone steak. I also stopped the boiling of the milk. On the following afternoon I received word from the mother that there was already a marked improvement; and when I called after a few days I would hardly have recognized it for the same infant.

Only a few weeks ago, Dr. Barlow, in the Bradshawe Lecture before the Royal College of Physicians, has very exhaustively treated the whole subject of scorbutus in infancy. Dr. Gee, in 1871, first drew attention to this disease, and described five cases under the title of osteal or periosteal cachexia. Not, however, until 1878 were the symptoms of this disorder asserted to be scorbutic in character by Dr. Cheadle, and in 1883 Dr. Barlow, in a lecture before the Medico-Chirurgical Society of London, gave the first complete account of its clinical history, etiology, and the morbid conditions present in the bone lesinos, and demonstrated its resemblance to scurvy in the adult. Since then numerous cases have been reported in England. In America, Dr. Northrup, at the meeting of the American Pediatric Society in 1889, was the first to report cases of infantile scorbutus, and in his paper last year before the New York Academy of Medicine, a total of 106 reported cases were recorded as having been observed in America.

The disorder generally makes its appearance in infants between the ages of nine and eighteen months. It is said to occasionally occur as early as the fourth month. The onset is usually sudden. The infant becomes fretful; disinclined to move; its lower limbs are kept drawn up and still, and any forcible movement of them gives rise to continuous crying. Later on, should the conditions giving rise to the disorder continue, an obscure swelling may perhaps be noticed on one of the lower limbs, usually on the femur towards its lower end, or on the upper end of the tibia, and a few days later, a similar swelling may appear on the corresponding limb of the opposite side. Generally the swellings are not symmetrical. The skin over them is pale, and there is no local heat or pitting. The bulk of the limb is increased, but there is no fluctuation; on the contrary, the swelling is ill-defined, and is suggestive of thickening round the shafts of the bones. The limbs are now more or less paralysed, everted and immobile, but the patellar and plantar reflexes are active.

If the disease progress, swellings of the same character may appear on other bones; on the scapulæ, bones of the arm, vetebræ, etc., and occasionally, in some cases, fractures on slight occasion may occur.

One of the more frequent, and sometimes the only swelling of the kind, as Dr. Barlow points out, occurs on the upper orbit, giving rise to sudden proptosis of the eye-ball, with puffiness, and in a few days, slight ecchymosis of the upper lid. These swellings are due to extravasation of blood under the periosteum. In severe cases, hæmorrhage may occur into the centre of the shaft, leading to extensive absorption of trabecular tissue, and predisposing to fracture. Extravasations are also met with in the superficial and deep set of muscles, but one never meets clinically with the small subcutaneous hæmorrhages of purpura. The condition of the gum is modified, as in the adult, by the presence or absence of teeth. If the teeth be present we have distinct sponginess of the gums, which in some cases may go on to fleshy swellings, even projecting from the mouth and giving rise to fetor. When only a few teeth are present the sponginess is less marked; and if there be no teeth, the gums may appear normal, or may present small bluish extravasations over the sites of the advancing teeth.

The chief constitutional symptom is the anæmia, due partly to direct cachexia, and partly to loss of blood from the extravasations. Although emaciation may not be marked, asthenia appears to be extreme. Pyrexia is only slight and often altogether absent, but occasionally an elevation of 102° F. is recorded,

apparently due to the pain and tension produced by the extravasation. The appetite is generally fair; the urine is scanty. In severe cases, hæmaturia may sometimes be observed.

The presence of some degree of rachitis was noted by all the earlier writers on this disease, and some of them, especially in Germany, attributed the morbid conditions noticed to an acute form of rickets. More careful observation, however, showed that, while the symptoms of both disorders might be present in an infant, they were distinct and not dependent upon one another. The all-important factor in the development of scorbutus in the infant, as in the adult, is a faulty dietary. We shall always find in scorbutic infants a history of the child having been fed for several months on food of which the vitality has been more or less killed by cooking. Infants fed on the so-called patent foods for any length of time appear especially liable to this disorder. To such foods we must also add condensed milk, milk too long sterilized, and boiled milk. As Dr. Barlow says, "The further we get from living food the more is the likelihood of scurvy being induced." Scorbutus does not appear to be a disease frequently met with among the poor, or in out-patient hospital practice, for the following reasons given by Dr. Barlow: (1) Such patients are generally too poor to afford the expense of feeding their infants altogether on patent foods; and (2) the children of the poor are usually brought to the table at an early age, and are given pieces from their parents' dishes, and thus obtain a variety, harmful in some respects, but beneficial in that it prevents the development of scorbutic symptoms.

It is to be noted that the symptoms of this disease vary much, and are sometimes very apt to mislead. In some cases irritability of the infant and apparent tenderness of the limb are out of all proportion to the signs found. In a few cases proptosis due to orbital hæmorrhage has been for some days the one prominent symptom, and if we are not on guard, may give rise to a diagnosis of more serious disease. In a recent lecture Mr. Howard Marsh calls attention to several cases where scorbutic extravasations had led to the diagnosis in one case of sarcoma, in another of fracture of the femur, and in a third of infantile paralysis, the alarming symptoms quickly subsiding on proper dietary and treatment.

There is another thought to bear in mind in reference to this disease, and it appears to me a most important one, and it is this: just as we may meet in some children with symptoms of rickets so slight that they might easily escape our notice, unless a careful consideration of the history and examination of the infant be made; and just as such a rachitic condition may underlie other disorders of the respiratory or alimentary tract, and require proper treatment before these disorders can be permanently and satisfactorily cured; so may we not have a scorbutic condition with such slight symptoms as to scarcely permit an absolute diagnosis, yet may not such a disordering of nutrition underlie many troublesome and persistent clinical conditions, and require careful consideration and treatment before we can satisfactorily alleviate the associated ailments?

Dr. McConnell, after reading the articles referred to by Dr. Blackader, remembered about two years ago having had a case, which at the time he diagnosed as rheumatism, but which he now believes to have been scurvy.

Dr. Kenneth Cameron thought he could add another case to Dr. Blackader's series. The one referred to, which occurred last summer, was a child six months old, fed entirely upon sterilized milk and Nestlé's food. It developed subcutaneous abscesses all over the body. No teeth were present; and the gums were not at all inflamed. Still, there was some stiffness and pain in the joints, causing flexure of the limbs, and this, together with the eruption of the skin, was all on which he had to form a diagnosis. As at that time he was making investigations in connection with the bacillus pyocyaneus, he suspected the patient's condition to be of that nature. Bacteriological examination, however, proved negative. He decided to treat it as a scurvy, and prescribed orange juice and fresh milk. The result was marvellous. Inside of a week the abscesses had healed up and no others formed, the child gave evidence of returning health in every way, and is now perfectly well. The effect of treatment seemed to confirm the belief that the case was one of scurvy.

Dr. Morrow saw a case about six months ago, which he diagnosed and treated as scurvy. It suffered from sore mouth, plaintive cry, and the swollen gums protruded into the mouth; there were one or two reddish spots on the body, and restlessness was particularly marked. He prescribed orange juice and beef juice, and in a week the child was apparently well. The parents, it seemed, had been accustomed to dilute the milk very much. It had never had anything but milk and a little porridge, although nineteen months old.

Dr. Orr had seen a case that day which he suspected to be scurvy. The gums were much swollen and bled readily. He examined the child for ecchymoses, but without success, although it appeared very sore all over. He was using anti-scorbutic treatment, and would await the result with interest. These facts in connection with scurvy in children so lately brought to light added, in Dr. Orr's opinion, another to the already formidable difficulties of infant feeding. He would like to ask Dr. Blackader whether the use of sterilized milk was to be discouraged altogether, and whether

we ought to advise parents to add some vegetable substance and meat juice to the diet as a prophylactic.

Dr. BLACKADER said in reference to the use of patent infant foods, that one was obliged to confess that in some instances it seemed necessary to have recourse to them. They might be used as a bridge to carry us over a difficulty, but their prolonged use had always appeared to him objectionable. The one important advantage which they possessed is that their process of manufacture might be supposed to render them sterile, and during the summer months, and often during the winter months, it might be almost impossible in some families to command an absolutely sterile food in any other way. In the light shown by the occasional appearance of scurvy in infants fed entirely on them, he thought we must regard all foods which had been prepared at the temperature of about 212° F. as dead foods—foods which fail to afford a perfect nutrition to the infant.

Progress of Science.

APOCYNUM CANNABINUM AS A CARDIO-KINETIC AND DIURETIC.

The drug has been known for some years in America as an emetic and cathartic, and has also been employed to some extent as a remedy against dropsy. Examined by Schmiedeberg in 1883, it was found to contain an amorphous substance, apocynin, and a glucoside, apocyneine, the first soluble in alcohol, not in water, the second easily soluble in water. The physiological action of a ten-per-cent. Tincture has been investigated independently by Brandford and Murray, who considered its effects as somewhat similar to those of strophanthus. The latter found that it reduced the frequency of the rapid heart, strengthened its beats, relieved cyanosis, and acted as a good diuretic. PETTERUTI and SOMMA (*Il Policlinico*, Nos. 10 to 14, May to July, 1894) have used the root in two forms,—an infusion with water and a tincture. The decoction had a strength of 1 to 3 in 150, that of the tincture being 1 in 10. The results obtained in the two cases were as follows: The action of the decoction is exercised chiefly on the stomach and intestines, promoting: first, catharsis; and, secondly, emesis. These effects followed, in the cases quoted, the administration of a decoction of from 1 to 2 grammes of the root in 150 grammes of water, divided into two or three doses in the day. This emeto-cathartic action is manifest either on the first, second, or third day. When it is delayed, there are also effects on the urine and heart,—namely, increased diuresis, acceleration of the heart-beat, and arhythmia, sometimes also a strengthening of the heart's action. Under these conditions the authors have observed diminution and final disappearance of œdema and relief of dyspnœa. This decoction is not, therefore, the best form to use in the case of uncompensated valvular lesions, on account of the emeto-cathartic action, which is only exceptionally absent. The tincture was free from gastro-intestinal irritant effects, even when large doses were employed. These effects, therefore, are probably due to some substance which is soluble in boiling water but insoluble in alcohol. On the other hand, marked cardio-kinetic effects were obtained from the tincture when employed in doses of 60 to 90 minims daily. It is probable, therefore, that the effects of the decoction are due to the presence of apocyneine, those of the tincture to that of apocynin (Schmiedeberg). A marked effect of the tincture is the production of diuresis, which is never accompanied with albuminuria: in fact, when albumin has been present, it has disappeared after a course of the tincture. Apocynum acts, therefore, as a diuretic without irritating the renal epithelium, by virtue of its action on the circulation. Sphygmographic tracings show also a considerable increase in the force of the pulse, the rapidity of which is sometimes markedly diminished. Change in rapidity is not, however, a constant effect, and sometimes the slowing is accompanied by irregularity in the rhythm, due, in all probability, to a stimulation of the cardiac branches of the vagus. Finally, apocynum appears to increase the arterial tension, but not constantly. On the whole, therefore, the tincture of apocynum is likely to prove useful in cases of imperfect compensation of valvular lesions, either reducing or even completely curing the œdema and dyspnœa which are the indications of such a condition. It has the advantage over the other cardiac drugs that it does not irritate the primæ viæ, and that it may be used without danger for a long time.—*British Medical Journal*, September 22, 1894.

NEW METHOD OF STERILIZING LIGATURES.

M. Périer called attention to a new procedure for sterilizing and preserving ligatures and sutures, invented by M. Répin. This author, from numerous experiments, found that alcoholic vapor exercises a microbicide action sufficiently strong to remove any kind of micro-organism from ligatures. The most resistant spores such as the bacillus subtilis, anthrax, tetanus, and the septic vibrion, were killed in from thirty-five to forty-five minutes

by anhydrous alcohol-vapor heated in 120° C. (248° F.). Catgut is thoroughly sterilized by this method without losing any of its properties. The author places the sterilized catgut in a culture bouillon and seals it in a glass tube, keeping it for several days in an oven. If sterilization has not been complete, microbes will have developed in the bouillon, and the culture will have become cloudy; if, on the other hand, the liquid remain clear, it is a material and certain proof that the contents of the tube are thoroughly aseptic.—*Semaine Médicale*, June 6, 1894.

OPERATIVE TREATMENT OF WRY NECK.

Mikulicz (*Centralbl. f. Chirur.*, No. 1, 1895), dissatisfied with the results both of subcutaneous and open division of the sterno mastoid in cases of caput obstipum, advocates almost total removal of the contracted muscle, the posterior part of its upper extremity, where it is traversed by the spinal accessory nerve, being left. He has practised this operation in 17 cases with success, the only bad result having been disfigurement of the neck caused by the absence of the muscle. Examination of the removed muscle in these cases has convinced him that wry neck is the result of a chronic inflammatory condition — myositis fibrosa— involving the whole of the sterno mastoid. This condition he attributes in congenital cases rather to compression of the muscle during a long and difficult labor than to laceration. The so-called hœmatoma of the sterno mastoid sometimes observed in infants is not due, he holds, to effusion of blood, but to thickening and induration of the inflamed muscle.—*British Medical Journal.*

IMPROVED METHOD OF RADICAL OPERATION FOR CANCER OF THE BREAST.

Dr. Willy Meyer (*Medical Record*) describes the following method of operation:

A skin incision embracing a liberal area around the nipple, and running across the axilla to the point of insertion of the tendon of the pectoralis major muscle, is made. A second incision is made at right angles to the one just described, running to the junction of the middle and outer thirds of the clavicle. After the skin-flaps are reflected the tendons of insertion of the pectoralis major and minor muscles are divided, and these muscles, the axillary, subclavicular, and infraclavicular fat and lymphatics, and the diseased breast are removed in one mass. The muscles are separated from their points of origin, and the new growth is not cut into during the operation. The vessels entering the pectoraiis major muscles are clamped before they are cut. The wound is sutured as far as possible and axillary drainage is used.—*International Medical Magazine*

DEFECTS IN SURGICAL PRACTICE.

In an exceedingly instructive article—from which want of space prevents us from quoting as liberally as we would like—Prof. Skene (*Brooklyn Med. Jour.*, Feb., 1895) points out the most prominent defects in surgery as taught and practised at the present time. He considers the lack of dexterity and accuracy, which leads to slow and consequently imperfect operating, as the most noticeable of these defects, and states that every moment wasted in an operation is a detriment to the patient as well as the surgeon. Rapidity of operating is especially necessary in order to avoid prolonged anæsthesia, which is injurious and tends to retard recovery by favoring non-union, suppuration and sepsis. Time is also precious, because the longer the tissues are exposed and the more they are handled, the more slowly and imperfectly they heal. Tissues exposed to the air for an hour or more begin preparation for healing by granulation, and are therefore less capable of uniting by immediate union. Since the introduction of antiseptic surgery, imperfections are apt to arise from the endless detail necessary, which in itself makes it difficult to attain perfection. Another source of defects is the disposition on the part of some surgeons to devise new operations and to modify, in the hope of improving old ones, while they are in black darkness regarding how to perform many of the operations that are known to be quite efficient and well established by the surgeons of the past and present. The endeavor to cover too much ground is also held responsible by the author as a cause of defects; for if one endeavors to wrestle with the whole field of operative surgery, he finds such a number and variety of operations to do, that one life is not enough for him to perfect himself in them all.—*The Intern. Jour. of Surgery.*

CLASS ROOM NOTES.

—The best drug for *Hiccough of Enteric Fever*, Prof. Hare says, is musk, ten grains, given by the rectum.

—Prof. Wilson says that an attack of *Influenza* is sometimes ushered in with an attack of nausea and vomiting.

—Prof. Longstreth says the best antidote for the depression caused by the *Salicyl Remedies* is brandy, but black coffee also acts well.

—Prof. Hare says in *Uterine Hemorrhage*, which is due to a congestion of the pelvic viscera, dry cups over the sacrum often give relief.

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MONTREAL, JUNE, 1895.

THE CANADIAN MEDICAL ASSOCIATION.

We trust that our readers are bearing in mind the annual meeting of our National Association, to be held at Kingston, Ontario, on the last Wednesday, Thursday and Friday of August. Those who have already attended these meetings, and especially those who attend them regularly, can testify to the benefit they derive from coming in personal contact with their brethren. The average medical practitioner's life is one of self denial, occasionally intermingled with actual hardship, so that he is fairly entitled to a few days' pleasure every year; and we can assure him that there are few ways of spending a holiday from which he can derive greater pleasure than by making acquaintances, often life-long friendships, at these annual meetings. But laying aside the question of pleasure, we maintain that it is a duty which he owes to himself as well as to his patients, to keep himself thoroughly in touch with the advances which are being made all along the line of medical and surgical practice, and it is the unanimous verdict of those who attend these meetings, that one learns more in three days in this way than he could possibly do in three months steady reading. We are aware that some will say that it does not pay, or that they cannot afford to leave their practice for these few days; but the sooner this illusion is dispelled the better. As a rule we are valued at our worth, and if the man who loses no opportunity of adding to his stock of knowledge is worth more than the one who is content with what he already knows, the public who employ him will not be long in finding it out, and in rewarding him accordingly. The only other objection that can be raised is by those who reside a thousand miles away, and who think that such a distance is a reasonable excuse for not attending. But with our present facilities, even this distance is accomplished in a little more than a day each way; while, by taking a single ticket, and obtaining a certificate or receipt therefor, the return journey will be granted for one-third of a single fare. The President-elect, Dr. William Bayard, is eighty-one years of age, and yet we feel sure that the thousand miles he will have to travel will not deter him from being present. The President-elect of the American Medical Association, Dr. Beverly Cole, who is seventy-three years of age, travelled over six thousand miles to attend the annual meeting at Baltimore, and he informed us that he had attended many meetings before there was any trans-continental railway, travelling from San Francisco to Panama and from Panama to New York by steamer,—a distance of twelve thousand miles, and occupying three months of travel. After such an example, surely more than two hundred of our six thousand practitioners of Canada will manage to attend our meeting at Kingston.

WHAT DOCTORS DIE FROM.

From a recent article by Dr. Kortright, in the *Brooklyn Medical Journal*, based upon the mortality records of 450 physicians who died in New York and Brooklyn, the average age at death was 54 years and the rate per thousand was 25, a mortality which is only exceeded by saloon keepers, butchers, quarrymen and factory operators.

The mortality of clergymen is 16 and lawyers 20, so that instead of being the longest lived of any, owing to their superior knowledge of the laws of health, the profession of a doctor is almost the most hazardous. It also appears that suicide is four times greater than the general average for males.

From consumption, the death rate was only half the average, which shows that spending much of their time in the open air enables them

to defy the bacilli to which they are daily exposed. But their death rate from typhoid was three times the average. The mortality from diseases of the heart, arteries and kidneys grouped under the term of arterio-capillary fibrosis, was 35 per cent. of the whole, while the general average of males is only 25 per cent. This means that doctors eat too much and drink too much of alcoholic beverages and not enough pure plain water; and that they do not take enough exercise. The result is high-colored urine loaded with urates instead of urea. Uric acid irritates the lining membrane of the blood vessels as well as the tubules of the kidneys, while want of exercise and fresh air causes degeneration of all the muscular structures and the deposit of fat in and upon them. As our contemporary, the *Journal of the American Medical Association*, says: "It is the irregularities of living which make the physician neglect many hygienic rules that he forcibly impresses upon his patients. He is often eloquent in his arguments and reasons for rest and change and regular hours of sleep, to those who consult him. But alas! he does not put into practice in his own case what he so urgently impresses upon others."

We have been especially impressed with the truth of these words when we have been the guest at the homes of distinguished physicians. Not only are they irregular in taking their own meals, but very often we have known their wives and children waiting until three or four o'clock for their midday meal, while the doctor was seeing a waiting-room full of patients who could just as well have been seen a quarter of an hour or twenty minutes later. Every doctor owes it to himself and to his family to eat his three meals a day exactly at the same hour every day, and, with a little management, the thing can be done. On the rare occasions on which he cannot get home for his meal, let him eat a biscuit and drink a tumbler of water at the patient's house at the regular dinner hour, which will do him more good and less harm than the eating of a heavy dinner three hours after the regular hour, and only two hours before the next regular meal. We have tried both plans, and know whereof we speak. In the same way about sleep. Many of the night visits doctors make after 10 p. m. could have been made far better during the previous day. Patients can be easily taught to call the doctor twelve hours sooner, and there is no better way of teaching them than by a rigorous exaction of a double fee for visits after 10 p. m. Let every doctor go to bed at 10 o'clock, and if he is called at 3 or 4 in the morning, he has already had a fair night's sleep, while if he is not called, he can get up at the regular hours of 6 in summer and 7 in winter. Dr. Skene wrote his great book on Gynæcology and Diseases of the Bladder, between 6 and 8 a. m. Working the heart and brain at full pressure until two in the morning and then having to take narcotics to obtain a few hours of exhausting sleep is the stupidest of stupid mistakes. We have known more than one young physician, with promise of a great future before him, fill an early grave from resorting to alcohol and coffee to stimulate him when he was exhausted, and then having to resort to narcotics when he fain would sleep. Noble and self-sacrificing as our profession is, it does not call upon us to make any such sacrifice as this. It is our first duty to take care of our own lives, in order to do the greatest amount of good to others. The want of exercise is not sufficiently recognized. A doctor may feel exhausted after a hard day's work sitting in his office chair, but he would feel refreshed in body and mind by a short walk or a ride on the bicycle. We shall, in a future issue, point out that fatigue is due to the accumulation of partly burned materials in the blood, and we will show how they can be completely burned and eliminated from the system. In the meantime we will content ourselves by saying that the doctor who never takes a holiday is surely pursuing a penny-wise-and-pound-foolish policy, as foolish as the peasant who killed her goose to get the golden eggs.

Let us use our best endeavors to prolong and render more useful the life-work of physicians.

CORRESPONDENCE.

LETTER FROM BALTIMORE.

(*By our own Correspondent.*)

Editor CANADA MEDICAL RECORD:—

DEAR SIR,

As there has been very little of gynæcology in your medical journal for some time past, perhaps a few notes of the impressions of a visit to some of the leading gynæcological centres of the Eastern States, as well as of the recent meeting of the

American Gynæcological Society at Baltimore, might interest your readers. Among the most active of the younger men are Dr. Baldy and Dr. Noble of Philadelphia, of whom I had heard so much that I was anxious to see them operating. Dr. Baldy is the principal surgeon of the Gynecean Hospital situated on North 18th Street, a few doors north of Dr. Price's private hospital. We had the pleasure of seeing him remove an intra-uterine pregnancy, a fibroid uterus by the abdomen, and several lesser plastic operations. The first was a difficult one, large quantities of blood clots having to be scraped out of the abdomen and many intestinal adhesions requiring to be separated, care being taken to leave pieces of the sac rather than to tear the peritoneal covering of the intestine. The operation would have been an impossibility without the Trendelenberg posture, which is invariably employed by nearly every operator in the States. Dr. Baldy is a very painstaking operator, no particular effort being made to attain great speed. His operating room has walls of white tiles and a cement floor, and is furnished with every requisite for rendering everything aseptic. Dr. Noble is another young man of remarkable activity and great ability. He is the surgeon-in-chief of the Kensington Hospital for Women. He also has a fine operating room with tile walls and Mosaic floor, and we may add that he is a fine operator, as we had the pleasure of seeing him do several abdominal hysterectomies for small fibroids or for diseased appendages; for it is the rule now to remove the uterus in every case in which the appendages are taken out. This idea originated in France, and we must say we felt shocked at first at exposing women to the risks of a so much more serious operation than the removal of the appendages. But after hearing the arguments in its favor, namely, that the uterus is of no use to a woman who has no ovaries, and only causes her trouble in the form of purulent discharges, sometimes hæmorrhages, and occasionally retroversion and prolapse, while, on the other hand, it not only does not increase the danger of a cœliotomy to remove the uterus with the appendages, but even diminishes its danger, because no raw stumps are left to infect the peritoneum or to cause intestinal adhesions,—our opinion has been considerably modified in its favor. Dr. Montgomery, of Philadelphia, is one of the older and most celebrated gynæcologists, being professor of that subject in the Jefferson College. We had the pleasure of seeing him doing some operations, abdominal and plastic, at St. Joseph's Hospital, a Catholic institution under the care of the nuns, but where they are wise enough to have a training school for secular or lay nurses, who are thoroughly up to date. These bright and intelligent young ladies were dressed in a costume of pure white, and looked the picture of asepsis. The sisters were not seen at all. The operating-room and everything about it was thoroughly modern and up to date. Philadelphia seems to be the hot-bed of gynæcology. Surely no other city can boast of so many first-class men. Not only did it produce the great and good Goodell, who will never be forgotten, but also Joseph Price, a remarkable man of his kind, with the largest experience of any American operator; and Baer, who invented the present method of performing hysterectomy, closing over the anterior and posterior flaps of peritoneum after tying the ovarian and uterine arteries, removing the uterus and dropping the stump. Then there are Montgomery, and Baldy, and Noble, and Asheby, and Penrose, who has succeeded Goodell as professor of gynæcology in the University of Pennsylvania. We must not forget Philadelphia's medical gynæcologists, who have done much good work, namely, Weir, Mitchell and Massey. Dr. Baer is a man so gentle and modest in spite of his great reputation that he is beloved by everyone. He is fond of Canadians, having a head nurse and several other nurses from Canada in his private hospital. His public service is performed at the Polyclinic hospital. Jacobs of Brussels was to have removed pus tubes and uterus by the vagina at Dr. Baer's clinic, but unfortunately the "Gascogne" steamer, in which he was to arrive, was delayed, and so we were denied the pleasure. But being anxious to see this operation well performed, in order to judge of its merits for ourselves, we went over to New York where Jacobs had been invited by Dr. Polk to demonstrate the method at his clinic at Bellevue. Again we were doomed to disappointment in seeing Jacobs operate, for the steamer was still overdue; but we were more than recompensed by seeing Dr. Polk himself perform three operations on the tubes and ovaries, or for removal of the uterus by the vaginal method, in the presence of a distinguished audience, including Gaillard Thomas, Wylie and Coe of New York, and Heurotin of Chicago. Personally Dr. Polk has the most charming and winning of manners; as a speaker, he has a beautiful, soft but clear and resonant voice, he makes use of the choicest of English language, and has a way of expressing himself so clearly that his opinion is almost irresistible. In a discussion he possesses wonderful tact, completely demolishing the argument of his opponent, yet doing it so considerately that it is impossible for the vanquished one to feel hurt. We were not surprised to be told that he comes of a fine old family, for he seems to have been born a gentleman. His recent election to the position of President of the American Gynæcological Society shows how highly he is esteemed by the ninety-one gynæcologists of America who

form that very select body. Although we could not fail to be very favorably impressed with Dr. Polk as an operator, we were disappointed with the vaginal method of removing appendages. We felt convinced that he could have done the same operation in less than half the time by the abdomen. Jacobs claims that the death rate is much less by the vaginal route, being less than 3 per cent. in more than 400 operations, including removal of fibroids and cancerous uteri. He also claims that there is less shock and a much shorter convalescence, and there is no risk of hernia. But, on the other hand, we think these advantages are outweighed by the great difficulty of performing the operation, especially when the appendages are adherent to the intestines and walls of the pelvis. Besides, when the appendages alone are removed, the uterus is left retroverted and prolapsed, while by the abdominal route it can be ventrofixed, while adhesions can be separated with much less danger. Dr. Polk himself admitted that the vaginal method was slower and more difficult, but that he felt that it was his duty to give it a thorough trial before finally adopting or condemning it. We attended an enjoyable evening at the gynæcological section of the Academy of Medicine, where we met Addis Emmett, Cleveland, Wylie, Pryor, Goelet, Janvrin, Coe, Bache-Emmett, Riddle Goff, Boldt and Edebohs and many other celebrated gynæcologists. The paper of the evening was by Dr. Goelet. After the scientific meeting, we assembled in the dining room, where a tasty little supper was awaiting us. We feel sure that this little supper, although not to be commended perhaps from an hygienic point of view, contributed considerably towards the best interests of the profession. We hope some day to see this feature introduced into the meetings of the Montreal societies, and in fact it might be the beginning of many a town and village medical society. After a few pleasant and instructive days spent among our New York brethren, especially Drs. Goelet and Emil Heuel, we hastened to Baltimore to attend the meeting of the American Gynæcological Society. We had already spent a week there attending the American Medical Association, the Gynæcological section of which under Dr. Franklin H. Martin of Chicago was far the best attended of any. Hysterectomy was the keynote of the meeting. Hysterectomy for fibroids; hysterectomy for pus tubes; hysterectomy for prolapsus; hysterectomy for puerperal septicæmia. There were a few odd papers on electricity for fibroids, electricity for intra-uterine fœtation, curetting for puerperal fever, and ventrofixation for prolapsus. But the greatest treat of the meeting was witnessing the operations of Dr. Howard Kelly of the Johns Hopkins Hospital. Though not more than 36 or 38 years of age, Dr. Kelly is one of the most distinguished surgeons of the world. Even Senn of Chicago, who is conceded to be the greatest living surgeon, said to the writer after witnessing his operations: "Kelly is a genius, and we can all learn from him." On asking Senn what he thought was the secret of Kelly's success, he replied: "The same that gave the world the one and only Michael Angelo. There has been only one Michael Angelo, and there has never been but one Kelly." This was a great deal, coming from so great a man as Senn. Nor did we ever admire the great Chicago surgeon so much as when we heard him thus so generously complimenting his young Eastern rival. The audience before which Kelly performed three or four major operations within one hour was no ordinary one. On one side of us sat Senn, Fenger, and Martin of Chicago, and Marcey of Boston; on the other, McLean of Detroit, Frederick of Buffalo, and Colley, Gibney, Wyeth, Gerster, Sayre, Otis, Goelet and Manly of New York. There were also Beverly Cole and McMonigal of San Francisco, Wills of Los Angeles, and Holmes of Portland; Woolsey of California; James B. Hamilton, Surgeon-General of the United States Army; Duff of Pittsburg; Deaver, Price and Alder of Philadelphia; and Rodman of St. Louis, besides more than a hundred other well known names. We were all astounded by Kelly's wonderful technical skill; in less than one minute a large fibroid uterus was lying on the patient's abdomen, and in two and a half minutes more it was being carried away in a dish. In less than ten minutes all arteries were tied and the peritoneum was closed over the stump, and the patient was wheeled away to have the abdomen closed by an assistant in an adjoining room, and another important case was being brought in. Kelly has four of the best trained assistants living to-day. Each one of them has himself done the operations in which they assist their master, so that five men are all working hard at once. There is no need to ask for anything; the assistant knows what kind of ligature and needle will be required, and at what moment it will be needed. Instead of handing the operator a ligature, the assistant places it on the artery and the operator ties it. One man cleans the sponges, which are all on forceps holders, and another man sponges, a third holds the abdominal incision open with retractors, and a fourth attends to the ligatures and instruments. The patient is in the exaggerated Trendelenburg posture, so that the bowels are never seen; on the contrary, there is a great vacant space left after the tumor is removed, where the minutest blood vessel and even the ureters can be plainly seen. For it is one of Kelly's cleverest tactics to waste no time tying arteries until he has the tumor out. Three of the four arteries are clamped, only the right

ovarian being tied at first. Dr. Kelly removes the uterus in all cases in which it is necessary to remove the appendages. He has had over a hundred hysterectomies without a death, and his death rate for all cœliotomies (abdominal sections) is less than 3 per cent. He uses medium Chinese silk for tying arteries, and fine silk for sewing the peritoneum both of the pelvis and also of the abdominal incision, which is closed in three separate layers. First, the peritoneum is brought together with a running suture; then the fascia is fastened with buried silver wire about a quarter of an inch apart, and then the skin is sewed with silk worm gut. Several cases were seen which had been closed in this way several weeks previously, and there was perfect union, and the buried silver wire did not seem to cause any inconvenience. It could barely be felt beneath the skin. This method of closing the abdomen has reduced the percentage of hernias to the vanishing point. But it is in his original studies on catheterization of the ureters and kidneys that Howard Kelly has scored his greatest success. With patient in the knee chest position he empties the bladder of urine and fills it with air so that it is like a small balloon. By means of his speculum and the laryngoscopic mirror the light of the incandescent lamp is thrown in, and every part of the bladder wall can be distinctly seen, even the little spurts of urine or pus or blood in case of disease of the kidneys is perceived escaping from the right or left ureter, or both. Then with due aseptic precautions he runs up the ureter into the pelvis of the kidney a catheter two feet long, with which he empties cases of pyo-nephrosis, and then washes out the pelvis of the kidney. He has thus cured several cases of diseased kidney which in former times would have had to have the organ removed, or die of suppuration. He demonstrated this method for us several times with the greatest ease. He also showed us the walls of the sphigmoid flexure of the intestine with his long rectal speculum over a foot long. Dr. Kelly is just completing a work on Gynæcology, which will be every word original. It will give his own opinions founded on his own experience. His revenue from private practice is said to reach a fabulous amount. We were curious to find out his secret of keeping his health in spite of such a tremendous amount of work, and to our surprise we discovered that it was nothing more nor less than the bicycle. Twice a week he devotes the whole afternoon to a long ride out in the country. One would think that his time would be so precious that he could not spare any time for the care of his health. But in this again he shows his great wisdom. Without those few hours of muscular exercise and deep breathing his strength would break down and his brain give out; but with it we find him fresh and full of energy after two or three big operations; and he told us that he rarely felt tired. He keeps himself in fine physical condition. If we had learned nothing else, that alone was worth the trip to Baltimore. He has two secretaries, and he devotes two mornings a week to dictating to them, two other mornings a week at the Johns Hopkins, and two other mornings at his private hospital and office. The world has heard something of Howard Kelly already, but unless we are mistaken we will hear a great deal more of him yet, if his life is spared. There is much more that we would like to mention, but our letter has already reached considerable proportions so we will close, reserving the rest for another communication.

Yours truly,

A. LAPTHORN SMITH.

THE MEDICAL COUNCIL.

The newly-elected Ontario Medical Council meets to-day, and very general interest is felt as to what may be the results of the session. As compared with that of its predecessor, the personnel of the appointed and homœopathic contingents remains practically unchanged, while that of its elected element is transformed—only four of the former members having secured re-election. The thirteen new men, and at least two of those re-elected, are pledged to favor very important and organic reforms, especially in the direction of retrenchment, the restriction of the council privileges at present held by the universities and medical schools, and the elevation of the council's standards of educational requirements for matriculation and graduation. As fourteen of the thirty-one persons who compose the council are quite irresponsible to the profession—being beyond its reach through any available or effective channel of control—those striving for projected reforms may find them unattainable. If, however, they can show that the measures they propose are reasonable and just, that they are clearly devised in the interests of the profession, and that they are calculated to promote the safety and well-being of the public, it is scarcely conceivable that any of the elected members will be unwise enough to oppose them, and thus fly in the face of their constituents. Such measures may also be expected to win the support of the homœopaths in the council, who are more or less committed in favor of economy and educational advancement.

Strange to say, the university and school appointees, who until quite lately have been generally regarded as the special advocates of more advanced educational standards, have in the Medical Council invariably cast their influ-

ence in the opposite scale. It is with this educational aspect of the dispute between profession and schools that the public is chiefly concerned. It is not well, in the interests of the public, that professions like medicine and law, whose members necessarily have themselves to determine the nature and extent of the services they shall render to the sick or to the litigious, should be permitted to become greatly over-crowded. In this respect, the highest point compatible with the safety and well-being of the community has, in the medical profession, long since been reached and passed. The province is over-stocked with doctors, and would fain see the future annual output improved in quality, and very largely lessened in quantity. We look to the council at its present session to perfect measures that shall secure this end. If it does not do so, the profession itself, or the Defence Association, which has already inaugurated and secured many useful reforms, must take the initiative, and in doing so may rest assured that the movement will command the approval of the public and the support of the Legislature.—*Toronto Mail*, 12th June, 1895.

BOOK NOTICES.

MEDICAL GYNÆCOLOGY. A treatise on the Diseases of Women, from the standpoint of the physician. By Alex. J. C. Skeene, M.D., Professor of Gynæcology in the Long Island College Hospital, New York, formerly Professor of Gynæcology in the New York Post-Graduate Medical School; Gynæcologist to the Long Island College Hospital; Ex-President of the American Gynæcological Society, etc.; with illustrations. New York, D. Appleton & Co., 1885. Price $5.00.

The author says that the growth of gynæcology in recent times has been phenomenal, especially in the direction of surgery, and that in this respect its progress should have been remarkable is not surprising in view of the great advance made in general surgical knowledge during that period. It appears in medical literature that surgery has been more assiduously cultivated than medicine. This may have induced some to push the surgical treatment of diseases of women to extremes, and, in fact, internal medicine. On the other hand, physicians who have been over-confident in their art may have failed occasionally to do surgery full justice. This is evidently responsible for the frequent and often illogical discussions which have been going on in the past few years regarding the so-called radical and conservative practice in gynæcology. The science and art of medicine and surgery in their highest development should be above all party questions, and those who place a just estimate on both branches of the healing art, and employ them without predilection and prejudice, are the most successful and reliable. Unreasonable devotion to either medicine or surgery is wrong. The consciousness on the part of the author of this status of Gynæcology is responsible for the inception and genesis of this work. How far he may be right in thinking that there is room for a new work on the medical branch of gynæcology, and to what extent the requirements have been met in this volume, the members of the medical profession alone can decide.

The volume is arranged in three parts: Part I deals with the primary differentiation of sex, development and growth during early life, and the condition favorable to the evolution of normal organization, and the attainment of a health in purity. This involves the discussion of heredity and environment, including care in childhood, mental and physical education and culture, together with the necessary additions during the transition from girlhood to womanhood.

Part II treats of the characters of sex, the adaptation of structure to function, the predisposition to particular diseases and the causes of certain afflictions peculiar to women. Then follow all the functional and organic diseases common to the period of active functional life of woman, which commonly come under the observation and care of the physician.

Part III discusses the menopause of the transition from active functional life towards advanced years; and then the diseases of the latter period. The great object in the first part of this work is to consider as fully as possible the ways and means of developing vigorous organizations and maintaining healthy functional life. This necessitates attention to hygiene at all periods, and all that the term implies.

We have taken the above notice of the work from the author's preface; but after having read over several chapters very carefully, we feel justified in saying that the author has more than accomplished the object which he had in view. We have heard already more than one practitioner in this city speak of this work as the most valuable addition to our medical text-books that has yet appeared, and we feel confident that when this book becomes more generally known by, and placed in possession of, the general practitioners throughout the country, there will not only be many less cases of diseases of women, but also many of those cases which do exist will be cured by medical treatment, instead of being allowed to drift on to the more advanced stage when nothing short of surgery will afford relief.

Little need be said of Dr. Skeene's vast experience; he is not only one of the fathers of

gynæcology in America, but, owing to the prominent positions which he has occupied in the teaching faculties of New York and Brooklyn, he has kept pace with the great advances which gynæcology has been making during the last ten years. We have had the pleasure of seeing him at his home and at his work, and can testify to the great esteem in which he is held as a teacher, by his large class of students and young physicians. When one sees the number of patients he has to attend in a day, one wonders where he finds the time to accomplish such a task as the writing of this and his other books. It is a lesson to younger men to know that the veteran author does his writing between six and eight a.m., while younger men are still asleep. In two hours a day for three hundred days in the year a vast amount of work may be accomplished.

This book of Dr. Skeene's should be in the hands of every family physician who is called upon to treat medical diseases of women and girls, and his purchase will amply repay him for the expense incurred. It may be obtained from Messrs. Morang & Co., of Toronto, agents for the Appletons.

A Manual of the Modern Theory and Technique of Surgical Asepsis. By Carl Beck, M.D., Visiting Surgeon to St. Mark's Hospital and to the German Poliklinik of New York City, etc. With 65 illustrations in the text, and 12 full-page plates. Price, $1.25 nett. Philadelphia: W. B. Saunders, 925 Walnut street, 1895.

The author says in his preface:—"This Manual of Surgical Asepsis, which is based upon the method employed in my teaching upon the treatment of wounds at the New York Post Graduate School and at St. Mark's Hospital, was written in compliance with the solicitations of those practitioners whom it has been my pleasure to instruct at these institutions.

"As it is only within a comparatively few years that bacteriology has revolutionized the practice of surgery, it is natural that even the most excellent surgical text-books lack full and detailed descriptions of the theory and technique of surgical asepsis.

"While the leading idea has been to write a *practical* book that would in a measure meet the deficiency of the larger works on the subject, yet *theory* could not entirely be omitted, inasmuch as most of the technique of modern wound-treatment is founded upon experiments conducted in the laboratory. But only those experiments have been accentuated whose comprehension is indispensably associated with that of technique, and whose results can be corroborated by clinical observation. Hence in this treatise there has been followed a plan somewhat different from that of my eminent predecessors, Schimmelbusch, Braatz, and Terrier.

"Certain details which may seem unimportant upon superficial consideration, but the neglect of which is incompatible with surgical success, have been given more prominence than is ordinarily accorded them in their connection with the subject of asepsis—for instance, the descriptions of the technique of suturing and of disinfection, the dressings employed for the different regions of the body, the maintenance of asepsis in private practice, etc.

"An important feature of this book, or at least so regarded by the writer, is that a stricter line of demarcation than usual is drawn between wounds aseptically performed by surgeons and those otherwise inflicted or those dependent upon inflammatory processes. In the latter category *antisepsis* asserts its prerogatives, but only as subordinate to asepsis. As an expression of the position thus assumed, were written the sections on Infected Wounds, on Open-wound Treatment, and on the Renewal of Dressings.

"Among the antiseptic drugs, iodoform is assigned the most prominence, and in regarding its extensive employment by the profession, its advantages and disadvantages are thoroughly discussed. The question of tuberculosis, that presents itself so frequently to practitioners, has also been exhaustively considered in its relation to asepsis. An entire section is devoted to anæsthesia, since, irrespective of its vital importance in most surgical procedures, its insufficient mastering is apt to impair seriously the aseptic condition of the patient."

The author points out the absolute necessity for eternal vigilance, as the price of safety, and truly says that if 99 points of asepsis have been observed and only 1 forgotten, the result will be the same as if the whole 100 had been neglected. Students, assistants and onlookers must never for a moment forget that the success of the operation may depend on any one of them. For this reason all those who take an interest in the progress of surgery would do well to study this work before attending an operation in any capacity.

A Guide to the Aseptic Treatment of Wounds. By Dr. C. Schimmelbusch, Assistant in the Royal Surgical Clinic of the University of Berlin. Preface by Prof. E. Von Bergmann. Translated from the second revised German edition with express permission of the author, by Frank J. Thornbury, M.D., Lecturer on Bacteriology, University of Buffalo, N.Y., Supervising Microscopist in the Bureau of Animal Industry, U.S. Department of Agriculture; late Senior Resident Physician Cincinnati Hospital, Cincinnati, Ohio. With 43 illustrations. G. P. Putnam's Sons.

The author and the translator have both enjoyed exceptional facilities for becoming thoroughly acquainted with modern aseptic

methods in Von Bergmann's clinics, and we can assure our readers that the work before us leaves no questions unanswered concerning asepsis upon which in modern surgery almost everything depends. The preparation of silk, catgut, instruments and dressings is fully described, and, as Bergmann says in the preface that he does not have time to give these details during his clinic, he recommends his pupils to learn them from this book prepared by his assistant. We have derived the greatest pleasure in reading this small book, and strongly recommend it to everyone who does any surgery at all. The mechanical features, such as fine paper, good type and pretty binding, make the volume very attractive.

PUBLISHERS DEPARTMENT.

A WOMAN'S MIDSUMMER MAGAZINE.

The safeguards of marriage are treated of by Dr. Parkhurst in the July *Ladies' Home Journal* in a way that will strike many as particularly direct and to the point. Never, perhaps, has the marriage question been so well dealt with. The romantic life of the widow of Octave Feuillet is charmingly treated by Madame Blanc, under her pseudonym of "Th. Bentzon," while Hezekiah Butterworth tells "The Story of Brook Farm," that unique New England experiment which is unknown to a large part of the present generation. The illustrations show "Brook Farm" as it is to-day. The musical features of this issue are many, the most valuable probably being an article on "The Voice of Highest Range," by Frederic Peakes, one of the best known authorities on voice culture, and Mrs. Garrett Webster's carefully-prepared article on "The Pay of Women Musicians." Instrumentalists are remembered in a set of very melodious waltzes called the "American Girl Waltzes," by Mr. Richard Stahl, the well-known composer. Ella McKenna Friend writes of the home life and personality of Rosa Bonheur, the celebrated animal painter, and a recent portrait is given of "The Recluse of Fontainebleau." Caroline Leslie Field's short story, "Miss Teele, of Gilbury Green," is a delightful bit of simple New England fiction. The editor discusses "The Blot on Our American Life," which he claims is the disrespect shown everywhere for persons in authority both in political and civil life. Robert J. Burdette furnishes an inimitable article entitled "A Woman in a Raspberry Patch," and John Kendrick Bangs is irresistibly funny in his report of the eighth meeting of "The Paradise Club." Dainty housekeepers will be charmed with Mrs. Barnes-Bruce's "A Violet Table Set." Mrs. Mallon's illustrated page tells of "Underwear for the Summer." "Amusing Children in Summer" is the title of a page devoted to outdoor and indoor summer parties for children, and serves to add attractiveness to an issue which goes out to its hundreds of thousands of readers in a dainty cover exquisitely illustrated by W. L. Taylor. *The Ladies' Home Journal* is published by The Curtis Publishing Company of Philadelphia, for ten cents per number and one dollar per year.

DISTURBANCES OF INNERVATION.

Robert B. McCall, M.D., Medical College of Ohio, Cincinnati, now residing at Hamersville, Ohio, writes:—

"My confidence in antikamnia is so well established that I have only words of praise. Independently of other observers I have proved to my satisfaction its certain value as a promoter of parturition, whether typical, delayed or complicated, and its effectiveness in controlling the vomiting of pregnancy. In cases marked by unusual suffering in second stage, pains of nagging sort, frequent or separated by prolonged intervals, accompanied by nervous rigors and mental forebodings, one or two doses, three to five grains each, of antikamnia promptly changes all this.

"If there is a 'sleepy uterus,' antikamnia and quinine awake every energy, muscular and nervous, and push labor to an early safe conclusion. Indeed, in any case of labor small doses are helpful, confirming efforts of nature and shortening duration of process.

"I have just finished treatment of an obstinate case of vomiting in pregnancy. A week ago the first dose of antikamnia was given, nervous excitement, mental worry and gastric intolerance rapidly yielded. This case was a typical one, and the result is clearly attributable to the masterful influence of your preparation.

"If there is any one drug or preparation that can be made to answer every need of the physician, for the correction of the multitudinous disturbances of innervation that occur in the various diseases he is called upon to treat, that one is antikamnia."

LITERARY NOTE.

A new book on Canada, by Dr. Bourinot, will shortly be issued. It is entitled "How Canada is Governed," and gives in plain, simple language a short account of the Executive, Legislative, Judicial and Municipal Institutions of the Country, together with a sketch of their origin and development. The book will be illustrated with numerous engravings and autographs, and being the work of so eminent an authority as Dr. Bourinot, will be indispensable to those who wish to be well informed about the affairs of the Dominion.

THE COPP, CLARK COMPANY (Limited) are the publishers.

The weekly issues of *Littell's Living Age* are delightful companions at all seasons of the year. The reader can always depend on them to contain just the right thing to suit the present mood. There is so much variety—the range of subjects is so wide, as will be seen from the following partial table of contents of the July number.

"Walter Savage Landor," by John Fyvie; "Italian Disunion," by Jos. Crooklands; "A Journey to Scotland in the Year 1435," by J. J. Jusserand; "The Home-Life of the Verneys," by L. B. Lang; "Napoleon at St. Helena. A Reminiscence"; "International Law in the War between Japan and China," by T. E. Holland; "England and France on the Niger. The Race for Borgu," by Captain F. D. Lugard; "The After Careers of University-Educated Women," by Alice M. Gordon; "The Poetry of Keble," by Arthur Christopher Benson; "Advertising as a Trespass on the Public," by Richardson Evans; "Concerning Puppies," by Alice Spinner; "Montaigne's Adopted Daughter," by F. J. Hudleston; "Napoleon on Board H. M. S. Bellerophon"; "The Campaign of Flodden," by C. Stein; "The Attack on Tibet," by D. Gath Whitley; "Of Cabbages and Kings"; "Isandhlwana, Zululand, 1894," by E. A. Hurst; "Killed by the Baltic Canal," by Poultney Bigelow, besides several short stories by the best writers, and poetry.

The Canada Medical Record.

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CONTENTS.

Original Communications

HOME AND FOREIGN CLIMATES IN CONSUMPTION.*

Doctor Playter contributed a paper on "Home and Foreign Climates in Consumption," mostly extracts from a book on consumption now in the printers' hands, in which he contends, and quotes authorities to prove, that, in the present state of our want of knowledge of the effects upon the human functions of the various atmospheric conditions, change of climate is an empirical remedy having no theoretical foundation, and that acclimatization is a process, the possible injurious effects of which will often outweigh any benefit derived. In hardly one case in a hundred is such a change desirable, although change of locality is often essential.

A warm climate sometimes gives more comfort and prolongs life in advanced cases; and occasionally in the early stage, a young man indifferent about his health may be sent to an elevated climate.

Theory and practice have taught us that what the consumptive needs, first, last and always, is more pure air, more oxygen, and this in its best, most invigorating form. This cannot be best supplied by a warm nor by a thin atmosphere. The consumptive, whether from heredity or habit, is an imperfect breather. In the development of the soil for the tubercle bacillus imperfect respiration plays the chief part; all other causes are but remote and contributive to this one—an imperfect respiratory function, which clogs the entire organism with the degree of imperfect tissue metabolism from want of oxygen.

In the decomposition of this accumulated effete matter, not only are inorganic, substances formed which constitute food for the bacilli, but possibly also organic toxines, which transform simple saprophytic bacilli into poisonous or virulent pathogenic organisms or infections, the analogue of

* Abstract of paper read before Ontario Medical Association.

which we sometimes have in the transformation of the bacillus coli communis by intestinal toxines.

In the rarified air of high mountains with the climbing, there is great and forced expansion of the lung membrane. The subject actually gasps widely for breath in order to compensate for the thinness of the air. The whole function of respiration is aroused and improved, and the body purified and invigorated, but altitude is not necessary. This function can be more readily improved at lower levels with the richer air of Canada by suitable lung gymnastics, if the patient will only persevere in the exercises; and more safely too in hemorrhagic cases, in which there is considerable risk in going somewhat suddenly to a much elevated climate.

Dr. Playter refers to the benefits of compressed air, and of the dense air at sea, where the mortality from consumption has been shown to be sixteen times less than on land; results not attributable alone to the purity of the sea air.

The purer air of great elevations is an important condition. Yet we have in many parts of Canada a practically pure highly ozonous atmosphere at all seasons while over our snow-covered expanses during several months of the year is air probably as germless as on sea or high mountain. The colder the air breathed, the more oxygen it contains, and the more too it expands in the air chambers on becoming warmed to the lung temperature. Consumptives in Canada in nearly all cases have acquired the predisposition by means of indoor occupation, or a habit of housing in close, over-heated rooms, and they may be, the most susceptible of them, gradually habituated back again to an outdoor life, even in the coldest season, by proper attention to the skin,—suitable clothing and especially the cool bath. The sudden changes in temperature in Canada, although trying, are invigorating and often less marked and sudden than on high altitudes. At Davos the thermometer has shown a drop of 150° F. (from 166° to 16°) between the midday sunshine and the following night.

Dr. Playter contends that we have in Ontario and Quebec some of the best localities for consumptives on this planet. Muskoka has a reputation as a good one. It is sufficiently elevated, has a dry, pure and invigorating atmosphere and a large proportion of sunny days. The ideal place, the doctor thinks, is on the Gatineau mountains, a few miles from Ottawa, in about the same latitude as Muskoka. With a pure and highly bracing air, and a large number of sunny days, it has a south-eastern aspect, and protection on the north-west by a much more elevated wooded ridge, and is hence suitable for all seasons. It has a delightful outlook, with a view of about 4000 square miles of beautiful country,—the Ottawa, Rideau and Gatineau Rivers, their valleys, windings and waterfalls, and the beautiful capital of the Dominion at the meeting of three waters.

A PLEA FOR EFFICIENT LEGISLATION REGULATING MEDICAL PRACTICE.

By Perry H. Millard, M.D., of St. Paul.

(*Concludea*)

Having submitted satisfactory evidence of preliminary fitness, only such persons should be admitted to undergo the professional test as have received their courses of professional education at schools of medicine whose curricula of requirements are acceptable to the respective boards. A minimum of requirements, both as to time and teaching facilities, are as essential in measuring professional fitness as it is for similar purposes in universities, colleges, and our public school system. A school should not be recognized unless it is working under a minimum that will assure the graduation of a class of persons that can safely be entrusted with the care of the sick. In arriving at a conclusion upon this most important function I desire to particularly impress upon the members of these boards the fact that medicine as at present understood and practised is radically different from that of a few years ago. To comprehend requires years of study and a training in laboratory methods and surgical technique that can only be grasped when afforded by a person

trained in methods of medical pedagogy. The clinical and laboratory facilities of many of our schools are shamefully inadequate, several colleges known to the writer having operated for years with substantially no assets. It is the duty of each board to enquire fully into the facilities of each school represented by graduates who are applicants for degrees.

Having determined upon the fitness of the school to afford satisfactory courses of medical instruction, applicants holding degrees from such institutions should be admitted and a further test of fitness demanded by requiring an examination upon all the recognized branches of medicine. These examinations should be conducted by number, be scientific, and of sufficient severity to assure the public a thoroughly educated profession. Students from the respective schools of practice should undergo an examination upon the same questions, no necessity existing for questions not primary in character.

Licenses should not be refused or revoked for other than gross unprofessional or dishonorable conduct. In criminal cases it is not well to anticipate the processes of criminal law. The latter feature of our legislation has been instrumental in protecting the people from the professional charlatan in several states. Its provisions should be incorporated in all statutes regulating medical practice.

Owing to the difficulty in securing indictments and the consequent tardiness of legal processes, the penalty for violations of the provisions of this form of legislation should be by penalties imposed by a justice or a municipal judge; the latter method has given satisfaction as far as I am aware. Reasonable efficiency upon the part of the officers of these boards have been awarded by a full compliance with the provisions of this form of statute in all instances. The Governor should have the appointing power, being responsible for the successful operations of the different state boards. Experience satisfies us that the so-called mixed boards are doing satisfactory work and operating in perfect harmony. Seemingly no excuse exists for the duplicate boards operating in a very few States. At present approximately thirty States possess legislation regulating medical practice. Seventeen States have a form of statute that fails to recognize the diploma as evidence of fitness to practice; consequently they may be classed with those States operating under efficient acts. In the latter class of States I particularly desire to call your attention to the results of work thus far accomplished. In a paper read before this learned body, at Detroit, Michigan, in 1892, I suggested the future influences of these boards as most important in shaping the future medical education in this country. I submit data at this time confirmatory of the position then taken, and reaffirm my former suggestion that future legislation will in a great measure determine and govern the work of the teaching bodies of the country.

I am deeply indebted to the officers of the various boards for courtesies extended, and regret that space forbids reference to many suggestions and conclusions arrived at in the work of the different boards.

Data have been obtained from the following named States: Alabama, Minnesota, Maryland, North Dakota, North Carolina, New York, New Jersey, Virginia, and Washington.

The subjoined table indicates briefly the work of these boards:

State.	Examined.	Licensed.	Rejected.	Per cent.
Alabama.....	647	558	89	0.862
Maryland.....	150	105	25	0.806
Minnesota.....	641	499	142	0.778
New York.....	967	797	170	0.824
New Jersey....	447	417	30	0.955
North Carolina.	615	508	207	0.71
North Dakota..	81	76	5	0.938
Virginia.....	835	613	222	0.734
Washington....	207	167	40	0.806
Totals....	4670	3740	930	0.822

It will be observed that of four thousand six hundred and seventy persons examined, but eighty-two and two-tenths per cent. were successful in securing a license. The nine hundred and thirty unsuccessful applicants have, we doubt not, principally located in States not protected by this form of legislation.

I am pleased to direct your attention to the good work of the Minnesota board. The first act regulating medical practice in this State became operative in March, 1883. It was the form of legislation at present in force in Illinois. It was in operation five years, being supplanted by the present law. The present act requires an examination of all persons commencing the practice of medicine, and, as amended by the last legislature, the minimum of requirements is changed, demanding that all graduates of later date than 1898 furnish satisfactory evidence of having attended at least four courses of lectures in different years, of not less than six months duration each.

We have in Minnesota a practical illustration of the position taken in my former paper: "that in medical legislation we have the only solution of the problem of higher medical education." Having drafted these bills, and by force of circumstances been somewhat conspicuously aggressive in urging their enactment, I have, in consequence, witnessed their operations with some concern and interest. The result is all that the most sanguine could have anticipated. In a period of twelve years the proportion of physicians to the population in Minnesota has been reduced from one practitioner to every six hundred and fifty in 1883 to one to every one thousand in 1895.

The State has been substantially rid of the travelling charlatan. The present able Secretary, Dr. McDavitt, informs me that the Medical Census just completed is accurate, and that the present operation of the law is quite faultless. We therefore conclude that in one State at least the number of physicians have been reduced to a number commensurate with the demands of the people.

The work of the New York Board is attracting considerable attention. Notwithstanding pronounced opposition and many embarrassments, the act is destined to strengthen the character of the profession in this State. From advance sheets kindly furnished for use in this paper, I observe the following verification of a position taken by the Secretary, James Russell Parsons, in his 1893 report. He reiterates that the records of the past year conclusively prove the position taken in his 1893 report: "That the new law proves a barrier to the ingress of the incompetent, has operated to raise the standard of preliminary education, improve the methods of teaching and terms of study of the different schools of medicine."

The following resolution from the President and Secretary of the Board to the State Medical Society is significant, and should meet the approval and support of every member of the profession of this great State: "*Resolved*, That in the opinion of this Board the best interests of the public and medical profession would be materially advanced by gradually increasing the minimum of requirements as to general preliminary education, till no candidate be entitled to matriculate in 1897 at a degree-granting medical school in this State that has not completed at least a full high school course."

I am pleased to note that this bill has already passed the Senate in New York, and is in a fair way of becoming a law. If it becomes operative it will operate to improve the character of matriculates in New York schools, and will be followed by similar legislation in other States. Greater co-operation is necessary between different state boards, as it is essential that harmony of policy exist as far as practicable. As in foreign countries their relations to the profession and teaching bodies is most important, their functions being that of professional censors of the conduct of the members of the profession, and guarding at the same time the avenues of entrance to professional work. It being the duties of these boards to protect the people from professional incompetency and charlatanry, the duties are briefly comprehended in the performance of the following duties: 1. In establishing a minimum curriculum for all colleges whose alumni apply for a license to practice. 2. The individual examination of all perons wishing to practice medicine in the commonwealth. 3. A professional censorship granting the right to refuse or revoke a license for incompetency and gross unprofessional or dishonorable conduct.

As this form of legislation becomes more fully understood and appreciated by the better class of schools, it will be observed as one of the most certain and reliable avenues of placing before the profession of the country the character of work being done in all colleges whose alumni apply for a license. A school doing honest work has little to fear at the hands of these boards: upon the contrary, as suggested in my former paper, it will be found that the proportion of applicants able to pass successful examinations will be a certain index of the character of instruction afforded students in the respective schools.

While the proportion of applicants successful is only eighty-two per cent., it will be found that from the schools heretofore operating under a high grade of requirements that, thus far at least in the work of these boards, nearly all graduates are successful in obtaining a license upon examination. In substantiation of this conclusion I again submit data, using therein the same schools as in my former paper.

The following table indicates the proportion of students successful on examination from alumni of schools heretofore operating under the three years curricula.

Colleges.	Examined.	Licensed.	Rejected.	Per cent.
Harvard.....	31	31	0	1.000
Columbia..... ..	123	118	5	.952
Univ. of Penna....	126	123	3	.976
Univ. of Michigan..	83	78	5	.940
Northwestern Univ.	26	22	4	.846
Univ. of Minnesota.	149	148	1	.992
Totals.....	538	520	18	.964

I cannot but conclude, gentlemen, that efficient medical legislation will operate to bring about the following results, as applied to the profession and public.

1. It will protect the people by affording a profession of greater intelligence.

2. It will suppress charlatanry.

3. It will reduce the number of persons practising medicine to a number commensurate with the demands of the people.

4. It will reduce the number of medical colleges, at present far above legitimate demands.

5. It will raise the general standard of professional fitness, assuring us a professional prestige in the future, becoming the most important of the learned professions.

In conclusion, we appeal to the profession to renew their efforts in securing efficient medical legislation, believing its operations will result most beneficially to both the public and profession.

Society Proceedings.

MONTREAL MEDICO-CHIRURGICAL SOCIETY.

Stated Meeting, January 25, 1895.

DR. G. P. GIRDWOOD, PRESIDENT, IN THE CHAIR.

Large Interstitial Uterine Tumor with great Development of the Uterine Wall and Moderate Increase of the Uterine Cavity.—DR. WM. GARDNER contributed this specimen and said that it appeared to belong to the variety of myoma, designated as lymphangiectodes; and, roughly speaking, was composed of intersecting bands or filaments of pearly white tissue bounding spaces containing a clear straw-colored fluid.

The case was interesting from its rarity, its rapid growth, its consistence as felt through the abdominal wall, and otherwise in some respects presenting difficulties in diagnosis. The patient was aged thirty-two, and married eight years, sterile, menstruation regular till three or four months ago, the flow being copious and painful. Otherwise her complaints were of pain in the left lumbar region and in the legs, and of abdominal enlargement. The patient said that previous to a year ago there was scarcely any enlargement. The abdominal tumor resembled much in feel and in other characters the gravid uterus of seven months, presenting at intervals the painless contractions so valuable a sign of pregnancy, as insisted upon by Dr. Braxton Hicks. The fact, however, that this sign is occasionally met with in the softer varieties of uterine tumors, was demonstrated by the late Dr. Matthews Duncan. This consistence of the tumor and marked purplish discoloration of the genitals, with pigmentation of the linea alba, and areola about the nipples, had given rise to the suspicion of pregnancy; a suspicion which was shared by a member of the profession. The operation was done a fortnight ago, and the method chosen was supravaginal amputation after ligature of the ovarian and uterine arteries, and intraperitoneal treatment of the stump. The recovery had been absolutely witho ut unfavorable symptoms.

Cholecystenterostomy from the use of Murphy's Button.—Dr. SHEPHERD at a meeting held September 21st, 1894, reported a case of cholecystomy in which a fistula remained, and he stated then his intention of doing a cholecystenterostomy should the fistula not close within three months. She returned to the hospital November 28, 1894, looking well and healthy, and having g ined considerably in weight. She, however, said the continued discharge of the bile was unbearable, and asked that an operation be performed for relief. So, on December 3rd, she was placed under ether, and an incision was made a little internal to the first one, and the fistulous opening thus avoided. The gall-bladder was seen attached firmly to the abdominal wall. On examining the site of the supposed gall-stones found at the last operation in August, he came down on a large mass, the size of an orange, which apparently involved the head of the pancreas and duodenum. Being convinced that the case was one of malignant disease, and that all measures for relief could only be temporary, it was decided to unite the gall-bladder to the colon by means of a Murphy button, the duodenum being fixed and not easy to get at. The button was introduced without much difficulty, the purse string suture being first applied; owing to the thickness of the gall-bladder, there was some puckering, and it was difficult to get the folds to lie flat. The thinness of the colon was remarked, and the button when pressed home could be seen distinctly through the walls of the gut, so a few Lembert's sutures were introduced. As the patient had malignant disease, it was not considered very important to close the fistulous opening, as it was felt that this would gradually diminish in size when there was free communication between the gall-bladder and the gut. On dropping back the bowel and gall-bladder the parts seemed to lie quite comfortably without tension. The abdominal wound was now closed with two layers of sutures.

The patient went on excellently well for three days, very comfortable, with no pain and no discharge of bile from the fistulous opening. On the evening of December 6th, she complained of chilliness, and bright red blood began to ooze through the fistulous opening which led to the gall-bladder, and large clots of blood could be squeezed out. The bladder was packed with iodoform gauze, but in a few hours the blood began to force its way through the abdominal wound, and the pulse began to fail, so it was decided to reopen the wound and examine the source of the hæmorrhage. On opening that, however, the parts were free from any peritonitis or sepsis, but there was a considerable amount of clotted blood in the abdominal cavity in the neighborhood of the stomach, besides a quantity in the gall-bladder. On examining the anastomosis, it was seen that the button had cut through the gall-bladder, and from this cut there was free bleeding. There was no gangrene of parts in contact with the button. The button was immediately removed and the wound in the colon and that of the gall-bladder sewed up. In the latter, owing to its great friability, this was a difficult matter. Blood still came, and so the gall-bladder was packed with iodoform gauze and the wound closed as the patient was getting much weaker. Next morning the dressings were found to be soaked with blood

and all efforts to stop it failed. She died that evening. A hurried examination was made after death, and carcinoma of the head of the pancreas and duodenum was found, which pressed the common duct. The gall-bladder was full of blood, the suturing having failed to arrest the hæmorrhage. Dr. Shepherd remarked that such cases as this rather damped one's enthusiasm for Murphy's button, but still the case was one of cancerous disease, and such cases were more liable to hæmorrhage than others.

Dr. JAMES BELL had listened with great interest to the result of this operation. He never had occasion to apply the Murphy button in the operation of lateral anastomosis in the human subject, although he had done so experimentally in the dog. However, he had often thought that a cholecystenterostomy, especially uniting the gall-bladder to the first portion of the duodenum, must be a good deal more difficult operation to perform than it is described as being. The difficulty of suturing the gall-bladder was in his mind while Dr. Shepherd was describing his case. Since his three cases reported a few weeks ago, he had performed another end to end anastomosis with every prospect of a satisfactory result so far. There was a very chronic obstruction, the ileum was much dilated, the muscular coat of the walls greatly hypertrophied, being perhaps 2½ inches in diameter at the point of section. On the other hand, the distal portion was perhaps smaller than usual. In puckering up the purse-string suture over the end of the proximal portion of the bowel, which was also greatly thickened, he found difficulty in getting the edges evenly turned in, and after uniting the button he noticed some mucous membrane protruding. He then cut the string, unscrewed the button, made another section, and applied the button a second time with better success. The question of hæmorrhage in Dr. Shepherd's case was a little difficult to understand. There were no large vessels to bleed in the substance of the gall-bladder itself, as it is not a vascular structure under ordinary circumstances. His first impression, upon hearing of the hæmorrhage, was that it came from some portion of the meso-colon. It was certainly difficult to understand what combination of circumstances could make the gall bladder bleed so profusely. He could well understand that an experience of this kind would not predispose a man to repeated operations with the Murphy button. He thought that it had been used oftener than advisable in cholecystenterostomy. The plea is, that in a certain percentage of these cases, a fistula remains permanently. On the other hand, he believed opening the duodenum to be a great element of danger. Then the history of the earlier cases, those done before the Murphy button was introduced, of establishing a communication between the gall-bladder and some portion of the intestines, was a very unfortunate history all through. Many cases of inter-communication of the contents occurred, setting up disastrous, if not fatal results.

Four cases of Extra-Uterine Pregnancy. Dr. SPRINGLE read this paper, as follows :—

I shall not attempt to enter into a consideration of the subject of this condition, for it may be found occupying chapter upon chapter in any modern text of gynæcology or abdominal surgery, and medical literature teems with it. Still, I think you will agree with me that one or other of these cases possesses more than one point of interest.

This paper is more properly a series of four case reports of extra-uterine gestation, which present so many differences in their history and clinical course and effect, that I thought perhaps their relation might be of interest to you.

Two of these cases were advanced, one to a little over six months, the other somewhat less. The other two were early pregnancies not advanced more than three months. Again, one of each of the two was operated upon and the others recovered with equally as good results.

CASE I. I first saw at the Metropolitan Dispensary in June, 1893, and ordered her to the Western Hospital, where she was admitted on the 15th of that month. Her age was 28 years, and she had been married nine years, and had had nine children and no miscarriages. Her youngest child was then 18 months old. She had never, so far as she knew, suffered from any menstrual or other disorder bearing upon her condition at the time. When first seen at the dispensary she was complaining of great abdominal pain and enlargement of the abdomen, due to a tumor, she had been told by her physician.

While in the hospital she gave the following history in addition to that stated above :

On February 28, 1893, she became unwell, and continued to be so until March 29. The flow was accompanied with more or less pain, which she had not experienced before, and at no time had she noticed shreds or pieces of tissue to lead one to suppose that a decidual membrane had been shed. She continued to exercise her household duties, but experienced always more or less pain of a lancinating character and situated more in the lower abdomen, accompanied by nausea, vomiting, fainting attacks and frequency of micturition. These symptoms continued up to the time when seen, and patient suspected, but was not quite sure, that she was pregnant.

The mammæ and areolæ were in a condition corresponding to the period of pregnancy that she was supposed to have been in. The abdomen was enlarged, tender, and with some

slight difficulty an ovoid in contour tumor could be felt reaching to the umbilicus and enlarging below where its outline to palpation became lost in the depths of the pelvis. The tumor was dull on percussion, very tender, no contractions to be felt, no fœtal movement (although the patient thought she had felt these), and no heart sounds to be heard at the time. A well-marked souffle was heard.

Per vaginam the uterus was found to be crowded to the right and front of the pelvis, but its exact position and location with the tumor could not be ascertained accurately. It was raised slightly and measured by the sound slightly over 70 m.m. The remainder of the pelvic cavity was filled by a large fluctuating tumor continuous with that observed above. It was thought at the time that a solid movable body could be detected, but the extreme tenderness precluded thorough manipulation. Dr. Fisk, then house surgeon of the hospital, detected fœtal heart sounds upon the day of operation.

When the cavity of the peritoneum was examined, it was found that the pelvis was roofed by a tumor which had a projection upwards. It completely filled the pelvis from the brim. The uterus and right appendage were easily felt in the position partially ascertained by the examination previously mentioned About one inch of the left tube could be felt close to the uterus, the rest of the tube appeared to be lost or spread out upon the tumor. Here and there small and recent clots of blood entangled in omentum and lying in between the folds of bowel were to be seen. These had evidently come from the sac or cyst wall, in which more posteriorly several small oozings were observed. Shreds of fibrin attaching the cyst wall to the surrounding parts were quite numerous, and evidently but a few days old.

A trocar withdrew a quantity of unmeasured slightly tinged with blood fluid from the cyst. The puncture bled so freely that a finger was introduced to explore the contents, and which was found to be a living child. The opening was quickly enlarged and the fœtus extracted. This was followed by the most awful hæmorrhage I have ever seen, and was only controlled by aortic compression. The cord was attached about one and a half inches to the left of the median line to the roof of the cavity. The placenta was wholly attached above, and the thickness of the placenta and cyst wall in parts did not measure more than one-fourth of an inch, and seemed to be but peritoneum and placental tissue.

Any attempt at hæmostasis by ligature, forcepressure or cautery seemed to increase the hæmorrhage. The sac was sewn by its opening to the abdominal opening, pressure on the aorta being maintained in the meanwhile and the cavity tightly packed with iodoform gauze, as were also the united openings. This stopped any active hæmorrhage. The child after delivery made a few feeble respirations and died No attempt was made to extract the placenta.

The patient recovered well from the effects of the anæsthetic considering the amount of blood lost.

For several dressings in which the gauze packing was removed it was found necessary to compress the aorta, and any attempt in detaching the placenta was followed by profuse hæmorrhage.

She continued to improve for ten days, after which symptoms of thrombosis appeared in the left femoral vein, septic in nature. This was followed by pyæmic abscesses. She recovered, however, but did not leave the hospital until October 18th, and is now in fair health.

I am indebted to Drs. McConnell and Perrigo for their able assistance in this case and its after-treatment.

Case II. This case is of much interest, for it is believed to be now a case of retained fœtus. The patient was 30 years of age and had been married for six years. There is a history of a probable miscarriage (of about three months) five months after marriage. Since this she had been attended by a gynæcologist for some uterine disorder. She had enjoyed fair health otherwise and menstruation had always been regular.

On the 12th of September, 1893, she was seen for the first time and complained of pain in the lower region of the abdomen, syncopal attacks and vomiting. There was a slight rise of temperature and pulse rate. She had menstruated during the last week of March, nearly six months previously. About the end of the following May she noticed a slight flow of blood and pieces of skin, as she called them. This was accompanied by violent cramp-like pains, vomiting and fainting. Her friends thought she was dying. She recovered from this attack, but had more or less pain in the abdomen and occasional attacks of syncope until she came under the writer's care.

She was poorly nourished, complained of nausea and vomiting. Pulse was 100 and weak, temperature 100 1-5°. Pressure over the abdomen elicited much pain, and a smooth immovable, rounded mass was felt in the median line and to the left and in the pelvis. The breasts were hard and tender and the areolæ dark.

By bimanual examination the mass in the pelvis could be felt; it was semi-fluctuant, tender, and was harder in consistency in some parts than others. The uterus was apparently to the right and front of this mass, and could not be definitely separated from it. No fœtal

movement or heart sounds were detected, nor had the patient experienced any sensation of motion. No attempt to introduce a sound into the uterine cavity was made. She was kept under observation for a few days, during which time she improved.

She was admitted to the Western Hospital on September 24th, a little over six months from the date of her last menstrual period. On admission a slight amount of dark fluid blood was seen coming from the vagina ; this flow ceased after six hours.

The hospital records state that fœtal heart sounds were to be heard. This, however, could hardly have been the case. She suffered from labour-like pains from time to time ; these, however, passed off. During the first week of October a large amount of pus was passed from the rectum, and has continued to be discharged up to the present time.

Dr. Perrigo advised operation before this occurred, but was not supported by the rest of the hospital staff in consultation. She left the hospital some two weeks later somewhat improved. She was seen at her home shortly afterwards and the condition of the pelvic contents was as follows : The uterus is pushed to the right side and front and its outline can be more easily felt ; it is more moveable. To the left of and behind the uterus a large mass the size of a full term fœtal head may be felt. This is harder at some parts than others and particularly so close to the uterus. Here a rounded nodule or body is situated. Towards the left of the pelvis the mass became more irregular in outline. No crepitation or grating can be elicited on palpitation. Pus is discharging from the rectum, from exactly what part cannot be ascertained, but the sinus must be high up.

This patient was seen quite recently and her condition is the same. The mass is hard, nodular and somewhat contracted. She suffers more or less pain constantly in the pelvis. The rectal discharge continues, but is less in amount. She has not menstruated since March, 1893.

This case was looked upon when first seen as one of extra-uterine gestation. Although perhaps a dermoid tumor might simulate or resemble such a condition, yet the history past and subsequent is that to be expected in the diagnosis formed.

Case III. This and the following case are instances in which the primary rupture of the tube also caused the death of the embryo. Both were less than three months pregnant.

In one the condition immediately endangered life, in the other the symptoms were masked. Indeed the condition of affairs was not suspected before operation.

In the first of these cases, a young healthy looking woman of high complexion, 25 years of age, was sent to the hospital by Dr. Tatley, complaining of pain in the right iliac region, and was supposed to be due to some chronic, probably gonorrheal, inflammation of the tube and ovary on that side.

She was admitted on May 23, 1894, with this history : She has had four children, and in September, 1893, twelve months after the birth of her youngest child, she first complained of pain on that side. This had been continuing up to the past few weeks, when it became worse.

Two days before admission she felt a sudden sharp pain in the side ; this was accompanied by vomiting and she had to go to bed. There was no marked history of concealed hæmorrhage to be elicited. The pain continued for a few hours and ceased.

When first seen she was in good condition, color and pulse normal, temperature half a degree above normal. There was slight resistance to and pain on pressure over the part complained of.

I had omitted to state that she had been regular and did not suspect that pregnancy existed. However, she is not very positive as to the occurrence of menstruation or not, and I hardly like to accept her statements as correct. On examination per vaginam an enlarged ovary and tube was thought to be present on that side, and to be accompanied by adhesions.

On May 28, five days after admission, the abdomen was opened and a large amount of clotted blood was found filling the pelvic peritoneal cavity. The tube on the right side was enlarged and ruptured on its posterior aspect. The rupture was large, and an ordinary pencil could be inserted through it. It was ragged, and a mass of chorion, etc., protruded through it. Villi were found in abundance. The left tube presenting signs of old inflammation was removed also. Recovery was uneventful.

Case IV. In this case the internal hæmorrhage must have been great. The patient was 34 years of age, had had five children and no miscarriages. Two years before, at the time of her accouchement, she had a severe post-partum hæmorrhage. Menstrual history negative.

She was seen for the first time on February 19, 1894, and was then about eleven weeks pregnant, as she thought. Three-quarters of an hour before, while engaged in her housework, she felt something give way on the right side and she fainted with pain. Vomiting set in and she became so bloodless and weak that the last rites of the church were administered.

On examination she was without color to the lips, buccal mucous membrane almost bloodless, sighing and gasping for breath. The pulse attained a rate of 150 per minute when first seen and was hardly perceptible at the wrist.

Speech was hardly audible. She had frequent hiccough and complained of slight pain over right iliac region, where some fullness was to be felt on palpation and dullness on percussion. Some slight fullness was also felt here bimanually. However, but little attempt at thorough examination was made, and the patient was disturbed as little as possible. Her condition improved slightly that night, but next morning she again collapsed and was even in a more serious condition than at first and felt more pain.

Dr. Perrigo saw her with me on the second day and concurred in the necessity for immediate operation. This was declined, and she again gained strength and again had a fit of collapse on the third day. After this she slowly and surely gained, and on the fourth day had slight intermittent pain, followed by a discharge of blood and decidua. There had been no flow of any kind for the preceding eleven weeks. A large mass occupied the pelvis, fixing the uterus, and it was thought that the ovary and part of the tube could be felt on the right side.

She made a tedious but complete recovery, and nothing more than an induration and slight enlargement is now to be felt about the broad ligament.

Comment.—In the first case is an example of the most dangerous form of extra-uterine pregnancy that could exist. It has been said by many a writer that the rupture of a gravid tube is one of the most dreadful calamities to which women can be subjected, and anyone who saw the loss of blood in this case will agree with the saying.

Women have been known to collapse and die so suddenly that poisoning has been suspected and the case only cleared up on autopsy.

Could this case have gone to full term, this would have been impossible; rupture was impending at the time of operation. In any case in which a diagnosis can be made, or even if the condition be suspected, the only logical and humane treatment is operative, and that as soon as possible.

If another case of like nature be encountered by the writer the sac would be opened by the cautery knife, with the hope of less hæmorrhage.

The compression of the aorta was most effectual here, and it is to be regretted that this means has not been more employed, especially in controlling post-partum hæmorrhage. It was recommended by Bishop in the *Lancet*, 1893, and for the past three years the writer has used it with invariable results.

The removal of the placenta is advised when attached above. In this case it would have taken with it the roof of the sac.

In the second case it is to be regretted that an early operation had not been resorted to. The present condition of the sac communicating with the bowel would complicate the usual state of affairs greatly, and it is hardly to be expected that the patient in her present condition can enjoy perfect health and be free from further danger. However, the result might have been worse.

Whether this case had a primary rupture into the layers of the broad ligament or into the peritoneal cavity is mere conjecture, but the history would incline me to favor the former situation.

In the third case the history of cessation of menstruation is wanting, but this might occur in any case, and would perhaps be misleading to the attending physician. Another feature of this case is the absence of the marked state of collapse usually seen in this accident.

The interesting points in Case IV. lie in the extreme collapse observed, the occurrence of further hæmorrhages with eventual recovery, and the absorption of the greater amount of clot.

Dr. HINGSTON said that some years ago Dr. D'Orsonnens, a very distinguished accoucheur in Montreal, mentioned a number of cases in which no operation was performed, and where the patients ultimately made good recoveries. He (Dr. H.) saw two of the cases to which Dr. D'Orsonnens alluded, where the fœtus came away, piecemeal, through the abdominal wall in one case, and through the rectum in the other. Dr. D'Orsonnens' experience in the Maternity and in private practice went to prove that in extra-uterine pregnancy rupture did not necessarily follow, and that when rupture occurred, death did not necessarily take place. Sometimes nature was sufficient to bring the child into the world. He (Dr. H.) had an instance of this four years ago. He was asked by a medical gentleman of this city to see a lady for the purpose of removing what was considered an ovarian tumor. He saw the lady, examined her carefully, found the uterus perfectly free; depth of cavity normal, yet there was a large swelling, more to the right side than to the left, and on close examination he came to the conclusion it was not a tumor, but partly interstitial, partly tubal pregnancy. He advised the operation to be put off till the seventh month. The lady was again seen at the seventh month, and being in excellent health, the operation was deferred till the eighth month. About the time when the operation was to take place, being in the neighborhood, he called on the lady, and while talking to her something like labor pains came on. On examination he found the os uteri dilated, and the membranes projecting from the side of and into the uterus. He suggested that an accoucheur be sent for and left. He learned afterwards that the child was born without

difficulty in the natural way. Both parent and child were alive to-day. He merely mentioned this case to show that, in some instances, exceptional, no doubt, interference was not necessary, and that especially when fœtation was partly interstitial and partly tubal. Dame Nature may, and does, sometimes dispense with our art.

Uterine fibroid.—Dr. Lapthorn Smith exhibited a fibroid uterus which he had removed fifteen days previously from a German woman at the Samaritan hospital. The patient was thirty-five years of age, but looked much older, and was very anæmic from menorrhagia, the flow being very profuse and lasting fifteen days. Although this had been going on for five years, it was only during the last three years that she had noticed the tumor which, when she came under observation, made her appear the size of a woman seven months pregnant. The method employed was that followed by Bantock and Price and Tait, by serre-nœud and the extra-peritoneal treatment of the stump. The tumor weighed, when fresh, about fifteen pounds, was symmetrically oval, smooth and dense, and had two small subperitoneal fibroids on top of it between the ovaries, which latter were large. The serre-nœud had been removed on the 6th day, and the stump cut away on the 12th day. The patient was eating well, and pulse and temperature had hardly gone above normal, 100½ for one night only. She was now sitting up a little every day. While admitting the many advantages of the new method by which no stump at all is left, he felt safer with the extra-peritoneal method, and still employed it whenever he was particularly anxious for the patient to recover, or, in other words, in every case.

Dr. Hingston thought there were some cases where the operation must necessarily be intra-peritoneal, and when it could be performed it was also the better; but there were cases where the extra-peritoneal was the better operation. He had operated by both methods, and while he gave the preference to the intra-peritoneal method, he found that each had advantages in certain cases. Much depended upon the length of the cervix, the nature of the tumor, and the facility or otherwise with which the stump could be drawn through the abdominal wound.

Dermoid Cyst—Dr. Lapthorn Smith exhibited a dermoid cyst of the right ovary, which he removed a week before at his private hospital, from a lady, fifty-six years of age, who was suffering great pain, as well as from profuse menstruation. On examination, the uterus was found to be enlarged, there being several small fibroids in its anterior wall, and the cervix was badly lacerated, while a solid tumor, the size of a small orange, occupied Douglas cul-de-sac. She was very weak from these hæmorrhages, which began ten years before and had gradually increased. The periods, however, had never ceased at the usual age for the menopause. The uterus was curetted, the cervix repaired, and the dermoid cyst and the other ovary removed. She suffered so little pain that she did not even require the hypodermic injection of a ¼ grain of morphia, which he always allowed, while she declared herself to be absolutely free from pain the day following the operation. The object of removing both ovaries was to put a stop to the menorrhagia. On cutting open the cyst it was seen to contain an outside layer of pure white sebaceous matter around a central ball of hair; but it contained no teeth. The operation presented no difficulties, and illustrated the importance of recognizing and removing the tumors while they were yet small.

Foreign Body in the Bladder—Dr. Hingston exhibited a wax candle which he had removed from the bladder of a lady who had been using it for purposes of sensual gratification. On the last occasion, which to her would be a memorable one, it slipped from her finger and was seen no more. She suffered intense pain in consequence, and finally was compelled to seek surgical aid. After successively examining the vagina and rectum and bladder, Dr. Hingston located the foreign body completely within the latter organ (the patient only knew it had gone "somewhere down there"). He removed portions of it with bullet forceps, but owing to the softness of the wax those portions were inconsiderable. He therefore ordered the patient to the hospital, where, after chloroform had been administered, he succeeded in removing the whole of the candle, the longest piece measuring five and a half inches in length, the last and largest piece having been removed with a lithotomy forceps, such as is used for children. The most interesting feature in the case was, Dr. Hingston remarked, the facility with which he could manipulate his finger, and an instrument upon it, through the urethra. It probably did not take more than ten or twelve minutes for him to gain an entrance to the bladder with the lithotomy forceps and the finger to guide it. There was very little suffering experienced afterwards from the operation, and no incontinence of urine resulted from it.

Dr. F. W. Campbell mentioned several somewhat similar cases which had occurred in the practice of the late Prof. Syme, during his attendance at the Royal Infirmary, Edinburgh. He also described a case which he had seen at the Montreal General Hospital, where the late Dr. Thomas Walter Jones removed from the urethra, by perineal section, a carpenter's lead pencil. One case which occurred in his own practice some years ago, was that of a young man who came to his office and said that he

had been waylaid and two large pins pushed into his urethra—the heads downwards. It was impossible to remove them *via* meatus, so the points were pushed through the sides of the penis and a small incision made to liberate the heads. The present case was the first the speaker had heard of where the female urethra was used for such a purpose, although those in which the vagina was used were not very rare.

The late Dr. E. E. Duquet—The following resolution was moved by Dr. HINGSTON and seconded by Dr. BURGESS :—

"That this Society desires to record its sense of the loss sustained by the profession generally, and mental science more especially, by the recent death of Dr. Duquet, who, in a quiet and unobtrusive manner, had secured the respect and confidence of his professional brethren in Montreal, and the esteem and consideration of the more eminent alienists elsewhere.

Stated Meeting, 8th February, 1895.

Dr. G. P. GIRDWOOD, PRESIDENT, IN THE CHAIR.

Perforated Gastric Ulcer—Dr. KIRKPATRICK brought before the Society a patient on whom he had operated for this cause.

As this case is one of more than usual interest, I bring the patient before you to-night to show how perfectly recovery has taken place. The history is as follows, and for it I am indebted to my house-surgeon, Dr. Byers.

Fanny R., aged 24, native of Ireland, servant girl by occupation, was admitted into the Montreal General Hospital on Nov. 17th, complaining of "pain in the abdomen and shoulders."

Patient gave the history of having been seized on Thursday morning (2 o'clock), Nov. 15th, with severe pain in the epigastrium and lower substernal regions, which caused her to suffer intensely, and along with this she vomited "dark-colored" material for several hours. The condition, except for additional pain felt in the shoulders, continued thus unabated in spite of treatment, and she entered the hospital on Saturday afternoon, Nov. 17th. Was uncertain when asked as to the condition of her bowels during this time.

In addition to the above, patient gave an indefinite history of having been under treatment two years before for shortness of breath on exertion, pallor, headache, amenorrhœa, etc., symptoms of chlorosis, and of having had during the month previous to the onset of her major illness, pain in the region of her stomach, sometimes severe, and coming on immediately after eating, and sometimes felt between the intervals of taking food. Walking, particularly upstairs, rendered the condition worse, and the pain seemed to have grown more severe during the few days preceding the attack of Thursday, Nov. 15th. Occasionally, the patient said, she had "felt sick at her stomach," but she never had vomiting of blood, nor did she at any time notice anything peculiar about her motions. Of late, also, her appetite had been very poor and capricious, and her strength and general health much impaired.

When seen first after admission, patient was lying in bed in the dorsal position, with her legs drawn up, moaning and in great distress.

Her face was pallid, and lips dry. She complained of pain in the abdomen, particularly in the epigastric region, and in the shoulders, especially the left. The tongue was brownish, fissured and dry in the centre, whitish and moist at the edges. Sordes present in the teeth.

She complained somewhat of being thirsty, but was not sick at her stomach, and had no inclination to vomit.

The abdomen was prominent and rounded, and evenly distended.

Tenderness general, but particularly marked in the epigastric and innermost portion of the hypochondriac regions. Tenseness of the abdominal walls was not great, and not more marked in any special region. No evidences of tumor in any situation. Percussion revealed a general tympanitic note, which mounted up and completely obscured the liver dullness. The urine was high-colored, with thick cloudy deposit, spec. grav., 1.032; reaction acid; albumen present in appreciable quantities; casts and leucocytes found on microscopical examination. Respiratory and vascular systems normal; temp. 101.5; pulse, 120; respiration, 44.

As the patient did not improve during the night, it was decided, after consultation with Dr. Armstrong, that the condition was one of perforated ulcer of the stomach, and that the only hope was immediate operation. Accordingly the operation began at 2 o'clock in the afternoon; the details are as follows:

An incision was made from the ensiform cartilage to within a short distance of the umbilicus. On opening the peritoneum a small quantity of gas escaped and the anterior wall of the stomach presented. This was found to be attached to the parietes by slight adhesions, which were easily broken down by the fingers.

On disturbing the viscera thus, more gas escaped from the abdominal cavity, and while assisting me to break down the adhesions, Dr. Armstrong's finger slipped into the hole in the stomach. Gauze pads were immediately packed around the opening in order to prevent escape of the stomach contents, and then Dr. Armstrong withdrew his finger. The stomach

was drawn up through the wound and examined. The ulcer was situated in the anterior wall of the stomach, a little to the right of the œsophageal line, and more toward the superior and inferior gastric border. The opening was a little larger than a five cent piece, and was closed with a continuous Czerney-Lembert suture after trimming the ragged edges with a pair of scissors. The Lembert suture was continued for about half an inch toward the median line, in order to invert a portion of stomach wall that looked as if ulceration might be going on inside. The abdomen was then sponged out, a rubber tube inserted into the right flank and the edges of the incision brought together by through and through stitches of silkworm gut. Irrigation of abdomen was not used.

During the operation the patient's pulse became very weak, but on being put back to bed she came quickly out of ether, with little pain or vomiting. The pulse improved quickly, stimulation being required on only one occasion when strych. gr. 1-50 was given. Exudation was very slight, only ℥ i ss. clear fluid coming away, so that the drainage tube was removed on the following morning, after 20 hours. All food by mouth was prohibited at first, patient's strength being maintained by nutrient enemata of beef tea and peptonized milk. On the third day small quantities of milk were given by the mouth. The patient was dressed on Nov. 23rd and again on Dec. 3rd, when the stitches were removed. The wound healed by first intention. Slight suppuration occurred in the upper part of the incision, and a small sinus appeared five weeks after the operation.

This appeared to be due to the working forward of a bit of deep gastric suture, which could be felt as a rough body at the bottom of the sinus. The patient sat up, out of bed, on Dec. 19th, and since then her general health has been improving steadily. The temperature was normal on the thirteenth day following the operation. The sinus has now healed and the patient is perfectly well.

The operation has been performed a number of times, but so far very few successful cases have been reported. At the meeting of the British Medical Association last summer (*British Medical Journal*, October 20, 1895), the subject came up for discussion, and at that time only five successful cases had been reported. The operators were Taylor, Kriege, Morse, Maclaren and Gilford. M. P. Michaux, of Paris (*Bulletin Med. Oct. 24th*, 1894) reports a successful case and mentions another, that of Roux, of Lausanne. Lastly, R. H. Bourchier Nicholson reports a case (*Brit. Med. Journal, Nov. 3 and Dec. 22*, 1894). This makes a total of nine cases reported up to date.

Dr. ARMSTRONG congratulated Dr. Kirkpatrick, and thought it was a credit to the Society for one of its members to have recognized this condition and performed operation. He believed that this promised to be a field in which a great deal of useful surgery might be done; and physicians should be stimulated to the early recognition of such cases. Although ulcers were more common on the posterior wall, rupture or perforation was more apt to occur on the anterior, which was fortunate, as of course it was more easy to reach the anterior wall of the stomach.

Dr. GURD said that he had been attending the girl for about a week before sending her to hospital. She had been suffering from the usual symptoms of anæmia with gastralgia. The pains in the stomach came on periodically about four or five o'clock every afternoon, and appeared to shoot up to the upper part of the chest. She was able to attend to her duties, those of housemaid, when suddenly in the night she was seized with severe pains in the epigastrium. Dr. Gurd was asked by her employer for something to relieve her. He sent a ¼ grain of morphia. The next day he found the pain not very great, but much increased on pressure; temperature about 101°. The following day all the symptoms were rather worse, and an attempt to get her into the hospital was made, but without success. Two days went by before she could be admitted, during which time she had been growing worse, so much so that few who saw her before the operation thought she could recover.

Dr. ENGLAND said this case recalled to his mind a case reported by Dr. Armstrong, about 3 years ago, to whom he administered the ether. The case was that of a young lady, 22 years old, who was suddenly seized, while at a social party, with severe abdominal pain. Her previous health had been fairly good, though she had at times been troubled with indigestion, and was rather anæmic. The pains continued in spite of treatment by the local physician and peritonitis developed. Seven or eight days after the onset of pain, Dr. Armstrong saw the case and recommended operation. Laparotomy was performed, the incision was made in the middle line below the umbilicus. General peritonitis was found to exist. The appendix vermiformis was located and removed, also the uterine appendages, the latter not being healthy, and the wound closed. The patient died, he believed, on the following day, and the autopsy revealed two large ulcers which had perforated the walls of the stomach, the perforation probably having occurred at the onset of pain, allowing the contents of the stomach to escape into the peritoneal cavity. On opening the abdomen it was found that firm adhesions had formed at about the level of the umbilicus, dividing the abdominal cavity into

two zones. Into the upper the contents of the stomach continued to escape from the time of perforation until death. The lower zone showed signs of more recent and severe inflammation. His object in alluding to this case was to show that peritonitis, following perforation of a gastric ulcer, was not so virulent in character as was peritonitis from perforation of an inflamed appendix or other intestinal ulcer. Peritonitis in both these cases was slow in its development and of a subacute character; so different from the peritonitis which one expects to find when the bowel is ruptured or a pus tube breaks, and its contents escape into the peritoneum.

Dr. ARMSTRONG remembered the case referred to by Dr. England, and it was owing to that and one or two similar experiences that he acquired sufficient knowledge to recognize the condition and its seriousness in Dr. Kirkpatrick's case. In this way even our mistakes prove beneficial to mankind. He thought that it was these cases without any distinct history which were apt to rupture. The girl alluded to by Dr. England had been dancing when the rupture occurred.

Gall Stones.—Dr. ARMSTRONG showed two lots of gall-stones. The first bottle passed around contained, according to a count made by one of the students, 637 stones. This was a large number, but of course much larger numbers had been removed. The chief interest of the case was in the clinical history.

Patient, a female, æt. 64, was admitted to the Montreal General Hospital complaining of pain in the right hypochondrium. The pain was so severe that morphia was given hypodermically to relieve it. She had had a little jaundice, lasting a short time, some three months before admission. The patient had the appearance of a woman suffering from malignant disease. She was pale and cachectic.

The operation was begun as an exploratory incision, with the idea of removing gall-stones if they were found, and if malignant disease, the patient would be none the worse.

On opening the abdomen, the gall bladder containing these stones was readily found, and fortunately for the patient, no evidence of carcinoma about this organ, liver or pancreas was discovered, with the exception of one enlarged freely movable lymphatic gland. As he could not bring the edges of the gall-bladder to the edge of the abdominal incision, and there was evidence of the patency of the cystic and common duct, Dr. Armstrong closed the opening of the gall-bladder and dropped it back. He then passed a glass drain down to the suture line in the gall-bladder as, if any bile had escaped from the gall-bladder, the condition would have been the same as if the gall-bladder had not been sutured. The patient made a perfect recovery. An additional reason for operating for gall-stones in elderly people, was that the injury and local irritation caused by their presence might be an exciting cause of malignant disease. The association of gall-stones and malignant disease in the neighborhood of the gall-bladder had long been noted.

The second bottle contained a lot of gall-stones which had been removed post-mortem by Dr. Stenning, of Coaticooke. Their interest was in the fact that there were 3 pretty large stones, with 78 small ones. Mr. Tait had drawn attention to the fact that as a general rule gall-stone cases were divided into two distinct classes. In the first, there was one, two, or three, seldom more, large stones, and in the second a large number of small stones. This was the first instance coming under the notice of Dr. Armstrong in which the small and large stones were found together in the same case.

Dr. ADAMI agreed that it was very unusual to find large and small gall stones together in one case. With reference to what Dr. Armstrong had remarked concerning the etiological relationship between gall stones and hepatic carcinoma, he reminded the Society that during this session he had exhibited a case in which this relationship appeared to exist, a case in which the bladder, full of gall stones, had become the seat of a suppurative inflammation, and cancer of the liver substance developed immediately outside the chronically inflamed bladder.

A Case of Multiple Carcinomatous Growths in a Cirrhosed Liver.—Drs. FINLEY and ADAMI brought forward this case, which was of interest both from a clinical and anatomical standpoint. Dr. Finley read the following history of the case:

C. D., aet. 50, an Italian laborer, was admitted to the Montreal General Hospital, December 24, 1894, complaining of swelling of legs and abdomen.

Personal History—He has always been extremely temperate, and has not had any venereal disease. He has enjoyed good health up to the onset of the present illness. The family history is unobtainable as the patient speaks but little English. The present illness began on the 25th of October, with severe pain in the right hypochondrium radiating over the abdomen. A month later the abdomen began to swell and the pain disappeared. He has lost much flesh and strength.

Present Condition—He is much emaciated, the cheek bones are prominent and the muscles small and soft. A moderate degree of jaundice is present, the conjunctivæ being yellow and the skin brownish-yellow in color. The tongue is heavily coated, the bowels constipated and the appetite poor. The temperature ranges from 97° to 99°, pulse 88 and of good volume. The abdomen is much distended, and enlarged veins are seen in the flanks and over the right

hypochondrium. The presence of a large quantity of free fluid is indicated by movable dulness and fluctuation. There is distinct fulness in the hepatic region, both in front and behind about the angle of the scapula. Hepatic dulness extends from the fifth rib to a hand's breadth below the costal margin and measures six inches. The edge of the liver can be felt through the fluid. Spleen is not palpable. The fæces are colored, the urine very dark, with a deposit of amorphous urates; acid, S.G. 1020; no albumen, no sugar. Urobilin with Huppert's test. Tested for bile with nitric acid only a purple ring on filter paper.

December 26, 8½ oz. of clear yellow fluid withdrawn with the aspirator. After paracentesis the lower end of the spleen is distinctly felt. The hepatic enlargement involves the right lobe only, its border passing beneath the ribs at the right parasternal line. The surface is slightly nodular and hard. Early in January nourishment was refused and rectal tenesmus with small clay-colored stools set in. Death occurred on January 6th, being preceded by delirium, involuntary evacuations of urine and a semi-comatose condition.

The diagnosis lay between cirrhosis and carcinoma of the liver, the former being specially suggested by the enlarged spleen. The rapid emaciation, together with enlargement of the liver, an enlargement which it will be noted involved only the right lobe, was, however, strongly in favor of cancer, as was also an absence of an alcoholic history. Obstruction to the portal system evidenced by ascites would also explain the splenic enlargement. Urobilin and not biliverdin was constantly present in the urine, a fact which has been specially noted by Jakseh in the jaundice of hepatic disease.

Dr. FINLEY stated that at the autopsy performed by himself and Dr. Williams the body was found deeply jaundiced. The abdomen contained a large amount of fluid.

The liver weighed 4140 grms; its right lobe was greatly enlarged, extending below the costal border, and it was thickly studded with yellow nodules varying in size from that of a small shot to that of a walnut. The larger nodules were friable and caseous in the centre. The left lobe had a roughened cirrhotic surface, was firm and somewhat diminished in size. Both externally and on section it presented the appearance of an atrophic cirrhosis. No nodules were discovered in it.

The spleen was greatly enlarged (1060 grms.) and firm. To the naked eye the condition resembled that of cancer of one lobe and cirrhosis of the other, and sufficed to explain the symptoms which, as above noted, were those both of cancer and cirrhosis.

Dr. ADAMI described the microscopical appearances of the liver. The right lobe on section had the appearance, observable in cases of extensive cirrhosis, of sharply marked-off small islands of liver tissue, many of them of pale yellow color standing out sharply from the surrounding tissue. In addition there were the larger yet paler nodes of cancer. On microscopical examination the extensive cirrhotic change of monolobular type was well observed. The nodes or masses of new growth were sharply encapsulated. He felt some hesitation in describing them as fully developed carcinoma, for there was a tendency to preserve the type of liver tissue. In parts the cells tended to be arranged in columns resembling the relationship in the lobules of liver tissue, and judging from the amount of bile pigment deposited in some of them (as in cells of the surrounding functional tissue) they were not so far removed from the normal as to have lost all specific action. Again, the growths were not infiltrating, but were sharply defined and encapsulated. But in general the evidence of regular growth had been lost and the cells were massed together without regular order, while degenerative processes had affected the centres of many of the masses. Perhaps the term adeno-carcinoma would express this transition from simple to cancerous overgrowth. Frequently in cases of primary growths in the liver this difficulty is met with. Sections taken from the left lobe showed nodules of overgrowth, rare and small compared with those in the right. Here the cirrhosis was extreme. Dr. Adami compared this development of multiple overgrowths of gland tissue in the cirrhotic liver to the more frequent development of adenomata in the cirrhosed kidney. In both organs there occurred a cutting off of portions of the gland by bands of interstitial fibrous tissue followed by proliferation of the gland tissue and the development of adenoid neoplasms.

Thus microscopical examination fully confirmed the conclusions arrived at by Dr. Finley in his study of the case during life, and explained the clinical history which he (Dr. Adami) had heard that evening for the first time.

On Two Different Conditions of the Mitral Valve giving rise to Presystolic Murmur.—Dr. Adami exhibited two hearts. The first case was one of mitral stenosis from a patient in Dr. Stewart's wards at the Royal Victoria Hospital. The patient gave the frequent history obtainable in cases of mitral disease, namely, that of attacks of acute rheumatism. Here there had been an attack fifteen years ago and another in January, 1892. There had been a premature labor at the eighth month six years ago, with evidences of albuminuria and dropsy. From this there had been only partial recovery, the slightest cold sufficing to bring on swelling anew in the lower extremities. In August last pul-

monary trouble supervened and œdema became constant. There was dyspnœa and profuse expectoration. The condition became more severe, and the patient was admitted into hospital upon January 6th.

On admission, not to enter into full details, the pulse was of fair tension and regular, the arteries felt a little sclerosed. There was a diffuse impulse in the fourth and fifth spaces, and a strong impulse was felt in the fifth interspace at the nipple line. First sound rather muffled, second fairly clear. Both systolic and presystolic murmurs were heard traceable towards the axillary line, with a diastolic blowing murmur at the apex, heard, however, much better along the left border of the lower half of sternum. As the autopsy showed, this murmur probably originated in the right heart.

The heart was of great size, 450 grm., right auricle greatly distended, passing well (4 cm.) over the middle line. The distended right ventricle formed the whole anterior surface of the heart below and to the left, the left ventricle being completely out of sight, and the apex lying close upon the seventh rib in the anterior axillary line. Evidently, therefore, the impulse felt during life in the fifth interspace at the nipple line must have been due to the systole of the right ventricle.

There was, as the specimen showed, extreme stenosis of the mitral valve with thickening and sclerosis of the aortic valves, but by the usual test these last showed themselves still competent.

The stenosis of the mitral was so extreme that the slit-like opening was only one centimetre in length. The valves were markedly fibroid. The aorta showed patches of atheromatous degeneration that had not passed the fatty stage, most frequent in the abdominal region. The patient was only 36 years old.

The second heart was from a youth of 16 years of age, also an occupant of Dr. Stewart's ward. In this case the history was more especially one of chorea. There was one attack at the age of seven which lasted for two years, another of a month's duration when he was twelve. The only rather doubtful indication of acute rheumatism obtainable was that the last illness began in May, 1894, with pain and stiffness in the joints and marked swelling of the finger joints lasting for one day; with this there was shortness of breath, which steadily became accentuated.

On admission on January 22nd the patient was extremely anæmic, poorly nourished and feeble. The cardiac impulse raised the whole side of the chest, extending for five inches from the third to the seventh ribs. The apex was recognizable at the seventh rib, four and a quarter inches from the mid-sternal line. There was a roughish systolic murmur at the apex heard all over the anterior aspect of the chest and back. At the back it could be heard as low as the line joining the crests of the ilia. At the fifth space there was a rough presystolic murmur not transmitted. Presystolic thrill plainly felt at the level of the fourth rib.

On opening the chest the heart was found to extend 5.5 cm. to right of median line and 10 cm. (four inches) to the left. The apex in the sixth interspace. The right auricle was greatly distended. The anterior aspect of the ventricular region was formed about equally of right and left hearts. Left auricle fairly flaccid, but had evidently undergone so much previous distension that the auriculo-ventricular groove was almost eradicated and the walls almost parchment-like and fibroid rather than muscular, the appendix appearing not so much as a prolongation, but as a diverticulum off at right angles to the auricular cavity. With this the mitral orifice was found much larger than normal. In the adult this orifice should admit roughly three fingers; here in a boy of sixteen it admitted five, and was 11.75 cm. in circumference at the narrowest part. The valve flaps were moderately sclerosed with very slight roughening and vegetation. The chordæ tendineæ were thickened, the papillary muscles large and fibroid at their apices. The left ventricle presented extreme dilatation.

The aortic cups showed small wreaths of old vegetations below the line of apposition. They were, however, quite competent. Thus this case differed from those of Dr. Austin Flint. (*Lancet*, Jan. 27th, 1883.) The right heart presented no great abnormality. Contrary to what was the case in the previous heart, here the tricuspid orifice was above the normal capacity.

Commenting on the cases Dr. Adami said: "In these two hearts, apart from other points of interest, we have the history of well-marked presystolic murmur associated with the diametrically opposite conditions of extreme stenosis and of dilatation of the mitral orifice. In the one case the stream of blood pouring through from the left auricle into the ventricle at the end of ventricular diastole must have been peculiarly fine and have passed through with considerable force; in the other there must have been a large stream passing slowly. In the former the wall of the auricle was distinctly of a muscular type; in the latter the muscle was thinned and weakened. The edges of the mitral orifice in the case of stenosis were smooth, in that of the dilatation were slightly roughened.

"These two cases then, so far as they go, show that the presystolic murmur is not dependent upon the absolute size of the orifice, and I would go so far as to say that with such extremes it cannot be dependent even on the relative size. They show also that the condition of the edges of the orifice, through which the stream of blood pours, must only play a second-

ary part; and, in short, if we accept the view that the presystolic murmur is auricular systolic, due to the pouring of blood into the ventricle in consequence of the contractions of the auricle, they make it extremely difficult to assign a cause for its development. The one point in common in the two cases is disease of the mitral valve. That, so far as I can see, is the only common ground."

Progress of Science.

PERSISTENT URETHRAL DISCHARGES DUE TO SEMINAL VESICULITIS.

Dr. Eugene Fuller, in a study of the subject of persistent urethral discharges, advances the following conclusions:—

1. Seminal vesiculitis is the cause of chronic urethral discharges in a certain percentage of cases.

2. In about one-third of these cases the seminal vesiculitis is tubercular in character.

3. It is most important to differentiate between the simple inflammatory and the tubercular cases, owing to the difference in prognosis and treatment.

4. In the simple inflammatory cases the prognosis is good unless the subject is of an advanced age, the duration of the treatment depending largely on the chronicity of the case.

5. The treatment employed in these simple cases consists of stripping the vesicles, thereby squeezing out into the urethra their inflammatory contents by means of the forefinger introduced into the rectum. This treatment should be employed once in five to seven days, a long interval being allowed to elapse between treatments should signs of acute inflammation appear as a result of the manipulations.

6. The duration of the treatment may be all the way from a month or six weeks in subacute cases to many months, and possibly a year, in very chronic ones.

7. At the commencement of treatment the parts are usually very tender, indurated, and distended. If the case progress favorably, all these elements gradually diminish, and finally disappear as resolution takes place. The discharge customarily wholly disappears before a cure in the vesicles is attained.

8. In tubercular cases the tenderness in connection with the vesicles is not liable to be so great as, and the induration more than, in simple inflammations. In this form of inflammation the parts resent the manipulations, unless, indeed, they be most gentle, and even then it is a question if this form of treatment is beneficial. If the tubercular condition is not diagnosed at first, the manner in which the vesicles, when so involved, resent the ordinary manipulations by becoming more tender and indurated, thus aggravating the urethral symptoms, speedily renders the correct diagnosis apparent.

9. Many of these tubercular cases become quiescent under internal medication and hygienic measures.—*Journal of Cutaneous and Genito-Urinary Diseases.*

THE TREATMENT OF STRICTURE OF THE ŒSOPHAGUS.

After an exhaustive discussion of the various operative procedures in œsophageal stricture, Dr. Willy Meyer arrives at the following conclusions:

1. There are now three useful and reliable methods of gastrostomy at the surgeon's disposal. Of these, one (Witzel's) prevents leakage with absolute certainty. The two others, if properly carried out, promise the same good result. Thus the patient who had been submitted to this operation will not starve from regurgitation of the food alongside the tube.

2. In view of this fact, gastrostomy should be resorted to "early" in cases that will sooner or later need this operation.

3. In cases of burn of the œsophagus, primary gastrostomy and timely dilatation of the contracting scar will most probably prevent conditions which at present generally confront the surgeon in this class of cases, and are sometimes incurable. Witzel's method of gastrostomy deserves preference. The oblique canal produced by it will close spontaneously when the tube has been removed. Thus a secondary operation will not be needed.

4. In cases of cancer of the œsophagus a gastric fistula should be established as soon as the scales show a steady decrease of the patient's weight.

5. Further experience is needed with reference to Ssabanejew-Frank's method before an attempt can be made at giving each of the three operations its proper place in the treatment of cancerous stenosis. If future observations be favorable, Ssabanejew-Frank's operation seems to be destined to become the standard one for malignant stricture of the œsophagus. If unfavorable, Witzel's method should be done wherever it can be carried out.

6. Von Hacker's method should then be reserved for far-gone cases, and should, if the patient be very weak, be done under cocaine-anæsthesia, best at two sittings. If properly performed the outlook for making the fistula close tightly around the tube is good.—*Amer. Jour. of Med. Sciences*, October, 1894.

A NEW OPERATION FOR THE RADICAL CURE OF HERNIA.

The operation devised by Dr. C. A. L. Reed is as follows : Incision in inguinal hernia is made from a point two inches above Poupart's ligament, midway between the anterior superior spinous process of the ileum and the spine of the pubes, oblique downward and inward as nearly as possible consistent with the access of the inguinal canal to a point at the base of the scrotum. The dissection is then carried into both scrotal and pelvic cavities. The protruding viscera are then reduced and carefully inspected after being brought out above. The sac is then carefully dissected from its scrotal connections, and reversed by invagination. It is then opened by two incisions : one toward the pubes, the other toward the ileum, being thus converted into an anterior and a posterior flap. The cord is now dissected loose and placed in the canal and denuded of its peritoneum at its outer angle. The internal ring is closed by several interrupted sutures, animal or buried silk, these sutures being applied beneath the peritoneal flaps formed by splitting the sac, care being taken that in the closure of the ring undue pressure shall not be brought to bear upon the cord. The posterior peritoneal flap is now excised, the stump being ligated should there be any necessity for doing so. The anterior flap is carried across the now obliterated internal ring, and stitched by interrupted sutures to the posterior parietal peritoneum. The external ring is now closed by passing a number of sutures through its pillars external to the cord, which is now fixed in the internal (pubic) angle of the outlet of the canal. The incision into the abdomen is closed by an interrupted figure of eight suture, the internal loop embracing the peritoneum, the aponeurosis of the transversalis and of both oblique muscles, and the external loop embracing the superficial fasciæ, fat and skin. These sutures should not be more than three-quarters of an inch apart. The incision into the scrotum may be closed in the ordinary way. Drainage should not be employed except in the presence of marked oozing or obvious infection. —*Jour. Amer. Med. Assoc.*

A NEW METHOD OF SHORTENING THE TENDO ACHILLIS.

Phocas (*Amer. Med. Surg. Bulletin*) proposes the following operations :

A median incision five or six centimeters is made, over the tendon the sheath opened, and the tendon carefully denuded. It is then transfixed laterally at the upper end of the wound by a bistoury which is carried down the middle of the tendon by a sawing motion. The posterior flap is cut away above and below. The anterior part of the tendon is thin enough to be folded on itself, and this is now done, the freshened surfaces together, thus shortening it one-half the length of the incision, and the fold stitched together with cat-gut. The sheath is closed, and the skin also, separately. The foot is then put up in equinus in a fixed dressing.

DIAGNOSIS AND TREATMENT OF APPENDICITIS.

M. Monod discussed this subject, "Treatment of Appendicitis," at the Eighth Congress of, French Surgeons, held at Lyons, October 9-13, 1894 (*Allgemeine Medicinische Central Zeitung*, No. 102). In all his 22 cases surgical interference was resorted to, with brilliant results if done early. Five out of his 22 operative patients died ; in all cases pus was found in the abdominal cavity. The diagnosis should be made early, even before a tumor appears. The diagnostic points are : The sudden appearance of the symptoms ; the retraction of the abdominal walls ; and the spontaneous and violent pain, increased by the slightest external pressure. The afebrile course of some cases is noteworthy. The incision should be very similar to the one employed for ligation of the iliac artery. The appendix, if found, is to be exsected ; otherwise, the entire disease area is to be cleaned out, and drainage, not suture, employed. The technique is simple ; and the operation should be employed in doubtful cases to clear the diagnosis.

In the discussion M. Ricard agreed with Monod as to the necessity of early operation. In his 16 cases there were 4 deaths, all due to procrastination in operating from various causes. In one of them the appendicitis ran a mild course, and the patient was apparently getting well without interference ; but a sudden movement in bed caused rupture of the pus sac, and the patient died 36 hours later of general peritonitis. Ricard is therefore strongly in favor of immediate operation as soon as the symptoms of threatened perforation occur.—*Intern. Jour. of Surgery.*

THE NEATEST CIRCUMCISION.

In a paper read at the last meeting of the Miss Valley Med. Assoc., Dr. Bransford Lewis, of St. Louis, detailed a method of doing this operation. for which he claimed many advantages in celerity, ease and exactitude of performance and rapidity of healing. The operation was done with the assistance of two instruments presented by the author, a clamp and prepuce-tractor, which enabled the operator to carry out the following steps of procedure : 1, after cleansing the penis and encircling it with a small rubber band, the prepuce is drawn strongly forward, the action being applied to its inner surface by means of the serrated tractor mentioned ; 2, the glans penis being repressed, the curved fenestrated clamp is applied ; 3, with these as a

support and guide, 10 per cent. cocain solution is injected between the two layers of foreskin, anterior to the clamp—no danger of cocain poisoning occurring, since both clamp and rubber constrictor lie between it and the general circulation ; 4, after effective anæsthesia has been secured, six double length (ten inch) catgut sutures are run clear through the clamp-fenestra and the four layers of foreskin ; 5, with strong scissors the latter is cut off at one sweep ; 6, tractor and clamp being removed, the double length sutures being divided, and two additional sutures being placed at the dorsal and frenal sites, previously occupied by the tractor ; 7, the vessels are secured and sutures tied all around, making a circumcision that is at once symmetrical, precise and admirable, leading to prompt union and a satisfactory result.—*Jour. Amer. Med. Assoc.*

LOCAL ELECTROLYSIS AND ZINC-AMALGAM CATAPHORESIS IN MALIGNANT AND NON-MALIGNANT TUMOR.*

By G. Betton Massey, M.D., Physician to the Gynæcological Department of the Howard Hospital, etc.

Before reporting the three cases on which this new treatment of morbid growths is mainly based, I must explain what I mean by local electrolysis and zinc-amalgam cataphoresis, and also advance reasons for my belief that these methods, either separately or together, present important advantages over cutting operations in certain cases of benign vascular growths and incipient cancers.

Local electrolysis means simply that the electrical decomposition of the tissue salts is confined to a localized area by the approximation of the poles. If both poles of a galvanic current be placed in the morbid tissue, quite near each other, the bulk of the current will be concentrated within the portion of tissue immediately between them, and but little will traverse the outside healthy parts. In practice they should not be further apart than from a half to one inch, though this depends entirely on the strength of current to be used and the size of the growth. So placed, an enormous current may be employed to dissolve a morbid tissue without affecting surrounding tissues, the parts having been chilled by a spray, or otherwise rendered anæsthetic, if sensitive. The surgical possibilities of such currents are quite remarkable. All the salts and liquids of a given growth lying between the points become a prey to such a current, the watery contents being turned into oxygen and hydrogen gases, and the complex salts into solutions of acids and alkalies. This is, of course, attended with a material rise of temperature, but nothing like charring. If the tissue subjected to the process is soft and vascular, or juicy, there will be very little left between the poles after the gas has been given off, but the acids and alkaloids dissolved in a turbid liquid remainder. If the tissue is tougher and more fibrous, a gristly residue will be found which can be detached or left to be detached by nature.

The strength of current required to destroy tissue in this way depends altogether on its concentration at the active spot. A minute reproduction of the process occurs when we apply but two or three milliamperes to the papilla of a hair sheath, or to a mole on the skin ; but to completely dissolve tissues between two or more needles a half inch apart requires at least four hundred to seven hundred milliamperes.

Whether this portion of my method has any advantages over a cutting operation in removing malignant or non-malignant external growth depends upon circumstances. It is clearly inapplicable to any growth within the body, unless it is situated in a drainable natural cavity, as a considerable quantity of detritus must drain away. It also presents the disadvantage of not permitting healthy tissues to be united at once over the seat of the removed growth, a procedure, however, that is often of doubtful utility, as it frequently covers up portions of the disease that failed to be removed. The advantages of the method over the knife are, on the other hand, by no means inconsiderable. It is absolutely bloodless, no matter where applied, thus enormously conserving strength after operations notoriously bloody ; the edges of the undestroyed tissue remain non-absorbent, lessening risk of sepsis ; and finally there seems to be some property in the galvanic current to cause a retrogression of the whole of a benign growth even when but a portion is directly acted on, as in the Apostoli treatment of fibroids and the ordinary treatment of moles and other small skin tumors.

If the growth be a benign one, the application described will probably cover the whole of the active treatment. If it be malignant, on the contrary, the second portion of the method—zinc-amalgam cataphoresis—is employed, a procedure of great value in radically removing all remaining traces of a still localized cancerous growth.

Zinc-amalgam cataphoresis is electrically monopolar, the single active electrode, which is always positive, being applied to the cavity left by removal of the greater portion of the growth, while the indifferent or negative electrode, in the shape of large conducting pads connected together, is placed on any convenient portion of the body. The active electrode is a freely-amalgamated zinc surface of one or two square centimetres area, which is held successively against all portions of the bottom and edge of the excavation. From 150 to 300 milliamperes are

* Read before the Philadelphia County Medical Society, Jan. 9, 1895.

sufficient, the pain being controlled by cocaine in solution placed in the excavation beneath the electrode to be conveyed into the tissues simultaneously with the nascent oxychloride of zinc and mercury which is dissolved from the electrode by electrolysis.

By this procedure we search out and destroy all remaining spurs and paths of infection in the contiguous unhealthy and healthy tissues, the current seeking vascular and cellular paths of less resistance by preference in its journey to the other pole; and to the lethal effect of the current we add the well-known lethal effects of nascent mercury and zinc compounds. The surface of the amalgamated zinc electrode is consumed in the process—the mercury as well as the zinc—producing a mixed infiltration of the immediate polar region that is readily detected by the eye. Low organisms in the immediate neighborhood of the electrode quickly succumb, and the antiseptic value of the procedure is shown in the correction of any odors that may have accompanied the cancerous discharge. That the action is not confined to the immediate neighborhood of the electrode was well demonstrated in one case in which the zone-like base of a cancer was observed to lose its induration, and shrink in places at least an inch distant from the contact point. The applicability of the first portion of the method—local electrolysis—to a benign growth was shown in the case of a large intra-uterine cystic fibroid, which was destroyed piecemeal by repeated applications of bipolar local electrolysis, resulting in a satisfactory cure; and two other cases were reported; one of sarcoma of tonsil and soft palate cured by electrolysis, followed by zinc-amalgam cataphoresis, was also referred to me by Dr. Hemminger, February 17, 1893. Five years before, he suffered from an abscess of the ear. Two years before being seen by me the left tonsil was found to be the seat of a tumor. He had recently been sent to the Hospital of the University of Pennsylvania, where, he says, malignancy was diagnosed and an operation was proposed, which he declined.

A tumor about the size of a goose egg filled the pharynx, involving the tonsil and soft palate and threatening suffocation. Liquids could be, swallowed with much difficulty.

The patient was placed on monopolar negative punctures, 30 to 60 milliamperes, daily. But little progress being apparent at the end of a week, the parts were cocainized and subjected to bipolar local electrolysis with from 200 to 350 milliamperes, on two occasions. The separation of the eschar that resulted was accompanied by considerable pain and reaction, but as the place healed it was found that but little of the tumor remained. He did not return for further treatment until more than a year had elapsed, during which he seemed to be well. At this time, however, a renewal of the growth occurred, and it was about the size of a peach-stone when he was re-admitted to the Howard Hospital for further treatment. During this second treatment zinc-amalgam cataphoresis was mainly employed, the treatment lasting six weeks and being carried deeply into the base of the growth. A complete cure resulted, and at an examination of the parts six months later a healthy scar only was to be seen; the other, an inoperable carcinoma of the groin greatly relieved by zinc-amalgam cataphoresis, resulting in death from erosion of femoral artery and gangrene.

An estimate of the value of the method in these three cases must be comparative, as cases similar to each are usually subjected to other methods, removal with the knife being the favorite. Hysterectomy in the first case would, of course, have involved removal of the ovaries also. Both this and removal of the uterus itself were avoided entirely, no natural structures being even injured, and the time required in the treatment was probably not longer than that necessary to recovery from the effects of abdominal section. In the second case the bloodless removal of a sarcoma of the palate was followed by a treatment that I hope will render the patient less liable to a return of the disease. The third case was, of course, a failure to cure or to preserve life, yet it is thought that life was prolonged by the very evident curtailment of the growth and improvement of health. Comparisons were hardly possible, however, as an operation had been refused by one surgeon as useless.—*Coll. and Clin. Record*

CLASS NOTES.

Carcinomata of the testicles, œsophagus or tonsils, according to Prof. Keen, are very rarely benefited by operation.

Prof. Hare says that *Retrocedent Gout* is more apt to occur under the influence of colchicum than in cases where it is not employed.

Painting *Verrucæ* with the juice of the milk weed, with tincture of iodine or with a solution of the perchloride of iron, will sometimes cause them to disappear.

In *Cirrhosis of the Liver*, if ascites develops, the fluid should be drawn off as often as it accumulates. Frequent aspirations, Prof. Hare says, sometimes cause a permanent cure.

Prof. Wilson says that in children who are attacked with *Enteric Fever* the symptoms of the stadium prodromum are of a greater severity than in adult life.

According to Prof. Keen, *Perforating Ulcers of the Foot* result often from a thickening of the endoneurium, with a subsequent compression and destruction of the sensory nerve-fibres.

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MONTREAL, JULY, 1895.

THE ADVANTAGES OF PRIVATE HOSPITALS.

We notice in Dr. Skene's new book on the medical treatment of diseases of women, some remarks on the future progress of what he calls private hospital treatment. He says the order and government of such a hospital can be made agreeable to the suffering inmates both as regards quiet and cleanliness, which includes sewerage and ventilation; the diet also can be regulated according to the laws of health, and made agreeable and tempting to the capricious appetites of patients. When the sole object of the establishment is to improve the health of those who dwell in them, and where the physician and surgeon and their attendants have the controlling power, a condition of things is secured that is almost impossible in a private family. In such an establishment the doctor has great advantages; his patients being brought together, he can attend a larger number in a shorter time. We might add that he can devote to the patients the time which would otherwise be spent in useless driving about the city; he has also a more perfect control over all their doings. In this country and in Europe we find that the foremost men among specialists maintain private institutions for the care of their patients. That such institutions are both successful and advantageous to patients and physicians is a fact beyond all question. That more of them are needed is also a fact. The proof of this is in another fact, namely, the prosperity of institutions under the care of half-educated men who practically carry out but one idea in the treatment of diseases, like hydropathic and cancer-cure establishments, for example. For many years such places have been crowded by invalids in search of health. Rather than waste energy in declaiming against such places, it would be better for the profession to recognize the good that is in them, and direct institutions upon proper scientific principles to take the place of those which have for a long time been the only resorts open to sick people.

Coming from such an authority as Professor Skene, this testimony in favor of the private hospital must be considered above reproach.

CANADIAN MEDICAL ASSOCIATION.

You are invited to be present at the Twenty-eighth annual meeting of the Canadian Medical Association, to be held in Convocation Hall, Queen's University, Kingston, August 28, 29 and 30, 1895. Wm. Bayard, President, St. John, N.B.

HOW TO GET THERE.—Purchase a ticket for Kingston from the station agent at the place of departure, and get from him a standard certificate (*which is a receipt for one full single fare*), When registering at the meeting, leave the certificate with the Treasurer and it will be returned. signed by the Secretary, on the morning of August 30th. This certificate when presented to the station agent at Kingston will entitle the bearer to a ticket to his destination (1) for one-third of the single fare if there are 50 or more holding standard certificates, (2) free of charge if there are 300 or more holding such certificates.

N.B.—These rates refer to delegates and their wives.

HOTEL ACCOMMODATION.—*Special per diem rates*: Frontenac $2.00; British American $2.00; City $1.50. Rooms may be secured ahead by communicating with the proprietor.

MEMBERSHIP.—The fee for membership is Two Dollars ($2.00), and may be paid to the Treasurer, H. B. Small of Ottawa, at the opening of the meeting.

Members of the profession desiring to become members of the Association may hand

in their names, with the names of the mover and seconder at any time during the meeting, to the Secretary, who will provide forms for that purpose.

PROVISIONAL PROGRAMME.

The meeting will open at 10 a.m., on Wednesday, August 28th.

Addresses of welcome by the mayor, Fife Fowler, and M. Sullivan.

Report of Committee on Interprovincial Registration during morning session of first day.

The President's Address will be delivered at 2.30 p.m. on the first day.

The Address in Surgery will be given by I. H. Cameron, Toronto, at the evening session on the first day.

The Address in Medicine will be given by Edward Farrell, Halifax, at the evening session on the second day.

The Skin Clinic, in which J. E. Graham, Toronto, F. J. Shepherd, Montreal, and L. Duncan Bulkley, New York, will take part, will take place on the evening of the second day. There will probably be a Clinic on several nervous cases during the morning session of the third day.

There will be an excursion through the Thousand Islands by Steamer "America" at 2 p.m. on the 29th August; luncheon on board.

At 4 p.m. on August 30th the members will visit the Penitentiary and the Asylum.

Papers will be read in the order in which they are received by the Secretary. (*Not more than 30 minutes will be allowed for a paper.*)

1. Physical Training and Development as a Therapeutic Measure.—B. E. McKenzie, Toronto.

2. What is the Best Treatment for Retroversion of the Uterus?—A. Lapthorn Smith, Montreal.

3. A Tumor of the Medulla Oblongata.—J. E. Graham, Toronto.

4. Report on a Case of Acromegaly.—F. Buller, Montreal.

5. Notes upon Typhoid Fever in private practice.—W. S. Muir, Truro, N.S.

6. Objective Noises in the Head.—G. Sterling Ryerson, Toronto.

7. Some Practical Notes on Mental Depression.—J. V. Anglin, Montreal.

8.—The Operative Treatment of Injuries of the Head.—A. J. McCosh, New York;

Discussion by James Bell, Montreal, and Geo. A. Peters, Toronto.

9. Final results of Gastro-Enterostomy.—Robt. C. Kirkpatrick, Montreal.

10. Dysmenorrhœa, Report of a Case.—J. Campbell, Seaforth.

11. The Importance of Early Treatment in Cutaneous Cancers.—A. R. Robinson, New York.

12. The Anomalies of Albuminuria.—Jno. R. Hamilton, Port Dover.

13. Double Orchidectomy in Enlarged Prostate.—E. E. King, Toronto.

14. Experimental Cachexia Strumipriva.—Wesley Mills, Montreal.

15. Notes on some of the Newer Remedies used in Diseases of the Skin.—L. Duncan Bulkley, New York.

Discussion.

16. Acute Uræmia, followed by Gangrenous Abscess of the Lung.—A. McPhedran, Toronto.

17. Report of a case of Spina Befida, with treatment.—Jno. L. Bray, Chatham.

18. Thyroid Feeding in Cases of Stupor.—F. K. Clark (Rockwood), Kingston.

19. Syphilitic Manifestations in the Eye.—Alfred J. Horsey, Ottawa.

20. The Ophthalmometer.—R. A. Reeve, Toronto.

21.—Notes on a case of Brain Tumor, with an account of its removal.—J. Webster, Kingston.

22. A case of Placenta with Hydatids: Fœtus with Spina Bifida.—Alex. Bethune, Seaforth.

23. The Relation of Insanity to General Diseases.—E. H. Stafford, Toronto.

24. ..... T. G. Roddick, Montreal.

25. .....J. L. Currie, Cambridge, Mass.

26. Notes on a case of Hernia of the Vermiform Appendix.—R. W. Garret, Kingston.

27.....W. W. White, St. John, N.B.

28. Some unusual Forms of Hernia.—F. J. Shepherd, Montreal.

29. Cases in Practice.—W. G. Anglin, Kingston.

30. Operative Treatment in Moveable Kidney.—James Bell, Montreal.

31. Asthma.—H. J. Saunders, Kingston.

The above Programme is subject to change.

For further particulars, address, F. N. G. STARR, General Secretary, 394 Markham St., Toronto.

THE AMERICAN ELECTRO-THERAPEUTIC ASSOCIATION.

The fifth annual meeting of the American Electro-Therapeutic Association—Dr. A. Lapthorn Smith, Montreal, President—will be held in "College of Physicians and Surgeons of Ontario," corner of Richmond and Bay Sts., Toronto, on Tuesday, Wednesday and Thursday, Sept. 3rd, 4th and 5th, 1895. For the convenience of those who desire to attend also the meeting of the Canada Medical Association in Kingston the preceding week, the following arrangements have been made with the G.T.R. and C.P.R. A first class full rate one-way ticket to Toronto should be purchased, and a "Standard Certificate" to that effect should be procured from the ticket agent at starting point at time of purchasing ticket, and this must be signed by the Secretary of the Association. in Toronto in order to secure reduced rates on returning. Holders of such are entitled to stop off at Kingston for Canada Medical Association. This applies to points east of Kingston. Information as to tickets from other localities may be obtained from Dr. C. R. Dickson, 159 Bloor St. East, Toronto, Chairman of Committee of Arrangements. These privileges apply to all who attend the Meeting, whether members or not. A most cordial invitation is extended to practitioners. All meetings are open to members of the profession. A very interesting programme will be presented, an exhibit of modern electrical appliances will be held, and ample entertainment provided for.

SELECTION.

"The meanest man I know of lives in Kansas," said a St. Louis physician. "He is a farmer, worth a cool hundred thousand. His wife was taken suddenly ill, and he came to town to consult me about her case. I told him that I could not prescribe intelligently without seeing the patient, but he declined to incur the expense of a visit. I charged him $1 for the prescription, and he spent half an hour trying to beat me down to 90 cents. He made me write the prescription in English, then bought the drugs and compounded it himself to save the apothecary's fee. One of the ingredients was capsicum. He thought he had some at home, but was mistaken, and had to come back to town, a distance of four miles, for it. By this time he had succeeded in saving about 20 cents, and wasting $2 worth of time, his wife was dead and the medicine a loss on his hands. That so bore on him that he fell ill. He took the medicine prepared for his wife, but that only aggravated his malady. When he finally recovered he sued me for $10,000, and was beaten and had to pay costs. He then went before the Grand Jury and tried to have me indicted for malpractice." This man is about on a par with the fellow who takes a medical journal for several years, and when asked to pay for it drops back in the office and has it marked "refused."—*Times and Register*.

CLASS-ROOM NOTES.

—Prof. Longstreth says that *Menstruation* is usually interrupted, or sometimes the flow is delayed, by an oncoming attack of rheumatism.

—Prof. Wilson says that in cases of *Enteric Fever* sometimes a pink flush, not unlike the hectic flush, will develop; it will also be deeper during the latter part of the day.

—*Headache*, often of the most aggravated form, Prof. Keen says, manifests itself in cases of pressure on the brain; it is often so severe that the patient will moan constantly.

—As a rule, Prof. Longstreth says, if a joint swells very much in a case of *Acute Rheumatism*, fluid will be contained in the joint, but occasionally it will be found absent.

—Prof. Wilson says *Urticaria* occasionally makes its appearance in young people at about the time of the crisis or during the early part of convalescence from typhus fever.

—In cases of *Uterine Hemorrhage*, ergot and the oil of erigeron, Prof. Hare says, are both indicated; the oil being indicated for oozing and the ergot in cases of more active hemorrhage.

BOOK NOTICES.

THE CARE OF THE BABY. A manual for mothers and nurses, containing practical directions for the management of infancy and childhood in health and in disease. By J. P. Crozer Griffith, M.D., Clinical Professor of Diseases of Children in the Hospital of the University of Pennsylvania; Professor of Clinical Medicine in the Philadelphia Polyclinic and School for Graduates in Medicine; Physician to the Children's Hospital, to the Methodist Episcopal Hospital, and to St. Agnes Hospital, Philadelphia; Member of the American

Pædiatric Society and of the Association of American Physicians. Philadelphia: W. B. Saunders, 925 Walnut Street, 1895. Price $1.50.

The author has furnished a reliable guide for mothers anxious to inform themselves with regard to the best way of caring for their children in sickness and in health. There are in all nearly 400 pages.

The first chapter of the book discusses the hygiene of pregnancy, the method of calculating the date of confinement, and similar data. The characteristics of a healthy baby are considered in the second chapter, and the growth of its mind and body in the succeeding one. The chapters which follow relate to the methods of bathing, dressing, and feeding children of different ages, to the hours for sleeping, to physical and mental exercise and training, and to the proper qualities of the children's various nurses and rooms. A special effort has been made to emphasize details and to make them clear, complete, and thoroughly up to date.

The chapter upon the baby's diseases has been written particularly for those mothers who, through various circumstances, are unable to have a physician constantly within a moment's call. It contains a description of the symptoms by which we may know that disease is present; a consideration of the nursing of sick children; a concise *résumé* of the commonest diseases of infancy and childhood; and directions for the management of various accidents, including, among others, drowning and the swallowing of poisons.

The author's style is so natural that it is a pleasure to take up this book and read a chapter of it. It is well indexed, and the printing, paper and binding is a distinct improvement on any of this publisher's former productions; in fact he appears determined to take the lead in these departments. We congratulate Dr. Crozer Griffith on the admirable success he has attained in the production, and trust that he will not stop with this interesting and presentable work.

POCKET FORMULARY AND TABLE OF DOSES, AND ALSO THERAPEUTICS OF CHILDREN'S DISEASES. By Dr. H. Danchey, formerly Chief of Clinic of the Faculty, formerly House Surgeon of the Children's Hospital and President of the Medical Society of the 6th ward of Paris; Laureate of the Academy of Medicine, Paris. Société d'Editions Scientifiques, 4 Rue Antoine-Dubois, Paris, 1895.

This is a handy little pocket volume thoroughly up to date with all the newer remedies.

LE MOYEN-AGE MÉDICAL. Les médecins au moyen-âge. Les grandes épidémies. Démonomanie. Sorcellerie. Spiritisme. La médecine dans la littérature du moyen-âge. Historiens. Poètes. Auteurs dramatiques. Par le Dr. Edmond Dupouy, Ancien Interne de Charenton et des Asiles d'Aliénés, Lauréat de la *Société Médico-Psychologique*. Prix Esquirol et Prix Aubanel. Paris: Société d'Éditions Scientifiques, Place de l'École de Médecine, 4, rue Antoine-Dubois, 1895. Tous droits réservés

This is a book of unusual merit. Among the most interesting chapters is one on the early history of the University of Paris. Another interesting chapter is that which deals with the great epidemics of Europe. It also shows that women occupied an important place in medicine in the middle ages. The author shows that he is a man of great learning, and must have spent many years in patient research to produce the volume of 350 pages.

MALADIES INTERNES ET MALADIES DES ENFANTS. Par C. J. Smith, médecin praticien à Moscou. Deuxième édition. Paris: Société d'Éditions Scientifiques, Place de l'École de Médecine, 4 rue Antoine-Dubois, 1895.

This is a very practical little volume of two hundred pages in paper covers, and is suitable for the coat pocket. It contains an immense amount of information in very condensed form. For instance, the Weir Mitchell treatment with diet table and all only occupies two pages. The price is not stated, but we presume it would be about 50 cents.

LA MORT APPARENTE DU NOUVEAU-NÉ. Par le Dr. Demelin, chef de Clinique d'Accouchement à la Faculté de Médecine de Paris. (Mémoire couronné par l'Académie de Médecine, prix de l'Hygiène, 1894). Société d'Editions Scientifiques, 4 rue Antoine Dubois, et Place de l'École de Médecine, Paris. 27e volume de la Petite Encyclopédie médicale. Collection in-18 raisin cartonné à 3 fr.

This is a handy little volume, and contains full directions for the treatment of apparently still-born children. We notice that the opinion of the great American authority, Dr. Lusk of New York, is frequently quoted.

LA PROSTITUTION DANS L'ANTIQUITÉ, DANS SES RAPPORTS AVEC LES MALADIES VÉNÉRIENNES. Etude d'Hygiène Sociale. Par le Dr. Edmond Dupouy, Ancien Interne de Charenton et des Asiles d'Aliénés, Lauréat de la Société Médico Psychologique. Prix Esquirot et Prix Aubanel. Un vol. in-8 de 220 pages, avec figures, 4 fr. Troisième édition. Société d'Editions Scientifiques, 4 rue Antoine-Dubois et Place de l'Ecole de Médecine, Paris.

We cannot say much in favor of this work, It were better that it were never written. We must admit, however, that the author has shown an immense amount of erudition in compiling it,

and he must have had access to many ancient works which might otherwise be forgotten. This book may do good in one way, and that is by showing that, in spite of all the wickedness of the present day, it is as nothing when compared with the nastiness and filthiness of the manners and customs of antiquity. But we would prefer to know that such infamy was buried and forgotten with the past.

La Cure de Barèges. Le climat et les eaux minérales, indications et contre-indications. Par le Docteur I. Bétous, Médecin-Consultant à Barèges, Lauréat de la Faculté de Paris, Membre de la Société d'Hydrologie médicale, etc. Paris : Société d'Editions Scientifiqnes, Place de l'Ecole de Médecine, 4 Rue Antoine-Dubois, 1895.

PAMPHLETS.

The Entrance of Woman into Medicine. By J. C. Reeve, M.D., Dayton, Ohio. The Presidential Address to the Alumni Association of the Medical Department of the Western Reserve University, at Cleveland, Ohio, delivered May 22, 1895. Reprinted from Western Reserve Medical Journal.

Burns of the Cornea ; Electric-light Explosion Causing Temporary Blindness; Traumatic Injuries to Eyes.—Hypopyon. By L. Webster Fox, M.D., Professor of Ophthalmology in the Medico-Chirurgical College, Philadelphia, Penna. Clinical Lecture delivered at the Medico-Chirurgical College, March 9, 1895. Reprinted from The Medical Bulletin.

Enucleration of Eyeball. By L. Webster Fox, M.D., Philadelphia. Abstract of a paper read before the American Medical Association, Ophthalmic Section, held in Baltimore, May 7, 1895. Reprinted from The Medical Bulletin.

An Electric Pressure Sound for the Direct Vibration of the Membrana Tympani. By John C. Lester, A. M., M.D., Brooklyn, Assistant to the Chair of Otology, Bellevue Hospital Medical College ; Assistant Surgeon to the St. Bartholomew's Clinic for the Eye, Ear, Throat, and Nose ; ex-Editor American Medical Digest ; Fellow of the American Academy of Medicine ; Member of the Medical Society of the County of Kings. Reprinted from the New York Medical Journal for June 8, 1895.

Supra-Pubic Cystotomy for Calculus of the Bladder. Trendelenburg's Transverse Incision—Transverse Division of the Recti and Pyramidalis Muscles—Incision of the Bladder without Inflation of the Rectum or Injection of the Bladder. Read before the St Louis Medical Society, Dec. 22, 1894. By A. H. Meisenbach, M.D., Professor of Surgery in the Marion-Sims College of Medicine, St. Louis, Mo. Reprinted from the *Journal of the American Medical Association*, March 16, 1895. Chicago : American Medical Association Press, 1895.

PUBLISHERS DEPARTMENT.

HEMATURIA.

James W. Osborn, M.D., of Bealton, Ont., Canada, writing to the Editor of *Medical World*, Philadelphia (July number 1895), says : "Regarding my obstinate case of hematuria, I told you in a previous communication of my patient's restoration to a fair degree of health after a siege of anemia, emaciation and prostration, but that the hæmorrhage, though more moderate, was still going on. I have now a still more favorable report for you. Having failed to obtain the tannate of soda recommended by Dr. Hutchins, San Francisco, from my druggist, or in the city, I ordered a bottle of Sanmetto, thinking by the time she had given it a fair trial I would be able to get the tannate of soda elsewhere. She had only taken the Sanmetto a week, in drachm doses three times a day, when the hematuria disappeared. This was about three weeks ago, and it has not returned unless within a day or two. This is certainly worthy of note, as the hæmorrhage, notwithstanding her great improvement, had never subsided entirely for more than a day, and that only once, in a period of about eight months. While we cannot be sure of the proper hoc from the post hoc, in a single instance, it certainly looks as if the Sanmetto has been of service to the vis medicatrix naturæ. I have just received a letter from an old friend in the profession, who has used Sanmetto with decided benefit to a patient afflicted with hematuria."

ANTIKAMNIA—QUININE—SALOL.

The well-known therapeutical properties of these drugs makes this combination desirable in such intestinal affections as Fermentative Dyspepsia, Diarrhœa, Dysentery, Duodenal Catarrh, Cholera Infantum, and Typhoid fever. The Antikamnia controls the pain as effectually as morphine, and yet is never followed with any of those undesirable effects so characteristic of opium and its derivatives. Freedom from pain saves an immense amount of wear and tear to the system, and places it in a much better position for recovery. The Salol acts as an antiseptic and removes from the intestinal canal the first or continuing cause of the affections just mentioned. The Quinine acts as a tonic, increasing the appetite, and thus contributing much to a speedy recovery. Hare says that Quinine is not only a simple bitter, "but also seems to have a direct effect in increasing the number of the red blood corpuscles." A tablet composed of Antikamnia two grains, Quinine Sulph. two grains, and Salol one grain, allows of the easy administration of these drugs in proper proportionate doses.

The Canada Medical Record.

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CONTENTS.

Original Communications.

THE PRESENT STATUS OF THE ELECTRICAL TREATMENT OF FIBROIDS.*

BY A. LAPTHORN SMITH, B.A., M.D., *Member of the Royal College of Surgeons of England; Fellow of the American Gynæcological Society; President American Electro-Therapeutic Association; Surgeon-in-Chief of the Samaritan Hospital for Women, Montreal; Gynæcologist to the Montreal Dispensary; Surgeon to the Women's Hospital, Montreal.*

The present age in gynæcology, and abdominal surgery, especially, may be called the extreme surgical age; and, as a result of the wonderful advances and the great lowering of the death-rate of surgical operations, owing to the application of the principles of asepsis, surgical enthusiasm has reached its highest point. One must have a great deal of courage, indeed, to advocate any other method of treatment than surgical operation, especially at a meeting where the surgical element so greatly preponderates; nevertheless, the writer believes that the majority of women with fibroid tumors can be relieved of their pain and bleeding by means of the constant electrical current. If employed within certain limits, it is absolutely devoid of danger; while the application of the treatment should be almost devoid of pain. On the other hand, the surgical treatment, even under the very best of conditions, has so far always been accompanied with a mortality rate: there are fewer deaths than there were when Freund lost seventy-five per cent. of his cases of abdominal hysterectomy, but still the death rate remains, so that the electrical treatment, with no death rate, has this great advantage over the surgical treatment. The electrical treatment, also,

* Abstract of paper read before the section of Obstetrics and Gynæcology of the American Medical Association, at Baltimore, May 7, 1895.

left the ovaries and the tubes in no worse condition, but, on the contrary, in a rather better condition than they were before, while the surgical treatment was nearly always accompanied by the removal of the ovaries. With married women, and indeed with all women, the loss of the ovaries was no small affair. The temptation to operate was very great. The patient's fate was sealed one way or the other, when the operation was concluded, and, whether she lived or died, the surgeon received a great deal of praise for having the courage to perform the operation. Also the remuneration was sometimes very considerable. With the electrical treatment, on the contrary, it was tedious, required sometimes as many as fifty or one hundred application, and there were occasional relapses. This application took up a good deal of time, but this objection may be lessened by devoting two afternoons a week exclusively to this treatment; in which case a considerable number of applications may be administered in a few hours, the patients being prepared in an adjoining room, by a nurse or an assistant.

The physician who cures the patient with electricity does not receive the same credit for his good work as the one who cures her by surgical means, so the temptation is very great to operate; but he could show fifty or sixty women who had been cured of all their symptoms, and who had remained well since several years, who had been treated by electricity. A great many well-known gynæcologists have used the Apostoli method for fibroids with good success, but have refrained from publishing their cases for fear of injuring their surgical reputation. This is a fact known positively to the writer.

One of the objections to electricity which has been raised is unjust, and that is that it causes adhesions. The writer referred to several cases which had been cured of their symptoms, but were subsequently operated on for other reasons, and in which no adhesions whatever were found after as many as one hundred strong applications of the galvanic current.

Another case which he referred to demonstrated the truth of Apostoli's dictum, that when the application of this method causes febrile reaction, the tubes are badly diseased. In this case, which had been treated for fibroid, it had every appearance of being one, could not endure the Apostoli method, and was operated on by the writer, who then found that the large pear-shaped mass in the centre of the abdomen was made up of two large sausage-shaped tubes filled with pus, and two ovaries, the size of oranges, and the uterus, all glued together and covered with lymph. These were separated from each other and removed, all except the uterus, which, not being much enlarged, was left. This patient made a perfect recovery. He was very much opposed to galvano-puncture, which was, he considered, a dangerous proceeding, and he thought that one could obtain all the benefits required, by the gentle use of the positive pole, either in the form of platinum, zinc or copper in the uterus, which dried up the bleeding mucous membrane, and by its tonic action upon the muscular tissue through which the blood vessels pass to supply the bleeding mucous membrane cut off the blood supply just as surely as though we tied the ovarian arteries. The action of the electric current, he said, as applied to fibroids, was threefold. The first was not mysterious, but was but the arrest of circulation in the dilated capillaries by electro-chemical cautery. The second is no more difficult to understand than the action of ergot or strychnine; it not only tones up the vasomotor system, making the calibre of the arteries less, but it calls into play the special and remarkable powers which the uterus possesses of controlling its own circulation when it has the strength to contract.

The third effect of the current, its electrolytic action, is, I admit, as mysterious as it has ever been, but not more so than the invariable absorption of syphilitic gummatous deposits following the administration of iodide of potassium. Whether what we call electrolysis means the actual breaking up of an organic tissue into inorganic atoms, or whether it means, as seems more likely to me, that the growth deprived of its blood supply undergoes fatty degeneration, and is partly eaten up by phagocytosis stimulated to greater activity by the trophic nerves, no one with a large experience with this subtle fluid can deny that a uterus infiltrated with and enlarged by the deposit of fibrous tissue, whether localized in the form of fibroids or diffused as in areolar hyperplasia, so that the sound will enter four or five inches, will invariably diminish in depth by means of electrical treatment.

Then, again, what is the enormously enlarged uterus after delivery but a bleeding myoma? Does it not stop bleeding when the arteries which supply it with blood are squeezed by its contracting walls? Does it not rapidly get smaller when, for the want of blood and exercise, that immense mass of muscular tissue silently undergoes fatty degeneration and returns to the blood from whence it came?

Wonderful and almost incredible as the total disappearance of a fibroid or myoma may seem to some, it is no more mysterious than this wonderful process of nature which we call involution. Have those who doubt and, even worse, deny the power of electricity to work a change in fibroids, never reduced the size and weight of a uterus which nature had failed to involute? Has Emmett never reduced its size by repairing a lacerated cervix? Have Churchill and Athill and ten thousand others with honored names never reduced the quantity of tissue in the uterus by the application of iodine? Have not a hundred thousand others reduced the weight of blood and muscle and areolar tissue in the heavy uterus by means of glycerine and hot water and other therapeutic measures? Then why in the name of reason and justice deny that an agent which we can see blanching tissues before our eyes, and making muscles of every kind contract, why deny, he said, that it can diminish the blood supply to and favor the fatty degeneration and absorption of the fibrous or myomatous uterus?

The electrical treatment of fibroids reduced to the above simple question, and stripped of all the extravagant claims which were at first made for it, stands today upon a foundation so strong and true that it will find an honorable place in the treatment of fibroids as long as women shall dread to die by the surgeon's knife.

Society Proceedings.

MONTREAL MEDICO-CHIRURGICAL SOCIETY.

Stated Meeting, February 22nd, 1895.

G. P. GIRDWOOD, M.D., PRESIDENT, IN THE CHAIR.

Discussion on Hypertrophy of the Heart apart from Valvular Disease.—DR. JAMES STEWART introduced the subject by a paper on the etiology as follows :—

I have been assigned the duty of dealing with the causes of cardiac hypertrophy other than those due to valvular disease. Perhaps it would have been better if the term enlargement of the heart had been used instead of hypertrophy, for the reason that a pure and simple hypertrophy is rarely met with. I will confine my remarks chiefly to hypertrophy, but it will be necessary to refer frequently to the almost constant presence of dilatation.

The causes of cardiac hypertrophy have been recently attracting great attention, but not more than the condition merits on account of its great practical importance. No doubt a great deal can be done to stay the progress of an advancing hypertrophy if the cause or causes at work are clearly recognized.

A discovery of the causes is essential to judicious therapeutics.

I can only deal with the more important cardiac hypertrophies, and even those must be dealt with briefly.

The principal causes of cardiac hypertrophy other than disease of the valves, of the myocardium and of adherent pericardium can be divided for the sake of convenience as follows :

1. Organic changes in the arterial system, including obsolesence of the capillaries, and also congenital narrowing of the arteries.

2. The overfilling of the circulation.

3. The circulation in the blood of either foreign substances, or an excess of substances which in small quantities is a normal state.

4. Causes that act in a manner still unknown on the general or cardiac nervous system.

1. *Arterio Sclerosis.*—This is one of the most frequent causes of cardiac hypertrophy, and within the past few years has attracted great attention. It is, as is well known, a frequent condition after the fiftieth year, but it is not by any means a constant change in the physically degenerative period of life. It is not uncommon to often find the arteries of aged people free from any such change. Bamberger mentions that on several occasions he has found the arteries free from sclerotic changes as late as the ninetieth year. Then there is the famous case recorded by Harvey, where sound vessels were found in a man at the very advanced age of 153 years.

Although it is uncommon to meet with marked sclerosis under the thirtieth year, it still occurs sufficiently frequently to make it matter of great clinical interest and importance.

The most important form of arterio-sclerosis is that which occurs as a diffuse process, in men from the thirtieth to the fifty-fifth year.

Councilman, at the meeting of the Association of American Physicians in 1891, read a valuable paper on the connection between arterial disease and tissue changes. His observations were founded on the examination of forty-one cases which had been autopsied at the Johns Hopkins Hospital. He divided arterio-sclerotic changes into three different groups—the nodular, senile endarteritis and the diffuse arterio sclerosis. All these varieties are followed at times by hypertrophy of the heart.

In the nodular form the changes are limited to the aorta and large arteries. The aorta is covered here and there, especially at its origin, with elevated patches, cartilaginous or calcified in appearance. Otherwise the lumen of the vessel presents a smooth aspect.

In this nodular form of arterio-sclerosis, hypertrophy of the heart is very common. In advanced cases it is to a great or less extent almost constant, the loss of elasticity in the vessels throwing more work on the heart. When the heart increases in size it in its turn tends to increase the arterial changes, so that we have the one condition keeping up the other, a morbid circle being formed.

In the typical senile endarteritis, the aorta and its larger branches are converted into almost rigid calcareous tubes. The arteries are irregularly dilated and lengthened. Cardiac hypertrophy is not as constant a result of the senile endarteritis as it is of the other varieties. This is in a great measure due to obsolescence of so many of the smaller arterial branches as people grow older. It is brought about by the loss of the elasticity in the arteries, so that the blood flow in the capillaries from being continuous becomes intermittent, and in many areas finally ceases.

No doubt hypertrophy of the heart in a certain sense must of necessity occur when the vessels have to a great extent lost their elasticity ; but owing to the cutting off of capillary areas this hypertrophy is more relative than absolute.

"The changes in the arteries due to age proceed slowly, imperceptibly, and, so far as the individual himself is concerned, unconsciously. If the heart responds normally to the calls for extra exertion demanded of it, the individual gradually descends into the vale of years, quite unconscious whether he has a heart or not. If this knowledge is forced upon him, trouble is not far off."—Balfour (*The Senile Heart*).

The diffuse form of arterio-sclerosis is in many respects the most important ; here the arterial changes are widespread, affecting the whole arterial system to a greater or less extent. More than half of Councilman's cases were examples of the diffuse varieties, the youngest being a negro aged twenty-three, the oldest was a man aged sixty. The great majority of cases ranged in age between forty and fifty-five. Hypertrophy was present in every case, in some it reached an extreme degree.

Myocardial changes were found to be frequent, their extent depending on the degree of involvement of the coronary arteries in the sclerotic process. Dilatation of the heart is nearly always a constant accompaniment of the diffuse sclerosis of the arteries. In fact, in all varieties of sclerotic arteries the heart is not only hypertrophied, but also dilated. Cohnheim has said that the great majority of all idiopathic cardiac hypertrophies are eccentric, and that non-eccentric hypertrophy has chiefly a theoretic interest. The dilatation in these cases may be so excessive as to give rise to the leaking of the valves.

Clinically there is a difference between the diffuse arterio-sclerosis and the senile endarteritis, the former being characterized by the high arterial pressure, a condition which is not present in the latter, at any rate, when pure and simple. If, however, the kidneys have undergone degenerative changes, the arterial pressure will be increased.

The difference in the two states is chiefly accounted for by the slowness of onset in the senile disease as compared with the quicker process in the diffuse form. In the former the atrophy of tissue is also greater.

The chief cause of arterial degeneration in advanced life is the natural decay of tissues. In the diffuse form the primary event is a degeneration of the media of the large and small arteries. As to how this is brought about, opinions differ. There can be no question that the resisting power of the arterial tissues varies much in different persons. In many people they are the weakest spot—the *locus minoris resistentiæ*. There is abundant proof that this proneness to early decay is frequently hereditary. As to the exciting causes of early decay the following may be mentioned: over-eating, the constant use of alcohol,—especially beer, excessive smoking, hard manual labor, athleticism, poisoning by lead or mercury, retention of uric acid (so-called gouty arteritis), the toxines of the various infectious diseases, etc.

In a recent paper in the *Journal of Pathology and Bacteriology* Hollis suggests that the entry of various micro-organisms played a leading part in inducing atheromatous changes.

I will first say a few words in regard to the abuse of alcohol in inducing hypertrophy of the heart, secondarily through producing arterio-sclerosis, and primarily without any arterial change whatever. In Germany, where beer is the favorite beverage, what is commonly known as the Munich beer-heart is very common. It is the form of heart lesion in more than 55.3 per cent. of all heart cases. It may exist with or without any arterio-sclerosis. In the great majority of cases, according to Mohr, it exists independently of any arterial changes. The fact that in countries where stronger alcoholic drinks are consumed than in Germany, renders it highly probable that the cardiac hypertrophy from the use of large quantities of beer is due, more to the filling of the vessels with fluid than from any direct action of the alcohol itself. The quantities consumed daily by every steady beer drinker in Germany amounts to three or four quarts—five, six and even seven quarts is the daily allowance of not a few.

"Four quarts of beer contains about eight ounces of hydrocarbons in solution, and therefore capable of complete absorption into the circulation."—Strunpell.

It is therefore easy to understand how the heart is over-burdened, especially when one considers that obesity is present as a rule in those who use beer so freely. In some cases it would seem that alcohol has a direct action in causing increased pressure in the vessels. Even allowing that alcohol may have no direct influence in bringing about the hypertrophy of the heart, it no doubt promotes the degenerative changes in the heart muscle and cardiac nerves, which at least render the heart's action inadequate and the circulation imperfect.

The consumption of excessive quantities is generally found in those who eat to excess and who are engaged in severe toil—all causes which tend to induce cardiac hypertrophy. In indolent people we have obesity which is in some respects as injurious as excessive work.

The consumption of large quantities of food and beer gives rise also to a hyperæmia of the intestinal vessels, which greatly increases the pressure in the arteries It is generally allowed the strong tea, coffee and tobacco have a direct action in causing increased pressure in the arterial system. They are all promoting causes of the cardiac changes. Seldom do we find anyone prominent. Practically we nearly always find over-eating, drinking, smoking, the excessive use of tea or coffee, together. Nicotine in the lower animals causes a great fall of blood pressure, but from this we are not to conclude that the continuous use has not an opposite action on man, as has been done.

The course of this hypertrophy varies considerably. In the great majority of cases it is found that the increased power is sufficient for a lengthened period to carry on the circulation compatible with a fair degree of health, but in not a few cases, especially in excessive beer consumers, an acute heart failure sets in, which rapidly proves fatal; this often happens without any degenerative changes in the heart muscles. Bauer has reported a number of cases where heart failure has set in a very short time after the hypertrophy developed, and in which fatal result followed—a veritable heart paralysis, as he calls it. In the majority of cases, if the cause is not removed, gradual degenerative changes go on in the heart muscle, which finally lead to general dropsy.

Another important cause of cardiac hypertrophy is over-work, leading to strain of the heart muscle. Both ventricles are usually involved, and dilatation and hypertrophy are always found together. It is met with in those whose work entails severe muscular efforts. On superficial examination, such patients usually present a very healthy appearance. On physical examination, however, the chest is found to be barrel-shaped, and the second sound, both aortic and pulmonic, is accentuated. It has been met with in soldiers, especially during active service in the field. DaCosta, Frantzel and many others have contributed valuable papers on this particular form of heart strain. It does not differ, however, in any respect from that met with from other forms of over-work.

In a recent paper on cycling, B. Ward Richardson points out that the ultimate action of excessive cycling is to increase the size of the heart, to render it irritable and hypersensi-

tive to motion, the cycling acting upon it like a stimulant. The over-development of the heart under the continued and extreme over-action affects in turn the resilience, modifies the natural blood-pressure, and favors degenerative structural changes in the organs of the body generally. Every medical man here must, I think, have met with instances of cardiac hypertrophy in athletes. There can be no doubt, that in such a violent game as lacrosse this condition develops. Cardiac hypertrophy from overwork may be recovered from, or it may go on to progressive heart failure. It develops more rapidly, and more often affects those who at the same time use alcohol in any form to excess.

It is easy to understand how severe muscular efforts bring about hypertrophy of both ventricles.

Very rare causes of cardiac hypertrophy are congenital narrowing of the arteries and general dilatation of the blood vessels. The former is, according to some, far from rare, and it is held that in many cases of enlargement of the heart from over-exertion the predisposing cause is congenitally narrow vessels.

In severe cases of lead poisoning cardiac hypertrophy is very commonly met with, due mainly to the parenchymatous and interstitial changes in the kidneys and arterial sclerosis. These arterial and nephritic changes are very constant phenomena of severe lead poisoning.

The explanation usually given of the action of lead on the kidneys and arteries is that it induces gout. Sir William Roberts, however, believes that lead does not induce gout. He considers that the gouty diathesis and lead poisoning, while differing in all other respects, have one tendency or vice in common, viz., the tendency to uratosis. However the facts may be explained, there can be no doubt about the influence of lead in bringing about sclerotic changes in the kidneys and arteries, and thus leading to hypertrophy. These changes, next to the encephapathy, constitute the most serious effects of lead poisoning, effects which, if their cause is not early recognized, will infallibly lead to irretrievable mischief.

Cardiac hypertrophy is the most constant change in the heart in gouty subjects. It is nearly alway present, differing in degree according to its intensity and age of the patient. It is in some cases combined with dilatation and myocardial changes, especially fatty degeneration. It is caused by the widespread arterial and kidney changes so common in gouty subjects. In forty-nine cases examined by Dr. Norman Moore, the average weight of the heart was 16½ ounces. Gout may cause hypertrophy without first bringing about arterial organic changes. In this connection it will be convenient to discuss the cardiac hypertrophy which is so frequently found in cases of sub-acute and chronic Bright's disease. The variety of Bright's disease which is most frequently attended by cardiac hypertrophy is the interstitial. For many years the connection between the circulating and kidney changes has been a subject which has given rise to a great deal of discussion.

There is no doubt that cardiac hypertrophy may occur in a simple Bright's disease without any involvement of the general arteries. We have probably two factors contributing to the hypertrophy, the increased pressure in the circulation caused by the necessity of getting rid of waste matters. As a great number of capillary districts are obliterated by the disease, the heart must increase in strength in order to effect the necessary elimination; but the chief cause for the hypertrophy of the left ventricle is the retention in the blood of matters which in a normal state of the kidneys would be eliminated. This causes high arterial tension and gives rise in consequence to increased work and consequently to hypertrophy.

The last group of causes giving rise to cardiac hypertrophy which it is my intention to speak of is the neurotic group. To this belongs the enlargement coming in exophthalmic goitre, essential tachycardia, insanity, prolonged emotional disturbance, etc. The excessive action of the heart in these cases leads to enlargement, but little is known about the intimate changes in the nervous system which brings them about. Our knowledge of the changes which take place in the nervous mechanism of the heart is very slight indeed. It is highly probable that in the case of heart changes coming on during the course of exophthalmic goitre, essential tachycardia and from the excessive use of tobacco, tea and coffee, the changes are of a molecular nature. There are very good grounds for believing that all the essential symptoms of exophthic goitre are due to the action of certain toxines generated from the thyroid gland. Possibly it may be found that essential tachycardia is brought about also by a chemical poison generated within the body. The hypertrophy and dilatation of the heart occurring in exophthic goitre reaches sometimes an extreme degree, and cases are not uncommon where death is the direct result of degeneration occurring in the heart muscle. I am not aware of any fatal case of tobacco-heart. It is quite possible that such a heart might give way at last under the continuous strain, but fortunately the cause is easily detected, and if removed the effects disappear, although to this there are rare exceptions. An abiding palpitation has been described even after tobacco has been given up.

The enlargement of the heart occurring in the course of infectious fevers is mostly due to dilatation of the cavities, and hence is properly beyond the range of my subject. The subject

is one of very great importance. I recently saw a case of typhoid fever where a fatal result came about indirectly, if not in a measure directly, from heart dilatation consequent on a secondary infection.

A word more about the symptoms and physical signs of cardiac hypertrophy.

The recognition of cardiac hypertrophy is easy when it is well marked, but difficult, if not impossible, when slight. There is seldom any pronounced subjective symptoms while the cardiac muscle retains its normal vigor. It is only when degenerative changes have set in that the patient feels that he has a heart. When this takes place the symptoms do not differ from those of cardiac failure brought about from valvular disease.

The physical signs of an hypertrophied left heart are increased tension in the radials, well-marked apex beat and accentuated aortic second sound. When the right heart is hypertrophied we have an accentuated second pulmonary sound. These signs are only of value as pointing to increased tension in the various vessels, and when this has lasted some time we naturally conclude that there is hypertrophy. If, however, a cause which has been in operation for some time is no longer present, the signs of increased tension will have disappeared, although the hypertrophy remains. Percussion is no doubt of value in many cases in detecting marked hypertrophy, but for slight degrees it can give us no reliable information. The shape of the chest has much to do with the extent of cardiac dulness. When it is barrel-shaped, a large heart will present a no greater degree of dulness than a small heart in a flattened chest. A great degree of dulness can only take place in dilatation. Again, a large heart may be more or less entirely covered by an emphysematous or hypertrophied lung.

Dr. ADAMI discussed the anatomy and experimental pathology as follows :

I shall, I think, best satisfy you, and at the same time myself, if what I contribute to this evening's discussion takes the form of a series of notes upon the experimental pathology and the anatomy of cardiac hypertrophy, rather than that of an academic survey of the subject from the clinical standpoint. Frequently, it is true, I must of necessity illustrate what I have to say by reference to clinical history, but, on the whole, I shall leave the clinical aspects to be dealt with by those more capable.

In the first place, if we study the causes of hypertrophied heart, whether of hypertrophy of one or both sides, we see this that reading the clinical history of these cases the assigned causes of hypertrophy may be summed up under the heading of *increased work*. This one heading may be subdivided into three,—increased work due to resistance from within, increased work due to resistance from without, increased work due to nervous stimulation and augmentor action. I shall not discuss this last subdivision, because frankly we are ignorant how far the hypertrophy that occurs in exophthalmic goitre and allied conditions is due to heightened blood pressure, and how far it is secondary to excitation of the accelerators or augmentors.

Of the increased resistance from within, or increased tension, the main causes are, heightened pressure in the arterial blood stream, and secondly, obstruction to the onward passage of blood within the heart itself, by stenotic diseases of one or other orifice. Of resistance from without, the one great cause is pericardial adhesion. To-night we have, as far as possible, to leave out the subject of valvular disturbance, and I shall neglect nervous disturbances. There is still the large field of hypertrophy due to increased arterial pressure, and the pericardial adhesion. In all these cases, the individual fibres of the heart muscles of the affected regions have to contract under increased difficulty, they have to carry or contract against a greater load, and as a result of this, just as is the case with the skeletal muscles, with the muscles in the blacksmith's arm, and the muscles of the body in the all-round athlete, increased work brings about increased growth—brings about, that is to say, hypertrophy of the muscle.

Into the subject of the nature of this increased growth I shall enter in a few minutes' time, at present I wish to carry a word further this parrallel between the behavior of the cardiac and skeletal muscles, under circumstances in which the load is increased. If you take a skeletal muscle, for example, the gastrocnemius of the frog, so dear to the physiologist, and observe its contraction with gradually increasing loads, there are two points especially to be made out. In the first place, the greatest amount of work is not performed with the smallest load, but there is a certain medium load with which the distance through which the load is pulled multiplied by the weight of the load gives the biggest result. This product of weight moved and the distance through which it is moved is the work done by the muscle. The most work, therefore, is done with a medium load. The second point is that with increasing weights fastened or brought to bear upon the muscle, that muscle in its resting state becomes more and more elongated, and with regularly increasing weights attached, the shortening attained by the contracted muscle constantly diminishes. Or, to put the matter in a slightly different light, and to combine these two statements of fact, although with a certain medium load the greatest amount of work is done, nevertheless with that medium load the muscle in contracting does not attain to the same amount of shortening as it does with a lesser load.

Let me now apply these observations to what

is found in the ventricular muscles of mammals. Experimentally, the amount of work performed by the ventricles of the mammalian heart can be increased by ligaturing the aorta with a silk loop ligature, and drawing this ligature more or less tight, according to need. (This is an animal that has been narcotized and curarized and subjected to artificial respiration, the heart being exposed by making a window in the ribs.) In such a case as this, as shown by Professor Roy and me,* the behavior of the cardiac muscle can be observed and recorded by an apparatus, of which I give a rough diagram. The ends of this apparatus are attached to the surface, say of the left ventricle, by fine threads, and now it is possible to observe upon the recording drum the extent of contraction of the portion of muscle between the two points under different pressures within the heart. Narrow the aorta by drawing the ligature tight and the pressure is increased. Under these conditions it is found that the ventricular muscle reacts exactly along the same lines as does the gastrocnemius of the frog.

Similar results are obtainable if, instead of increasing the pressure in the arterial system by narrowing the aorta, we increase the work of the heart by increasing the amount of blood passing through it, either temporarily, by pressure upon the abdomen, whereby a large quantity of blood is expelled from the abdominal viscera, or by injecting into venous circulation some few hundred cubic centimetres of defibrinated blood. The results in all these cases are the same. By the instrument just described it is easy to see that the heart is more filled in diastole, so that the two ends of the levers are pushed further apart, and that in systole the ends do not approximate so nearly as in the condition when there is less resistance or less blood pouring through the organ.

It is seen from these observations that with increased pressure with the ventricle the wall expands in diastole. There is dilatation of the heart. But with the increased load to contract against, the fibres do not shorten to the same extent;—that is to say, with increased work of the heart there is, necessarily, accompanying the dilatation in diastole, a dilatation in systole. All the blood is not expelled in systole. There is of necessity *residual blood*, as Roy and I termed it, in the ventricular chambers.

There is a general belief that the healthy heart, even under conditions of increased work, contracts completely, so that the chamber is emptied at the end of systole. From what I have said it will be seen that this is not the case. One can go further and prove for one's self that even under ordinary conditions the mammalian heart does not completely expel all the blood within the ventricles. By taking a dog that has been curarized and subjected to artificial respiration, opening the chest wall, making an incision at the very apex of the left ventricle, so as just not to completely enter the cavity, then it is easy to push the little finger into the cavity through the thin apex without the loss of a drop of blood. The heart action is not recognizably disturbed by this procedure, and it can be felt that while the walls of the ventricle in the lower two-thirds up to the aspices of the papillary muscles close completely round the finger, there is clear space in the upper third which is not and cannot be emptied of blood.

Although it may seem at first sight to have no direct bearing upon the subject of this evening's discussion, nevertheless it is worth while to make a few remarks upon this subject, inasmuch as it is so intimately associated with conditions of hypertrophy without valvular disease. It is quite possible that where there is increased work to be performed by the heart, there is some economy of the action of the organ when there exists a certain amount of residual blood in and dilatation of the ventricles. Taking the ventricular chamber as a sphere,* there is this to be noted concerning the relationship between the circumference of the sphere and its contents, namely, that as a sphere expands, its cubic contents increase out of all proportion, I was going to say, to increase in cubic contents and increase in circumference is by no means an arithmetic ratio.

If the circumferences be taken as abscissæ, and the corresponding volumes as the ordinates, the curve of successive values is what is known to mathematicians as a cubical parabola. From this it follows that a degree of shortening of the fibres of the heart wall, sufficient, let us say, to reduce the circumference of the ventricle one inch, will cause a greater diminution in *volume* (a greater output) the more dilated the ventricle is at the beginning of its contraction. For example, a diminution of the circumference by *one* inch of a sphere whose circumference is *ten* inches causes a diminution of the volume or an output, in the case of the heart, equal to 4.5 cubic inches, while a diminution by *one* inch in the circumference of a sphere *five* inches round causes a diminution or an output of only 1.027 cubic inches, although in the first case the circumference was reduced only by one-tenth, while in the other case it was reduced to one-fifth. That is to say, if we have a dilated heart, the fibres will need to contract a very small amount in order to expel a given amount of blood, compared with the amount they would have to contract in the normal undilated heart.

There are other factors to be taken into account, it is true, and Roy and I went a little into this subject in our paper published in the

* Heart beat and pulse waves, *Practitioner*, February, 1891, p. 81.

* The sphere is the nearest geometrical figure that can be employed here for purposes of illustration.

*Philosophical Transactions.** All that I wish to do here is to point out that it is possible that in a hard-working heart a certain amount of dilatation, with presence of residual blood by diminishing the extent which each fibre is called upon to contract, may really be an economy to the organ as a whole.

It follows from these observations that *hypertrophy is never primary, dilatation always precedes hypertrophy.* This was recognized as most probable by Hilton Fagge; few other writers have laid stress upon the point. If, however, the heart muscle is well nourished, where this dilatation is due to increased work, by Paget's law hypertrophy ensues, and the numerical hypertrophy or hyperplasia of the ventricular muscle fibre will have the effect of lessening the load of each individual fibre. Consequently, with a lessened load, each fibre will contract more completely and the dilatation will tend to disappear. Where this is the case we have what is known as simple hypertrophy.

There can be no doubt that the early stages, where ample reserve force and good compensation are present, this simple hypertrophy exists and may persist for years. But I would add that in the post-mortem room it is more rarely to be seen than is generally accepted. If a hypertrophied heart, say of Bright's disease, without valvular lesion, be examined within a few hours after death, in very many cases we appear to have this simple hypertrophy. If, however, time be given for the rigor and contraction of the muscle to pass off, it is found—that at least is my experience—that the cavity of the left ventricle is distinctly larger than the cavity of the normal heart. I would say that only in those cases in which death has occurred from some intercurrent disease, and not from one of the cycle of diseases associated with cardiac hypertrophy—only when death occurs before the final stage of the disease of which cardiac hypertrophy is an integral part—do we obtain evidence of real simple hypertrophy. *Eccentric*, and not simple, hypertrophy is the rule,—that is to say, hypertrophy associated with definite dilatation of the ventricular cavities.

As for the concentric hypertrophy, which is said to be observable in non-valvular disease, I feel more and more assured that it is falsely so termed; there is no such thing as true concentric hypertrophy, for the condition implies a lack of economy in the work of the organ, a most unnatural lack; it implies that the ventrical in contracting expends a large part of its energy, after expelling the blood, in squeezing up the more internal fibres. Only within the last fortnight I obtained a specimen of so-called concentric hypertrophy. The patient, an old woman of eighty, in Dr. Stewart's ward at the Royal Victoria Hospital, died from cerebral apoplexy, following upon extreme atheroma of the aorta and the main vessels; there was, in addition, atheromatous stenosis of the aortic valves, both conditions favoring the development of hypertrophy, with dilatation of the left ventricle.

The old woman had lingered some days in a comatose condition, with presumable lowering of the arterial blood pressure. In addition, the tone of ventricular muscle had been in all probability considerably increased by digitalis. At any rate, at the autopsy a very few hours after death the left ventricle was found hypertrophied, and instead of being dilated was so firmly contracted that the only cavity left was immediately around the chordæ tendineæ. The thickness of the ventricular muscle at the junction of the lower and middle thirds was 20 mm.,—that is to say, there was moderate hypertrophy. However, on coming to observe this heart the next day, the concentric hypertrophy had quite disappeared. With the passing off of rigidity there was a relatively large cavity left behind.

Where the left or right ventricle alone is affected, the condition of the ventricle may be one of either simple or eccentric hypertrophy. Where, on the other hand, as Walshe noted more than thirty years ago, there is general hypertrophy of the organ, there hypertrophy is *always eccentric.*

A little consideration shows why this must inevitably be the case. So long as there is simple hypertrophy (hypertrophy without dilatation) so long the mitral valves remain competent, and there is no regurgitation into the left auricle, no increased work for that organ to do, no hypertrophy. So soon as the left ventricular muscle begins to fail and to be unable to contract properly under its load, dilatation ensues, and with this dilatation expansion or giving way of the muscular ring around the mitral orifice, and with this, relative incompetence of that orifice. It is only when this relative incompetence occurs, or when from other causes the mitral valves fail to perform their duty, that there is any possibility of the other chambers of the heart being called upon to do increased work. Thus it is that general hypertrophy of the heart demands or is associated with eccentric hypertrophy of the left ventricle.

Time forbids that I should go more fully into this subject or do more than point out that relative incompetence of the auriculo-ventricular valves is more frequently found at the post-mortem than it is diagnosed during life. Relative incompetence, therefore, is not necessarily indicated by the presence of a murmur.

I cannot here enter fully into the histological nature of hypertrophy, although perhaps as a pathologist it might be expected that I should say some words upon this point. I will only

*Phil. Trans. of the Royal Society, London, 1892.

say that while one can, in certain cases of hypertrophy, make out clearly that the individual fibres have undergone a definite increase in size, it is far more common to note, and of this there can be no doubt, that there has been an actual numerical increase in the fibres. This increase appears to be general throughout the ventricular wall, and is possibly, nay probably, due not only to a new growth beneath the endocardium especially, but also to a splitting up or division of pre-existing fibres. It must be remembered that the heart muscle fibre is not a single cell, but is a compound, the result of a fusion of several cells into one individual unit. As a consequence of this it is possibly more easy for the fibres to split up into independent territories without undergoing temporary derangement of function than is the case with the cells of those tissues formed of isolated cell units.

To pass on now to certain aspects of this subject of hypertrophy more immediately in connection with this evening's discussion, I would point out that of the cases of hypertrophy without valvular lesion, we have to consider in the first place increased resistance through the column of blood. This could be brought about by increased amount of blood to be propelled, or, in the second, by increased resistance to passage in the arterial system. Of these two the first may exist as a constitutional condition, but the more one studies the less assured does one become that there is such a condition as general plethora unless these cases be regarded as true plethora in which (as in German beer drinkers) there is oft repeated flushing of the circulation with imbibed fluid. Of increased resistance in the arterial stream the reverse would appear to be the case, and with further studies of blood pressure in the arteries one begins to see that this plays an extremely important part. The hypertrophy following upon not only gouty conditions and senile arterio-sclerosis, but also upon acute rheumatism, chorea and chlorosis, may be present with or without lesion of the aortic or mitral valves of sufficient intensity to explain its extent; so that in all these cases we have to fall back upon increased blood pressure as a cause of hypertrophy.

Increased blood pressure in itself is capable of setting up a vicious circle of which one segment may be hypertrophy.

In the first place it leads to an increased nutrition of the walls of the arteries, increased nutrition leads to increased connective tissue growth of the walls, the increased fibrous tissue of the walls leads to contraction and increased rigidity of those walls, the increased rigidity leads to increased resistance to the passage of the blood current, the increased resistance required increased propulsive power on the part of the ventricular muscle, that is to say, increased work: the increased work of the heart leads to overgrowth and hypertrophy, and with this, heightened blood pressure and further increased nutrition of the walls. And now at last the stage is reached, this vicious circle continuing, in which either the walls give way or the heart.

The longer I study the pathology of the circulation—and during the last eight years I have given more time and thought to this than to any other branch of my subject—the more assured do I feel that increased blood pressure alone (however it be primarily brought about) is sufficient to explain the anatomical changes so constantly seen in arteries, valves and heart walls, without of necessity calling in chronic inflammation or specific agency. The changes I refer to are arterio-sclerosis, atheroma, and general fibroid thickening of the valves. Perhaps here again I am diverging from the main subject of this evening's discussion, but I say this as a connecting link with what I have just remarked and with what is about to follow.

While I am far from wishing to indicate that this is to be regarded as the sole cause of atheromatous and arterio-sclerotic changes, I hold that the changes I have mentioned can one and all be explained by the increased pressure within the vessels leading to an increased passage of fluid from the blood into the sub-endothelial layers of the intima, to an increased nutrition, and as a consequence to a proliferation of connective tissue in this region, which in itself as it contracts cuts off its own supply of nutrition, degenerates, and, what is more, leads to degeneration of surrounding parts by cutting off their nutrition. The evil effects in arterio-sclerosis, with all its combined lesions, are not necessarily of an inflammatory origin.

Let us take now the hypertrophied heart. Time permits me to refer but briefly to the anatomical changes that may occur in it in the cases before us.

1. The overgrowth of the arterial walls may be associated with an increased tendency to the development of fibrous tissue in the immediate neighborhood of the arteries, and thus a condition of so-called interstitial myocarditis may be set up; or

2. With an increased fibrosis of the arteries the narrowing of the channel may lead to incomplete nutrition of the territory supplied by each arterial twig, and as a consequence the muscle fibres at the periphery of the territory may be atrophied through lack of nutrition and be replaced by fibrous tissue. This is the so-called dystrophic sclerosis of the French school, and can frequently be seen more especially in the papillary muscles.

3. With the arterial disturbance there may

be actual blocking of the atheromatous arteries, and so infarctous areas may originate, may undergo softening, may cause rupture of the heart or aneurism of the wall, or if the period of softening be successfully tided over, the replacement of the necrosed tissue leads to cicatricial development and disturbance of the normal contraction.

All these cases here mentioned inevitably cause interruption to the proper action of the remaining fibres, and lead towards a final failure of the organ.

Another set of causes would seem to act along rather different lines, not so much of disturbances in the coronary arteries as disturbance in the quality of the nutrition, whereby the heart muscle tends to undergo fatty degeneration. In the uncomplicated case of hypertrophy, without valvular lesion, however, this fatty degeneration is rare ; more frequent, according to the observations of Renaud, Browicz and Von Recklinghausen, there is a tendency for a sudden rupture of the heart fibres, from segmentation or fragmentation. It would seem as though, from the very careful observations of the last two, the weakened condition of the muscles permits some slight increase in the work done by the organ to bring about, not a local rupture, but a generalized separation of the fibres.

Possibly this segmentation may explain the suddenness of many cases of death in those with atrophied and dilated hearts. For my own part I cannot as yet see that it has been proved with absolute satisfaction that the fragmentation of the fibres is agonal or pre-agonal. Nor, looking back, does it seem to me that the most strongly marked cases that I have encountered of this fragmentation have been in cases of sudden death.

Lastly, to round off this paper, it is necessary to say a word concerning the hypertrophy that follows pericardial adhesion. Of this I may say that I cannot recall any case seen by me in which the hypertrophy was not markedly eccentric. Most frequently the hypertrophy has disappeared with, in its place, peculiarly extensive degenerative change.

Dr. F. W. Campbell described the treatment as follows :

I confess that when I undertook to speak on the treatment of hypertrophy without or apart from valvular disease, I thought my work would be a comparatively easy one. When, however, I began to look into the subject, I found comparatively little on this special form of heart disease, and what I did meet with was so mixed with the treatment of valvular hypertrophy that it was a somewhat tedious task to separate it. When accomplished it was not satisfactory, for, after all, the treatment of cardiac hypertrophy is much the same, no matter what is the cause. At the outset the enquirer is met with the question, " With what hope may the treatment of an hypertrophied heart be undertaken ? " Can we control the nourishment of the heart by any means possessed by our art? Some have maintained that this can be done, but the majority hold a contrary opinion. The signs which were considered as indicating the former have been proved to be misleading and fallacious. Thus the impulse may be reduced in force and extent, the first sound changed in its character and the area of cardiac dulness lessened. Notwithstanding all these signs the hypertrophy still remains the same, and the apparent diminution has been brought about about by disgorgement of the right cavities.

Walsh says that the theoretical indication is to tranquilize the heart by diminishing the quantity without deteriorating the quality of the blood. For this purpose he recommends an occasional venesection from the arm, taking at each time from four to eight ounces, at intervals of from two to six weeks, according to the robustness of the patient. Care, however, must be taken not to induce an anæmic condition of the blood, which would very seriously aggravate the disease. If general bleeding is not to be thought of, then wet cupping should not be lost sight of. Personally I have met with very few cases of the disease under consideration, but in two or three I was decidedly of opinion that my patients were much benefited by wet cupping. I have also had experience of the benefit of a half dozen leeches applied over the cardiac region in calming the heart's action. We do not possess any drug capable of diminishing the bulk of the heart. Iodide of potassium has been used for this purpose, and pushed to iodism without exhibiting any such power.

Walsh says quietude—physical, emotional, intellectual—is the very first of curative agents for an enlarged heart. To aid in tranquilizing it, direct cardiac sedatives—hydrocyanic acid, acetate of lead, digitalis and belladonna (the latter both internally and as a plaster over the heart, which latter I heartily endorse), must be employed during the entire treatment of the case. There must be occasional intermissions. Aconite he also strongly recommended. I have given it in the form of Fleeming's tincture, one drop every two hours till its effect was manifest. It also has very great power in removing those disagreeable sensations so common in the præcardial region. Saline and aloetic purgatives aid the good effects of rest, and diuretics are useful, independent of any dropsy. Unless the patient is very plethoric, animal food in moderation may be allowed—fish under all circumstances is permissible. Alcholic liquors must be avoided ; any fluid taken must be limited. Passive open-air exercise is to be strongly recommended.

Page says digitalis is contra-indicated as a

rule, unless associated with a mitral lesion. Even then, if the heart's action is very forcible, it may be omitted. He considers aconite as the drug of most value, and strongly deprecates the use of tobacco and alcohol. A course at the German Spa, Carlsbad, he has found often useful, not only for its immediate curative effect, but also for the knowledge one learns of how to take care of oneself.

Bartholow, whose faith in the efficacy of drugs is almost unlimited, says that he has met with good results from saline purgatives, which draw off considerable fluid from the intestinal canal. He has also used veratrium viride, which he considers more powerful but not so efficacious as aconite. He advises the potassa salts so as to act on the kidneys and thus carry off a larger amount of waste material.

Fagge has very little to say on the subject. In fact he only devotes twenty-six lines to it, in which he speaks favorably of means I have already mentioned, and adds, "Bromide of potash is mentioned favorably."

Our distinguished friend and late fellow-member, Dr. Osler, in his splendid work on practice, enters fully into the treatment of hypertrophy with valvular disease, dividing his subjects under two heads, viz., (1) stage of compensation, where he says medicinal treatment is not necessary and often hurtful, but lays down a course of general treatment such as I have already mentioned; (2) stage of broken compensation—under this head he speaks strongly of the benefits to be derived from rest, and illustrates it by cases he met with during the time he was one of the physicians of the Montreal General Hospital. The embarrassed circulation, he says, must be relieved. This is accomplished by venesection and depletion through the bowels. Those remedies must be used which stimulate the heart's action. The best of these is digitalis. Broken compensations, no matter what the valve lesion may be, is the signal for its use. He speaks of its toxic effect due to its cumulative action and sudden outbreak. One such case I saw when the resident house apothecary during my student days at the Montreal General Hospital. Strophanthus, convallaria, citrate of caffeine and Adonis vernalis are used, and I have named them in the order of their value. But why waste time over hypertrophy with valvular disease when our time has been occupied in discussing hypertrophy *without* valvular disease? I reply, because the treatment of each is much alike. In writing of our special subject Dr. Osler says: "The treatment of hypertrophy and dilatation has already been considered under the section on valvular lesions. I would only here emphasize the fact that with signs of dilatation as indicated by gallop rhythm, urgent dyspnœa and slight lividity, venesection is in many cases the only means by which the life of the patient may be saved, and from 20 to 30 ounces of blood should be abstracted without delay. Subsequently stimulants, such as ammonia and digitalis, may be administered."

Dr. Adolf Strumpell in his latest work on medicine says:

"The treatment of idiopathic cardiac hypertrophy is precisely the same as for valvular disease and myocarditis." On referring to the chapter on these subjects I find he divides them much as Osler has done, and that he practically discusses the same remedies. When compensation has been established Strumpell speaks highly of baths. He says they are not only well borne by cardiac patients, but they exercise a peculiarly beneficial and invigorating influence upon the action of the heart. Their temperature should be from 90° to 93° F.

Dyspnœa is one of the most distressing symptoms of heart disease. Our efforts should, of course, be directed to restoring compensation. If we fail, as in most cases we will, we must then treat the dyspnœa, systematically. Morphia is most efficient in this respect. It is usually well borne, and gives great relief, especially if it be given hypodermically.

There are certain principles which apply more or less to all cases of heart disease, and these are dwelt upon at considerable length by Roberts. General management is always a matter of much usefulness. If occupation is satisfactory it may be continued, but the effect must be watched. Oertel has written favorably of the plan of treating certain forms of heart disease by "graduated exercise." In carrying out this method, the patient is made to walk up paths of gradual ascent, the amount of exercise being progressively increased as the patient is able to bear it. Special treatment in the form of certain gymnastic exercises is also advocated. Avoid all mental disturbance. Anxiety, worry, mental strain or excitement in connection with pecuniary matters, business, public life or politics is very bad. Avoid anything emotional, and get at least eight hours sleep. As regards medicinal agents, Roberts says: "As regards digitalis, it is not suitable where there is marked hypertrophy." When dilatation is also present he considers it a valuable remedy. Nitroglycerine is recommended in cardiac dyspnœa, especially if the pulse tension is high. With regard to insomnia or disturbed sleep in cardiac cases, he finds stimulants useful—chloric ether, spiritus ether co. and spirits of camphor of service in some cases. Opiates, chloral hydrate, especially the latter, are dangerous. Paraldehyde, sulphonal, chloralamid and urethane are often good hypnotics. It is of great importance to pay attention to all the principal organs and, as far as possible, prevent them from becoming involved, especially the lungs, kidneys, liver and digestive organs generally. The article on the heart in Pepper's "System of Medicine" is

by Dr. Osler. It says: The treatment of hypertrophy consists largely of measures directed towards its maintenance to a degree proportionate to the extra work which the heart has to do. In organic disease the welfare of the patient depends on this—we cannot remove the cause, but we can, by careful hygienic and dietetic regulations, maintain the balance between the defect and the compensation. The original lesion is usually beyond control, and the special indications are to moderate certain dangers associated with hypertrophy and to promptly meet the earliest symptoms of heart failure. In the hypertrophy associated with arterial and renal disease, a special danger exists in the tendency to rupture of vessels. In these cases a vigorous heart beat, with a very high tension in the peripheral arteries, indicates mischief, which may be met by taking prompt measures for the reduction of the high pressure. A brisk cathartic may avert an attack of apoplexy, and there are cases where the old practice of bleeding—so much at one time in vogue for hypertrophy—is justifiable—might I add—*more* than justifiable. Palpitation and shortness of breath are the earliest signs of failing compensation, and call for treatment, in which rest is a very impotant factor,—in fact, in many cases is all that is required. Within the past year or two I have found very excellent results in cases of weak or dilated heart by the administration of pellets of cactina—one every two hours during the day. These pellets each contain $\frac{1}{100}$ of a grain of cactina—the active proximate principle of Cactus Mexicana. My friend, Dr. Fuller, of Sweetsburg, whom I saw last summer in consultation, told me that his experience of their employment had been very satisfactory. I have also lately, to a slight extent, used as a cardiac tonic the Kola cordial made by Stearns, of Detroit, and while my experience has been limited, yet I am satisfied that it is an excellent cardiac tonic. It accelerates the pulsations of the heart, at the same time increasing its power and regulating its contractions. It also has a diuretic action. In many ways its action resembles digitalis, but it has not its cumulative action. It also has an invigorating effect on the general system. This is due to the fact that it contains more caffeine than is found in coffee, and an equivalent amount to that met with in the highest grades of tea. It also contains theobromine, an important ingredient in cocoa. It thus possesses the properties of coffee, tea and cocoa, added to a peculiar active principle of its own, called "Kolanine," which so far is said not to have been found in any other vegetable product. Strychnia, either in pill form or in the liq. strychnia, of the British Pharmacopœia, or hypodermically, is a capital tonic to the muscles, both voluntarily and involuntarily. In cardiac dyspnœa I have had excellent and prompt results from the application of an ice bag over the præcordial regions.

Dr. McConnell thought the point insisted upon by Dr. Adami, that all the changes occurring in cardiac hypertrophy were the result of increased tension, was the essential one to keep in mind in considering its pathology. There were a great many causes which might bring about increased tension. Dr. Stewart mentioned many, probably most, but had not, he thought, laid sufficient stress upon the effect of poisonous substances circulating in the blood—the result of improper oxidation, or even of bacterial growth, especially in the gastro-intestinal canal, producing auto-intoxication. These often were the most important factors in giving rise to increased tension. Arterio-sclerosis and cardiac hypertrophy, as for instance in Bright's disease, especially that form known as "contracted kidney," were essential. Anæmia and chlorosis, Dr. McConnell thought, were also often accompanied by hypertrophy and dilatation where there was increased tension. They had a tendency to produce increased resistance in the peripheralblood vessels, causing hypertrophy and dilatation of the heart, the latter owing to the lessened nutritive qualities of its blood supply. Many of these cases seem to depend on deficient action in the gastro-intestinal tract with auto-intoxication, and the increased tension may depend on changes in the capillaries and arterioles, owing to the glandular functions of these endothelial cells being exercised in eliminating morbid matter from the blood. In the condition called lithæmia, also, the products of deranged metabolism led to increased tension. It was almost impossible, he believed, to separate dilatation from hypertrophy, as they so often occurred together. Lung affections also, emphysematous conditions, even chronic bronchitis or sclerotic changes, as in fibroid phthisis, by giving the right heart more work to do, were apt to cause hypertrophy. Even obesity might act as an etiological factor, and phenomena of a purely neurotic origin often tend to bring about this condition. He had a case of tachycardia not long before, in which the whole trouble seemed to be of a neurotic character, and it became almost chronic tachycardia. There was no organic trouble, but a certain amount of hypertrophy resulted, then imperfect compensation followed, succeeded by heart failure and death. Dr. McConnell thought that murmurs following relative incompetence might be mistaken for valvular disease.

Regarding the treatment, he believed it must vary as the cause varies. Sometimes he would lessen the action of the heart, sometimes increase it, but the most important feature of the treatment was likely to be the clearing of the blood stream of all poisonous or extraneous matters, which might be the cause of increased tension by promoting the action of the chief

emunctories and lessening the amount of fluid in the body. Baths play an important part in this latter respect. A recent writer who studied the action of baths at Nauheim, Germany, in vavular disease, known as Schott's disease, believed they diminished the size of the heart by peripheral dilatation of the vessels, besides increasing the sink transudation. Brine baths, carbonic acid baths, and hot baths were all employed for this effect. The patient came out with a skin as red as a lobster, and the area of hypertrophy and dilatation as determined by percussion was sometimes reduced as much as one inch as the result of a single bath.

Dr. FINLEY thought too much stress might sometimes be laid upon arterial sclerosis as a causative factor in the production of cardiac hypertrophy; that it might sometimes be a secondary rather than a primary condition, although, with the sclerosis once established, a vicious cycle was set up, in which enlargement of the heart and sclerosis produced and kept up each other. He believed, however, that some cases occurred in which the cardiac trouble was the primary one. Cases of aortic regurgitation were not uncommon in young people where a considerable degree of arterial sclerosis existed. In Graves' disease Dr. Adami seemed to think that the enlargement of the heart was due to increased arterial tension; now, in these cases the arterial tension was low. It seemed to Dr. Finley that the cardiac changes that occurred in Graves disease might be the result of the increased work thrown on the heart by the increased number of pulsations. As to the symptoms of cardiac hypertrophy, one may say there were none. It was when dilatation supervened or when compensation was defective that symptoms occurred. They were, of course, similar to the symptoms following mitral disease when compensation was failing. All kinds of pulse were met with in this condition; sometimes weak and irregular like the advanced stage of mitral stenosis; sometimes in pairs, one weak and one strong; and the few cases of brachycardia and tachycardia seen by Dr. Finley were associated with this condition. He regretted that physiology had not been able to do more to clear up this subject; so far, experimental work had thrown very little light on the irregularity of the pulse. Touching the treatment, he believed it a good rule to divide the cases into two classes: (1) those of high tension, (2) those of low tension. In the first the object should be to decrease tension, and iodide of potassium was often very useful in relieving distressful attacks of palpitation; nitro-glycerine had its uses, and purgatives, especially mercurial, followed by a saline in the morning, were of very considerable value. For the purpose of relieving sleep and distressing dyspnœa, nothing equalled morphia. The other hypnotics, such as sulphonal, chloral, paraldehyde, often failed. In the second class attention should be directed towards strengthening the heart and giving the ordinary cardiac tonics.

Dr. LAFLEUR, seeing that Dr. Stewart had exhausted the etiology of the subject, would content himself with reading a tabular statement of cardiac hypertrophy in general. It was based as follows: (1) Causes within the heart: these were practically two: (*a*) myocarditis, however induced, either sclerotic, or that which is the result of chronic pericardial inflammation; (*b*) aneurisms, which by weakening one portion produced hypertrophy in others. (2) The second great division included causes outside the heart; among these were noted: (*a*) purely mechanical causes, and of these the principal and only one was in reality adhesion of the pericardium, synechia pericardii, which might or might not be combined with pleural adhesion; (*b*) a great number of causes which depended upon the raising of blood pressure. Here the distinction might be made of blood pressure raised in territorial areas, or a general increase of blood pressure; among the former were chronic or subacute nephritis, chronic pulmonary diseases, chronic bronchitis, sclerosis of the lung, and true chronic fibroid phthisis. Still dealing with territorial raising of blood pressure, we had the pressure of tumors upon large vascular trunks (quite a rare cause, but it might occur in mediastinal disease). Then the general raising of blood pressure, as brought about by poisons of various kinds; by excessive manual labor; nervous derangements; and arterial sclerosis. (3) Hæmic plethora. This was not infrequently combined with arterial hypoplasia. Dr. Lafleur remarked he had access to some statistics which showed the proportion in which these various causes come into effect, drawn from 360 autopsies representing the total number of autopsies from the opening of the Johns Hopkins Hospital, May, 1889, to April, 1893. In 360 autopsies, cardiac hypertrophy, due to some cause or other, was found to exist in no less than 105 cases. Of these, arterial sclerosis was found to be the cause in 59.4%; chronic nephritis in 13.4%; valvular lesions, 12.4%; adhesions of the pericardium in 7.6%; excessive muscular work in 3.8%; tumors, 1.9%; aneurisms in 0.95%; hæmic plethora in 0.95%. It was seen from this paper that more than 50% of the cases of cardiac hypertrophy in general hospital work was due to arterial disease. The frequency therefore of arterial sclerosis had certainly been underestimated. The speaker knew it to be extremely common in the United States, and, from all reports, it was so upon the continent of Europe. He agreed with Dr. Adami that dilatation, in the vast majority of cases, accompanied hypertrophy. Concentric hypertrophy was almost always a post-mortem change. An observer (Corvisart), during the

time of the "reign of terror" in France, records that persons guillotined were noticed in the post-mortem rooms to have firmer contracted hearts with small cavities, showing that the apparent thickening of the wall was due to strong rigor mortis. Dr. Lafleur wished to know if he had understood Dr. Adami rightly when he stated that in general arterial sclerosis the connective tissue change in the intima was the initial point? He, himself, had been accustomed to consider that the essential primary condition was a degeneration of the media, and that the connective tissue change was really a reparative process, such as was seen in all cases of sclerosis. This latter, at all events, was the view of Councilman and Thoma. The vicious circle, alluded to, was especially marked in those cases of arterial sclerosis accompanied with hypertrophy; why it should be particularly so in general arterial sclerosis was easily understood when we considered the enormous number of vessels involved. Not only the systemic, but the pulmonary circulation was affected in these cases, and the disease of the latter reacted on the right heart just as that of the former did on the left. The prognosis was especially bad in cardiac hypertrophy with dilatation when it occurred in cases of general arterial sclerosis. Dr. Lafleur remarked in connection with the treatment, that he thought Dr. Campbell should have been justified in protesting when asked to discuss the treatment of cardiac hypertrophy, because, after all, hypertrophy was a conservative process, and therefore beneficial. Allusion was made to Oertel's treatment of hypertrophy. That treatment had not found the favor here that it had in the Old Country. Some very stringent remarks have been passed upon it. One writer declared that a large number of people who have not cardiac disease will be cured by it, and the few who followed it, and really have the disease, will be killed. The speaker wished to add his testimony in favor of local and general bleeding in cases of hypertrophy from arterial disease. That and hydragogue purgatives were the only means we had. He had seen one case where bleeding certainly saved the man's life. The man was completely comatose, and was rapidly approaching his end, when he had him bled to the extent of 18 ounces; he was at work upon his farm two months later.

Dr. BLACKADER, in considering the treatment of the various forms of cardiac hypertrophy, held that much importance must always be given to the etiology; without clear ideas on this point we would certainly fail to obtain all the relief for our patient which was practicable. In some cases temporary rest of the body in the recumbent position formed an important therapeutic measure. We secured for the heart a comparative rest, also, by limiting the amount of fluids taken into the stomach, and in this way lessening the amount absorbed, and the total volume of blood to be moved. In the diseases of no other organ would a due consideration of ordinary physical laws give so much assistance in treatment. In another series of cases, disturbed innervation seemed to play an important role, either affecting the cardiac nerves and producing over-action, or acting on the minute arterioles, producing an increase in arterial tension, and thus adding to the work of the heart. Such cases might receive much benefit from the careful use of nerve sedatives, such as the bromides, or chloral hydrate. Both these drugs, but especially the latter, had a direct action on the cardiac and vasomotor nerves, while at the same time they overcame the insomnia and general restlessness which in many cases were prominent features.

While recognizing fully the value of the various therapeutic measures mentioned by Dr. Campbell for the relief of the later stages of the disease, when we had to deal with a failing heart, Dr. Blackader thought that attention had not been sufficiently called to the necessity of recognizing and treating the earliest condition in which there was a pure hypertrophy of the heart muscle. For treatment such cases might be grouped into two classes: (1) those in which the chief trouble, for the time being, lay in over-action of the heart muscle; (2) those in which the principal difficulty was undue contraction of the arterioles. And to meet these conditions we had two drugs which would, properly employed, give efficient assistance. The first was aconite, which acted directly on the heart, lessening its force and frequency, and had comparatively little action on the vascular system. The second was a solution of either sodium nitrite or nitro-glycerine. Both of these acted directly upon the small arterial vessels, and had almost no action upon the heart, and by them arterial tension could be lessened. If good results were, however, to be obtained, it was necessary to secure a steady action of the drug, paying due regard to the time required in its elimination. Aconite was eliminated comparatively slowly, and in order to maintain an even action it should be administered about every six hours: with the nitrites it was different, they were eliminated rapidly, and to maintain their action in the vessels the dose should be repeated at least every three hours. The ordinary routine method of administering them two or three times a day was very defective, and in most cases proved useless.

Dr. WILKINS mentioned a case which occurred recently in his practice, which tended to establish high arterial tension as the cause of cardiac hypertrophy. The woman had been under his care for the last three years. She first complained of difficulty of breathing on the slightest exertion. Examination showed the lungs normal, slight enlargement of the heart,

with increased accentuation of the second aortic sound. This led him to examine the urine. He found there sometimes slight traces of albumen, at other times albumen was entirely absent, but the urine was always of low specific gravity. During the last few months she suffered intensely from agonizing paroxysms of shortness of breath. They would seize her in bed, the face become pallid, the limbs cold, yet notwithstanding this the pulse was one of high arterial tension. Examining the lungs during these paroxysms, breathing sounds were at first normal, later on some few râles might be heard, but at no time sufficient to account for the dyspnœa. One naturally inquired what could be the cause of the dyspnœa. He thought it must be due to a spasmodic condition of the pulmonary vessels, and this spasm was an indication of the condition of the vessels throughout the rest of the body. The spasm must be the result of some poison circulating in the blood. Already medical men were discussing the nature of this poison. Bright, when treating of kidney disease spoke of the enlargement of the heart which was present in many cases. Some few years later Dr. George Johnson, of King's College, wrote a very interesting article upon this condition of thickening of the coats of the vessels in kidney disease, and described it as one of hypertrophy of the muscular coat. He thought the hypertrophy was due to the thickening of the capillaries which supplied nourishment to the body. Then came the demonstrations of Brown-Sequard and Claude Bernard. Johnson afterwards recanted his opinion as to the hypertrophy being due to obstruction in the capillaries; he then thought it to be due to a spasmodic condition of the muscles of the blood vessels, which contracted with a view to prevent impure blood from passing into the tissues. Now, this latter theory would account, Dr. Wilkins believed, for the conditions present in his patient. That there was a spasm there could be no doubt, but the cause of the spasm might be a question—whether it was a reflex or a contraction induced by the direct contact of an irritant upon the muscles of the vessels, was a subject still under dispute. Most authorities at the present day were inclined to believe that the blood itself acted directly upon the muscular substance of the coats of the arteries, and in that way prevented the passage through of the blood containing poison. Gaskell wrote an article upon the influence of irritants upon the muscular substance of the vessels and the heart; and he said that it was not necessary for the nervous system to be connected with the muscles in order to produce rhythmical contraction of the coats. An apparent objection to this theory was the fact that one would sometimes see spasms of the muscular coat producing epileptiform convulsions in one person and in another some different condition; and again, if these irritating materials were all the time circulating, why were not the spasms continual? That was explained by the fact that in the body are found poisons of directly antagonizing effects. A couple of years ago a murder trial had taken place in New York, in which some expert demonstrated the presence of morphia salts in the blood or stomach, and Dr. Vaughan, of Ann Harbor, was able to prove in court that substances could be obtained from the body having the same action as that of morphia, and that it was impossible to distinguish between the reactions of some of these poisons derived from the body and those of morphia. Some recent observers mentioned that poisons of an irritating nature could be obtained from the urine, which poisons were capable of producing tonic seizures. They said even that morning urine would give poisons differing from those of the urine of the evening. Considering all this, it did not take much to make one believe the possibility of poisons existing in the body which were able to produce a narcotic action at one time and at another time a spasmodic action, or at one time the coma of kidney disease and at another the spasms of such conditions as were under discussion. In the vegetable kingdom the poppy produced medicines which were narcotic, and also medicines which were tetanic in their effects. It therefore required but little stretch of the imagination to believe that the blood contained materials which at one time might produce tonic spasmodic effects and at another time the opposite condition. For treatment, he believed in cases of kidney trouble the great thing was to lower the tension. Many cases would be found in which all treatment failed to reduce the quantity of albumen in the urine until the arterial tension was lowered, and the moment that was effected the albumen diminished, the pulse improved and recovery supervened. On the other hand, in a case where the tension remained high (somewhat acute cases with large kidneys), even though the albumen diminished, the course was likely to be towards chronic Bright's disease.

Dr. MILLS said that Dr. Lafleur and Dr. Finley in their remarks had apparently assumed that the condition of the arteries in the lungs might be the same as in other parts of the body. A recent discovery in physiology was of prime importance to the subject under discussion—that is, that the vessels of the lungs were innervated like the systemic arterioles. This discovery explained why the right heart was invariably found full and distended in asphyxia, while the left was empty and contracted. If contraction of the pulmonary arterioles was assumed, it was easily understood why these phenomena occurred. Dr. Mills thought that the present views held with regard to the nature of blood pressure were far too

simple and would have to be modified in favor of some more complex theory. He thought blood pressure could no longer be regarded as the mean result of the cardiac impulse and peripheral resistance.

Progress of Science.

UNILATERAL SWEATING IN TUBERCULOSIS.

A. Zechanowitsch observed a case of phthisis in which there was abundant perspiration of the right side of the face and of the right temple, while the left side was perfectly dry. Another interesting feature was that the tuberculous process was confined to the right lung, while the laryngeal manifestations also appeared on the right side.—*Medicina, No.* 11, 1894; *St. Petersburger med. Wochenschrift*, June 9, 1894.

PERINEPHRITIC ABSCESS.*

By John M. Foster, M.D., Richmond, Ky.

Having had the privilege of operating upon four cases of the above named trouble, through the courtesy of some of my fellow-physicians, and having found the literature rather meager on the subject, I take this opportunity of calling your attention to some observations which may be helpful.

As you are aware, the disease is comparatively rare, the diagnosis at times obscure, and the mortality very much increased by lateness in resorting to operative procedure. Since the four cases coming under my observation were quite similar, they will be discussed as a whole and not seriatim.

There were present in these cases certain symptoms which are not spoken of in the text-books and journals at my disposal.

With regard to the cause, I would say that all four of these cases were caused by sudden chilling of the body after exertion, although this cause is not mentioned by some writers, and is spoken of as infrequent by others.

With regard to symptoms, I did not find them typical nor well defined by any means. In all the cases the greatest pain and tenderness were found over the lower edge of the liver, in two in the axillary line, and in the other two anterior to this line, so that at first in two of the cases the liver was suspected for several days as being the seat of the trouble. In two of the cases the pain was severe, in the other two it was unimportant. There was an absence of chills and rigors which we are accustomed to expect in suppurative processes, and the fluctuation of the temperature resembled a mild remittent malarial fever. There was also an absence of swelling, œdema and redness which is found in a more superficial abscess. No tumor could be felt nor could deep-seated fluctuation be elicited, the latter symptom, however, being very deceptive at best.

The most prominent symptom, and one which I have not seen mentioned in any text-book, yet one which I consider almost pathognomic, was an approximation of the last rib toward the crest of the ileum, conjoined with a feeling of fullness and resistance in the flank of the affected side, although the body would appear to be in a straight line. This approximation of the rib toward the ileum could only be detected by deep pressure in the flank with the fingers. While the space of three or four fingers could be found on the unaffected side in the flank between the crest of the ileum and last rib, the space of only one or two fingers could be found on the affected side. Flexion of the leg was absent in one case.

An operation should be done early, and if there is doubt about the diagnosis, an aspirating needle can be used to determine the presence of pus. Dr. H. W. Bowditch, who has reported ten cases of this trouble, says: "If ever there be occasion for *cautious boldness* on the part of the surgeon, these abscesses present them."

In the choice of a site for operating, this must often be decided by the individual case, for there is generally some one point in the lumbar region of each case, which is the most favorable for reaching the pus. Generally speaking, a point one and one-half inches above the crest of the ileum, along the anterior border of the quadratus lumborum, is a favorable point. The incision or puncture being made in the direction of the kidney, an oblique incision is less likely to come in contact with important blood vessels. If the case is a recent one and the patient of average flesh, you need not be surprised at going from three to four inches in depth before reaching the pus. This should be evacuated by a free incision, unless you prefer to make a small incision which can be enlarged by inserting a pair of stout forceps or scissors, which on being withdrawn with the blades open will enlarge the opening without risk of hemorrhage. After the insertion of a large drainage tube and washing out the cavity with peroxide of hydrogen, the case is to be treated on general surgical principles.

The ages of the patients coming under my care were from 16 to 45 years. They were operated on from two to four weeks after the development of the first symptoms; the suppuration continued from one to five weeks. All recovered.—*International Journal of Surgery.*

* Synopsis of a paper read before the Southeastern Kentucky Medical Society at Livingston, Kentucky.

TREATMENT OF EMPYEMA.

The method recommended by Dr. J. Michael consists in establishing two openings in the thorax, in front and behind, so as to permit simultaneously of outflow of pus and injection of fluid into the pleural cavity. In desperate cases where the evacuation of a large quantity of pus would give rise to serious symptoms owing to the diminution of intra-thoracic pressure, this method has been found of great service. During evacuation of pus the bulging intercostal spaces should be closely inspected, and as soon as they are seen to become depressed, the fluid (chlorinated water, or distilled water with addition of tincture of iodine, 15 drops to 1 litre) is introduced into the pleural cavity with an irrigator. This procedure is kept up until clear water, free from pus, flows from the anterior opening. In a case treated by Michael, a cure resulted after three perrigations, as he terms this method.—*Therap. Monatsh, Jan.*, 1895.

FISTULA IN ANO.

In doing a radical operation for fistula, the following points, according to Dr. J. H. Bacon, should be observed:

1. Never sever the sphincters at more than one place at the same operation, no matter what the complications may be, otherwise incontinence is sure to follow.

2. Unless all the channels are followed up and laid open, the operation will fail of its purpose.

3. Fistula resulting from tubercular abscess must not be operated upon if there is sufficient tissue destruction of lung to produce hectic fever, sweats, etc., unless the fistula is causing severe painful spasms of the sphincters, then it should be divided at any stage.

4. After laying the fistula tract open, the wound must be made to heal from the bottom, and as the cutaneous or mucous side of the wound is better nourished, it will throw out a more healthy granulation, that tends to bridge over and close the slower granular surface at the bottom, thus leaving a fistula remaining.

5. When the fistulous tract is not too complicated it should be dissected out entire and the wound brought together, beginning at the bottom with continuous catgut sutures and approximating the surfaces in successive layers until the whole wound is closed.—*Northw. Medical Journal.*

TREATMENT OF SOME FREQUENT MALADIES OF CHILDREN.

Anæmia.—First, attention should be paid to hygiene and to regular feeding with nourishing and easily assimilable foods. Correct all intestinal disturbances. Before each feeding administer the syrup of the iodide of iron for fifteen days, followed for the next fifteen days by Fowler's solution, commencing with ½ drop for a child of two years.

From time to time suspend this treatment for a week, and give—

Syrup of rhubarb,
Syrup of gentian, of each, f℥iv.
Dessertspoonful for each dose.

Or of the following:

Tr. nux vomica, ♏xv;
Tr. anise,
Tr. gentian,
Tr. cascarilla,
Tr. colombo, of each, f℥i, ♏xv.
Dose—From 5 to 10 drops.

If there is indigestion, administer after meals a small glass of this lemonade:

Acid hydrochloric, ♏xv;
Syrup of lemon, f℥iii;
Distilled water, Oi.

If there are symptoms of rachitis, phosphated milk, phosphate of lime, or acid phosphate of lime in milk may be added to the above regimen, while stronger feeding also may be resorted to.

For anæmia with scrofulosis, cod-liver oil in winter and syrup of the iodides in summer should be administered.

Syrup of the iodide of iron may be alternated with Fowler's solution at the same time that the oil is being given.

If there are symptoms of tuberculosis, to the foregoing treatment add this plan:

Upon a plate pour a mixture of—

Tar, ℥iiss;
Creosote, ℥iii to ℥vi,

and place over a night-lamp burning throughout the night in the sleeping-room of the infant.

Anæmia of Syphilitics.—To the new-born give frequent small doses of mercury, and increase the dose; if the child is too feeble the medicine can be given by inunctions.

For anæmia following malaria, administer wine of cinchona in doses from a coffee-spoonful to a soup-spoonful before meals for fifteen days; then for the next fifteen days Fowler's solution, 1 to 3 drops.

In hæmophilia or anæmia from loss of blood, for the first few hours 1 to 2 drops of perchloride of iron every two hours, then three or four times a day.

For constipation at weaning-time, injections and glycerin suppositories, and before mea a spoonful of—

Syrup of rhubarb,
Syrup of gentian, of each, equal parts.

Or give every morning a coffee-spoonful of—

Olei ricini,
Syrup of orange flowers, of each, f℥ss.

Also, in the same dose,—

Calcined magnesia,
Sulphur, sublimed,
Cream of tartar, of each, ʒi;
Essence of anise, ♏ iiss.

When the liver is sluggish, in the morning, once or twice a week, give the following in cachet, or in honey, or sugar water:

Calomel,
Scammony, of each, gr. iii. to gr. v.

For a purgative:

Boiling water, fʒiii;
Manna in tears, fʒi;
Senna leaves, ʒi;
Powder of parched coffee, ʒiiss.

Strain, and take during the day.

With atony of the intestines:

Tr. nux vomica, fʒss;
Tr. belladonna,
Tr. anise,
Tr. cascara, of each, fʒiiss.

Given in water (8 to 12 drops) before meals.

For biliary calculus in infants, in the intervals, bicarbonate of sodium in grain doses for ten days. The following ten days,—

Syrup of ether,
Syrup of turpentine, of each, fʒiii.

A dessertspoonful before meals.

Twice a week add to the above a coffeespoonful of—

Sulphur, sublimated,
Cream of tartar,
Magnesia, of each, ʒv;
Essence of anise, ♏ xv.

Before meals.

The following table of foods may prove useful:

Foods permitted.—Milk, cream, and fresh cheese; soups, eggs; all meats in small quantities, especially chicken; legumes, well cooked and when green; potatoes; dried fruits, preferably cooked; marmalades and jams; cooked fish; bread in small quantity; alkaline waters.

Foods not permitted.—Butter and fats, old cheese, pork, mushrooms and truffles, pastries and sweetmeats, dried legumes, sausages, asparagus and tomatoes, liquors, coffee, wines, and strong beers.

For Nephritic Colic.—Hot baths, afterwards blisters, hot poultices, or hot fomentations or stupes applied over the renal region; then administer every half-hour a dessertspoonful of the following mixture:

Antipyrin, gr. viii. to gr. xv;
Chloroform water, fʒi;
Lime-water, fʒii;
Syrup of ether,
Syrup of belladonnæ, of each, fʒiiss;
Syrup of orange-flowers, fʒiiss.

If this is vomited, then give morphine hypodermically.—E. Périer (*Revue Obstet. et Gynécol.*, August, 1894).

THERAPEUTIC BRIEFS.

—For Psoriasis:—

℞. Ichthyol,
Acid. salicylic.,
Acid. pyrogallic.,
Aristol, āā gms. 2½
Vaselin,
Adipis,
Lanolin, āā gms. 30. M.

A powerful ointment, to be used in small quantities.

—For Chronic Constipation (*Gazetta Medica di Roma*):—

℞. Aloës, gr. iv
Strychniæ sulphat., gr. ¼
Extract. belladonnæ, gr. j¼
Ipecac. pulv., gr. vss. M.
Divid. in pil. xij.

Sig.—One every evening.

—In the German army the following application is employed for the rapid cure of Blisters of the feet incident to long marches (*Therapeutic Gazette*):—

℞. Saponis nigri, p. 52
Aquæ, p. 27
Vaselin., p. 15
Zinci oxidi, p. 6
Essentiæ lavandulæ, q. s. M.

—From *Medical Press and Circular* of a recent date we quote the following prescriptions:—

Application for Chronic Pharyngitis:—

℞. Iodi, gr. vj
Potassii iodidi, gr. xij
Mentholis, ʒj.
Glycerini, q. s. ad ʒj. M.

Apply with a camel's-hair brush twice or thrice daily.

Useful in Bronchitic Asthma:—

℞. Potassii iodidi, ʒij
Ammon. carb., ʒj
Tinct. lobeliæ, fʒij
Sp. chloroformi, fʒiv
Vin ipecac., fʒj
Infus. senegæ, q.s. ad fʒvj M.

A tablespoonful in a wineglassful of water every four hours.

Incontinence of Urine:—

℞. Tincturæ belladonnæ,
Tincturæ cubebæ, āā fʒij
Tincturæ nucis vomicæ,
Tincturæ rhei aromaticæ,
of each, fʒj
Tincturæ cascarillæ, fʒij

12 drops at bed-time for a child from seven to ten years.

The Removal of Warts:—

℞. Hydrarg. bichlor., gr. v
Acid. salicyl., ʒj
Collodii, fʒj M.

This is applied every day, the upper crust of the previous application being removed before a fresh one is made. Usually after four applications the wart becomes so softened that gentle friction will remove it painlessly. If a further dressing is required, a five-per-cent. salicylic-lanolin ointment is all that is necessary.

OZÆNA.—Dr. Stein obtains in ozæna most remarkable results from painting the nasal fossæ with a solution of trichloracetic acid. The painting is done by means of a piece of cotton-wool steeped in a solution (one-tenth per cent.) and fixed on the point of a flexible wire. The operation is done three times daily for the first few days, and then once a day. The strength of the solution is gradually increased.

ASTHMA.—The following will be found most useful in this distressing complaint :—

℞. Chloralis,
Potassii iodidi, of each, ℥ss
Syrup of oranges, f℥vj
Water, f℥vj
2 to 5 tablespoonfuls a day.

—FOR DIPHTHERIA (*Woman's Medical Journal*, April, 1894) :—

℞. Caffeinæ, gr. xx
Sodii bicarb., gr. v
Aquæ, q. s. ad f℥ ij M.

SIG.—Apply locally as a spray to the membrane.

—Woodbridge (*Jour. Am. Med. Asso.* in *The Philadelphia Polyclinic*) claims very positively that TYPHOID FEVER may be aborted, and that he has been able to accomplish this. He believes the disease is due to a germ having its effect in the alimentary canal; and that when a germicide powerful enough to destroy it without detriment to the patient can be brought in contact with it, the problem of the abortive treatment of typhoid fever is solved.

For this purpose he uses the following mixture :—

℞. Podophyllin, gr. j
Hydrarg. chlor. mit., ℥j
Guaiacol carb., ℥vj
Thymol, ℥v
Menthol, ℥j
Sacch. alb., ℥ij
Eucalyptol (as much as possible).

This he uses in very minute doses [one-quarter grain] every half hour or hour.

Later he gives

℞. Eucalyptol, ℥ss
Spir. rect., ℥j
Guaiacol, ℥ij
Aquæ dist. q. s. ad ℥iv

SIG.—One-half teaspoonful every three or four hours, until the temperature has been normal for a day or two.

—When SEBORRHŒIC ECZEMA becomes universal, Unna has the patient put on at night a woollen garment soaked in a wash-basin half full of water containing, for adults, five grams of resorcin, and for children two grams, and wrap himself up between blankets. During the day the following ointment is applied :—

℞. Zinci oxidi, parts vi
Sulphuris præcipitati, " iv
Terræ siliceæ, " ij
Adipis benzoati, " xxviij. M.

SIG.—Paste.

FOR INSOMNIA (Bartholow, in *Woman's Medical Journal*) :—

℞. Antimonii et potass. tartrate, gr. i-ij
Morphiæ sulphat., gr. iss.
Aq. laurocerasi, f℥j. M.

SIG.—Teaspoonful every two, three, or four hours as required (in wakefulness of fevers).

—In operating for APPENDICITIS, Prof. Keen, as a rule, removes the appendix. He thinks that it is bad surgery to leave the appendix unless the adhesions are very marked and cannot be separated without the risk of harm. Where there is liability of breaking into the general peritoneal cavity he does not search for the appendix. Where there is a tumor he makes the incision over the tumor. He thinks that we should not go through the peritoneal cavity. It is rare to have an appendicitis going on to a condition of distinct tumor without pus being present. He would much rather operate before any appreciable tumor has formed. In cases of tumor he almost invariably operates even with a normal temperature or a declining temperature.

—SEDATIVE PLASTER (*Amer. Druggist*) :—

Lead plaster, 10 parts
Extract of belladonna,
Resin of Pinus sylvestris,
of each 1 part

Mix and spread on linen in the manner of an adhesive plaster, and apply over the painful sites in rheumatism, pleurodynia, etc.

—For the local treatment of PSORIASIS (Eddowes, *Amer. Druggist*) :—The various patches are painted, after removal of the scales with soap and hot water, with a saturated solution of tincture of iodine, about once a week, and an ointment consisting of equal parts of unguentum sulphuris and unguentum picis liquidum applied daily. Another useful application is the following :—

℞. Unguent. picis liquidæ, ℥iiss
Acid salicylic, gr. xxv
Unguent. lanolin, ad. ℥j M.

—For CONJUNCTIVITIS (*Therapeutic Gazette*) :—

℞. Acidi borici, gr. xx
Sodii chloridi, gr. viij
Aquæ destillat., f℥ij M.

SIG.—Use freely as a lotion every four hours, first warming.

TUMOR OF THE FACE.

By Charles McBurney

Professor of Surgery, College of Physicians and Surgeons; Attending Surgeon Roosevelt Hospital, N. Y.

This man is 54 years old. About four years ago he began to have pain in the regions of the infra-orbital nerve on the right side, which was very persistent, and gradually extended over that entire side of the face. He has had no epistaxis; there is no occlusion of the nostrils on either side; most of his teeth in the upper jaw are gone, and the sockets are in good condition. The roof of the mouth is symmetrical, and there is no abnormality on either side. When we come to examine outside and above the alveolar process on the right side, we find a swelling, which apparently arises from the superior maxilla, which is firm to the touch and is covered with perfectly healthy mucous membrane. This tumor produces a slight bulging of the face on the right side.

We are in ignorance both as regards the nature of this growth and its exact seat of origin. After the age of forty-five or fifty a large proportion of tumors of the upper jaw belong either to the carcinomatous or sarcomatous variety; even in earlier life, about one-third are sarcomatous, one-third carcinomatous, and the remainder belong to the other varieties. In this case, I think, we may exclude empyema of the antrum, ordinary hydrops, and probably anything in the nature of a cyst. When we take into consideration the fact that this disease has existed for four years, and that there is as yet no involvement of the mucous membrane, it is clear that it has progressed slowly, and this permits us, I think, to exclude carcinoma, positively, and perhaps sarcoma. Some of the latter variety of growths are very slow in reaching their full developments, even in this region, but usually they distinctly manifest their presence by a decided destruction of tissue long before three or four years have elapsed. In one case coming under my observation I removed from the inner side of a man's thigh a tumor as large as a two year old child's head, which had apparently remained unchanged for several years, and had existed in all over twenty years. At the time of operation I supposed we had to deal with a lipoma, containing considerable fibrous tissue, but on examining it we found a sarcoma, well encapsulated.

In trying to arrive at a diagnosis in the case, it is well to think of other growths besides those mentioned. It may prove to be a pure osteoma, which is dense, firm and smooth to the touch, and steadily increases in size. Or it may be an enchondroma, which is almost as firm as an osteoma; or we may have to deal with a pure fibroma, which, properly speaking, belongs to the sarcomatous variety.

The diagnosis in such a case as this is of the utmost importance, as upon it depends the severity of the operation which it will be necessary to perform. If the growth proves to be a sarcoma, originating in the antrum or the superior maxilla, it would be wise to perform a radical operation, even to the extent of removing the entire upper jaw, but it would be humiliating to do this and learn afterwards that the tumor was simply an osteoma or an enchondroma.

To clear up the diagnosis I will make an incision downwards from the right ala nasi to the mouth. By dissecting up this flap and turning it back, a view of the tumor is obtained. It rests in the canine fossa and originates in the tissues outside of the bone. The growth is about the size of a pigeon's egg, and is easily dissected loose. The tissues which compose it are hard and fibrous; a microscopical examination will be required in order to determine its exact character.—*Intern. Jour. of Surgery.*

CLASS-ROOM NOTES.

—*Tumors of the Subcutaneous Tissue* or of the intermuscular fascia, Prof. Keen says, should be removed as often as they recur, and if a limb is deeply involved it should be amputated.

—Prof. Wilson says that when *Relapsing Fever* attacks the well-nourished, it runs a similar course and presents the same characteristics that it does when it attacks the destitute.

—Prof. Longstreth says in a similar number of males and females attacked with gonorrhœa the males will be found to suffer more frequently from *Gonorrhœal Rheumatism* than the females.

Whilst a *Keloid* is growing, Prof. Keen says, its removal by the knife should not be attempted; repeated scarification or multiple electrolytic punctures sometimes succeed in destroying it.

—Prof. Wilson says whilst those in a condition of poverty and uncleanliness and privation are most often attacked with influenza, the rich who are surrounded with all cleanliness are often attacked.

—Plessure on a *Fungus Cerebri* by sponges or dressings sometimes, according to Prof. Keen, yields good results, but at other times convulsions follow the application of pressure, when it must be abandoned.

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MONTREAL, AUGUST, 1895.

SHOULD PATIENTS IN PRIVATE ROOMS IN PUBLIC HOSPITALS BE ALLOWED TO HAVE THEIR OWN DOCTOR?

For most people this question would seem to be an absurd one, for any other answer than the affirmative one would imply the subversion of every principle of right and justice. The question has been asked quite often of late, and has been answered pretty generally by the medical journals in Canada and the United States in a manner which has not pleased the cliques, who, havin gsecured control of some of the public hospitals and a monopoly of attending the poor, wish to use their position as a means of taking from their fellow-practitioners those of the latter's patients who, by force of circumstances, find themselves in a private ward in the public hospital. Many of the laity are not aware of this unjust and selfish regulation, and others are loath to believe that such a thing is possible. A wealthy gentleman, subject to attacks of vertigo, falls down in the street. If he were left alone for a few minutes he would recover consciousness, call a cab and drive home, where his family physician would be summoned to attend him. But in less than five minutes an ambulance arrives, which rapidly conveys him to the Royal Victoria or General Hospital, instead of taking him home. When he recovers consciousness he finds himself in a private ward in one of these hospitals. He asks for his family doctor, but he is politely informed that only the best doctors in the city are elected to that hospital, and only those who are elected to the staff are allowed to attend private patients there, and that his family physician is not one of them. It is easy to see how prejudicial to the interests of the family physician this is, to say nothing of the slight to his reputation; and it is extremely doubtful whether he will ever have an opportunity of attending either his patient or any of his family again. Many of the practitioners of the city are murmuring quite audibly against this unjust regulation, and it is more than likely that public opinion may become so strong that the management of the Royal Victoria and General will be compelled to follow the example of the Toronto General Hospital, the Hotel-Dieu, the Notre Dame and the Western, which all place their private rooms at the service of any reputable practitioner when patients are willing to pay for them.

SANITARY CONDITION OF MONTREAL.

The physicians and druggists of Montreal are all agreed that there never has been so little sickness within the memory of the oldest practitioners, and the superintendent of Mount Royal Cemetery bears out that opinion, having recently informed us that there never have been so few deaths as there have been this summer. This is as it should be, and is very gratifying to the medical profession, which has never ceased from putting forth every effort to improve the sanitary condition of the city. Although the healthier condition of the city and the diminished death rate are directly traceable to the efforts of the physicians, and although we were aware that if our efforts were successful there would be much less work for us, and that our incomes would consequently suffer, still, strange to say, many of these sanitary improvements have been persistently opposed by the citizens who have been the first to benefit by them. They could hardly understand such a thing as a whole profession working against its own interest for the public good. We are proud to say that such has been the case, and feel that such disinterested efforts in the public interest fairly entitle our profession to the claim of being one of the most noble of them all.

THE BUFFALO MEDICAL JOURNAL.

We cannot lay down the August number of the above journal, which is its jubilee number, and which we have just perused, without expressing our admiration for the enterprise of its editors, Drs. Lothrop and Warren Potter. It was founded in 1845 by Dr. Austin Flint, and has consequently completed its fiftieth year. The jubilee number, besides containing many very able scientific articles, is profusely illustrated with engravings of the Buffalo hospitals. We wish our bright and newsy contemporary as much success in the future as it has attained in the past. It has always been among the most welcome of our exchanges.

A QUIET RESTING PLACE.

There are few quieter or more charming summer resorts for overworked professional or business men, or more suitable for convalescents, than the village of Roberval on the eastern shore of Lake St. John, the northern terminus of the main line of the Quebec & Lake St. John Railway. An air of perfect restfulness pervades the whole place, and what is perhaps of quite as great importance as the salubrity of the atmosphere and the modifying influences of the great inland sea, on the shore of which the village is built, are the comforts and even luxuries procurable at the splendidly equipped and new hotel for tourists known as the Hotel Roberval. Built upon an eminence immediately overlooking the lake, the house contains accommodation for some 400 guests. It is heated by hot water and furnished throughout with electric bells and light. The rooms and beds are quite luxurious, and the cuisine and service of the best. There are ample lawns and promenade grounds, with tennis, croquet, billiards, bowling alley and other games, while the country around abounds in charming drives, and there are excellent facilities for canoeing, boating and fishing. A fleet of four admirably equipped steamers is at the disposal of tourists, one of which, the large and fast iron steamboat, the "Mistassini," has accommodation for 300 passengers, and makes daily trips to and from the Grande Décharge, the scene of the exciting sport afforded by the fishing for ouananiche. Others convey passengers and their canoes and guides, who are bent upon camping tours in the far northern country, to and from the mouths of the large rivers that are tributary to Lake St. John. So many and so varied are the attractions of the locality that it would be difficult to find a more suitable place than Roberval for sending either convalescent patients in search of strength and vigor, or worn out business and professional men in search of change and rest. We can speak from personal experience, having spent a most enjoyable holiday at the Hotel Roberval and in making various fishing excursions in the neighborhood.

PERSONAL.

Dr. Elizabeth Mitchell has gone for a couple of months to the seaside, to recuperate from her hard work of the past winter. Those who believe in the right of woman to attend her own sex can point with pardonable pride to Dr. Mitchell's success; she enjoys a lucrative practice among many of the leading families of Montreal.

Dr. Grace Ritchie, who is one of the most popular physicians, and has one of the most largely attended out-door clinics at the Western Hospital, has also gone to the seaside for a month. During her absence, Dr. Laadau, one of the prize winners at Bishop's College last year, remains in charge of her patients.

Dr. Lapthorn Smith, who has charge of the Gynæcological wards of the Western during the six summer months, has been kept so busy with operative work that he has not been able to leave town. Although the gynæcological operating days are nominally Wednesdays and Saturdays, so many cases have been sent in that it has been found necessary to operate nearly every week day. Many of the cases have been very bad ones, requiring five or six distinct operations, which he is in the habit of performing at one séance of a little over an hour, thus saving the patient the discomfort of several subsequent anæsthesias. His term of service for this year ends on the 1st of October.

We regret to learn that Dr. J. Anderson Springle has severed his connection with Bishop's College, where as professor of Anatomy he has made a brilliant record. We are not aware of his reasons for taking this step, and trust that he may yet return, as Bishop's College can ill afford to lose him. He intends, however, to remain on the staff of the Western Hospital, where he is one of the most able surgeons in the department of general surgery.

We are glad to learn that Dr. F. R. England is winning golden opinions both from the students of Bishop's College, where he is professor of Surgery, and at the Western Hospital, where he has been in charge of the department of general surgery during the summer.

The Western Hospital is rapidly coming to the front as one of the leading hospitals of Canada. It has now two well equipped operating rooms and fifty beds, which are kept constantly filled, not only by patients from the city, who prefer it to any other hospital, but also by those who are sent to it by the physicians of the Eastern Townships, and even from the New England States. Although it has a particularly brilliant record as a surgical and gynæcological hospital, it also has a medical staff consisting of such well-known names as Dr. F. W. Campbell, Dean of Bishop's College; Dr. McConnell, Professor of Medicine; and Dr. Reddy. The next report will show one of the lowest death rates in Canada, the few which have occurred being mostly of patients who were admitted in a dying condition, and died within 3 days after admission.

The Western offers special facilities for post graduate students during the summer months when the regular students are nearly all away.

We have recently heard a suggestion that the present site of the Western Hospital, which has become one of the most valuable ones in the city, should be sold for two hundred thousand dollars, and that with a portion of the funds thus obtained an equally suitable but less expensive site be purchased, while the remainder could be invested as a permanent endowment fund. As far as we can see, the suggestion is a good one, and eventually we hope to see it carried out.

Dr. Reddy has gone to New Brunswick for a month's holidays, which he was much in need of, being director of the Maternity on Osborne street, Professor of Obstetrics in Bishop's College, Physician to the Western Hospital, and Surgeon to the Samaritan Hospital.

Dr. Grant Stewart, who has one of the largest if not the largest general practice in Montreal, wisely takes a whole month every year, which he spends with his family at Metis on the Lower St. Lawrence, where he is one of the most popular acquisitions to society there.

NEWS ITEMS.

HALL OF THE COLLEGE OF PHYSICIANS.

PHILADELPHIA, August 1, 1895.

The William F. Jenks memorial prize of five hundred dollars, under the deed of trust of Mrs. William F. Jenks, has been awarded to A. Brothers, M.D., 162 Madison Street, New York, for the best essay on "Infant Mortality During Labor, and Its Prevention."

The Prize Committee also reports as highly meritorious the essay on the same subject bearing the motto "Vade Mecum."

The writers of the unsuccessful essays can have them returned to any address they may name, by sending it and the motto which distinguished the essay to the Chairman of the Prize Committee, Horace Y. Evans, M.D., College of Physicans, Philadelphia.

JAMES V. INGHAM,
CHARLES S. WURTS,
I. MINIS HAYS,
Trustees of the Wm. F. Jenks Memorial Fund.

PAMPHLETS.

CYSTIC TUMORS OF THE VAGINAL VAULT, WITH REPORTS OF TWO CASES. By Frederick Holme Wiggin, M.D., Visiting Surgeon to the New York City Hospital (B. I.), Gynæcological Division, etc. Reprinted from the New York Medical Journal for July 13, 1895.

MEDICAL TERMINOLOGY; ITS ETYMOLOGY AND ERRORS. By P. J. McCourt, M.D., New York. Reprinted from the Medical Record, July 27, 1895. New York: Trow Directory Printing & Bookbinding Co., 201-213 East Twelfth Street, 1895.

CLASS-ROOM NOTES.

—For *Hemorrhoids*, Prof. Hare recommends the following ointment:—

℞.	Acid, gallic,	gr. x
	Extract, opii,	gr. iv
	Extract. belladonnæ,	gr. v
	Unguent. simplicis,	ʒiv. M.

SIG.—Apply locally night and morning.

—*Keloid*, according to Prof. Keen, may arise spontaneously, but generally from some injury to the skin, cuts, scars from burns, or also sometimes from the injury inflicted to the lobe of the ear in perforating it for ear-rings.

—According to Prof. Wilson, the emaciation after an attack of *Enteric Fever* continues until the diurnal temperature range becomes coincident with the normal, sometimes a patient losing one-sixth or one-seventh of his whole bodily weight.

—Cubebs, Prof. Hare says, is useful in *Gonorrhœa*, not because it possesses any specific action against this disease, but because it has a beneficial effect in modifying the ardor urinæ, which is generally the most distressing symptom in gonorrhœa.

The Canada Medical Record.

VOL. XXIII. MONTREAL, SEPTEMBER, 1895. No. 12.

CONTENTS.

Society Proceedings.

MONTREAL MEDICO-CHIRURGICAL SOCIETY.

Stated Meeting, March 8th, 1895.

DR. G. P. GIRDWOOD, PRESIDENT, IN THE CHAIR.

Dr. R. A. Westley, of Alexandria, was elected an ordinary member.

Experimental Cachexia Strumipriva.—Dr. WESLEY MILLS exhibited a dog from which he had removed the thyroid gland. The animal was in good condition at the time, and bore the operation so well that he feared the usual symptoms were not going to develop. The operation was performed on Monday evening, and on Friday most pronounced symptom of dyspnœa and fibrillary twitchings appeared, which, however, lasted but a short time and had almost disappeared when the animal was shown. The only symptom then present was the dog's extreme dullness. The temperature was about 98°, which was for the dog slightly subnormal. The subject had been thoroughly investigated by Continental and English scientists, notably Horsley. The symptoms differed in different animals; but were most pronounced in the carnivora. Those referable to the nervous system were increased and then diminished function such as spasms, and later cretinism and myxœdema. The dullness (cretinism) was manifest in this dog; although the contrast between his present and his usual behavior was not marked. Myxœdema in some cases needed careful investigation to find; it was certainly not pronounced in either of these cases. In another dog operated upon, dullness, emaciation and dyspnœa were the prominent symptoms. The explanation was, that by excision of the thyroid a controlling influence over metabolism was removed. The dyspnœa was caused by the venous condition of the blood, and by the influence of toxines on the respiratory centre. The œdema, dullness, etc., were explained by alterations in nutrition and in the nervous system.

Dr. F. J. SHEPHERD suggested that some of the symptoms might have been due to the effects of the operation.

Dr. JAMES BELL was surprised that Dr. Mills should consider that the changes described could have taken place in so short a time.

Dr. W. S. MORROW corroborated what Dr. Mills had said of the animal's condition.

Gastro-jejunostomy.—Dr. F. J. SHEPHERD exhibited a woman, æt. 68, upon whom he had performed this operation, and who had been sent to his wards by Dr. G. Gordon Campbell

as a suitable case for pylorectomy. The tumor about the pylorus seemed small, well defined and unattached. The patient readily consented to operation, and on August 11th, 1894, an incision was made in the median line and the tumor examined. The case seemed favorable for pylorectomy, so the omentum was tied off, and on lifting up the stomach a large mass of infiltrated glands was seen on the posterior wall of the abdomen. All idea of continuing the operation of excision was abandoned and gastro-enterostomy performed. A piece of jejunum was brought up to the anterior wall of the stomach and fixed there by a double row of sutures, the outer row of Lembert sutures was continuous. No plate, button or other mechanical device was used. The patient did perfectly well, and went out of hospital during the first week of September, being able to eat with comfort, the vomiting having altogether ceased. Dr. Shepherd had not seen the patient again until a few days ago, when she sent for him; he found she was suffering from diarrhœa. Since leaving hospital she had been attending to her household duties as usual, and had no trouble about eating. The tumor could still be felt somewhat larger than in the summer, but patient looked well nourished and had a healthy appearance and did not suffer. Dr. Shepherd said that he thought the results of this operation were excellent, and it was worth doing to obtain six months freedom from pain, and this comfort with the chance, judging from her present condition, of enjoying several months more of good health.

Dr. G. Gordon Campbell said that there had been almost entire absence of symptoms pointing to gastric cancer previous to her admission to hospital. The tumor had been discovered on making an examination of the abdomen. There had been no pain or vomiting, and general debility, for which she had spent a couple of weeks at the seaside without benefit, was the chief complaint. While in the medical wards vomiting had commenced, and at one time a very large quantity of stomach contents was expelled. The tumor was about the size of an egg, freely movable and situate about one inch above the umbilicus. Its connection with the pyloric end of the stomach was easily determined by dilating that organ. A test meal had been given and absence of hydrochloric acid demonstrated.

Pulmonary Embolism.—Dr. W. G. Johnston showed a specimen illustrating obstruction of the pulmonary artery by an embolus. A number of rounded masses of blood clots obstructed the pulmonary artery in each lung. The history was interesting, both from a pathological and medico-legal standpoint. The man had been dead and buried about one week, when one of his friends made a curious statement: that the deceased had expected some accident to happen to him, and some persons were reported to have been laying traps for him. A post-mortem was ordered, and this curious condition of obstruction in the pulmonary artery found. No evidence of any primary source of an embolus could be detected, and this made it difficult to decide between embolism and thrombosis. In favor of thrombosis was the atheromatous condition of the pulmonary artery, the heart showing an unusual condition of great dilatation on the right side. He was said to have had a systolic murmur, transmitted very distinctly to the right, and owing to his having a very slow, heaving pulse, it was thought to be an aortic direct murmur, and there was some thickening of the aortic valve. Dr. Johnson, however, thought the murmur was produced in the right side.

Aneurism of the Thoracic Aorta.—Dr. Adami exhibited the specimen, and read the report.

Dr. Jas. Stewart described the treatment of the case.

Dr. Wisley Mills emphasized the value of laryngoscopic examination in diagnosing aneurisms of the aorta.

Dr. Finley thought that Dr. Adami's explanation of the difference between the pulse in the two radials was very ingenious, and seemed to be confirmed by the anatomical conditions present. He also thought that the late Dr. MacDonnell's explanation of the tracheal tugging—the aneurism pressing upon the left bronchus and pushing it down with each pulsation—was borne out by this case.

Dr. Lafleur had at present under observation a case of thoracic aneurism, the diagnosis of which was made by a laryngologist, and not by himself. The patient had been suffering from aortic insufficiency for fifteen years, and had been under the speaker's care for a year. He developed pain of a fixed character in the epigastrium, generally so severe as to prevent sleep at night. A troublesome cough, with huskiness, developed, and examination of the lungs gave negative results. There was no alteration in the size of the pupils, and no evidence of intrathoracic tumor. He finally had Dr. Birkett see the man, and an aneurism was detected projecting into the trachea, immediately above its bifurcation, about the size of a walnut. This case illustrated the importance of internal as well as external examination in such cases. Here, from the point of view of external examination, there was nothing at all to suggest aneurism, except trachea tugging, which was discovered to be present after the laryngological examination had been made.

Dr. H. D. Hamilton had often treated the patient for his laryngeal complaint at the Longue Pointe Home. He happened to be at the Home one day examining some cases with

Dr. Thompson, when this last illness began. A sudden attack of dyspnœa had set in, during the course of a bronchitis from which he was suffering, which made them at first suppose the aneurism had ruptured. Pain was always a prominent symptom, and it was constantly referred to the right side. Belladonna plasters gave marked relief when used in addition to the internal medication. The patient lived just one week after this attack.

Two Cases of Pernicious Anæmia.—Dr. F. G. FINLEY read a paper on this subject as follows:

Of the two cases reported below, both were regarded during life as pernicious anæmia. The second, however, was clearly shown by the post-mortem examination not to be of this nature. As they both presented a severe form of anæmia, poikilocytosis and absence of free acid in the stomach, they are recorded, inasmuch as the association of these conditions is still involved in considerable obscurity.

Case I.—Pernicious anæmia, absence of hydrochloric acid in gastric juice—Marked improvement after thymol—Failure of arsenic and bone marrow.

CASE—H. J., male, æt. 52, of temperate habits, was sent to the Montreal General Hospital by Dr. Hutchison on November 17, 1894, complaining of indigestion, vomiting and weakness.

He states that he has had small-pox and gonorrhœa. He has not been strong for ten years, and has suffered from vomiting, lasting a day or two at a time, two or three times yearly. He has been much worried of late by family trouble.

Present illness—Began in August, 1894, with weakness and loss of flesh. For several months he suffered from nausea and occasionally vomiting induced by slight exertion. At no time was there any abdominal pain or hæmatemesis. Increasing weakness obliged him to take to bed about the end of October, and the vomiting continued up to the time of admission to hospital. He has lost about twenty-five pounds in weight.

Family History—Father is healthy, æt. 82; mother, a sister and brother died of consumption, and a brother is stated to have died of anæmia.

Present condition—He is moderately nourished, the panniculus adiposus is small. The muscles are soft but of fair size, and the weight is 124 pounds. The skin is moist and perspiring. The face and back of hands are of a decided lemon color, and the conjunctivæ show a slight yellow hue. The mucous membranes are pale, and there is a considerable degree of anæmia present. The tongue is moderately coated and flabby. The abdomen is normal, presenting no tenderness or tumor, and the liver and spleen are not enlarged. The heart is of normal size; a soft systolic murmur is heard with maximum intensity at the pulmonary cartilage, transmitted to the aortic and down the sternum as far as the fourth costal cartilage. The lungs are normal. The urine is acid, S G. 1020; no albumen, sugar, urobilin or bile coloring matters are present.

November 18.—Blood examination shows slight irregularity in the shape of the corpuscles (poikilocytosis) and a few small corpuscles (micro-cytes) are present. On Nov. 25th red cells, 1,928,770 to c.m.; hæmoglobin 45 per cent. (Fleischl). Stained specimens show some irregularity in shape and size of the corpuscles and a few microcytes. Ratio of red to white 3 to 508. The gastric contents withdrawn after a test meal show an entire absence of hydrochloric acid (Congored, Boas and Gunzberg's tests); lactic acid absent.

The red corpuscles have become more irregular in shape. Careful measurements show that many of them are larger than normal, measuring 9 to 10 m., instead of 7 to 8m.; a few microcytes 3 6 m. The white cells are relatively but not absolutely increased. Nucleated red cells have not been found in repeated examinations.

The urine has varied considerably, S.G. 1015-1020, being on some occasions dark in color and at others light. Urobilin (Huppert's test) has been frequently but not always present, and the spectrum of pathological urobilin has also been occasionally seen.

On January 23, the spleen was felt below the costal border, and has since continued enlarged. On March 17 a severe attack of facial erysipelas set in, the temperatures ranging from 103° to 105°, and terminating by crisis on the sixth day.

With the exception of this attack of erysipelas referred to, there was no fever during the six months that the patient was under observation. Retinal hæmorrhages were almost absent. The weight fluctuated from 119 to 124 lbs. Vomiting occurred a few times in the fortnight following admission, and then ceased. The stools were examined for intestinal parasites with a negative result.

The blood began to improve in the first half of March, and, as will be seen by referring to the table appended, by the end of April almost reached the normal. Corresponding with the improvement of the blood conditions, the patient's strength and energy returned, and he was able to leave the hospital on May 16.

The shape of the blood corpuscles has always continued irregular, and hydrochloric acid has been persistently absent from the gastric juice.

Treatment—Arsenic has been faithfully used for several months, also bone marrow, iron and latterly thymol have also been given a trial. Arsenic has been used throughout internally in

the shape of Fowler's solution in doses of from m ii to m x t.i.d. The stomach would not tolerate a large dose, and on several occasions it had to be discontinued. Arsenious acid in pill form was better borne, and hypodermics of Fowler's solution in water were also tried, but proved painful, and were discontinued on the formation of a small abscess. A glycerine extract of bone marrow was used from January 8 to February 8, during which time the corpuscles decreased from 1,792,000 to 1,320,000, although there was a slight increase in the hæmoglobin 35 per cent. to 45 per cent. Blaud's pills in doses of 10 to 15 grs. t.i.d. were used from February 8th to March 4th, the red corpuscles rising in this period from 1,320,000 to 1,770,000, but with a decrease of hæmoglobin.

On March 3rd thymol was commenced. A reference to the table below will show the relation of the blood count to the principal drugs used.

BLOOD COUNTS.

Nov. 25....	Red B.C.	1,928,000	Hglobin	45%
Jan. 7.....		1,792,000	Fleischl	30% to 25%
25....		1,820,000		40%
Feb. 6.....		1,320,000		40%
12....		1,340,000		45%
March 4....		1,770,000		30% to 35%
14....		2,440,000		45%
April 5.....		2,860,000		65%
12...		3,140,000		65% to 70%
30 ...		4,810,000		80% to 85%
June 26....		2,197,000		40%

TREATMENT.

Nov. 24th. Arsenic in v to x, and also alternating with 1-20 gr. arsenious acid t.i.d. taken during almost whole period of hospital residence. Jan. 8 to Feb. 8. Bone marrow.

March 3 to June 15. Thymol gr. ½ to gr. 1½ t.i.d.

March 17 to 22. Erysipelas.

On comparing the blood counts with the treatment, it will be noted that no improvement appeared with arsenic. All the blood counts made after March 4th showed a steady improvement, which was coincident with the use of thymol and arsenic, and which had not been effected by the use of arsenic alone. The experience of this case is certainly suggestive of the beneficial action of thymol. The attack of erysipelas complicated the case at this stage, and suggests the possibility of its exerting a modifying influence over the disease. It will, however, be noted that the improvement began *before* the attack of erysipelas, and co-incidentally with the use of thymol.

A blood count made June 25th showed a great decrease in the number of corpuscles and hæmoglobin, a relapse so frequently seen in pernicious anæmia.

Case II.—Severe anæmia—Arterial sclerosis—Dilated heart—Absence of hydrochloric acid in Gastric fluid—Autopsy.

R. O'C., æt. 61, laborer, admitted to the Montreal General Hospital on January 25th, 1895, complaining of weakness and shortness of breath.

Personal history—He has had measles, whooping cough and scarlet fever, but no venereal disease.

Present illness began in the spring of 1894 with frequency of micturition, and in November, there were severe paroxysms of pain in the right groin.

In October, 1894, began to be much troubled with shortness of breath, especially on going up steps, and about this time he noticed his face to be of a slight yellow color. He has noticed for some time back small red spots on the hands, lasting from a week to ten days, evidently subcutaneous hæmorrhages. He has had palpitation, dizziness, and has lost about 30 lbs. in weight. He has never had headache, nose bleeding or diarrhœa. He has vomited on three occasions, and suffered a few times from heartburn.

Family history—Father died from fever and ague; mother died at 57 from an illness attended by cough and expectoration.

Present condition—He is rather thin, the muscles are soft and the panniculus adiposus is small; weight 125 pounds. The face and back of hands are of a marked yellow hue, and there is marked pallor of the conjunctivæ and gums. Two small subcutaneous hæmorrhages on the back of the right hand.

The arteries show a moderate degree of thickening; pulse 84, slight irregularity in rhythm and tension not increased; the apex impulse is strong and in the nipple line, the cardiac sounds are normal. The lungs and abdominal viscera present no abnormality on physical examination. Urine pale, S.G. 1015, no albumen or sugar. Urobilin negative with the spectroscope.

Jan. 26.—Blood count, red cells 3,320,000; hæmoglobin 25 to 30 per cent. (Fleischl). Irregularity in size and shape of the corpuscles is well marked. Hydrochloric acid absent from gastric contents in a test meal by same tests as used in first case. Subsequent blood examinations were made as follows:

Feb.	12.	Red cells,	2,250,000;	hæmoglobin,	20 to 25 per cent
"	28	"	2,660,000;	"	20 to 25 "
Mch.	3	"	2,380,000;	"	20 to 25 "

Numerous examinations were made of stained specimens of blood. These always showed marked irregularity in size and shape of the red blood corpuscles. Most of the cells were under rather than over the size of a red blood corpuscle, a very common size being 5.4 m.; microcytes were not numerous, and the largest cells have not been over 10 m. No nucleated red cells have been seen.

The urine has been for the most part pale in color, occasionally somewhat dark. It has frequently in both pale and dark specimens shown the presence of urobilin with Huppert's

test, but not with the spectroscope. The sp. gr. has usually been about 1015.

The temperature has been normal throughout. There have been no retinal hæmorrhages, but occasionally small subcutaneous hæmorrhages have appeared on the hands. A hæmic murmur developed at the pulmonary cartilage shortly after admission, and the pulse has at times been intermittent. The gastric contents have persistently shown an absence of free acids. The weight has increased to 133 pounds.

The treatment, in addition to cardiac tonics, consisted in the administration of arsenic, beginning with m. ii. Fowler's solution t.i.d. and increasing the dose by m. i. daily until m. xvi. were given, when it was omitted for two days on account of vomiting, and then recommenced with a dose m. xv. t.i.d., which has been continued to the present.

A glycerin extract of bone marrow in doses of ʒii. to ʒiii. t.i.d. was begun on March 1st in addition to the arsenic. The results of treatment have, as in the first case, been unsatisfactory, the blood conditions being precisely the same as on admission.

P.S.—This patient developed great anasarca of the lower extremities, double hydrothorax and dyspnœa, obviously of cardiac origin, and died April 7th.

Autopsy performed by Dr. Wyatt Johnston showed a moderate quantity of fluid in the pleural cavities. The heart was much enlarged on both sides and the right distended with blood. Œdema and slight emphysæma of the lungs.

Kidneys—Left slightly enlarged, capsules adherent and a few cysts present.

Prostate presented two adenomata projecting into the bladder.

The liver was rather small, and on section the veins were prominent. The spleen was large and firm.

The mucosa of the stomach was soft and the organ contained a pint of curdled matter. The red marrow of sternum, ribs and vertebræ was increased. On microscopic examination pigment was found about the central vein. No iron reaction and no pigment in peripheral zones.

Stomach on microscopic examination showed a loss of the superficial part of the mucosa from post-mortem digestion, but the glands in the deeper portion of the mucosa were normal in every respect, presenting neither atrophy, increase in connective tissue, nor alteration of the epithelium.

The lemon tinge of skin present in both cases was extremely suggestive of pernicious anæmia.

The diagnosis of the first case rests chiefly on the condition of the blood, together with an absence of any of the usual causes for a secondary anæmia. The blood counts invariably showed a relative excess of hæmoglobin, a sign which is usually present in the pernicious form of anæmia. The marked irregularity in shape and size without increase of the white cells is also very characteristic. The presence of nucleated red cells, which has been insisted on by some as essential in the diagnosis of pernicious anæmia, are in my experience rather the exception than the rule. In five cases under my observation in which they have been carefully looked for they were present only in one. The splenic enlargement present in this case is rather exceptional, although it is a well recognized feature of the disease.

The presence of pathological urobilin is an important diagnostic feature, and urine of high color and low sp. gr. is also suggestive of the condition.

The absence of free hydrochloric acid from the gastric contents at first raised the question of the possibility of carcinoma of the stomach being the cause of anæmia. The absence of pain, of tumor, of hæmatemesis and of persistent vomiting, together with the relative embonpoint of the patient, were decidedly against this view, and the absence of progressive emaciation during the past three and a half months also bear out the original diagnosis. A leucocytosis, again, which is commonly present in cancer, was here absent.

In the second case the diagnosis of pernicious anæmia in a patient with arterial sclerosis and dilated heart, made during life, was not borne out by the results of the autopsy. The deposit of iron in the liver was absent, and only the ordinary senile pigmentation in the centre of the lobule was found.

Hüfler, quoted by Ewald, records a number of cases where hydrochloric acid was absent in cases of valvular disease, and it may be that this was the cause here. Such a degree of anæmia, with marked poikilocytosis must, however, be unusual in cardiac disease, and the kidneys were so slightly affected that the anæmia of renal disease was hardly possible. Whether any relation between anæmia and absence of hydrochloric acid exists can only be determined by further observation. The case under consideration is, however, not one of anæmia associated with atrophy of the gastric tubules.

The absence of such an important constituent as hydrochloric acid does not seem to have caused any serious gastric disturbance in either case. We may perhaps assume that compensation is effected by the pancreas.

In the first case, nausea, occasional vomiting and heart-burn began apparently coincidently with the onset of the symptoms of anæmia, and in the second case such symptoms were entirely absent.

It is well known that the weight and general nutrition are usually retained in the sub-

ject of pernicious anæmia, and the loss of weight occurring in these cases may be satisfactorily accounted for by the absence of gastric digestion.

The association of atrophy of the gastric glands and a grave form of anæmia has been recognized for a number of years. First pointed out by Austin Flint, this observation has been confirmed by Fenwick, by Osler and Henry and many others, and the fact is now well established. There has been and still is considerable divergence of opinion about the interpretation of these observations. Many observers regard the atrophy as a consequence and result of the anæmia, and as having, therefore, but little bearing on the condition. There are others, however, Flint and Fenwick among the number, who do not hesitate to state that the atrophy is primary and the anæmia secondary, so that the term idiopathic anæmia is not strictly correct in such cases. Osler and Henry, for instance (*Am. Jour. Med. Sci.*, 1886), relate a case with all the clinical features of pernicious anæmia, including the blood changes, in which extensive atrophy was found in the gastric tubules at autopsy. The onset of the malady was preceded for years by loss of flesh, indigestion and vomiting, and the authors therefore conclude that the gastric condition was primary. Hunter (*British Med. J.*, 1890-92) records a case in which atrophy of the gastric glands was found after death in a case of pernicious anæmia, and he brings forward arguments based on pathological investigation and urinary analysis to show that abnormal fermentation in the gastro-intestinal tract may generate certain toxic agents which have a deleterious action on the blood, and induce a process of blood destruction.

As hydrochloric acid is the natural antiseptic agent of the stomach, its absence would naturally favor these abnormal chemical changes. Without dwelling on this point, Hunter has made a valuable addition to our knowledge by pointing out that pathological urobilin is frequently present in large quantities in pernicious anæmia. As this substance is derived from blood pigment, its presence in the urine indicates excessive destruction of blood. Hunter regards the presence of this substance as of much diagnostic value. It may be detected by the spectroscope, in which it shows a broad dark band lying close to the line F, and also a considerable absorption of the outer part of the blue spectrum. Jaksch also recommends Huppert's test, performed by collecting the precipitate formed by the addition of milk of lime to urine, adding alcohol and a drop or two of dilute sulphuric acid in a test tube, and boiling. On settling, the supernatant liquid shows a red tint. Hunter recommends adding a solution of zinc chloride in alcohol to urine, when a green fluorescence develops. This test, however, seems inferior in delicacy to the others, and has been negative in the above cases on the few occasions in which it was employed.

If we admit the frequent occurrence of gastric atrophy in pernicious anæmia, we would *a priori* expect an absence of free hydrochloric acid in the gastric juice.

From a rather hurried search through various reports of such cases, I do not, however, find this point referred to except by Eisenlohr. This writer (*Deutsch Med. Woch*, 1892) relates a case in which this symptom was present in pernicious anæmia, and in which there was atrophy of the gastric glands.

That hydrochloric acid should be absent in two cases of grave anæmia seems rather remarkable, and it would prove of interest to know in what proportion of cases this sign is present. In the absence of post-mortem examination its significance is somewhat doubtful, as the acid may be absent in a number of conditions. Recognizing the fact, however, that atrophy of the gastric tubules is a frequent accompaniment of pernicious anæmia, it is highly suggestive of the association of the two conditions.

We are as yet hardly in possession of sufficient facts to state whether we can recognize a distinct gastric type of the disease, but it can readily be seen that such a view may have an important bearing on treatment. If we accept Hunter's view that abnormal fermentation with the formation of hæmolytic agents is going on in the gastro-intestinal tract, we may find that the adminstration of intestinal antiseptics is of primary importance, and indeed Gibson has recorded a case in which such a line of treatment was followed by marked improvement.

Dr. F. W. CAMPBELL thought the manner of administration might have something to do with the results obtained from arsenic in many cases. He thought it was Dr. Seguin who first called attention to the fact that arsenic, when given in small doses frequently repeated, was much more likely to be followed by beneficial results than when given in the usual manner, three or four times daily. Dr. Seguin, of course, was speaking of chorea, and of the soundness of his advice in this respect the speaker had had personal experience in several cases. In like manner, however, he believed that in pernicious anæmia the effect of giving the drug every two hours, and gradually increasing the dose, ought to be tried.

Dr. D. F. GURD referred to the treatment by bone marrow and strophanthus which he recently observed in Edinburgh.

Dr. MCCONNELL had always believed that the presence of nucleated red corpuscles was necessary before the case could be considered one of pernicious anæmia. He thought that the explanation given of the absence of relative

increase in the hæmoglobin in one case, viz., the smaller size of the red corpuscles, was a very interesting point.

Resuscitation of a new-born Child by Rhythmic Traction on the Tongue.—Dr. KENNETH CAMERON read a report of the case, as follows :—

Rhythmic traction on the tongue as a means of resuscitating the asphyxiated, especially the drowned, seems to have been first suggested by Laborde, of Paris, in a paper in *Le Bulletin Médical*, January, 1893. Since then a number of French writers have testified to the value of the method, not only in drowning, but in the resuscitation of the newborn and in asphyxia or apparent death from many other causes. Hardly any communications on the subject have appeared from English sources.

I report the following case to bring the method before the notice of the members of the Society :—

On Friday, February 1st, I was called to see Mrs. L., who was in labor. The membranes had ruptured, and a large quantity of amniotic fluid had drained away. Both feet were presenting in the vagina, and after an unsuccessful attempt to replace them and perform cephalic version, extraction was proceeded with. No difficulty was experienced in delivering the body, but there was a good deal of delay in the birth of the head, the cord having ceased to beat some little time before the head was born. The child, after birth, was limp and cyanotic ; artificial respiration, slapping, applications of heat and cold alternately, kept up for about ten minutes failed to cause a respiratory movement, an occasional faint flutter, however, could be felt over the cardiac region.

Rhythmic traction on the tongue was then practised. The child being placed well over on its right side, the tongue was gently seized by a pair of Pean's forceps, and forcibly drawn forward and then forcibly shoved back as far as possible in both directions. This was kept up at the rate of about 30 or a little more per minute. Hardly half a minute had elapsed, after beginning the traction, before the child gave an inspiration, in about another half minute a second one followed ; after that they became gradually more frequent, and soon the child began to cry. The child has since been perfectly well.

This very marked effect produced so rapidly, and by such a simple manœuvre, impressed upon me the very great value of the method, and that it is the one which should be made use of *first* in all such cases, or in any form of apparent death.

Dr. LAFLEUR remarked that Dr. Cameron's seemed to be one of the earliest reports in English of this procedure. His method differed from that of Laborde's, who advocated making only twelve to fifteen tractions per minute.

Dr. HINGSTON said it seemed to him that the virtue of the process lay in pulling the tongue forward. Shoving it backward was not only useless, but might be even injurious. Pulling the tongue forward and then relaxing it had been a method in use as long as he could remember.

Dr. LAFLEUR took exception to Dr. HINGSTON's sweeping condemnation of Laborde's method without being sufficiently acquainted with the details. If he had read Laborde's article, he would find the different procedures were based on sound physiological principles, and that the pushing backwards of the tongue was a very essential part of the process.

Dr. MILLS thought the method might be explained by reflex action.

Dr. CAMERON, in reply, said he had not remembered Laborde's exact experiment at the time ; but he tried what he thought would be the natural number of respirations to the minute in a new born child.

Stated Meeting, March 22nd, 1895.

G. P. GIRDWOOD, M.D., PRESIDENT, IN THE CHAIR.

Aneurism of the Femoral Artery Treated by Ligature of the External Iliac Artery—Dr. BELL showed a man who had been the subject of an aneurism of the common femoral artery, which had been treated by ligation of the external iliac. The patient, a young man only 32 years of age, had never done any hard work, having been the caretaker of a private car on the Canadian Pacific Railway. He had had syphilis seven or eight years before, and there was no account of any systematic treatment having been employed. He had suffered from the aneurism for several months, until, when he came under observation, it was apparent as a large pulsating tumor extending right up to Poupart's ligament. Ligature of the external iliac was carried out in the ordinary way with great ease and satisfaction. Some interesting facts developed in connection with the restoration of the circulation afterwards. The operation was performed on Monday, January 28th. On the following Wednesday week (February 7th) pulsation was distinctly evident in the anterior and posterior tibial arteries. As to the aneurism, the pulsation ceased completely in it at the time of the operation, but commenced again, however, about ten days afterwards, and this was again followed by a gradual decline until the condition then present was reached. A little pulsation might be felt beneath and at the inner border of what was once the aneurismal mass, but which was much contracted. This pulsation, Dr. Bell thought, came from some of the enlarged collateral arteries in the

neighborhood. In answer to Dr. Girdwood, as to why there should be so much pulsation then present, Dr. Bell remarked that the pulsation was completely arrested at the time of the operation; it had returned at the end of ten days. The pulsation, at the time the patient was shown, he did not believe was in the tumor proper, but from some source below, and brought about by the efforts of the system to establish the collateral circulation.

Experimental Cachexia Strumipriva.—Dr. Wesley Mills gave the subsequent history of the case presented at the previous meeting. The day after the dog was shown there had been moderate dyspnœa, cretinism, twitching and fibrillary contractions. Emaciation gradually developed, and he died on the twelfth day after the operation was performed.

Experiments on Cerebral Localization.—Dr. Wesley Mills exhibited a mongrel dog about three months old, from which he had about ten days before removed the whole of the cortical area around the crucial sulcus, which functionally corresponded pretty well to the fissure of Rolando in man and the monkeys. The areas for the movements of the opposite fore and hind limbs and head movements had first been determined by electrical stimulation of the cortex, and the whole area and more than that had been removed, including a little of the white matter beneath on the right side. The only obvious symptoms present, in the dog shown, were slightly ataxic movements of the opposite limbs, especially of the front legs. There did not seem to be any appreciable weakening of muscles, at all events no real paralysis, nor were there any sensory symptoms, unless some partial loss of tactile and muscular sensibility on the affected side. The dog was able to stand and walk in half an hour after the operation, and had always been lively and well, never showing greater changes than when exhibited. An ether and chloroform mixture was the anæsthetic used. There was considerable loss of blood during the operation, but the wound healed rapidly. Antiseptic precautions were used, but not to the same extent as in a case of operation on man.

Dr. Mills proposes to operate on the corresponding part of the brain on the other side shortly, and to show the dog again.

Dr. Mills also exhibited a cat (mature) on which he had performed a similar operation. While the cat could walk very well, there was a decided tendency in the opposite paw to turn under, analagous to occasional "wrist-drop." She was also blind and deaf on the opposite side, and very distinctly deficient in tactile sensibility on the same side as the paresis. The cat had been very dull and had taken food badly. There was a strong suspicion that she was partially wanting in the sense of smell. Unfortunately this case had been complicated by suppuration in the wound. However, Dr. Mills will report on the case later. In the meantime, he thought it better to draw few conclusions as regards the subject of cortical localization in these species of animals. The subject of localization was by no means in its final stage, he believed, and he might state that after much work he was obliged to hold that Ferrier's localization was neither complete nor wholly correct for *all* the varieties of animals on which he had reported.

Dr. James Bell would like to ask if Dr. Mills had definitely located the motor areas first, and removed accordingly. If not, what reason had he for believing that he had removed the whole of the motor area or areas? The deductions drawn from this were, he thought, at variance with our experience in human subjects, in whom the motor areas are well recognized, and their removal causes complete paralysis. He had removed a portion of the cortex of the brain of a man suffering from epilepsy; he removed the hand area, after first locating it accurately, and a result was a definite paralysis of the hand. The man died afterwards from the original lesion, which was not discovered at the time of the operation, viz., a cyst of the anterior lobe, which had ultimately developed into an abscess of the ventricle. Removing the motor area of the muscles of the hand, of course, had nothing to do with the treatment of the diseased condition, but was done with the object of arresting the convulsive attacks which always began in the hand.

Sarcoma of the Ileum; Resection with the Murphy Button; Death.—Dr. James Bell reported the case, that of a woman 27 years of age, who has suffered five years from diarrhœa and emaciation, commencing immediately after the birth of a child. She gradually failed in health; lately she suffered from some obstructive symptoms, and a tumor developed on the right side of the abdomen and could be moved freely about. An operation was performed by Dr. Gardner, who thought it was connected with the uterus or adnexa. No attempt was then made to remove it. The second operation was performed on January 22nd; the distal portion of the bowel was quite small and the proximal portion was much dilated with a thickened hard wall. There was considerable difficulty in fastening the Murphy button into the dilated proximal portion. The patient rallied well after the operation, and did typically well from Monday, the day of the operation, until the following Sunday morning, or the end of the sixth day. Then she complained of sharp shooting pains in the vagina; nothing could be detected, however. At 10 o'clock she fell into a collapsed condition, with extreme pain, and died about 2 o'clock in the afternoon. This result was, of course, due to perforation and peritonitis. The peculiar feature in the case

was the length of time elapsing before the perforation took place. This was briefly the history of the case.

Dr. Adami exhibited the specimen, and said that the case here brought forward presented not a few points of interest. An exploratory incision had been made by Dr. Gardner, a small mass of involved gland was removed, and this on section presented in general the appearance of a moderately large round-celled sarcoma. On further examination what seemed to be a locular arrangement could be made out; between rounded or roughly polygonal masses of the sarcoma cells could be seen very delicate bands of interstitial tissue. The specimen, in fact, was undistinguishable from sections of what turned out to be a rapidly proliferating carcinoma of the prostate which he had brought before the Society two years before. The age of the patient, 27 years, was, however, against a diagnosis of this nature, nevertheless he felt it unwise to give an absolute opinion. At the operation the primary growth was removed and the ileum resected. The growth was clearly a sarcoma, a round-celled sarcoma of the submucosa infiltrating the muscular coats in a characteristic manner. The specimen showed parallel rows of round cells passing between the fibres of the circular muscles, and secondary growths were evident both on the serous surface and in the neighboring lymphatic glands. It was difficult to conceive that this growth had been present, causing stenosis of the ileum for the number of years during which the subject had suffered from symptoms of intestinal obstruction. It would seem more probable that obstruction had been induced by some other cause, and that the malignant growth was secondary to the chronic disturbance at the point. As shown by the specimen, the growth was about three inches broad; it was within one inch and a half of the ileo-cæcal valve.

The specimen of removed growth and intestine showed well the great dilatation and hypertrophy of the ileum above the growth.

At the autopsy the small intestine was found shorter than Dr. Adami had ever seen recorded. Including the removed seven inches, the total length from duodenum to valve was under eleven feet. This shortening was not only compensatory to the dilatation, but evidently there was an absence of ileum proper, for the valvulæ conniventes were continued in considerable frequency right up to the tumor. Whether the condition was congenital, or acquired through infantile or other intussusception, he would not venture to state, but suggested that the latter condition, with subsequent necrosis of the invaginated portion, would leave a condition capable of entirely explaining the subsequent history, would leave, that is, an annular cicatrix and narrowing of the gut which might become the seat of malignant growth. The position of the stricture, close to the ileocæcal valve, was wholly in favor of this view.

As shown by the second specimen the Murphy button had remained adherent save towards the mesentery. Here sloughing had occurred with passage out of the intestinal contents on either side of the ligatured mesentery, general peritonitis had ensued and had caused death.

The omentum was firmly adherent in the middle line over the old laparotomy wound, while in the right iliac region, over the area of intestinal resection, there was firm fibrinous adhesion. Evidently, until perforation occurred, the healing process had been advancing very favorably.

It was worthy of note that this case afforded another illustration of the danger of employing the Murphy button in connection with a viscus that had undergone chronic thickening. The thickened condition of the upper portion of the intestine as compared with the thinness of the part below the tumor was here extremely well marked.

Suppurative Arithitis due to Typhoid Bacillus.—Dr. C. F. Martin reported this case as follows:

Cases of typhoid fever, in which complications of a suppurative nature have been found, can no longer be placed in the category of rare affections; yet so seldom are the etiological factors of these secondary conditions identical with the primary cause of the disease, that any new case is perhaps properly placed on record.

The present report concerns a man, P. C, æt. 34, who entered Dr. Stewart's wards at the Royal Victoria Hospital on September 25th, 1894, complaining of headache, fever and loss of appetite, and presenting the usual distinct signs of enteric fever. He gave the ordinary history of the early stages of that disease, and on admission seemed to have reached the eighth day of the fever.

During the first ten days of his illness in the hospital, favorable progress occurred; but on the eighteenth day recrudescence supervened, and the temperature continued to rise till the 29th day, by which time the highest point was attained.

Three days later (*i.e.*, in the earliest days of defervescence) the patient complained of some pain and tenderness in right wrist joint, increased by movement. In forty-eight hours there developed other signs of acute inflammation—redness, swelling, heat and greatly impaired function—the visible signs appearing both in front and behind the joint.

Hot fomentations were applied, and a few days later a splint and bandage adjusted to keep the joint at rest. For the following two weeks the temperature gradually subsided to

normal, and then suddenly (on the forty-eighth day) again rose to 101°. The splint was forthwith removed, revealing a tender, fluctuating tumor all about the wrist joint, and manifesting no evidence of improvement in the local condition.

With a view to ascertaining the nature of the fluid within, a hypodermic syringe was employed with the usual aseptic precautions and half a drachm of this pus removed. From this a series of cultures on broth, gelatine and agar was made, and the presence in each case of but one form of bacteria demonstrated, viz., that corresponding in size and form to the bacillus of enteric fever. Further investigations showed its extreme mobility, that it produced no acid reaction on litmus agar, and that when grown in a broth medium containing calcium carbonate, no gases were formed. There was further no sign of fermentation in a growth of the bacteria in 2 per cent. lactosed broth. We were thus enabled to exclude the presence of bacillus coli communis as a complicating factor.

Subsequent to this small aspiration gradual improvement ensued, though two weeks later there was still a small quantity of fluid left. Accordingly, for a second time, the hypodermic was introduced and a small amount of bloody pus withdrawn. A rabbit inoculated with this fluid manifested no ill effects. This, we believed, could be readily explained from the fact that as on a culture medium, so here the bacilli had grown old and hence innocuous to our animal.

One week later patient left the hospital, his wrist being almost completely restored to its normal condition.

We have recorded this case not only because of its interest in verifying the pyogenic properties of Eberth's bacillus, but also because in the fairly extensive literature at our command we were unable to discover any similar case in which a suppurative arthritis complicating typhoid fever was induced solely by the bacilius of that disease.

During the course of our investigations, however, Swiczynski, in the November number of *Centralblatt für Bakteriologie*, has recorded a somewhat similar instance, though merely of a periarticular inflammation, and the observer further notes the uniqueness of his case and his inability to find a parallel in the literature at his disposal. That ordinary pyogenic organisms are responsible for most of the suppurations in enteric fever has been amply demonstrated by Vincent, who further pointed out that wherever streptococci were associated with the typhoid germ the prognosis is always grave. On the other hand, the association of staphylococci could not be regarded as an unfavorable sign so far as recovery is concerned.

The correctness of these views is perhaps strengthened by the experience met with at the Royal Victoria Hospital, where a patient in whom streptococcus infection was superadded to his enteric fever succumbed to the disease. On the other hand, the numerous cases in which we have found staphylococci in various complications of typhoid fever have all terminated in recovery.

As regards the treatment of suppurations occurring secondary to enteric fever, it has been urged by Dr. Meisenbach, of St. Louis, that in cases where Eberth's bacillus is the sole cause of the abscess formation, exactly the same surgical treatment is required as in cases where pus arises from infection with ordinary pyogenic bacteria. However, if it be true that a fresh growth of typhoid bacilli when inoculated into rabbits is fatal, and that the same growth a few hours old loses entirely this virulence, could not the same apply to the abscess formations in the human body? In other words, where Eberth's bacillus alone is the sole factor in producing suppuration, its virulence is so rapidly lost that the mere removal of the mechanical and chemical irritation, *e.g.*, by ordinary aspiration, might suffice for treatment without other operative interference. In our own case, although pus was present in considerable quantity, there was never any tendency to pointing of the abscess, and its whole character after the first few days took on the appearance of a chronic affection in which all signs of active progress had disappeared.

Dr. GEORGE A. BROWN had had under his care the same case of arthritis reported by Dr. Martin. After leaving the hospital his arthritis had become aggravated, and for a long time it was very severe. He had introduced a hypodermic needle, but could obtain no matter from the joint, and after trying a great many things he finally put it up in a plaster of Paris dressing, and kept it there for a month. On removing it there was still a great deal of inflammation in the joint, so he replaced the plaster. At that time it was still in plaster, but the man was able to attend to his work. He applied the plaster from a little below the wrist joint to the elbow.

Rhythmic Traction of the Tongue.—Dr. MILLS gave an account of an experiment he had made on a very young kitten, which, he thought, threw some light on the real nature of rhythmic traction of the tongue as a means of resuscitation in animals threatened by death from asphyxia.

A kitten, on whose brain he had been operating, succumbed to ether. At once rhythmic traction of the tongue was begun, and after 20 to 30 seconds a single respiration was taken; after a longer period no respiration followed this procedure till the skin over chest was pinched, when another gasp followed. The method was still further tried to no purpose, till

the face was sponged with cold water, when one or two gasps followed. It seemed to him that reflex action was plainly the only way to explain these results. The animal was not revived in this case, as the sphincter had relaxed and urine had been passed, which was in his experience a sign of death in the lower animals at all events.

Some Interesting Conditions Attending Post-Nasal Growths.—Dr. H. D. HAMILTON read a paper on this subject.

Stated Meeting, April 5th, 1895.

G. P. GIRDWOOD, M.D., PRESIDENT, IN THE CHAIR.

Multiple Osteo-Myelitis.—Dr. G. E. ARMSTRONG showed a man whom he had treated for this disease; the report is as follows:

M. M., male, æt. 25, admitted to Montreal General Hospital on November 8, 1894, complaining of pain in left hand and arm. Present ailment began six months ago by dull, aching pain situated for the most part in the elbow and shooting up and down the limb. Latterly there has been swelling of the hand and forearm.

Personal history—Native of England; in Canada four years. Three years ago had swellings (white) behind right ear and over right sterno-clavicular joint. These burst after five months. Entered hospital, and both sinuses were scraped out. The sterno clavicular wound healed, but mastoid has discharged ever since, and has been scraped three or four times.

One year ago swelling developed on right hand, with pain and tenderness. It was opened and treated, and eventually healed, but recurred in six months, and was again opened. Five years ago he had venereal sores, three in number, coming on two weeks after connection, accompanied by phimosis, necessitating circumcision. No rash, sore throat, or alopecia, but one month later had pains in bones and joints.

Family History—Non-tubercular.

Present Condition—Temperature 98½°, pulse 76, respiration 22. Fairly well nourished, sleeps well. Complains of pains in left upper extremity from hand to just above elbow. Left forearm is somewhat swollen, especially about wrist and elbow. Tenderness is more marked about the olecranon. Pain on movement of elbow. No redness and very little heat. Sinus in right mastoid discharging a small quantity of icherous pus. No pain or tenderness. Scars present on right hand and sterno-clavicular joint.

Urine amber, turbid, neutral; no albumen or sugar.

Hot fomentations applied to left arm.

November 16. Right arm painful. Examination shows tender point over olecranon; painted with tr. iodi.

January 2. Since last note the condition has steadily grown worse in the left arm, and remains about the same in the right. Hot fomentations have been continuously applied, and elevation by suspension tried. An orchitis has developed (left), the testicle becoming the size of an orange.

January 4. Upper part of posterior surface of ulna and dorsum of fifth metacarpal trephined.

January 5. Relief of pain; some movement.

January 10. Relief of pain in arm operated on, and also in the other olecranon. Orchitis gone. Temperature normal since the 6th.

January 24. Patient complains of severe headache with nausea. Arms not painful, lungs normal, temperature 100°.

January 26. Temperature steadily rising, today 102 4-5°. Headache and nausea increased in severity. Headache frontal on the vertex and passing down behind the right ear.

January 27. Examination of eyes shows congestion and blurring of discs, more marked on the right side.

January 28. Given ether, and the tympanum cleared out through the external meatus and also by new trephining. Old sinus full of dark purulent matter, as was also the tympanum. Brain membranes exposed through both openings in mastoid.

January 29. Better; temperature lower, headache less severe. Patient has slight cough and rusty expectoration; lungs apparently normal.

February 1. Temperature fallen to normal.

Dr. Armstrong said that in these cases the osteo-myelitis had been proved to be due to different micro organisms—the staphylococcus aureus, the streptococcus and pneumococcus had all been cultivated from these lesions. Whether these organisms had all been present during the years the disease was endured it was hard to say, but, in his opinion, the affection had been present for years, and sometimes certain favorable circumstances combined to afford them an opportunity of rapid development or multiplication. At the time of speaking the patient was in good health, better than he had been for years, and there was evidently no active disease going on.

Compound Depressed Fracture of the Vault of the Skull.—Dr. G. E. ARMSTRONG exhibited a man on whom he had operated for this condition. His history was:

E. H., æt. 26, admitted March 6th to the Montreal General Hospital with a depressed fracture of skull. Patient was struck by a train on day of admission. When picked up he was unconscious, smelt strongly of alcohol, and tossed his arms about violently. Examination showed laceration of scalp extending from left parietal eminence to left external angular protuberance, but only involving the superficial layers. Depression in skull can be

felt over the same area. Pupils natural, great congestion of left eyelid. No subconjunctival hæmorrhage. Pulse slow, 56.

March 7. 6.30 p.m. Still unconscious, quiet. Given ether. Incision enlarged and deepened, etc.

March 8. Somewhat recovered consciousness. Asks for food, but gives many names. Dressed, outside dressing only.

March 9. Conscious at times; irritable, and answers foolishly. Sometimes passes urine and fæces into bed, and at other times calls for receptacle.

March 12. Dressed. Catgut drain slipped out owing to sudden movement on part of patient. Is irritable and requires holding during dressing, otherwise is fairly conscious, but cannot give his name.

March 14. In same stupid condition. Continually poking finger in under his left eye.

March 17. Temperature rose suddenly last night to 101⅘°, this a.m. 101. Patient wholly unconscious. Both eyelids red, glistening, and œdematous. Dressed. Œdema of scalp and forehead to the right of wound, none on the left. Irrigated and catgut drain reinserted.

March 18. Temperature remains up and œdema still present. Dressed. Fluctuating surface over area to right of wound; opened, evacuating a large amount of pus, leaving bare bone and showing another fissure running longitudinally. No communication between the two wounds except by probe. Drainage tubes inserted in all.

March 20. Temperature lower. Patient again somewhat conscious.

March 21. Oozing; dressed; clearing up; wholly conscious.

March 25. Temperature normal since 22nd. Dressed.

March 27. Up and walking about.

March 31. Dressed.

Dr. Armstrong described his operation as follows: He elevated the bone, and after washing out the wound found no evidence of injury beneath the membranes. The bone was then replaced in small pieces. This was done on the 7th: for nine days afterwards the temperature remained normal, but the patient was unconscious for most of the time. When the unconsciousness passed off, delirium set in; he disturbed the dressings, fingered the wound and, he thought, inoculated it. The temperature then began to rise and went up to 102.4°. Although carefully redressed, the mischief seemed to have been done, as an abscess developed over the external angular process. In the subsequent manipulations entailed by these complications another fissure fracture was discovered.

Dr. Armstrong thought the interest of the case was chiefly in connection with the man's future, and what after trouble of a cerebral nature was in store for him. He asked for an expression of opinion about opening the membranes in these cases. He had here a man decidedly unconscious; there might have been laceration of the brain, but the membranes were intact and normal and pulsation beneath was distinct, and he did not think it wise to open them in the presence of a possibly septic wound.

Dr. James Bell regretted not having heard the report of the first case. In the second case he was not quite clear as to Dr. Armstrong's description; he would like to know if portions of the bone were removed and afterwards replaced in small fragments, and which, in spite of the septic condition present, retained their vitality, and developed. With regard to the point Dr. Armstrong wished discussed, he thought it was very hard to lay down any rule in such cases; it was a question to be decided upon at the moment, and under the circumstances he felt that he should have acted as Dr. Armstrong had done. There being no localizing symptoms within the membranes pointing to any particular area, and considering the danger of introducing sepsis, he could not see that any other course lay open to the careful surgeon.

Dr. Armstrong, in answer to Dr. Bell's question regarding the replacing of the pieces of bone, after mentioning the dimensions of the whole area of removed bone, said that several small pieces not more than half an inch square were replaced, and as he had seen nothing of them since, he presumed they were still in the wound. The wound, however, he did not believe was infected until later, which might remove that obstacle to union taking place. At any rate, the fragments were there as far as one could feel, and appeared to be good firm bone.

Seborrhœa.—Dr. J. M. Jack read a paper on this subject.

Dr. Shepherd said that he must acknowledge himself disappointed with the paper; he expected something more modern. This was seborrhœa and its treatment of twenty years ago which Dr. Jack had given. The latter had said nothing of the micro-organisms which caused the disease, nor of seborrhœa congestiva, nor of Unna's theories with regard to the sudoriparous glands, all of which he had been in hopes of hearing and getting fresh light upon. The most important thing for the general practitioner to remember was that seborrhœa was apt to run into eczema, and it was sometimes hard to draw the line between the two conditions. With regard to the general treatment, it was not hard to treat, the diagnosis being once made. In the first place, seborrhœa ought never to be diagnosed from the scalp eruption alone, the body ought also to be stripped and examined, and often what first appeared a seborrhœa would turn out to be a psoriasis. As to

the treatment, he thought the germicidal treatment by far the best, and he believed that micro-organisms were always at the bottom of the trouble. Cases occurred in the robust as well as in the weak; common dandruff was seborrhœa. Seborrhœa often spread from the head all over the body, and could be treated only by germicidal remedies. He himself preferred mercurial treatment to all others. The remarkable results obtained by treating seborrhœa of the scalp with the oleates of mercury, especially where it had gone on to the congestival stage, had often been observed by his students, past and present, at the General Hospital clinics.

Dr. G. GORDON CAMPBELL believed that general treatment, in most forms of skin disease, was only needed when the general health needed it. Dr. Campbell, in Dr. Shepherd's absence last summer, had conducted his skin clinic, and as he had seen so much treatment by mercurial ointments in seborrhœa, he thought it a good opportunity to try other forms. In almost every case he found he had to fall back on the mercurial, and had to use it strong. The oleate of mercury which he was accustomed to use was 1 to 8 or 1 to 20. Dr. Shepherd prescribed 3 to 1. He certainly, therefore, agreed with Dr. Shepherd that there was nothing like mercury for getting a speedy effect.

A New Form of Ether Inhaler.—Dr. JAMES BELL exhibited an aluminium cone, which he described thus:

This inhaler consists of an aluminium cone of suitable size, made without seam or roughness, covered with stockinette, within which, on the inner surface of the cone, is placed some gauze or absorbent cotton. The advantages claimed for it are, first, that it is perfectly clean, and may be sterilized as a whole by dry heat. The gauze and stockinette covering are renewed for each patient. The aluminium is of course not absorbent and is malleable, so that the edges may be moulded to fit any peculiar conformation of face. It possesses the advantages of a clean folded napkin which can be sterilized before using, and which is the simplest form of inhaler, with the additional advantages of having sufficient consistence to maintain its form and shape.

We are apt to forget that ether is not a supporter of respiration, and that while we add ether vapor to atmospheric air, it is of the utmost importance that we should provide for the entrance of pure air into the respiratory organs during anæsthesia. The Clover inhaler, which is now so much in vogue, possesses all the disadvantages which it is possible for an ether inhaler to possess. It has but one redeeming feature,—that is, it economizes ether,—a small matter when we consider the welfare of the patient. It is impossible to cleanse it. Patients go on, one after another, respiring through the same filthy mask and the same rubber bag, each one adding his quota of mouth secretions, perhaps syphilitic, cancerous or tubercular. Tubercle bacilli must frequently be deposited upon its walls, and vomited matter saturates it from time to time, not to speak of the absolute impossibility of sterilizing the mouth-piece to correspond with the precautions which we take with all the other substances coming into close contact with the field of operation. In operations upon the face, head and neck this is of vital importance. I have had many years of experience with the Clover inhaler, and I am convinced that even in the most careful hands it is a dangerous instrument; needless to say it is much more so in the hands of the careless or inexperienced. It is an asphyxiating machine, and only in proportion as it asphyxiates does it economize ether. (If used without the rubber bag it possesses no advantage over the ordinary cone.) The patient respires the same air over and over again from a rubber bag, the respired air passing through a chamber containing ether in the liquid form. It is only as the ether becomes vaporized that it enters the system through the pulmonary mucous membrane and produces its effects on the nerve centres. Should the rubber bag be kept applied, anæsthesia is more rapidly produced, because in addition to ether anæsthesia there is asphyxiation by carbon dioxide. The answer is made, however, by adherents of the Clover inhaler, that the patient should be allowed a breath of fresh air at every third or fourth inspiration. I reply that he should have pure fresh air at every inspiration; and if he does not, it is only a question of degree of asphyxiation. I have had, as already stated, a long experience with the Clover inhaler; I have had, I am sure, very serious after-results from its use. I am quite certain that in many of the cases in which the patient becomes livid, and in which the bronchial tubes become filled with frothy mucous, these results are attributable to the inspiration of impure air. These patients generally vomit after operation, and are very slow to recover consciousness. Where ether anæsthesia has been produced without asphyxiation, even when maintained for a couple of hours, consciousness is rapidly regained after the administration of ether has been discontinued. The Allison inhaler and others of similar construction cannot be charged with producing asphyxia; they are simply unclean, and from their construction it is impossible to sterilize them. I maintain that ether properly administered is an absolutely safe anæsthetic. Proper administration consists in adding to pure air the greatest possible amount of ether vapor. It must never be forgotten that pure air must be inspired constantly, and that ether vapor is not a supporter of life, and also that it should, as a rule, be given in as

concentrated a form as possible. Ether dashed into a cone vaporizes much more quickly than when held in a metallic receptacle. It is true that ether vapor used in this way will be diffused beyond the patient, and that a large quantity of it will be wasted. This is unavoidable, and except for the item of expense, it does no harm. Although ether vapor is inflammable, it is only so in a very concentrated condition, and it is impossible to saturate the air of a room sufficiently to ignite it with an open light. The only danger of ignition is in the immediate neighborhood of the inhaler.

It seems strange that with the knowledge of bacteria which has been accumulating for years, and our very strict precautions, based upon this knowledge, to avoid wound infection in surgical operations, that there has not long ago been devised some means to provide an aseptic inhaler, and one which could be cleansed of the secretions and exhalations of one patient before applying it to the face of another. It is simply horrible to contemplate the use of a Clover inhaler and bag which has already been used on the face of hundreds of other patients, and without any possibility of properly cleansing it, either by heat or chemical sterilization.

Dr. G. G. CAMPBELL said that the first point made by Dr. Bell in favor of the inhaler described by him, and one on which he laid great stress, as being an advantage lacking in other inhalers, was that it could be sterilized. Two years before, Dudley Buxton, of London, had perfected a Clover's inhaler, the different parts of which could be taken apart and sterilized. Dr. Bell's next statement was that ether was not a supporter of respiration. It was a very important point to remember that it was possible to asphyxiate with ether. Asphyxia could be produced in two different ways: (1) By replacing the oxygen of the air with an irrespirable gas, such as nitrogen or ether, and then it was simply want of aëration of the blood that produced the condition. (2) By replacing it with a poisonous as well as irrespirable gas, such as chlorine, which would then add to the effects of the withdrawal of air the effects of the poison. As far as he could understand, the great argument of the opponents of Clover's inhaler, apart from the question of uncleanliness, was, that it was very dangerous to rebreathe the same air, as, besides being deprived of its oxygen, it was filled with poisonous materials from the lungs of the patient. Dr. Campbell thought he could show that the whole of the possible degree of asphyxia, which it was claimed was produced, must be due to withholding pure air and not to any poisonous materials present. Of the whole amount of air in the lungs, one fifth was changed at each breath. This fifth was the vitiated air often referred to as being so injurious to rebreathe. That it differed in any respect from the air left behind it at the close of expiration, it was absurd to contend. If a person was breathing at the rate of twenty to the minute, sufficient pure air was taken into the chest to fill it only four times a minute ($20 \div 1\text{-}5 = 4$), and the individual was thus continually breathing the bad or vitiated air diluted with one-fifth of pure air, or, in other words, a mixture containing four-fifths of air loaded with impurities, and one-fifth of pure air; and yet was not suffering from poisoning. Furthermore, if the person did not get the one-fifth of pure air every breath, or to put it in other way, four chest-fulls a minute, asphyxia of greater or less degree, according to the extent that pure air was withheld, would be produced. What Dr. Campbell wished to make clear was this: that asphyxia produced in this way was not the result of breathing a poisonous gas, but was the result of not getting sufficient fresh air for proper aëration of the blood. Suppose the person to be breathing forty to the minute, he would get as much good air if only every second breath was pure air, as he would still be getting the fourt chest-fulls every minute; and if he breathed or rebreathed the already respired air in the other twenty breaths, and no further demand was made upon him, the conditions under the two cases were the same. The fear that seemed to be constantly present with some men, of allowing their patients to breathe any of this so-called poisonous gas, might be in some measure removed, if they remembered that the air in their own lungs contained constantly four-fifths of it. By giving, as he did, two breaths of pure air to every one from the bag in using Clover's inhaler, he, Dr. Campbell, thought it could easily be seen that the patient was getting as much good air a minute as in quiet breathing, when it was remembered that the rate of breathing was twice as rapid as normal.

Dr. Campbell considered the aluminium an improvement on the ordinary cone for the reasons stated by Dr. Bell, and that, in the absence of better apparatus, ether could be given well by a cone, provided it was administered slowly at first and the amount gradually increased. Asphyxia, however, could be produced by replacing too much of the air breathed by ether vapor as well as by respired air.

Dr. F. W. CAMPBELL had had an opportunity of examining this inhaler a few weeks before, through the courtesy of the manufacturer. It seemed to him a very admirable one. His experience with anæsthetics was extensive. There was no doubt that the old-fashioned cone was an abominable thing to use from the point of view of cleanliness, and this one seemed a very great improvement. It had, however, one disadvantage, it did not pack easily in the surgical bag. However, it struck him that in using Dr. Bell's arrangement of packing with

cotton it would hold very little ether. It was in this respect much better than the sponge, which, when it became saturated, allowed the ether to overflow.

Dr. KENNETH CAMERON considered the aluminium cone a decided improvement on the old red flannel one, but he had to protest against Dr. Bell's strictures on Clover's inhaler. The great objection raised was that the patient was re-breathing his own poisonous exhalations, but he felt that the ether vapor disinfected this vitiated air. Having had experience with both forms, he considered that the Clover inhaler gave the greater satisfaction, when properly used, for with it the patient could be more rapidly anæsthetized, the amount given could be regulated, and the after-effects in his experience were not severe, while with the cone the patient breathed air, either saturated with ether or containing no ether at all. It was his practice always to stay with the patient until there was some sign of returning consciousness, such as opening the eyes, or putting out the tongue when told to do so, and this period varied from five to twenty minutes, never longer. He therefore felt that when the anæsthetist once fully understood the use of Clover's, he would not willingly give it up in favor of any other form of inhaler.

Dr. GURD hardly thought it possible that anyone who had used Clover's inhaler many times could give it up. With it the amount of ether could so easily be regulated. Dr. Bell's objections could be done away with and the advantages of Clover's inhaler yet retained by simply not using the bag. He maintained that almost any individual could be anæsthetized, and any operation carried through from beginning to end without using the bag. In the course of nearly all major operations there were stages when very little ether was needed; if deeper anæsthesia was required quickly, the bag was useful though not essential.

Dr. ALLOWAY protested against the statement that Clover's inhaler was dangerous. Ether, like many other drugs, was dangerous if used by stupid or unskilled persons, quite independent of the instrument employed in its administration. He had had much experience with both the Clover inhaler and the cone; from the former he had never seen any danger resulting, although such had often been the case with other instruments. His experience corroborated the assertions of Dr. Gurd, and he was certainly in favor of using the inhaler without the bag. At the same time, when confident of the ability of the anæsthetist, even with the use of the bag he had no anxiety. Some patients seemed to be brought under the influence quicker when the bag was used. Allis' inhaler was one of the cleanest instruments used. It had a roller laced on metal bars, and which could be replaced, leaving only metal to cleanse. As regarded the necessity of making the Clover's inhaler more cleansable, this was simply a matter of technique; and there now was one coming out which could be taken to pieces and the parts sterilized.

Dr. SHEPHERD would like to hear something more definite about the cases referred to by Dr. Bell, where the Clover inhaler proved so dangerous. He had certainly seen many instances where the patient seemed in danger from the use of the cone, but never any when Clover's inhaler was used by a skilled anæsthetizer.

Dr. BELL said he had anticipated some discussion on his paper, and the result had more than realized his anticipations. First in reply to Dr. Gordon Campbell's arguments, which he regarded as pure sophistry, Dr. Campbell said a new Clover's inhaler was coming out, which could be sterilized as completely as any rubber goods could possibly be. That was just the point; ordinary rubber goods could not be properly sterilized. They could not be rendered aseptic by heat without destruction, and he knew of no chemical substance by which this could be accomplished To begin with, there were one or two fallacies with regard to the Clover inhaler. If you did not use the bag, you certainly had an instrument on the same principle as the cone. In the cone, the liquid ether was poured over a large surface, and vaporized more rapidly; in the other case, it remained in a metallic reservoir, and through that reservoir the air was inspired. With regard to the indicator, it indicated nothing more than that a certain amount of air was drawn through a larger or smaller orifice into the ether chamber—the whole of the semi-circular orifice, or the half of it, or the quarter of it. It did not take into account the air received from other sources. If the space was one-half open, the patient had to inspire more vigorously to get the necessary air. In using the instrument without the bag the principle was absolutely the same as with the cone, with the exception that the ether remained in liquid form, over which the air passed, whereas in the cone it was absorbed by cotton and a large amount was wasted. With regard to Dr. Campbell's mathematical problem, without going into the physiology of respiration, the fact remained that whether there was 1-5th or 1 50th of pure air in each inspiration, it was these inspirations that sustained life; and if we could only get half the amount of air necessary to sustain life we were badly off. This was a principle recognized in the construction of all public buildings, that there must be a certain amount of air space for each individual. So in the operating room, a certain amount of air was required to sustain the patient for a certain interval, and if he was allowed that amount in twice, thrice or four times that interval, it was

equivalent to closing him in a room (which had a capacity for one man only), with two, three or four others. He did not speak of vitiated air, he spoke of it as re-respiring the same air —breathing carbonic dioxide, and noxious exhalations, that was, breathing impure air and preventing the influx of oxygen from the outer air. As regards the patient breathing twice as rapidly, that was another fallacy. He did not believe a patient breathed twice as rapidly, unless it was in the same sense as a pneumonia patient breathes twice as rapidly as in health—simply because he was being asphyxiated.

In regard to the practical example of the bad effect of the Clover inhaler, he color of the patient often showed the results of that apparatus, and the operation had frequently to be stopped for the time being. It was perfectly clear to him that patients, taken one after another, respired ether through the cone, apart from such accidents as spasm of the glottis, etc., with less danger, and never developed that dark livid color frequently seen when the Clover's inhaler was used

In answer to Dr. F. W. Campbell's question, as much cotton-wool can be put in as required. The cone passed around was a small one, and contained about the average amount of cotton.

In reply to Dr. Alloway, who spoke of an accident which had occurred recently in New York, he did not know the particulars of that accident, but he knew of many accidents occurring outside of New York through the use of the Clover inhaler—no fatal ones probably, but many times he himself had been very anxious about patients during the administration of ether, and most of them when the Clover's inhaler was used. Dr. Shepherd wanted some definite cases mentioned; well it was within Dr. Shepherd's recollection that the Clover inhaler was introduced into the General Hospital, used for several years, and then discarded, and did not re-appear for years. The reason was this, a very nearly fatal accident occurred, and when it was investigated, it was discovered that the anæsthetist forgot to put ether into the reservoir. Now, it is absolutely impossible for any man to administer ether with a cone, and make a serious mistake, unless by giving too much, and this can be done with any instrument. Everybody knew that ether might be given to such an extent as to paralyze the respiratory centre and kill the patient without any untoward accident having occurred in any other way. That was the only possible way harm could be done by the cone; whereas with the Clover inhaler, he might forget to put in ether, or let it run out, let it spill out, and for these reasons the relative danger of the two methods of giving ether was, as Dr. Alloway put it a few moments ago, a matter depending largely upon the ability of the anæsthetist, the Clover inhaler being especially dangerous in unkilled or careless hands. In regard to his remarks on vomiting, Dr. Bell referred to the vomiting following the anæsthesia, and in his experience he found vomiting far more frequent after the use of the Clover inhaler. With regard to Allis' inhaler he had nothing to say, except that it was not clean; it was the rubber part that he objected to. An essential part of it was composed of rubber, and this could not be cleaned, much less made sterile, as sterilization is understood in a surgical sense. In dealing with open wounds, it was not only very important to have clean instruments, but in many serious operations about the brain, head, face, neck and upper extremity, it was very important to have an inhaler which could be made clean and sterile, and put into the hands of a man who had already sterilized his hands, clothing, etc. He was sure there was no surgeon present who had not felt the inconvenience of this rubber bag flopping about the head and neck while these parts were being operated upon.

Dr. SHEPHERD said that in the General Hospital case referred to, Dr. Bell, the anæsthetist, should have been discarded and not the inhaler.

Dr. G. GORDON CAMPBELL explained that all the rubber portions of Clover's inhaler could be boiled without injury, provided that they were put on in cold water and not allowed to touch the bottom of the boiler. He always sterilized his own in this way.

AMERICAN DERMATOLOGICAL ASSOCIATION.

Nineteenth Annual Meeting of the above Association will be held at the Windsor Hotel, Montreal, on September 17th, 18th and 19th, 1895. *Officers for* 1895: President, S. Sherwell, M.D., Brooklyn; Vice-President, J. A. Fordyce, M.D., New York; Secretary and Treasurer, C. W. Allen, M.D., 640 Madison Avenue, New York.

Progress of Science.

THE TREATMENT OF CYSTITIS

By GARDNER W. ALLEN, M.D., of Boston, Mass.

The following observations are based on the records of a number of cases which have come to my notice within the last eight years. I have little to say of rare or severe forms of vesical disease, and shall consider chiefly the treatment of the ordinary run of urinary symptoms met with in out-patient and office practice; but the commonplace in medicine is not always the least important.

Most of the cases were of gonorrhœal origin, and in nearly all the inflammation was confined to the neck of the bladder. Extension backward of gonorrhœa into the neck of the bladder, accompanied by a sharp onset of urinary symptoms, is, of course, common enough. In non-gonorrhœal cases the cause of the cystitis is not always clear, but in a certain number is apparently traceable to a posterior urethral catarrh resulting from congestion of the prostatic portion, with or without inflammation of the seminal vesicles, and brought about by prolonged and repeated sexual excitement. It begins insidiously, has little or no tendency to recover, and is apt to be difficult to manage.

As regards the treatment of cystitis, of the various internal remedies I prefer the saline diuretics, especially benzoate of sodium. Few surgeons nowadays, however, would long defer local treatment of the disease. For the simple purpose of washing out the bladder, perhaps a saturated solution of boric acid gives, on the whole, the best results. For the purpose of producing a decided impression upon the mucous membrane of the vesical neck I have had very gratifying experience with nitrate of silver and permanganate of potassium. I have tried various other substances, but not to a sufficient extent to furnish data of any value.

Nitrate of silver is, of course, familiar to all, and I suppose is more used than anything else in the deep urethra, and deservedly so, for it is probably the most valuable remedy we have. It is, therefore, so well known and has been so much written about that little need be said of it here. I will merely remark that I use a milder solution than formerly, rarely going above one per cent., but usually inject rather more, that is to say, ten or fifteen minims instead of four or five. I think, also, that these injections are much more effectual if immediately preceded by the passage of a large sound, except in the more acute cases.

Permanganate of potassium, so far as I know, has not been very extensively used in the bladder,—at least, I do not remember having seen the reports of its use. I have employed it a good deal in the last six years with great satisfaction in cystitis and chronic prostatitis, and reported some cases four years ago. Where it fails, nitrate of silver often succeeds, and *vice versa*.

The bladder should be thoroughly irrigated with the permanganate solution, and this is conveniently done by means of a large Ultzmann syringe (which has a capacity of about five ounces) connected with an elastic or soft rubber catheter. One syringeful at a time is injected and allowed to flow out again, and so on until the solution comes away with as bright a color as it went in; then two or three ounces are injected and left in the bladder, which the patient should hold as long as he comfortably can. It does not seem to me necessary to have the eye of the catheter just in the deep urethra during the injection, as advised by Ultzmann and others; if it projects a little beyond, it seems to serve the purpose as well. The fluid apparently settles down into the neck of the bladder as the patient walks about, and exerts a stimulating and astringent action on the mucous membrane; this is checked, however, before it has time to become irritating, by the decomposition of the solution, which takes place as soon as a small quantity of fresh urine is secreted. It is well to begin with a solution of about 1 to 4,000 or 5,000; weaker than this is useless on account of its rapid decomposition. It may be increased at the next sitting, generally after an interval of four to six days, to a strength of 1 to 3,000. For the third and subsequent injections a 1-to-2,000 solution may be used, if well borne. The treatment is a mild and safe one, but is more troublesome to carry out than the instillations of silver nitrate. If good is to result, it is soon apparent, and if there is no improvement after a few injections it might as well be abandoned.—*Coll. and Clin. Record.*

ACUTE INFANTILE ARTHRITIS IN THE HIP.

To recapitulate, the primary causative factor in acute arthritis is to-day believed to consist of an acute infection of pyogenic micro-organisms. This infectious matter may enter through any damaged surface of skin or mucous membrane or any subcutaneous phlegmon. Other predisposing causes may also exert an influence. Of these, traumatism acts principally to determine in which joint the affection shall manifest itself. The injury may be a slight one, and traumatism acts less frequently in the hips than in the more exposed joints. The infectious diseases, scarlet fever, measles, chicken-pox, variola, typhoid fever, and parotitis may accompany or precede an attack of acute arthritis; their rôle is still very imperfectly understood, and the same may be said of tuberculosis and syphilis. They may act either in making easy the entrance for the pyogenic germs, or in reducing the patient's capacity for destroying and eliminating them. Since specific germs of typhoid fever have been found during the fever, both in osteomyelitic marrow and joint pus, it is possible that the typhoid bacillus may occasionally be a pyogenic factor. Tuberculosis and syphilis may predispose to the affection. An acute infectious suppurative synovitis without lesion of bone may also simulate very closely what is usually regarded as the ordinary form of acute arthritis.—Augustus Thorndike in *Boston Med. and Surg. Journ.*

EYE STRAIN A CAUSE OF NOCTURNAL ENURESIS.

Dr. G. M. Gould gives the details of five cases, in which the enuresis was cured after glasses were fitted and the eye strain removed. Besides these cases he had others in which he was moderately certain that the eyes were the ultimate or a contributing cause of the affection under discussion, but in which the cure was either more slow or the etiology more suspicious, and he did not include them in this report.—GEORGE M. GOULD, in *Phil. Med. News.*

BACTERIOLOGICAL EXAMINATIONS OF DIPHTHERIA IN THE UNITED STATES.

This paper is a report of the results of the bacteriological study of diphtheria in the United States up to May, 1894. Some of the more important conclusions may be summarized as follows:

1. The Health Department of New York has undertaken the bacteriological examination of all cases of suspected diphtheria in that city, unless objection is made by the attending physician, or unless it is not deemed advisable to disturb the patient by such examination. The methods employed are described in detail. During the year ending May 4, 1894, cultures were made from 5,611 cases of suspected diphtheria. The results have proven satisfactory, and are utilized not only for diagnosis, but also to control the supervision and isolation of the cases.

2. Of 6,156 cases of suspected diphtheria in New York and Boston, 58½ per cent. were proven bacteriologically to be true diphtheria—or, if we include only those cases in which the bacteriological examination was considered to be entirely satisfactory—of 5,340 cases, 67½ per cent. were true diphtheria. These were pseudo-membranous inflammations of the throat and air-passages uncomplicated for the most part with scarlet fever.

3. At least 80 per cent. of the cases of membranous croup in New York were diphtheria, and only 14 per cent. were shown not to be diphtheria.

4. Fifteen cases of fibrinous rhinitis and 4 cases of primary and exclusively nasal diphtheria were all due to the diphtheria bacillus.

5. Various forms of a typical diphtheria, many without membrane, and with the characters of simple catarrhal angina and follicular tonsillitis, are described.

6. Instances of unusual localizations of the diphtheria bacillus, as in the middle ear, in wounds, ulcers, abscesses, conjunctivæ, lungs, heart-valves, and the distribution of the bacilli in autopsies of human beings and of guinea-pigs dead of diphtheria, are described.

7. The various bacteria found associated with the diphtheria bacillus, the most important pathogenic forms being streptococci, staphylococci, and the diplococcus lanceolatus, are considered.

8. In general the great majority of cases of pseudo membranous anginas in scarlet fever are due to streptococci; but where diphtheria is prevalent and opportunities are favorable for exposure to diphtheria, a large proportion may be due to the diphtheria bacillus. The statistics in Baltimore and in Boston present interesting contrasts in illustration of this point. Four cases of diphtheria complicating typhoid fever are described.

9. The name pseudo diphtheria is applied to pseudo-membranous inflammations of the throat and air-passages not caused by the diphtheria bacillus. The most important and common micro organism in pseudo-diphtheria is the streptococcus pyogenes, but other bacteria may be the cause. The mortality in these affections is low in private practice, being 1.7 per cent. in 408 consecutive cases in New York. In hospitals it may be as high as 25 per cent. Death is generally due to some complication, the most important complications being scarlet fever, membranous laryngitis, and bronchopneumonia. The disease seems to be only slightly, if at all, contagious. For this reason, and on account of the low mortality in uncomplicated cases, those cases which are proved bacteriologically not to be true diphtheria are not kept under supervision by the Health Department in New York. Until such proof, suspicious cases are treated as diphtheria.

10. Of 752 cases of diphtheria in New York, the diphtheria bacilli in 325 disappeared within three days after the complete disappearance of the exudate. In 427 cases the bacilli persisted for a longer time, viz.: in 201, for from five to seven days; in 84, for twelve days; in 69, for fifteen days; in 57, for three weeks; in 11, for four weeks; and in 5, for five weeks. In one case, virulent bacilli were found seven weeks after disappearance of the exudate. The cases are kept under supervision until the bacilli have disappeared. Sometimes they disappear first from the nose; at other times, first from the throat

11. In fourteen families, with forty-eight children, where little or no isolation of a case of diphtheria in each family was undertaken, virulent diphtheria bacilli were found in 50 per cent. of the children, of whom 40 per cent. later developed diphtheria. The bacilli were found in less than 10 per cent. of the children, in families where the case of diphtheria was well isolated.

Antiseptic irrigation and cleansing treatment of the throat lessens the liability of those thus exposed to develop diphtheria.

All members of an infected household should be regarded as under suspicion, and where

isolation is not enforced, the healthy as well as the sick should be prevented from mingling with others until cultures or sufficient lapse of time give the presumption that they are not carriers of contagion.

12. Diphtheria bacilli may be present, and multiply in the throat without causing symptoms or lesions. They must find susceptibility to their pathogenic action in order to cause diphtheria.

13. In three hundred and thirty persons who gave no history of direct contact with diphtheria, virulent diphtheria bacilli were found in eight, of whom only two subsequently developed diphtheria. Bacilli, indistinguishable morphologically or in cultures from the diphtheria bacillus, including the formation of acid in forty-eight hours in bouillon, but entirely devoid of virulence, were found in twenty-four of these persons, in most of these instances in large numbers. The pseudo-diphtheria bacillus was found in twenty-seven.

14. Instances are given in which the diphtheria bacilli were found on various objects outside of the human body, viz., bed-clothing soiled with discharges of diphtheria patients; the shoes and the hair of nurses in attendance on diphtheria patients, and a brush used in sweeping the floor of a diphtheria ward.

15. Some of the various ways in which the diphtheria germ is transported are summarized.

16. A bacillus in no way distinguishable in morphology or in cultures, including the formation of acid in bouillon, from the usual diphtheria bacillus, but devoid of virulence, exists. The virulence was tested by injecting into half-grown guinea-pigs ½ to 1 per cent. of their weight of forty-eight hour bouillon cultures. This bacillus, although it has been called by some investigators the pseudo-diphtheria bacillus, should not be so designated. It is the genuine diphtheria bacillus devoid of virulence. It was met with in a comparatively small number of cases out of a large number examined. Exceptionally, it may occur together with the virulent diphtheria bacillus in diphtheria, and occasionally it takes the place of the virulent bacillus during or after recovery from diphtheria. In several instances it was found in healthy throats.

The name pseudo-diphtheria bacillus should be confined to bacilli, which, although resembling the diphtheria bacillus, differ from it not only by absence of virulence, but also by cultural peculiarities, the most important of the latter being greater luxuriance of growth on agar and the preservation of the alkaline reaction of bouillon cultures. The pseudo-diphtheria bacillus may render bouillon cultures acid in forty-eight hours when grown anaërobically. The pseudo-diphtheria bacillus in this sense was found in a number of cases, but not frequently. It is probably of different species from the genuine diphtheria bacillus, and is without diagnostic importance.—Wm. H. Welch in *Am. Journ. Med. Sc.*

TREATMENT OF DIPHTHERIA.

The conclusions derived from this series of cases, together with investigation and observation on a much larger number of cases, lead us to believe:

1. That frequent washing of the air-passages attacked by diphtheria lessens the duration and mount of diphtheritic membrane.

2. The addition of antiseptics, in sufficient strength to be germicidal, to the irrigating fluid is irritating to the mucous membrane, thereby causing extension and persistence of false membrane rather than the effect desired.

3. The addition of antiseptics to the irrigating fluid is liable to cause systematic poisoning and disagreeable complications from the swallowing and absorption of some of the fluid used, *e.g.*, the two bichloride cases cited above.

4. Spraying the throat (also the pernicious treatment of swabbing), whatever solution is used, can have no good effect, as the parts reached by the spray must necessarily be very limited, excepting possibly in the hands of an expert. Furthermore, the spray cannot be used with young children, as anyone can testify who has tried it. This is especially true of some solutions where it is necessary to use a glass syringe.

5. Frequent cleansing of the throat and nasal cavities with a bland solution, such as plain warm water or normal salt solution, is easier of application, is more agreeable to the patient, and does all that any antiseptic solution can accomplish, either upon duration of the membrane or the period of isolation.—A. Campbell White in *Med. Rec.*, N.Y.

DIPHTHERIA IN ITALY.

The author presents an interesting statistical study of diphtheria in Italy for the years 1887 to 1892 inclusive. During that period the number of deaths fell from 24,637 to 13,434, the smallest number being 12,284 in 1890. The disease is very unevenly distributed throughout the peninsula, the mortality ranging from 1.8 per 10,000 in the marshes to 15.8 per 10,000 in the province of Basilicata. The mortality in the country districts is much higher than that in the cities. As regards seasons, the disease prevails especially in the winter, the mortality figures for the four seasons being as follows: Winter, 10,945; spring, 9,293; summer, 7,315; autumn, 8,320. The greatest number of deaths occurred in children between one and five years of age, the preponderance of males over females being very slight.—Achille Sclavo in *Gazzetta degli Ospedali edelle Cliniche*, October 20, 1894.

AN ANOMALOUS CASE OF DIPHTHERIA.

The patient was a boy, aged thirteen years, and on the second day of the sickness the exudate appeared on both tonsils, with a temperature early in the day at 107°. On the morning of the next day his temperature ran up to 110°, and at this time his throat became entirely clear of membrane, but he developed all the symptoms of acute cerebro-spinal meningitis, pain in the head, with head drawn back, pupils dilated, and for forty-eight hours he was raving crazy, laboring under high maniacal excitement.

During all of this time his pulse was nearly normal. He presented all the evidences of a person suffering from a highly septic condition. When the cerebro-spinal symptoms subsided the entire fauces became covered with diphtheritic exudate.

At this time also the patient lapsed into a condition of stupor, bordering upon coma, but there was no time but that he could be readily aroused. At this stage of his sickness there was also a marked crisis, and the patient came very near succumbing to heart failure. There was evidence of a weakened heart's action for weeks afterwards.

The day following the subsidence of the cerebro-spinal symptoms, there was a peculiar bad odor from the body, the abdomen became mottled and dark colored, there were profuse discharges of diphtheritic membrane from the bowels, accompanied with very painful tenesmus, and it looked as though we were destined to have a fatal termination from septicæmia. At one period the respiration was somewhat affected, though not seriously. At no time was the function of the kidneys impaired in the least.

The throat gradually cleared up, and all dangerous symptoms subsided, though the convalescence was slow on account of the weakened heart's action. At one time the left parotid gland became inflamed and swollen, but did not suppurate.—Theo. L. Hatch in *Northwest. Lancet*, St. Paul, 1894.

THE IMMUNIZATION OF CHICKENS AGAINST THE DIPHTHERITIC BACILLUS, AND THE PASSAGE OF IMMUNIZING SUBSTANCES WITHIN THEIR EGGS.

It is well known that chickens and pigeons are very susceptible to the diphtheritic bacillus. The author communicated to the Royal Academy of Medicine of Turin some interesting experiments carried on to see whether these fowls could be protected. He was successful in his endeavors, both by the Frankel method (virus attenuated by high temperature) and the method of Behring (trichloride of iodine). He also succeeded in establishing immunity by injections of filtered cultures of graduated strengths. Most interesting, however, is the fact that, in a certain number of hens so treated, he invariably found that the eggs possessed an immunizing property, which is manifested both by the albumen and the yolk. He diluted small quantities of egg with equal amounts of normal salt solution, and succeeded in immunizing guinea pigs with this preparation.

The author is now investigating whether guinea pigs may be immunized by feeding them with eggs thus obtained.—Sclavo in *Gazz degli Ospedali*, July 14. 1894. *Am. Med. Surg. Bull.*, 1894.

TREATMENT OF DIPHTHERIA AS INDICATED BY ITS ETIOLOGY AND PATHOLOGY.

For local treatment the best results are obtained from peroxide of hydrogen. He generally dilutes it to twice its volume, and renders it alkaline shortly before using with the bicarbonate of sodium, and sprays the parts thoroughly every hour until the throat and nose are clear and the membrane disappears.

He has had good results from the internal use of turpentine, but alcohol and food are the most important aids. He reports a successful case after the use of Behring's antitoxin.—J. B. Casello, in *Cincinnati Lancet*.

CLASS-ROOM NOTES.

—*Tuberculosis*, according to Prof. Keen, may be introduced into the system through wounds of the skin, such as a scratch or bruise, which generally escape notice. It is not necessary in such a case that a patient be predisposed to tuberculosis.

—Prof. Hare gives the following prescription of Peabody in cases of *Headache due to Anæmia* :—

℞.	Acid. salicylic,	gr. xxx
	Ferri pyrophosphat,	gr. v
	Sodii phosphatis,	gr. j
	Aquæ destillat.,	f ℥ ss. M.

Sig.—This amount to be taken every three hours.

—Prof. Wilson says that in cases of *Influenza*, catarrhal pneumonia occurs insidiously, with a gradual intensification of the bronchitic symptoms on about the fourth or fifth day as a rule, but it may set in as early as the second day or also during the time of convalescence.

—*Arsenic*, in the form of Fowler's solution, Prof. Hare says, is a standard remedy in chronic gout. It should be administered with perfectly pure water, or, better, lithia water. If anæmia be present, it should especially be used, and with it may be given cod-liver oil and the syrup of the iodide of iron.

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MONTREAL, SEPTEMBER, 1895.

CHANGE OF MANAGEMENT.

In this number of the CANADA MEDICAL RECORD, which is the last of the present volume, we have an important announcement to make to our readers. Owing to the ever-increasing demands which his hospital and other duties are making upon his time, Dr. Lapthorn Smith has been compelled to retire from the management, which will be taken by Dr. McConnell.

The RECORD will be greatly enlarged and divided into departments which will be under the editorial charge of well known specialists, who will make it their aim to keep their readers thoroughly *au courant* of all that is going on in their specialty, by means of quarterly retrospects, on Medicine, Surgery, Gynæcology, Obstetrics, Therapeutics, etc. Under the new management the journal will appear promptly on the 18th of each month, and the proceedings of the Medico Chirurgical Society will appear in the number following the meeting, for which purpose they will be specially reported, and all the members taking part in the discussions will receive equal attention. Our modesty prevents us from reminding our readers of the many reforms to which the RECORD has lent its influence, but we believe that the esteem in which it is held by its subscribers, from many of whom we have received letters full of encouragement, renders it unnecessary to say that it has always done what it could to protect the interests of the profession at large. The RECORD will be increased in size, but notwithstanding the great expense which this will entail, the price will remain as before, the extremely low one of one dollar, in advance.

THE CANADIAN MEDICAL ASSOCIATION.

The Kingston meeting of the above Association, under the presidency of Dr. William Bayard of St. John, N.B., was an unqualified success. The attendance was one of the largest in its history, and was especially remarkable for its representative character, there being present leading men from nearly every province, although on the other hand there were fewer from the surrounding country than usual. This must be explained in the same way as the smallness of the attendance of local men when the Association meets in Toronto, namely, by the apparently stronger claim which the Ontario association makes to the practitioners throughout that province, an attendance of two hundred being nothing unusual. The profession of Kingston did much more than could reasonably have been expected of them in the way of entertainments, for in addition to numerous lunches and dinners and visits to institutions, there was a very enjoyable excursion through the world famous "Lake of a Thousand Islands" on the beautiful steamer "America," and on which a generous supper was served. In the opinion of some this was the best part of the meeting, as it brought together in social intercourse men whose names were well known, and many of these acquaintances may in time ripen into life-long friendships. Many—in fact, most—of the papers were of a high order of merit, and it was somewhat unfortunate that more of them were not got through with on the first two days, as during the last day the audience is apt to diminish considerably. The address of the veteran President, Dr. William Bayard, was a masterly paper, and was well received not only by the audience, but was favorably commented upon by the lay Press of the Dominion. He gave much wise advice on three important points: the abuse of medical charity; the over-education of the masses; and the abuse of alcohol. Indeed, we consider what he said on these topics of such paramount importance to the profession and to the people of the Domin-

ion at large, that we shall take an early opportunity of publishing the address. There is no doubt that year by year the class of well-to-do people, who could afford to pay a physician, and yet who fraudulently obtain his services for nothing, is greatly increasing, and it is quite time that something should be done about it. We shall discuss this subject in a future editorial. Our two distinguished medical and surgical knights, Sir James Grant and Sir William Hingston, were present, and contributed not a little to the interest of the meeting. They were among the few of its founders who are still alive, and may justly be called the fathers of the Association. One of the others, Dr. Thorburn, of Toronto, was elected President for the ensuing year, and will preside at the meeting in Montreal next August.

We cannot in justice to Dr. Starr close these remarks without testifying to his great zeal and energy as Secretary General, which contributed so greatly to the success of the meeting. As long as Dr. Starr holds that position we can count upon having a full programme for every session.

MUNICIPAL CONTROL OF UNNECESSARY NOISES.

Dr. Augustus Clarke, of Cambridge, Mass., read a very opportune paper, at the recent meeting of the American Medical Association, on the question of state or municipal control of artificial agencies which produce unnecessary noises. Anyone living in a large city, especially if his nervous system has been highly developed by education, must often have suffered acutely from the unnecessary noises with which his ears are constantly assailed. At one moment it is a man shouting "coal oil" hundreds of times in a distance of as many yards; another shouting "bananas:" then a Scotch coal cart comes tearing down the street, creating a frightful din. On streets paved with cobble-stones, as many streets are, the unnecessary noises are multiplied tenfold. Then there is the hurdy-gurdy man, and on the main streets the dreadful clanging of the electric street car bells, which make a great deal more noise than there is any need for. The cars themselves, owing to the roughness of their machinery and the lack of care, apparently, in seeing that it works smoothly, cause still more noise. So that those who have the misfortune to have their homes located on any of these streets or lines of travel are condemned to loss of sleep, which often means loss of health; then the sick, for whose benefit the medical profession exists, suffer still more acutely from these unnecessary noises. At present it appears that there is no control over them whatever: the coal cart boy can bang and rattle his cart over the stone pavements; and the hurdy-gurdy man can grind his dreadful organ; and that banana man, with his bananas at ten cents a dozen, can keep on making life not worth living, without anyone having the right to interfere. Should anyone in desperation throw boiling water on them, he would of course become amenable to the law. So, as Professor Clarke says, "have not the minority of the people who thus suffer some vested rights that the majority are bound to respect? Surely," he remarks, "the persons to whom the physician for the most part is summoned to treat belong to this latter class."

PERSONALS.

At a recent meeting of the Trustees of Jefferson Medical College, Philadelphia, the honorary degree of LL.D. was conferred on Dr. John Collins Warren, Professor of Surgery in Harvard University.

At a recent meeting of the Faculty of Bishop's College Dr. Lapthorn Smith was appointed Professor of Clinical Gynæcology.

BOOK NOTICES.

PRACTICAL DIETETICS, with special reference to diet in disease. By W. Gilman Thompson, M.D., Professor of Materia Medica, Therapeutics, and Clinical Medicine in the University of the City of New York; Visiting Physician to the Presbyterian and Bellevue Hospitals, New York. Large octavo, eight hundred pages, illustrated. Price, cloth, $5.00; sheep, $6.00. Sold by subscription only. D. Appleton & Co., publishers, 72 Fifth Ave., New York.

The subject is one which does not receive proper attention either in medical colleges or in the standard works upon the Theory and Practice of Medicine, the directions given in the latter being of a very general and vague character, and in the former it is dismissed in one or

two lectures. In hospitals and in the training of nurses, too little attention is paid to the subject, while in works on food and dietetics the practical application of dietetics to disease receives but slight notice. This work is intended to remedy these shortcomings, and to furnish to the practitioner a text-book containing instructions as to the appropriate diet in diseases which are influenced by right feeding.

Beginning with the elementary composition of foods, the author next classifies them, and takes up in succession force production and energy; the force-producing value of the different classes; stimulating foods; their economic value; a comparison of the nutritive properties of animal and vegetable foods; and vegetarianism. The classes of foods are next considered, including water, salts, animal and vegetable foods, fats, and oils. In the section on animal foods much attention is given to the subject of milk in all its forms—pure, adulterated, prepared, etc.—in accordance with the great importance of the article so commonly used. Stimulants and beverages, with their good and ill effects, their comparative values, administration and varieties, are fully and carefully considered.

The various methods of cooking food are given, with the effect of each method on the different classes; also the means used for condensing and preserving foods. In the article on foods that are required for special conditions, the author takes up food in its relation to age, individual size, body weight, sex, diet and heredity, diet and race, and climate and season. Proper attention is paid to the subject of digestion and the conditions which especially affect it. The author considers the general relations of food to special diseases; those that are caused by dietetic errors and the administration of food for the sick, giving the necessary rules as to method, time, etc. Dietetic treatment in fever in general is followed by instructions for diet in specified diseases, with lists of food suitable for the patient in certain stages of the disease, as in the infectious fevers and other acute affections.

The work abounds in analytical tables giving the percentages of ingredients in the various animal and vegetable foods; standards for daily dietaries as influenced by age and occupation; the energy developed by a given quantity of certain foods; diet tables representing a ration as issued in the army and navy under different conditions; and also those used in various prisons and reformatory institutions.

The feeding of pregnant women, nursing mothers, infants, and young children constitutes a very important part of the work, and an appendix contains receipts for invalid food and beverages suitable for fevers and convalescence from acute illness.

The work gives much evidence of careful and intelligent observation on the part of the author, and will, the publishers believe, be found to fill a field heretofore practically unoccupied. It is a book which will be found to be of great assistance to the practitioner in the dietetic treatment of diseases that are influenced by proper feeding, invaluable to the trained nurse in hospital and private nursing, and of inestimable service as a guide in the administration of proper food to infants and invalids in the home.

GREEN'S PATHOLOGY AND MORBID ANATOMY. Pathology and Morbid Anatomy. By T. Henry Green, M.D., Lecturer on Pathology and Morbid Anatomy at Charing-Cross Hospital Medical School, London. Seventh American from the eighth and revised English edition. Octavo volume of 595 pp., with 224 engravings, and a colored plate. Cloth, $2.75. Philadelphia, Lea Brothers & Co., publishers, 1895.

Green's PATHOLOGY AND MORBID ANATOMY has long been the leading text and reference book in all English speaking countries, a fact indicated by the number of editions demanded. A knowledge of the subjects covered by its title is essential to graduation and not less so to the practitioner, who must understand the nature of a disease as a prerequisite to rational curative measures. Thanks to the tireless industry of laboratory workers and clinicians, these sciences are in a state of constant development, and in order to represent their existing position, this volume has been thoroughly revised and new chapters have been added. The previously rich series of illustrations has been increased with sixty new engravings.

PAMPHLETS.

ADDRESS ON THE FOUNDING OF THE ILLINOIS HOSPITAL. Delivered in Central Music Hall, June 12, 1895. By Seth Scott Bishop, M.D., Professor of Diseases of the Nose, Throat and Ear in the Chicago Summer School of Medicine; Professor in the Post-Graduate Medical School and Hospital, Chicago. Reprinted from the Journal of the American Medical Association, June 29, 1895. Chicago: American Medical Association Press. 1895.

REMINISCENCES OF DR. J. MARION SIMS IN PARIS. By Edmond Souchon, M.D., Professor of Anatomy and Clinical Surgery, Tulane University, New Orleans, La. Reprinted from the Medical Record, December 8, 1894. New York Trow Directory, Printing & Bookbinding Co., 201-213 East Twelfth St. 1894.

NOTES ON A HITHERTO UNDESCRIBED SKIN DISEASE. Endemic in Central America, called by the natives "Bulpiss." Otto

Lerch, Ph.D., M.D., Former State Geologist of Louisiana, etc. Reprinted from the May, 1895, Number of the New Orleans Medical & Surgical Journal.

WHAT RESULTS MAY BE EXPECTED FROM CELIOTOMY IN INSANITY, HYSTERO-EPILEPSY, AND KINDRED NEUROSES. Remarks with Illustrative Cases. By W. P. Manton, M.D., President of the Detroit Academy of Medicine; Vice-President of the American Association of Obstetricians and Gynæcologists: Gynæcologist to Harper Hospital, etc.

GENITAL REFLEXES. By W. P. Manton, M.D.

A CASE OF HYDATID TUMOR OF THE PERITONEUM. By W. P. Manton, M.D., Gynæcologist to Harper Hospital; Consulting Gynæcologist to the Eastern and Northern Michigan Asylums and St. Joseph's Retreat, etc. 1894, Detroit, Mich.

GYNÆCOLOGY AMONG THE INSANE, FROM THE GYNÆCOLOGIST'S POINT OF VIEW. By W. P. Manton, M.D., of Detroit, Mich., Consulting Gynæcologist to the Eastern and Northern Asylums for the Insane, and St. Joseph's Retreat; Gynæcologist to Harper Hospital, etc. From the Medical News, July 7, 1894.

CASE OF DOUBLE PYOSALPINX. By Hunter Robb, M.D, Professor of Gynæcology Western Reserve University. Reprint from Western Reserve Medical Journal, March, 1895.

A SUCCESSFUL CASE OF PORRO CÆSAREAN SECTION (modified). By Hunter Robb, M.D., Professor of Gynæcology in the Western Reserve University. Reprint from Western Reserve Medical Journal, May, 1895.

TREATMENT OF THE OPIUM NEUROSIS. By Stephen Lett, M.D., Medical Superintendent of the Homewood Retreat, Guelph, Ont., Canada. Read in the Section of Medical Jurisprudence and Neurology at the Forty-second Annual Meeting of the American Medical Association, held at Washington, D.C., May, 1891. Reprinted from the Journal of the American Medical Association, November 28, 1891. Chicago: published at the office of the Association. 1891.

LAST ONE HUNDRED ABDOMINAL SECTIONS FOR REMOVAL OF OVARIAN TUMORS AND DISEASED UTERINE APPENDAGES. By R. Stansbury Sutton, M.D., Pittsburgh, Pa. Reported by J. P. Hunter, M.D., Allegheny, Pa. Reprinted from the Pittsburgh Medical Review, November, 1894. Press of Murdoch, Kerr & Co., 53 Ninth St., Pittsburgh, Pa.

SURGICAL TREATMENT OF TUMORS OF THE NECK. By Thomas H. Manley, M.D., Visiting Surgeon to the Harlem Hospital, New York. 1894. Reprinted from the Medical Brief, St. Louis, Mo.

PUBLISHERS DEPARTMENT.

THE LADIES' HOME JOURNAL
PHILADELPHIA.

A BOOK FOR YOUNG MEN.

EDWARD BOK, the editor of *The Ladies' Home Journal*, has written a book for young men called "Successward: A Young Man's Book for Young Men," which the Revells will publish in a fortnight. The book aims to cover all the important phases of a young man's life: his business life, social life, his amusements, religious life, dress, his attitude toward women, and the question of his marriage. This is Mr. Bok's first book.

A HORSE-SHOW STORY.

MRS. BURTON HARRISON has written a new novelette, dealing in the main with the "fashionables" of New York at the Horse Show, which *The Ladies' Home Journal* is about to begin. Mr. W. T. Smedley has illustrated the story.

ANÆMIC PATIENTS WHO HAVE MALARIAL CACHEXIA.

DR. T. D. CROTHERS, editor of *The Quarterly Journal of Inebriety*, published under the auspices of The American Association for the Study and Cure of Inebriates, and who is an authority on neurosis, writes in his last number as follows: Antikamnia and Quinine are put up in tablet form, each tablet containing two and one-half grains of antikamnia and two and one half grains of quinine, and is the most satisfactory mode of exhibition. This combination is especially valuable in headache (hemicrania), and the neuralgias occurring in anæmic patients who have malarial cachexia, and in a large number of affections more or less dependent upon this cachectic condition.

The four weekly issues of *Littell's Living Age* for September are replete with the choicest gleanings of the British reviews and magazines. These issues contain twenty-seven complete papers, many of them of great value and intense present interest.

Among the more valuable essays and reviews may be particularly mentioned, "Norway and Sweden," which is really a "double star." The one by J. E. Sars, Professor of History in the University of Christiana, presents "The Case of Norwegian Liberalism"; the second, by Carl Siewers, reveals "A King's Scheme of Scandinavian Unification." "The Problems of the Far East," the leading article in No. 2670, is an able review of recent works by such writers as Hon. Geo. P. Curzon, M.P., Henry Norman, Chester Holcombe and others, on the China and Japan question. Biography is represented by an exceedingly good article on "Huxley" by P. Chalmers Mitchell, and another on "Mrs. Gaskell" by Mat Hompes. "The Spectroscope in recent Chemistry" by R. A. Gregory, and "Stars and Molecules" by Rev. Edmund Ledger, will prove of great interest to the general as well as the scientific reader. "A Visit to Bonifacio" by J. N. Usher; "Antarctic Explorations," "In the New Zealand Alps," "Poetic Pride," "Latter Day Pagans," and "The Heavy Burden of Empire" are the titles of other valuable papers. In fiction each number contains a complete story, and of poetry a full page.