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Original Communications.

CLINICAL LECTURE DELIVERED AT THE MONTREAL GENERAL HOSPITAL.

OCTOBER 12th, 1886.

By F. WAYLAND CAMPBELL, M.D., L.R.C.P., London,
Dean of, and Professor of Practice of Medicine
in the Faculty of Medicine, University of
Bishop's College.

GENTLEMEN,—The patient before you is a young man, who by trade is a machinist, and he has contracted what is commonly designated "a cold." He came a week ago to the out-door clinic, complaining as his chief symptom—loss of voice. This loss of voice is called aphonia, and in such cases is very often the result of a sub-acute inflammation of the larynx, indicated by slight pain or pressure over the larynx. There is generally at first hoarseness, then the aphonia follows, succeeded by cough and expectoration, at first transparent and viscid and afterwards opaque and thick. Its only danger is the possibility of its developing into the acute form, but this danger is small. The treatment is very simple and usually very effectual. A mustard poultice should be applied over the larynx for about eight minutes; the patient should inspire either the vapor of pure boiling water, or to the boiling water, from ten to fifteen drops of tincture of iodine may be added and thus an iodized vapor is inhaled. Some of these cases seem to depend upon a relaxed condition of the vocal cords, and in such cases the application of a sponge probang, saturated with a twenty grain solution of nitrate of silver, will be found very useful. I made this application to this man, when he first

came, and then used the moist iodine vapor. He has decidedly improved, and he is in a fair way to make a speedy recovery. In addition to the local treatment, tonics will be found very useful. In females there is a form of functional aphonia, which is of an hysterical character. The character of the voice is different. In aphonia, due to laryngitis, it is coarse and husky; when it is hysterical it is a soft whisper. We also sometimes have aphonia feigned, with a view of producing sympathy; but if the cases be watched, they will at an unguarded moment forget their supposed malady and speak out in the full tones of their voice.

The old man over 60 years of age, I now present to you, came to the Hospital a week ago, complaining of great difficulty in swallowing food. He says that for a considerable time he has noticed that after swallowing food, when it reached a certain point in the œsophagus he felt it stop, and that it remained there till he made repeated efforts at swallowing, when it seemed to get dislodged and pass onward. Obstruction in the œsophagus may be purposely of a functional character, or it may be due to organic disease, or it may be due to pressure of a tumor on the tube. The most common cause of the functional variety is generally some nervous condition, as hysteria and hypochondriasis. In the organic form the most frequent cause is cancer; and when due to pressure it may be from an enlarged thyroid gland, or enlarged lymphatic glands in the neck or chest, or an aneurism. Dysphagia is the principal symptom of organic obstruction, and the sensation that food is arrested is generally situated just behind the upper part of the sternum. The difficulty is slight at first, but gradually increases

until nothing whatever will pass. Liquids and soft food, of course, pass more readily than does soft food. The food is either immediately regurgitated or spasmodically rejected. Sometimes a considerable quantity of food is retained for some time in a dilatation, when it is discharged, alkaline in reaction and much decomposed. In consequence of the reduced quantity of food entering the stomach the patient emaciates, becomes weak and has a retracted abdomen. The use of the bougie or probang will enable you to establish a diagnosis as to functional or organic structure. In the functional variety—although the probang may meet with resistance, this can with steady pressure be overcome. In the organic variety the bougie cannot be passed, when the disease has reached a point sufficient to attract strongly the attention of the patient to the obstruction. The patient before you is quite convinced that there is obstruction to the passage of the food. I am equally convinced that there is no obstruction other than that which is functional, and the result of a neurotic or nervous affection. In proof of this I at the time of his first visit passed a probang the full length of the œsophageal canal, and will now do so again. The passage of the instrument in the first instance seems to have convinced this patient food should pass more freely after the passage of such an instrument, and the consequence is that he expresses himself to-day as feeling somewhat better. If he does not improve rapidly I will give him iron and valerian; but in the meantime have placed him on one of the vegetable tinctures—viz., gentian as a tonic, which will assist in giving tone to his system, which, as you can judge from the man's appearance, he stands much in need of. In the organic variety little can be done in the way of treatment, though gradual dilatation may be attempted by bougies. If the cause of the organic stricture is cancer of course the case is hopeless; you can, however, do much to relieve the patient's suffering by the administration of anodyne, while at the same time the patient's strength must be kept up, when required, by rectal alimentation, in which must not be forgotten the injection into the rectum of defibrinated blood.

(From our Boston Correspondent.)

LETTER FROM THE HUB.

Editors CANADA MEDICAL RECORD.

DEAR SIRS,—The nearness of the good old Puritan city of Boston to Montreal (a half day's

journey) makes it to be frequently visited by denizens of the latter. Its many places of interest and objects of attraction, such as the Dome of the State House, the Pleasure Gardens and Common, Beacon Street, Commonwealth avenue, Trinity Church and the New Old South, the Art Gallery, its crooked streets, Forest Hills and Mount Auburn, etc., are as familiar to the Canadian almost as to the American, and are, as it were, "Forever photographed on the mind." Then, too, Boston holds a warm place in the heart of a great many married men, as it is seldom left out in a wedding tour; and although on such an occasion the groom is supposed to be oblivious of all else but his blooming bride, he no doubt manages, or it may be the attractive force of the surroundings exert their overpowering influence on his cerebral cells, and live ever green in his memory. But it is not the beautiful city of Boston itself, the Modern Athens, as it has been styled, that I wish to describe, this would be altogether unnecessary; but I thought it might not be uninteresting to the readers of the RECORD to give them a glimpse of Boston from a medical point of view, to inform you as to the nature and doings of things medical here, its medical school, hospitals, profession, and medical societies. Although perhaps not such a medical centre as New York, or Philadelphia, the Hub of the Universe, as Bostonians delight to call their native city, offers many advantages to the follower of Æsculapius. The larger size of New York and Philadelphia and, as a consequence, larger clinical experience and more central position, attracts more students to the latter cities; but one need not go out of Boston to get all the instruction, theoretical or practical, required. It can boast of one of the oldest and one of the best, if not the best medical schools in the United States, of large and well appointed hospitals, of distinguished and learned professional men, a large well stocked medical library, and well conducted Medical Societies; in fact the medical student or practitioner can have his every desire or ambition satisfied in Boston. I purpose in this my first letter dwelling briefly on the Harvard Medical school. To write the history of the School would be to write the history of medicine in the United States. I will, therefore, limit myself to the Harvard of the present, not of the past. The old Medical school still stands in the west end of the city, near the Massachusetts General Hospital, a monument redolent of the past. It was here where most of

the Boston and New England men were initiated into the mysteries of medicine; and, no doubt, to most Boston men, a great many pleasant associations cling around the old place. The old building is there, but the life, the energy, the jovial shouts of the medicos, and learned tones of the professors, are heard no more, but have betaken themselves to a new and superb building on the corner of Boylston and Exeter streets. This is, I believe, the largest and finest medical building on this continent. It cost \$350,000. The Harvard Medical school celebrated their centennial here three or four years ago, Dr. Holmes giving the opening address. It is plain in architecture, solid in structure, not very imposing in external appearance, save as a large square red brick building, with the names of the Fathers of Medicine figuring over the entrance; but its internal arrangements and finish are splendid and unexcelled. A large hall extending from top to bottom, lighted by a sky-light, runs through the centre of the building; off this leads the various lecture and other rooms. Flights of massive stairway lead to the different stories, square galleries extend from story to story. The view from the top gallery is impressive. Stairways remind one somewhat of the stairways in the Grand Opera House, Paris. The ground floor is marble, with numerous corinthian pillars, resembling in appearance an ancient temple. The college notices are posted up in neat glass cases; on the lower floor here are, also, the Janitor's apartments, reading and smoking rooms. Behind the stairway is the coat-room, and books for reference are at hand, also the various Medical periodicals. The reading room is large, well lighted, with numerous reading desks scattered over it; it contains specimens of *Materia Medica* for reference. On the second floor is a lecture room for Chemistry and Physiology, built in the form of an amphitheatre. The students enter from a gallery at the top, a large sliding black board is placed in the wall, back of where the professor lectures and facing the students. On the ground floor of the room on either side are doors; the one on the right entering into a Chemical Laboratory, where the lecturer on chemistry prepares his experiments for the class, that on the left into the Physiological Laboratory, where the professor of Physiology has every facility for illustrating his lecture. The Physiological Laboratory is superb in its appointments, every device or implement necessary for the practical study of Physiology being at hand;

leading off this is a Mechanical room, which has a small engine, and skilled workmen, where almost anything can be made. Dr. Bowditch, Dean of the Faculty, lectures on Physiology. There is a large Laboratory extending the whole of one side of the building, for practical chemistry, students being provided with all necessary materials. On the top story is a very large anatomical Lecture room, capable of seating a great many students, similar to the Physiological room but larger. On the wall hangs a large oil painting of Dr. Holmes. There is also an excellent bust of Bigelow in this room. There is another large lecture room for the final branches, and several other smaller rooms. The dissecting room is at the top of the building, capacious, well ventilated, and, unlike most dissecting rooms, cleanly. There is no scarcity of subjects, the Anatomy Act having been long in force here.

The Museum called the "Warren Museum" is a very fine one, and compares favorably with the museums of the larger Hospitals in London. Like them it has a gallery surrounding it. There are many interesting medical curios here, among the most notable may be mentioned the skull that was pierced by a crow-bar; both skull and crow-bar are on exhibition. This case is recorded in most works on Medical Jurisprudence. The man lived 12 years after having his skull pierced. The crow-bar entered the skull near the orbit, and came out in the occipital region, thus piercing the most vital parts of the brain. In the gallery is a well stocked museum of *Materia Medica*. The Harvard School is replete in everything that a medical school requires.

To become a professor in Harvard is the beau ideal of a Boston man. Once he has won this coveted honor he has reached the acme of his ambition. The names of the men constituting the Faculty of Medicine of Harvard is sufficient guarantee for the efficient education of the student. Two eminent men have of late resigned from the Faculty: Doctor Oliver Weadell Holmes, whose reputation is world wide, and Doctor Henry I. Bigelow of Litholopacy fame; both have left gaps hard to fill. The poet doctor had an inimitable way of lecturing on anatomy, peculiarly his own, rendering this somewhat dry subject interesting by his sparkling wit. I might mention, in passing, that the living skeleton that Doctor Holmes used to exhibit before his class is dead, *ætat* 46, weight 40 lbs. He has bequeathed his body to Harvard College; while he was living it was thought he had

some derangement of the Thoracic Duct. Bigelow had a charming way of lecturing. I had the pleasure of an introduction to Doctor Dwight, Doctor Holmes' successor in Anatomy. He is a clear and forcible lecturer, and is destined to become a noted anatomist. He has already added some beautiful sections of bone to the Warren Museum, delineating their anatomical and histological characters. He showed me a way he had of illustrating his lectures, which may be a useful hint to professors of anatomy in Montreal, if they are not already aware of it. It is somewhat after the small transparent slates that children learn to draw with, only on a larger scale. He uses a slate of this kind about 3 feet by 4. In it he puts a bare outline of a certain portion of the body, say head and neck; this shows through the glass. He then fills this up with the muscles, arteries, nerves, as the case may be, with different colored chalks. These may be seen by all the class, and can be rubbed out or put in as required. The various extremities of the body can be taken up in this manner. The veteran ophthalmologist, Dr. Williams, still lectures with unabated vigor on ophthalmology. His distinguished figure still graces the streets of Boston. Long may he continue so to do. Doctor Edes has resigned the chair of Clinical Medicine and gone to Washington to practice. Great things were expected of Doctor Edes. The chair of clinical medicine is now vacant.

Dr. Minot the Nestor in "practice" here is professor of Practice of Medicine. The chair of mental diseases is filled by Dr. Charles F. Folsom, a man of distinguished attainments whom to know is to admire. Dr. Folsom lectures in a clear and scholarly style. The Canadian schools might take a lesson from Harvard in establishing a chair of mental diseases, as I believe none of them have one as yet. That it is an important and necessary chair cannot be doubted. To quote Dr. Folsom in his work on the mind: "The ink on our diplomas is scarcely dry, and we called upon to sign a paper which will send a woman to an insane asylum for life, or deprive a man of the power to make his will; when we cannot for our lives tell the difference between folie circulaire and general paralysis; when we cannot recognize many of the simplest forms of mental diseases in their early stages, and when we do not know whether the best treatment consists in sending our patients to the inactivity of an asylum or for a tramp among the hills, or whether he can as well or better be cared for at home?—an uncertainty, which deprives many of the

benefit of early treatment."

Dr. Durgin lectures in an admirable manner on Hygiene. Dr. Durgin enjoys much popularity among his professional brethren, and is a man of most unassuming manners. It is said that merit always wears a modest mien.

The chairs of Surgery, Obstetrics, Dermatology, Chemistry, Pathology are ably filled by Drs. Cheeves, Richardson, White, Wood, Fitz. Besides the full professorships there are a number of assistant-professors in all the various branches—very able men. Harvard has also a large number of well-qualified instructors in the different departments, assisting the professors and assistant-professors. Instruction is given by lectures, recitations, clinical teaching, and practical exercises. Harvard is recognizing more and more every day the fact that students require practical rather than theoretical teaching; hence she has established splendid laboratories, and frequent demonstrations are given in Bacteriology, Histology, Physiology, Pathological, Anatomy, etc. Practical demonstrations are given in Hygiene, examination of water, houses, etc. I shall refer to the clinical advantages of Harvard when writing of the Hospitals. Harvard has a nine months session, the course extends over three years, there is a fourth year but it is optional; but I opine in the near future that the fourth year will be compulsory, making it a four years course. The special branches as Ophthalmology, Dermatology, Otology, etc., are taken up the fourth year. Most students take the fourth year, although it is not necessary for graduation. The Harvard commencement is held in June. The word "commencement" is used here in contradistinction to your convocation. Convocation has certainly a more dignified ring about it, but to my mind "commencement" seems a more appropriate term. We but commence our career when we finish at College. We get but the outlines at College which we fill up with the ripe experience of after years. I notice in looking over the calendar that the Harvard students are given two hours twice a week for one month practical instruction in cookery. This is an excellent thing. Every medical man should be a good cook or understand something about cooking. The Harvard medical students have no lack of reading matter; they are at liberty to consult the library at Cambridge, the public library which contains over 4,000 medical works, the library in the Medical School itself.

There are four scholarships worth \$200 dollars each given yearly.

Harvard has established a Post-graduate course to enable graduates to further prosecute their studies and to take the place of those courses which one was formerly obliged to go to Europe for. Short courses are given in all the practical branches of Medicine, either separately or the whole course may be taken. Each course runs from \$15 to \$30. The men who give these courses have all studied in London, Berlin, Vienna, etc., and absorbed the ideas of the eminent men in these places, so that one learns almost as much here as in the above places; but then one does not have the reputation of studying in Europe and the mere mention of having seen or studied under Virchow, Billroth, Kock, &c., at once raises one in the estimation of the Medical fraternity, their very name seeming to reflect medical skill. And then how could one get along at the Society if one did not quote German authorities, and refer to one's experience in Wien every opportunity that offers. The students attending Harvard are of a superior class, resembling those seen in the London Hospitals. The standard being high none but the best study here. It struck me that the students seemed some what older here than in Canada or London, men seem to enter the study of Medicine for the most part later in life. The number of students this session is 271; Harvard graduates yearly about 35 to 60. This is somewhat small when we consider the 100 or 200 graduates that other schools in the State send forth; but Harvard looks to the quality not the quantity. She graduates first-rate men, and there is scarcely a town in the United States where there is not one who is proud to call himself a graduate of Harvard. Each year she adds a number of well educated physicians to the profession, who are sure in the long run to have an elevating influence throughout the broad American continent.

J. L. F.

BOSTON, Jan. 5th, 1887.

Society Proceedings.

MEDICO-CHIRURGICAL SOCIETY OF MONTREAL.

Stated Meeting, Nov. 19th, 1886.

J. C. CAMERON, M.D., PRESIDENT, IN THE CHAIR.
Dr. MAJOR exhibited the following cases, taken from his clinic for Diseases of the Nose and Throat at the Montréal General Hospital:

1. *Complete paralysis of the right vocal band*, the result of pressure exerted by a fibroid on the right recurrent laryngeal nerve. The patient, aged 47, a painter by trade, applied for treatment. On examination the right vocal cord was found in a state of complete immobility, and occupied a position midway between that of full inspiration and phonation. A blue line on the gums, and abdominal colic pointed also to lead poisoning. This latter complication, however, in no way nor at any time influenced the laryngeal condition.

2. *Early Laryngeal Œdema (tuberculous)*, with no recognizable pulmonary infection. The patient, aged 50, applied for relief of dyspnoea and a barking choking cough. Œdema of the left arytenoid body alone was present, the swelling was grey in color and of the size of an acorn, and interfered with voice production and deglutition. After a lapse of a couple of weeks a similar condition developed in the right region. Some days later the epiglottis showed signs of swelling and thickening, and later on pulmonary signs became apparent. The lactic acid treatment was adopted, and local improvement followed. The condition of the chest would lead to the opinion that temporary arrest of the disease had taken place there also. The gradual development and extent of the œdema and subsequently lung signs are the interesting features of the case, as was also the general improvement under purely local treatment.

3. *Three cases of Laryngeal Papillomata.*—(a) *In May 1880, Dr. M. performed a tracheotomy on this child, then in her third year, for relief of suffocation paroxysms that endangered life. At an examination preceding the operation the larynx was found filled with watery growths. Canulæ have been worn constantly since, and no evil results have arisen therefrom. The physiological rest afforded the larynx has had a marked effect in arresting the development of the growths as has been proved experimentally during periods of temporary improvement by plugging the tube, when increased activity of the excrescences invariably followed. Absolute alcohol has been used daily as a spray in the larynx by the child's mother with the very best results. At two recent sittings evulsion by cutting forceps had been

* *Vide* writer's paper, "Rest and Tracheotomy," Canada Med. and Surg. Journal, December, 1882.

practised, removing any remaining neoplasms. Particular attention was requested to the healthy condition presented by the vocal cords, there being no alteration of color, diminution of lustre, abrasion of surface, or impairment of movement perceptible. The writer attributed the satisfactory state of the patient to the spray of absolute alcohol and the employment of the quarter circle tube, which latter he considered less liable to produce tracheal disturbance than any of the many other makes in general use. The tube has not been withdrawn and good voice is produced.

(b) A female patient, aged 20, was first seen in October, 1885; complained of loss of voice, hoarse, and painful cough, and great general debility. The larynx was found to be intensely congested as also the traches, which latter was of a raw-beef, purplish hue. The vocal cords were rough, granular-looking and swollen, showed no loss of surface, and there were no growths present. The case was treated locally by astringents, etc., until May, 1886, with little, if any, improvement, when attendance ceased, owing to the writer's absence in Germany.

In September, 1886, when the case was again seen, extensive papillomata of large size were found springing from the vocal cords in all directions and from the epiglottis. These growths were removed at two sittings, when local treatment was again resumed, with the satisfactory results demonstrated.

(c) A lady, aged 24 (a private patient), was referred by Dr. James Stewart of Pictou, Nova Scotia, in August, 1883, and so closely resembles the preceding one in several important particulars, that, although she could not be induced to be present, the history was recorded. When first seen in August, 1883, there was aphonia, or more correctly, dysphonia only. The history given was that of ordinary cold, and had so continued without improvement for two years. On laryngoscopic examination the vocal cords were thickened, red and granular-looking; there were no growths present. Local applications of a very thorough nature were employed over a period of two months, with but little benefit. In September, 1886, the patient, who meantime had passed through a number of hands, placed herself for the second time under treatment. On examination, papillomata were found on the laryngeal face of the epiglottis, and the vocal cords were completely obscured from view by them. There was now complete

aphonia, the breathing was much embarrassed, and coughing was almost incessant. The trachea presented an appearance such as described in the preceding history. The cords also showed at such points along their edges as were visible evidence of erosions and irregularities of surface. After the removal of these neoplasms by means of cutting and crushing forceps, cold iron snare, and V. Schrötter's guillotine, for no one method was in itself sufficient, a very unsatisfactory state of the vocal cords was found. Under local applications of powerful astringents, etc., improvement followed, and a very fair quality of voice has been established.

In the two latter cases nasal respiration was very much impeded, and it was only after the reduction of the hypertrophied turbinated tissue and the restoration of healthy nasal respiration that the local medication of the larynx showed any good result. This fact should not be lost sight of in the treatment of all chronic laryngeal disease. These were at first cases of chronic catarrhal laryngitis, and if nasal hypertrophies had been at first removed, convalescence would most probably have resulted without the transition to papillomata having first to be undergone. In this respect papillomata should form no exception to all other laryngeal conditions, and the dependence of a healthy larynx upon normal nasal respiration cannot be too strongly emphasized. The growths were examined by Dr. Wyatt Johnston, and on section were seen to be radiating papillæ covered with a thick layer of epithelium and having vessels in the centre. No hyperplasia of submucous tissues and no lymphoid nodules were to be seen. The epithelial cells in *c* were larger and more loosely arranged than in *b*.

Dr. Major also showed the following instruments:—

1. An improved nasal traction snare and écraseur.
2. A nasal spud or denuder.
3. An improved nasal écraseur.
4. A laryngometer. A laryngeal mirror engraved on its reflecting surface with a scale for the purpose of measuring movements or spaces in the larynx or composing them relatively.

The nasal snares are both angular, and among other improvements introduce a novel feature in a revolving wheel or pulley placed at the angle of junction of the canula with the shank over which the wire plays, thus reducing friction, increasing

power and imparting strength to the instrument at its point of greatest weakness. The mechanical principal involved requires no vindication.

Perforation of the Gall bladder.—Dr. W. G. JOHNSTON gave an account of an autopsy he had performed for Dr. R. P. Howard. The abdomen was found distended, panniculus and omental, fat excessive. The abdominal cavity contained several quarts of thick sero-fibrinous fluid mixed with bile and of a deep brown yellow color, not foetid. (A small incision made by undertaker for injecting a small quantity of preservation fluid was found in left loin. This fluid, readily recognized by its aromatic smell, was not found in general peritoneal cavity.) The coils of intestines glued together by recent adhesions formed numerous sacculi. In the right hypochondrium the hepatic flexure of the colon was found imbedded in a mass of firm old adhesions, attaching it to the lesser omentum and tissues about gall bladder, which could not be seen till adhesions were dissected off. Near the neck of the gall bladder a small orifice was found, through which thick greyish-brown bile was escaping. On opening the gall bladder this orifice was valvular in character, its size that of a No. 4 sound, and it corresponded to a spot where the mucosa is eroded and the walls thinned. Elsewhere the walls of gall-bladder are flaccid, somewhat thickened and firm, and contained about an ounce of bile mixed with mucopus. Its cavity was divided into three sacculi by the contraction of fibrous tissues in the wall. The middle one of these contained a gall-stone the shape of a bean and about the size of a pigeon's egg; close beside this is a spot where the wall has been eroded, but was secured against the surface of liver by inflammatory fibrous tissue. In a pocket near the perforation, but not corresponding to it exactly, was a small gall-stone the size of a pea. The cystic and common ducts were thickened. Just at their junction, lying really within the cystic duct, but partly obstructing the common duct by its pressure laterally, was a gall-stone the size of a pigeon's egg. A probe could be passed through either duct beside it. No other gall-stones in peritoneal cavity. Duodenum contained gray, clay-colored faeces, but bile exudes from the papilla on pressure. No signs of bile anywhere in intestines. Some slight intestinal catarrh. Liver a little fibrous and fatty. Other organs normal.

DR. HOWARD, in reporting the case, said its

clinical features were of unusual interest. It was a case of acute general peritonitis from perforation of the gall-bladder in a man aged 65. The patient was in good health at the beginning of the month. After four days of epigastric pain, never very severe, patient became jaundiced. Next day there was vomiting; pain in the epigastrium became more marked, especially in region of gall-bladder.

There was not very marked tenderness on pressure, but pain and symptoms of peritonitis extended over entire abdomen. Pain was not sufficient, however, to necessitate an opiate. The temperature on the morning of the sixth day was 100.8° and 99.5° at night; on seventh day, 100.6°; eighth day 100°; and ninth day, 98.8°. The abdomen gradually became enlarged and tympanitic, but still no severe pain. After third day jaundice gradually increased. The diagnosis was very obscure. Cancer could be excluded, and as there was no history of gall-stones, a diagnosis of peritonitis spreading from the gall-bladder was made. It was strange that the escape of so irritating a fluid as the contents of the gall-bladder should have caused no collapse or severe pain. No perforation was diagnosed. It is an important question for consideration whether surgical interference in this case would have availed anything. The gall-bladder was so deeply imbedded in old adhesions that it would be hardly possible for a surgeon to have reached it. The gradual invasion of the symptoms was probably due to the slow oozing out of the contents of the gall-bladder.

Dr. WILKINS asked if non-action of bowels in such a case would not be due to spasm of the muscular coat owing to the peritonitis, and whether an opiate treatment would not be most successful in relieving constipation.

Dr. HOWARD stated that the treatment had been mainly an opiate one.

Dr. GEO. ROSS had been struck, on seeing the case, by the absence of the usual marked features of acute peritonitis, the obstinate constipation and suggested intestinal obstruction. He called attention to the fact that severe acute peritonitis may co-exist with a normal or only sub-febrile temperature, the idea that acute peritonitis necessitated a high temperature being quite fallacious.

Dr. SHEPHERD thought that surgically nothing could have been done. The anatomical features of the case placed it out of the reach of surgical interference. Excision of the gall-bladder could

not have been successfully performed, owing to mechanical difficulties.

Dr. R. J. B. HOWARD suggested that perhaps in a similar case simple ligature of the cystic duct, by preventing the passage of bile from the liver to the gall-bladder, would change the discharge of acrid bile into the peritoneal cavity to one of a little harmless mucus.

Dr. WILKINS asked when the perforation probably took place.

Dr. HOWARD, in reply, said the perforation probably occurred early. There was nothing in the history of the case to indicate sudden rupture.

Bile entered peritoneum gradually.

Dr. A. F. SCHMIDT showed a case of *cancer of stomach*, apparently the whole stomach was transformed into cancerous tissue. There was also an extensive diffuse cancer of the head of the pancreas. The tissues in the neighborhood were extensively infiltrated. The liver contained numerous soft secondary nodules. Bile duct slightly obstructed. Secondary cancer of lungs.

Dr. JOHNSTON thought it difficult to say whether the disease originated primarily in stomach or in pancreas. No definite ulcer nodule, looking like a starting-place, could be discovered. The surrounding infiltration might afford some clue, as this infiltration was much more directly continuous with the growth in the pancreas than with that in the stomach.

Cancer of Œsophagus.—Dr. Ross showed an œsophagus the seat of malignant disease. The symptoms during life were marked and gradually increasing difficulty in deglutition. The stricture admitted a No. 3 bougie. There was no marked emaciation. The patient had died suddenly and unexpectedly, death being due to the bursting of a cerebral abscess. There were no symptoms of brain disease.

Autopsy by Dr. Johnson.—Epithelioma of œsophagus, forming ulcerated surface five inches long. Calibre of gullet not much narrowed. In brain, an abscess was found just above the roof of right lateral ventricle, at its anterior and external part, anterior to the motor area. This had burst into the lateral ventricle. Abscess appeared chronic in nature; did not appear to be connected with the cancer.

Stated Meeting, December 3rd, 1886.

J. C. CAMERON, M.D., PRESIDENT, IN THE
CHAIR.

Case of Leukæmia.—Dr. Stewart showed a man-

aged 32 years, who is suffering from enlargement of the cervical, axillary and inguinal glands. The patient, who is a farmer, first noticed a swelling under his left lower jaw nine months ago. The glands along the sterno-mastoids and above the clavicles are very much enlarged. The swelling is painless, and in some parts has a semi-fluctuating character. Several glands in both axillary regions are the size of hen's eggs. The groin glands are much enlarged also. The patient also complains of weakness, palpitation and breathlessness on exertion. He is decidedly anæmic. He never had any previous illness. Has lost three sisters from pulmonary consumption. There is no evidence of enlargement of the bronchial or mediastinal glands. His breathlessness can be accounted for by his anæmia, and the pressure exerted by the enlarged cervical glands on the trachea. There is no enlargement of the thyroid glands or tonsils. No pain, tenderness or swelling over any of the bones. *Blood*.—Dr. Wyatt Johnston kindly undertook the examination of the blood. It is as follows: "Red corpuscles are well formed, uniform in size, and nummulate normally. White are considerably increased in number. There are numerous small colorless cells (blood plaques?). On staining the blood (Ehrich's hæmatoxylin eosin method), the leucocytes are seen to be mostly small and with mono-morphic nuclei. A very few eosinophile cells and one or two nucleated red corpuscles noticed, but both these elements are very infrequent. By Gowers' hæmocytometer, red cells 3,570,000 per c.m. (71 per cent. of normal); white cells, 200,000 per c. m. Proportion of white to red; 1 20 (an increase absolutely of 13 times and relatively of 15 times the normal). Hæmoglobin index 58 per cent." *Spleen*.—There is a considerable increase in the size of the spleen, its vertical dullness extending from the upper border of the ninth rib downwards, a distance of five inches. Its surface is smooth. *Liver* is also somewhat enlarged, its vertical dullness (in the line of the nipple) reaching from the fifth rib to two inches below the ribs, a distance of six inches. During the last two or three weeks he has been complaining of a dull, aching pain over the lower part of his back. There is no pain or œdema of the lower limbs. Nothing abnormal to be detected in the abdominal cavity.

Remarks.—The case presents some difficulty in diagnosis. Its marked clinical features are the hyperplasia of the superficial lymphatic glands

So marked is this enlargement that at first sight one would be inclined to at once come to the conclusion that it is a case of Hodgkin's disease. The very considerable increase in the number of the white-blood cells, together with the increase in size of both spleen and liver, make it more probable that the case is one of lymphatic leukæmia. Osler, in his article on leukæmia, in "Pepper's System," says that when the white cells increase to such an extent as to bring about a proportion of one white to fifty red, then we have to do with leukæmia. He draws particular attention, however to the variableness of this proportion from day to day. A case, therefore, might be diagnosed one day as lymphatic leukæmia and another day as Hodgkin's disease, if we were to rely solely on the proportion which the cellular elements of the blood bear to each other. There are cases, and the one exhibited belongs to this class, where it takes some time to come to a conclusion whether we have to do with lymphatic anæmia or Hodgkin's disease. Is it possible that a case of Hodgkin's may end in what we call lymphatic leukæmia.

Dr. BELL referred to cases which he had seen in hospital. Cases of Hodgkin's disease lived many years; those of leukæmia died within two years. He thought the present one a case of leukæmia in an early stage.

Dr. SHEPHERD spoke of difficulty in diagnosing between Hodgkin's disease and scrofulous glands of the neck.

Dr. A. LAPHORN SMITH referred to a case of *Torticollis*, previously shown, saying that a history of syphilis had been found. He also exhibited a case of doubtful psoriasis following vaccination. The eruption came out a year ago, soon after the patient had been vaccinated.

Dr. SHEPHERD regarded the case as one of eczema.

Dr. MILLS said that the case was of interest, because of the recent evidence that lymphatic glands are producers of red blood corpuscles, and this case would support it from the pathological side.

Case of Leprosy.—Dr. SHEPHERD exhibited the case, occurring in a man aged 19, a native of Trinidad. He had a well-marked tubercular eruption on the face and hands, and a copious macular eruption on the legs and buttocks. The maculæ were of the size of ten cent pieces, of a bronzed color, and showed some infiltration. The fingers of both hands were crooked and swollen, and

patient could not use them. The claw-like appearance of the hands was very marked. Large bullæ were seen on the hands and wrists, which when evacuated left troublesome ulcers. The patient's face was very characteristic of leprosy, the thickened tissues, dull expression, and tubercular nodules, also loss of eyebrows, and injected conjunctiva, gave the individual an appearance *sui generis*. There were also a number of anæsthetic patches, viz., on the inside of each thigh with atrophy of the skin on right elbow, and on dorsal surface of fingers and toes. The anæsthetic patches have only appeared within the last year. The right ulnar nerve could be easily felt, and was slightly enlarged. The mucous membranes were not affected. The patient had been in this country four years and had been treated for syphilis; he came to Canada by the advice of physicians who thought his disease would improve in a colder climate. He was affected with the disease two years before he left Trinidad; the eruption was then principally on the chest, and disappeared with the use of chaulmoogra oil internally and externally. He said the disease is common in Trinidad, and exists chiefly among the Portuguese. There was no history of leprosy in his family. Dr. Wyatt Johnston had excised one of the tubercles on the nose and had obtained from it the bacilli of leprosy in abundance, a beautiful preparation of which was shown.

Dr. MILLS said that in the skin, as in the eye, it had been demonstrated that blind spots occurred, and thought it would be interesting to see if these corresponded with the anæsthetic areas in leprosy and in other pathological conditions.

In answer to Dr. SMITH as to whether the disease was contagious, Dr. SHEPHERD said that, like syphilis, it was inoculable, but not contagious. Leprous men have lived for twenty years without conveying it to their wives. It was hereditary, usually skipping a generation. Great diversity of opinion exists as to the contagiousness and the heredity of the disease. This is well shown in the reports from the different leper stations.

Cases of Cancer of Pylorus.—Dr. JOHNSTON showed two cases. The first case was from a woman aged 49, a patient of Dr. T. A. Rodger. She always was dyspeptic. A distinct tumor was felt in right hypochondriac region about a year ago. Symptoms of gradual exhaustion were experienced, accompanied with dilatation of the stomach. At the autopsy, the pylorus was found involved

for $2\frac{1}{2}$ inches in a scirrhous growth, lumen still admitting little finger readily; three small ulcers with infiltrated edges were situated near the ring; hyperplasia of mucosa in region of pylorus to a distance of five inches from ring; walls of stomach hypertrophied; cavity not markedly dilated; no infiltration of tissues in neighborhood; no secondary growths anywhere. The second case was from a man aged 50, a patient of Dr. Geo. Ross. The stomach was enormously dilated; pylorus was involved in a dense cancerous mass, wall greatly thickened, and lumen narrowed, only admitting a No. 8 catheter; a little infiltration in neighborhood, but no compression of bile ducts and no secondary cancer; walls of stomach at fundus not so thick as in preceding case.

Dr. Ross stated that his patient's symptoms were those of excessive dilatation of the stomach, requiring the stomach tube to get relief. At the autopsy, a quantity of fibrous pulp was found within the stomach, being the remains of some oranges patient had eaten some time previously. He thought the clinical distinction between this case and the preceding one was accounted for by the much greater degree of constriction at pylorus.

Dilated Stomach.—Dr. BELL reported a case of dilatation of stomach caused by fibrous constriction of an inflammatory origin at pylorus. An abscess filling lesser omentum had burst and caused fatal general peritonitis. It communicated with the stomach through an ulcer in the pylorus. He thought the disease began as the result of an injury to abdomen received in a fall eighteen months before, and that the patient's life would have been saved by an operation proposed to him, but refused.

Bifid Meckel's Diverticulum.—Dr. JOHNSTON showed a case of Meckel's diverticulum ilei having a bifid extremity. He did not know of its having any anatomical significance.

Dr. SHEPHERD stated that this was the first example he had seen of a bifid Meckel's diverticulum.

Extreme Dilatation of the Heart.—Dr. JOHNSTON also exhibited a specimen of extreme dilatation of the right side of the heart, from a man aged 40. The right chambers contained 27 ounces of blood and a soft clot. Tricuspid orifice measured 9 mm. in circumference. Pulmonary orifice slightly dilated; valve competent; other valves normal. Dilatation of left ventricle only trifling. No hypertrophy of heart wall and no marked

degeneration of the muscle. Patient had also right-sided chronic tubercular pleurisy with the dense fibrous exudation and acute uniform miliary tuberculosis of both lungs in an extreme grade in connection with the arterioles. The case was considered puzzling as to causation. No caseating mass was discovered anywhere, and no communication of any such mass with the veins or thoracic duct. The adhesions could not embarrass the circulation in any way, unless by interfering with the contraction of the right auricle. He thought the obstruction to pulmonary circulation in arterioles would have aggravated the dilatation of the right heart.

Dr. GEO. ROSS said the clinical history was that of an acute pleurisy four months ago not well recovered from. A prominent feature was the marked heaving pulsation in epigastrium.

Dr. STEWART thought that the above explanation did not account for so extreme a dilatation. The patient might previously have had parenchymatous changes in heart muscle which were not now to be recognized.

Puerperal Cerebral Embolism.—Dr. ROSS exhibited specimens from a case in which an abortion was followed three months ago by embolism of left Sylvian artery, causing right hemiplegia with aphasia. A presystolic murmur existed. The autopsy by Dr. Johnston showed extensive warty vegetations, but no sclerosis of mitral valve. The left Sylvian artery was obliterated and transformed into a fibrous cord. There was softening of the left corpus striatum and interior capsule.

Dr. SHEPHERD thought the embolism was excited by fibrous condition of the blood at parturition. He had reported a similar case to the Society, with embolism at three successive labors.

Tuberculous Disease of Bladder and Kidney.—Dr. JOHNSTON exhibited for Dr. Bell specimens from a case, a boy aged 19, where a cystotomy wound had remained unhealed. Death followed in one year with symptoms of pyelo-nephritis. Autopsy showed old tubercular disease of right kidney and ureter; the bladder was nearly free from disease, but prostate was extensively involved. The granulations of the wound were tubercular, and sections showed tubercle bacilli in them. The other kidney and ureter were healthy. The lungs showed acute tuberculosis.

Dr. BELL said the patient had chronic disease of knee-joint; apparently tubercular.

Tait's Operation.—Dr. WM. GARDNER exhibited the uterine appendages removed from two patients during the past three weeks. In the first case the ovaries were cirrhotic and densely adherent behind a retroflexed uterus. Free bleeding followed the separation of the adhesions, treated by the drainage-tube. The patient had been an invalid for fourteen years from pelvic pain and profuse and painful menstruation, with severe headaches. She is slowly recovering. In the second case, both ovaries were enlarged and cystic, the left the size of a hen's egg; no adhesions. The symptoms were profuse, and painful menstruation and constant pelvic pain. Patient recovered without a single bad symptom. In both cases the abdominal incision was an inch and a half in length only.

Dr. GARDNER also reported that a lady, on whom he had performed ovariectomy in the fourth month of pregnancy, had been confined a week ago, at full term, of a male child weighing ten pounds. The patient was the mother of two children, and had suffered for many years from cough, hæmoptysis, and purulent expectoration. The labor of six hours' duration. It was followed by inertia of the uterus, with alarming hemorrhage. She is now recovering without any complication. The cough and expectoration continue. Dr. Gardner remarked that operative measures were much preferable and safer than the old treatment of tapping the tumor or bringing on premature labor.

Dr. TRENHOLME asked for the symptoms which led to the operation.

Dr. GARDNER replied—Intense pain in pelvis and back, vomiting, and headache. Last pregnancy fourteen years ago, and suffered ever since. Patient was very neurotic.

Dr. MILLS read a paper upon "The Cause of Heart-beat and other Problems in Cardiac Physiology."

Dr. ARMSTRONG congratulated Dr. Mills upon having performed so important a service to science in doing this original work, and also congratulated the Society in being able to receive so valuable a paper.

Dr. STEWART had until now always cherished hard feelings against Mills, Gaskell and the others who had recently overthrown the old cardiac physiology which had appeared so complete. In studying the action of drugs the new researches had had a most unsettling effect upon his views;

but he thought that when the theories advanced by Dr. Mills were formulated the matter would be put on a sound and at the same time simple and comprehensible basis.

Progress of Science.

ON THE USE OF ARSENIC IN CERTAIN FORMS OF ANÆMIA.*

By WILLIAM OSLER.†

In an address last year, Dr. Wilks remarked that in therapeutics we do not so much need new remedies as a fuller knowledge of when and how to use the old ones. I do not know a more striking illustration of this than is afforded by arsenic, a good old remedy, for which an almost new use has arisen in certain cases of pernicious anæmia. The attention of the profession was directed to the subject by Bramwell in 1877, and although various reports bearing witness to the value of this drug have appeared from time to time, the knowledge of its efficacy does not appear to be very widespread, and there are still points in connection with its employment upon which we need information. These, I trust, discussion may bring out, and render clear the direction which future observation should take.

In treating a case of anæmia, it is of the first importance to ascertain, if possible, the cause. For convenience, and until the present complex pathology is simplified, we may classify the anæmias into secondary and primary; the former induced by causes acting upon the blood itself, the latter the result of disturbance in the blood-making organs. This distinction, not always clear, serves to separate two clinical and pathological groups of cases.

The secondary anæmias are the most common, and arise from a variety of causes, as hæmorrhage, prolonged drain of albuminous material in chronic disease, and the action of toxic agents in the blood. In very many of these conditions a return to the normal state follows naturally upon removal of the cause, and the regeneration of the corpuscles may take place with extraordinary rapidity, as after a copious bleeding or a sharp fever; but, as a rule, iron in some form will be found useful or indispensable. In three of these secondary anæmias I have found arsenic very beneficial.

1. *The anæmia of Heart-Disease.*—In chronic valvular trouble we not infrequently meet with an impoverished condition of the blood, which materially aggravates the cardiac distress. The comfort of such patients is in direct proportion to their corpuscular richness, and without any apparent

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increase in the valve mischief, a reduction in the ratio of the corpuscles is followed by shortness of breath, palpitation, and signs of heart-failure. The value of iron in this condition is well known, and its combination with digitalis a universal practice. Arsenic is also indicated in these cases, particularly in children, or if, as sometimes happens, iron does not agree. In June of this year I saw a lad J. W., æt. 14, who had had chronic valve-disease for four years. He had been wintering in the South, and went afterwards to the Arkansas Hot Springs. When I saw him the anæmia was very marked, and he suffered from breathlessness on the slightest exertion. There was no cardiac distress, and the compensation was not seriously disturbed. At the Hot Springs he had several chills, with fever, for which he had taken quinine. He was ordered Fowler's solution of arsenic, beginning with M iii, three times a day, and increasing to M vi, if well borne. He had been taking an iron and strychnine pill for several weeks, and had with him a boxful, which he was advised to finish. Digitalis was prescribed, but was not to be taken unless there were signs of heart-failure. The diet was carefully regulated. The lad improved rapidly, and within six weeks had a good color, and had gained several pounds in weight. He had not needed the digitalis. The arsenic was well borne. The improvement had continued on the 3rd of this month. Possibly here there was a malarial taint but, in any case, if medicinal agents had anything to do with the rapid improvement, the credit is due to the Fowler's solution.

2. *In Malarial anæmia.*—The value of arsenic in chronic ague poisoning is so well recognized that I need scarcely detain you with the narration of cases in support. There have been several at my clinic during the past year in which the improvement in the blood condition, as tested by the hæmacytometer, has been very remarkable. One case in particular from Cape May, I may refer to, as the patient, with enlarged spleen, had on two occasions hæmorrhage from the stomach. The arsenic in this case was pushed for several months in increasing doses. At one time he took Mxxxvi of the Fowler's solution daily. When last heard from, in July, he was at work, and had gained in flesh and strength. On May 12, the date of the last blood count, the percentage was over eighty (it had been scarcely fifty), and the spleen had diminished materially in volume. In certain of these cases the ratio of the corpuscles may increase rapidly without any essential change in the volume of the spleen. In the case of M. D., a girl of 15, who has been in the University Hospital on several occasions for the past two years, the arsenic, which was very persistently employed, does not appear to have reduced the spleen in the slightest degree, and yet under its use the corpuscles rose to eighty-five per cent. In this instance, with a history of malaria, there is evidence also of congenital syphilis, to which may possibly be due the splenic enlargement. Injections of

arsenic into the substance of the organ were tried without benefit.

3. *Certain Anæmias of Gastric Origin.*—As a tonic in debilitated states of the stomach, arsenic has long been a favorite remedy with many practitioners. It is sometimes also of great service in the anæmia of chronic gastric catarrh, particularly in alcoholic patients. A good illustration of this was under my care at the Philadelphia Hospital this spring. W. G., aged 25, waiter, hard drinker, history of dyspepsia for several years. Admitted April 5 with anæmia and attacks of giddiness. Ill for ten days; vomiting, pain in stomach, and fainting spells on attempting to stand. Had been failing in strength for some time and getting pale. Had suffered from palpitation, and said he had vomited blood. He was profoundly anæmic, and could not stand without danger of fainting. Tongue coated; great irritability of stomach; vomiting on the slightest provocation; great throbbing of abdominal aorta. He was kept at rest, given a milk diet, and Fowler's solution in 3 drop doses. The red corpuscles were not more than twenty-five per cent., and the coloring matter about the same. The improvement was rapid, and by the 21st the corpuscles had risen to over forty per cent., and the gastric irritation had almost disappeared. The arsenic was well borne, and was gradually increased to Mvii t. i. d., and on May 4 he was ordered small doses of nitromuriatic acid. On May 17 he left the hospital with a fair digestion and, for him, tolerably good color. On June 24, when re-admitted with extensive pleuro-pneumonia, he stated that he had recovered strength rapidly, and had been at work. Possibly in this case, there was ulceration of the stomach in addition to the chronic catarrh; but, whatever the condition, it was one in which the arsenic seemed to be highly beneficial, and, as he received no other medication, we may reasonably attribute to it the stimulation of the blood-making function. As we shall see, there are anæmias of gastric origin in which this drug is powerless. There are some of the secondary anæmias which have, in my experience, been apparently benefited by the use of arsenic.

Turning now to the primary group, we have here again for convenience to make a division of the cases. There is, first, a large section of what may be called cytogenic anæmias, in which the reduction and alteration in the corpuscles is associated with evident changes in the hæmatogenous tissues,—the spleen, lymph-glands, and bone marrow. Sometimes these changes are accompanied by an increase in the colorless corpuscles of the blood; and, depending on the organ involved, we then speak of splenic, lymphatic, or medullary leukæmia. If there is no marked increase in the white corpuscles we call the cases splenic anæmia, lymphatic anæmia (Hodgkin's disease), and medullary anæmia. The pronounced leucocytosis in certain of the cases, which gives a special character to the blood, is probably not such an

important factor as we have hitherto supposed, and there are such insensible gradations between the cases that in a strict classification they may be appropriately grouped together. Secondly, there is the curious primary anæmia known as chlorosis, characterized by well-marked etiological and anatomical peculiarities; and, thirdly, we have the much-discussed affection, pernicious or essential anæmia.

The anæmias of this primary group offer a remarkable therapeutic study, embracing cases of the most hopeful and the most hopeless character. A clearer knowledge of the etiology and pathology of certain of these forms may give a clue to lines of treatment more fortunate than those we now possess; for, if we except chlorosis, the majority of the cases of this class of anæmias prove fatal. Leukæmia, splenic anæmia, when non-malarial, Hodgkin's disease, are considered incurable affections, and very many of the cases of pernicious anæmia prove obstinate to all treatment.

The relation of arsenic, as a remedy, to this group of primary anæmias is worthy of our closest study, more particularly as of late years remarkable results have been reported from its use. Chlorosis may here be excluded from our consideration, as it would only be in a strangely obstinate case that a practitioner would require to employ arsenic. The specific action of iron in increasing the defective hæmoglobin of the corpuscles, and doubtless, also, in stimulating the formation of new ones, is one of the few instances in therapeutics in which definite tissue-changes, under the influence of a drug, may be followed with scientific accuracy from day to day and from week to week.

In *leukæmia* and *Hodgkin's disease* arsenic has been extensively tried, occasionally with temporary success. We must bear in mind in these affections that there are natural periods of improvement without any special medication. I have met with this in leukæmia, and it must be taken into account in our estimation of the effect of a remedy. Personally, I have not seen any benefit from the use of arsenic in this disease. It was given in several of the eleven cases which I saw in Montreal, all of which were fatal. In Hodgkin's disease the report is more favorable. In 1883 I had two cases both in women, in which the large glands of the neck and armpits reduced materially under the prolonged use of Fowler's solution, but I do not know the subsequent history of the cases. Several writers have reported most satisfactory results. Karewski* had three recoveries, and of eleven cases treated at the Stockholm Hospital five were benefited.† The persistent use of it in full doses for many months is probably the most efficacious remedy we possess in this disease.

In cases of *splenic anæmia* of non-malarial origin, I cannot say that I have seen any special benefit from arsenic.

We come now to *pernicious anæmia*, in which so much has been gained by the judicious use of this drug. Pernicious anæmia includes cases of very diverse etiology. Any severe anæmia tending to a fatal termination may well be termed progressive and pernicious. In a considerable proportion pregnancy and parturition appear to have been determining factors, while others can be directly traced to defective food, as in many of the Zurich and Berne observations. Excluding these, we have a group of cases of which the etiology is obscure, and to which, in our present knowledge, the terms *idiopathic* of Addison and *essential* of Lebert are applicable. Every year, however, we are reducing the number of cases which we can strictly call idiopathic. It is reasonable to suppose that the extensive changes in the bone marrow found in certain instances are directly related to the profound disturbance in blood formation, just as is the case in hyperplasia of the spleen or of the lymph-glands. An anæmia medullaris is now very generally recognized. Then there are the cases of pernicious anæmia in which the primary disturbance seems to be in the gastro-intestinal canal, and the condition of the blood the direct consequence of the impaired nutrition. There remain cases in which none of these conditions prevail, and neither during life nor after death do we find any clue to the origin of the anæmia. To such, for the time, the designation *idiopathic* is applicable. Clinically, it may be impossible to distinguish between these various forms, and the etiology is often very obscure and gives us no help. The cases which come on during or after pregnancy, or which result from inanition, are readily recognized, and offer, as a rule, a more hopeful prognosis; but we cannot yet with any accuracy separate during life the cases in which there is atrophy of the mucous membrane of the stomach, or extensive medullary changes, from those in which these conditions are absent. A more careful study may in the future enable us to do so, and I have laid stress upon these differences in etiology and pathology, because in them will possibly be found the explanation of the success or failure of certain remedies.

Prior to 1877 arsenic was not systematically employed in pernicious anæmia, and to Bramwell is undoubtedly due the credit of its introduction. Neither Müller‡ nor Eichorst,§ in their elaborate monographs published in 1877 and 1878, speak of its use. Padley,|| in an interesting review of the question, has carefully analyzed the cases in which arsenic was not employed, and finds that of forty-eight, forty-two were fatal, while twenty-two cases treated with arsenic sixteen recovered, two improved, and four proved fatal; and he remarks, that "in the whole list there is not, with one exception, a single authentic case of recovery in

* *Berliner Klin. Wochenschrift*, 1884, 17 and 18.

† Abstract in Year Book of Treatment for 1884.

‡ *De Progressive Perniciöse Anæmia*. Zurich, 1877.

§ *De Progressive Perniciöse Anæmia*. Leipzig, 1878.

|| *Lancet*, 1883, ii.

which arsenic did not form the chief part of the treatment." Certainly the reports of this affection since 1880 have been much more encouraging, and it need not necessarily be regarded as "almost invariably fatal," to use the words of a leading text-book. Of three cases of pernicious anæmia which I have seen this year two have already proved fatal, and one in a fair way to recovery.

CASE I.—A man, aged 42, I saw with Dr. Henry. We reported it in full in the April number of the *American Journal of Medical Sciences*, and it is remarkable as an instance of pernicious anæmia, with advanced atrophy of the mucous membrane of the stomach. Arsenic was given during the course of the disease, but not for any length of time, as it seemed to bring on diarrhœa.

CASE II.—A woman, aged about 45, I saw with Dr. Weir Mitchell on January 20. She had been the subject of dyspeptic attacks for some years, and had become very pale, and during last year the anæmia reached an extreme degree. With rest, systematic feeding, iron, and arsenic she improved, and was able to go home and attend to her household duties. I saw her in January on her way South. She returned in March very much worse; was again placed on the plan of treatment which had proved so successful in the first attack, but the stomach was so irritable and the digestive power so enfeebled that she sank, and died on the 18th of April. The improvement in her first attack was attributed by Dr. Mitchell to the careful feeding and rest as much as to the medicine.

CASE III.—An active business man, aged 43; seen March 4. History of dyspepsia, and for the past six months failure in strength. Shortness of breath on the slightest exertion, and at times attacks of agonizing pain at the heart resembling angina. He had not lost much flesh; indeed, as is usual in these cases, the subcutaneous fat was well developed. When first seen, the anæmia was marked; lips and tongue very pale, and sclerotics pearly. The general surface did not look so pale, on account of his dark color and a decided saffron-yellow, sub-icteroid tint of the skin. The temperature was a little elevated; pulse 100, and of moderate volume. With the exception of heart-murmur, there were no symptoms elicited in the examination of thoracic and abdominal viscera. The blood showed in a marked manner the corpuscular changes of advanced anæmia. The blood count could not be made at the time, but when I next saw him, two weeks later, there were only 700,000 red corpuscles to the cubic millimetre, and the color presentage was only about twenty. He was put to bed, absolute rest, given a milk diet, ordered massage once a day, and as medicines bismuth and carbonate of sodium, with Fowler's solution Mv, three times a day, to be increased one minim daily at the end of a week. He had been taking, by the advice of his physician, an elixir of iron and strychnine, which was continued. For two months there was not much apparent change, though the ratio of the colored corpuscles

increased to over 1,500,000 per cubic millimetre. The arsenic had been pushed to 15 drops three times a day, when puffiness of the eyelids and forehead came on, and it was omitted for a week, and started again with Mv. On reaching Mxiii a slight red rash appeared, and it was stopped, and, after beginning at Mv again, he reached Mxx t. i. d. On these large doses he seemed to improve more rapidly, and he bore them for two weeks or more, when gastric irritation supervened, with diarrhœa. The drug was then stopped for ten days, and pills of $\frac{1}{10}$ of a grain of arsenious acid ordered. On January 31 he was allowed to get up. By June 13 he was able to move to Cape May. The blood condition has rapidly improved, and at the last count the corpuscles were nearly 4,000,000 to the cubic millimetre. When seen on September 7 he looked remarkably vigorous, had a good appetite, was at business, and feeling very well. It would be incorrect to attribute the success in this case entirely to the arsenic, but rather to the plan of treatment, in which it was a very important factor. It will be found, I think, that absolute rest in bed, with daily massage, and the strictest attention to feeding, are most important features in the successful management of these cases.

Arsenic has been spoken of as a specific in pernicious anæmia. This is a mistake. The disease, as I have indicated, is so varied, and results from the operation of such diverse causes, that we cannot expect any one remedy to be uniformly active. In a majority of the cases iron is useless, but it sometimes succeeds after arsenic has failed absolutely. Such a case was reported by Finlay* last year, which was cured by iron after a thorough and but ineffectual use of arsenic. I do not think we understand fully the conditions in which it is most serviceable, and for the time we must be content to employ it empirically, on faith of the success which has attended its administration in so many cases. Ultimately, we may hope to be able to discriminate between the cases which call for iron and those in which arsenic is indicated, and with this object in view the cases which come under observation should be carefully studied.

Mode of Administration.—I usually give the liquor arsenicalis (liquor potassii arsenitis), beginning, in an adult, with Mv three times a day. Occasionally this is found too much, and I reduce the amount to 2 or 3 minims. After ten days, if well borne, I order an increase of a minim each day, so that by the end of the second week the patient is taking 10 or 12 minims three times a day. This is kept up for a week, and then gradually increased until the physiological effects are obtained. The amount which will induce these varies with different individuals, and those who bear it best seem to improve the most rapidly. I have thought sometimes that the small doses are not so well borne as larger ones, and are more likely to cause

* *Lancet*, 1885, i.

gastric irritation. Young people bear it remarkably well. Within the physiological effects there is no special limit to the quantity, and, as in chorea, I make them my guide in the administration. A very important point is the continuous use for many weeks or months, omitting for a few days if unpleasant effects arise. Even after apparent recovery I advise the continuance of the drug. When the liquor arsenicalis is not well borne, the arsenious acid in pills may be tried, or the solution may be given hypodermically. In these cases of severe anæmia I never care to use hypodermic injections systematically, as I have seen ecchymosis of the tissues follow, and in several instances distressing small abscesses. By the rectum, it is usually well borne.

The three points I would indicate for this are:—

1. In what secondary anæmia is arsenic beneficial, and under what conditions is it preferable to iron?
2. In pernicious anæmia what cases are benefited by arsenic? What by iron? How shall we frame rules for our guidance in the matter, or must we still work empirically?
3. In the administration of arsenic, what is the best form and method?—*Therapeutic Gazette.*

CONTRIBUTIONS TO PRACTICAL SURGERY.

BY PROF. JOHN CHIENE.

Amputations of the Hand. In partial amputation of the fingers and thumb, utilize any available skin for the flaps. Let your main object be to leave as long a stump as possible; do not sacrifice length in order to follow any special method of amputation. Let the cicatrix be, if possible, posterior, using the tissue on the anterior aspect of the digit for the principal covering to the divided bone. When the injury or disease is such as to necessitate amputation at a higher level than the attachments of the flexor and extensor tendons to the second phalanx, is it right to go at once to the knuckle and perform complete amputation of the finger? If the tendons can be saved and attached to the bone then the first phalanx should be left. If this cannot be done, then amputate at the metacarpo-phalangeal joint.

In amputating a digit, or a digit along with a portion of its metacarpal, avoid, if possible, any interference with the palm of the hand; avoid a cicatrix in the palm; a cicatrix in this situation is apt to be tender, and this interferes with the grasping power of the hand.

In amputating a finger do not interfere with the breadth of the hand. In a case requiring removal of one or more metacarpals leave, if possible, healthy periosteum; new bone is formed, and a more useful hand is the result. Let this rule regarding the periosteum hold good, very specially in connexion with the metacarpal bone of the thumb. Any osseous projection at the radial edge of the hand is a point of attachment for the muscles

of the ball of the thumb, and is of the greatest use as an opposing point to the fingers.

In patients in whom manual labor is their source of income, do not, in amputating the fore and little fingers, interfere with the heads of the corresponding metacarpals, if a sufficient covering can be obtained. In other cases, for the sake of appearance, the head of the metacarpal may be removed obliquely.

Take, if possible, your main flap in amputating any of the fingers from the flexor aspect of the finger. Do not approach the palm in your incisions. In the middle and ring fingers the best result—looking to use and not to appearance—is obtained in the following way: Enter the knife at the knuckle, carry it outwards and forwards towards the web until a point midway between the anterior and posterior aspects of the web is reached. Do the same on the other side of the finger; these two incisions form a right angle with each other. A flap is then made from the anterior aspect of the first phalanx. The finger is removed, and the flap is turned back into position, the apex of the flap fitting into the angle where the incisions begin over the knuckle. By this method, the incisions do not approach the palm, the breadth of the hand is not interfered with, and the resulting cicatrix is posterior.

In crushes of the hand save as much as possible; save a finger or a portion of a finger; save any part of the thumb; save any portions of the metacarpals. The most useless natural hand is more useful than any artificial substitute.

In *contractions of the palmar fascia* Busch's operation in severe cases affords the best result. In simple cases the subcutaneous division of the tense fibres is generally sufficient. It is to be remembered that there are two directions in which the contracted fascial fibres must be divided parallel to the skin surface, and at right angles to the skin surface; by the first, the fibres at right angles to the skin surface, which dip down between the flexor tendons, are divided; by the second, the longitudinal fibres of the contracted palmar fascia are divided.

Busch's operation consists in dissecting the contracted fascia from the flexor sheaths by a V-shaped flap, the apex of the flap looking to the wrist; the fingers are then extended, and the flap attached with horse hair stitches to the incision, while the opposing edges of the proximal portion of the raw surface are accurately stitched together. The result is a Y-shaped cicatrix, and an extended finger or fingers with no tendency to subsequent contraction.

In *wounds of the palm* the persistent hæmorrhage is often due to the palmar vessels being simply punctured, and not cut fairly across. Divide the artery wounded by deepening the accidental wound. Retraction of the wounded vessel takes place, and simple pressure is sufficient to arrest the hæmorrhage. Check the force of the blood flow by fully flexing the forearm on the upper arm with

a pad at the bend of the elbow. By these means the hæmorrhage is arrested; if it still persists, plug the wound in the palm; if this fails, tie the brachial artery.

Whitlow. In deep-seated digital inflammations over the first and second phalanges, the cause is either an inflammation of the flexor sheath, or it may have a periosteal origin. In inflammation over the anterior aspect of the terminal phalanx, the cause is periosteal, and the worst that can happen is necrosis of the terminal phalanx.

In all cases make your incision early, central and in the long axis of the finger. Relieve tension, and prevent spread of the inflammation from the flexor sheath on the finger to the common flexor sheath on the anterior aspect of the wrist. In periosteal cases early incisions prevent necrosis of the affected phalanx. Whitlows are infective conditions, and are due to a colony of micrococci. The periosteal whitlows are cases of acute suppurative periostitis.

Relieve the tension, and the evil effects of the pathogenic micrococci will soon subside; prevent sepsis caused by the entrance of septic organisms from the external air, and rapid healing will be the result. In patients who are liable to whitlows, as in people who suffer from boils and carbuncles, administer corrosive sublimate internally, it is a most powerful antifermentative.

In *inflammation of the common flexor sheath* relieve the tension by making an incision into the sheath in the forearm above the angular ligament. Take care and not injure in your incision the median nerve; adopt Hilton's method to avoid the risk. After opening the flexor sheath in the forearm, pass a curved probe-pointed bistoury from the wound under the angular ligament, divide it with the knife, and in this way the palmar tension is effectually relieved.

In *amputation* for injury or disease in the upper extremity, do not follow, at the cost of length, any special method of amputation; get your flaps as best you can, so as to obtain as long a stump as possible. The longer the stump the easier it is to fit on an artificial substitute. In severe injuries of the upper extremity in which an endeavor is made to save the limb, more especially in cases in which the line of fracture is oblique, or in which, from comminution of the bones, it is difficult to keep the fragments in accurate position, remember that the use of the extension apparatus is as valuable in the upper as it is universally acknowledged to be in the lower extremity. Thick sheet lead makes a most efficient splint, it can be easily moulded to the injured limb over the dressing; by its weight it steadies the limb and keeps it at rest.

In all *fractures* near the joints the soft tissues are to a certain extent saved from injury when the bone gives way, but still in all cases there must be some injury to the tendons, muscles, joint, and ligaments. These structures require, for the proper performance of their functions, nobility; prolonged rest to prevent any risk of non-union of the

fractured bone, may be followed by stiffness of the neighboring joint, by adhesions of the ligaments, and organized effusion into the sheaths of the tendons. The result is a united fracture with a stiffened joint.

Non-union of bone does not occur in consequence of occasional gentle passive movement along with massage, if in the intervals the parts are kept at perfect rest. Non-union is much more likely to occur if slight constant movement is allowed between the broken ends. For example in fracture of the shaft of the humerus, and in fracture of the shafts of the radius and ulna, it is important to keep the elbow-joint at rest by means of a rectangular splint. If the elbow-joint is not kept quiet, there is more or less *constant* movement at the seat of fracture. This movement is very different from gentle passive movement every second day, with perfect rest in the intervals, as in fractures in the region of the wrist, elbow, and shoulder.

In Colles' fracture allow the patient to move his fingers and thumb after the first week, and after ten days take off the splints every second day and move the fingers, thumb, and wrist-joint gently. Take off all splints at the end of 4 weeks. Too prolonged rest in this injury often ends, more especially in old people, in irremediable stiffening of the fingers, thumb, and wrist-joint.

In fractures into the elbow-joint early gentle passive movement at the end of a fortnight every second day prevents stiffness of the elbow-joints.

In fractures of the upper extremity of the humerus begin passive movement after a fortnight.

In *dislocation* of the thumb, backwards at the metacarpophalangeal joint, dorsi-flexion of the thumb, with pressure on the head of the dislocated phalanx, is the simplest way to treat the case. In dislocation of the fingers the extension is best made by means of a toy made of plaited strong grass, so arranged that it can be easily slipped over the finger, but when it is pulled upon it grasps the finger tightly.

Fractures of the third and fourth metacarpals are diagnosed with difficulty. They are best treated by an anterior splint. Oblique fractures of the phalanges are most troublesome. It may be necessary, in such cases, to apply extension. An anterior splint, carefully padded so that there may be no pressure on the ball of the thumb, stretching from the bend of the elbow well beyond the tips of the fingers, is fixed to the fore-arm by sticking-plaster. An elastic band is attached to the injured finger by sticking-plaster, and extension is kept up by fixing it to the extremity of the anterior splint.

In fractures of the phalanges utilize the neighboring fingers as lateral splints, padding carefully between the fingers so as to prevent discomfort, excoriation, and itching. Skin should never be allowed to remain any length of time in contact with skin. In fixing the arm to the trunk in fracture of the clavicle and in fracture of the upper extremity of the humerus, if a layer of lint is not

placed between the arm and the chest much discomfort will follow.

In these fractures it will generally be found that the broken ends of the fractured bone are best brought into apposition by bringing the arm well across the chest, so that the hand lies on the opposite shoulder.

In fixing the arm the use of a long strip of sticking-plaster fixing the limb to the trunk is a simple way of treating these injuries. In green-stick fracture of the clavicle, a common accident often overlooked at the time of the injury, the strip of sticking-plaster is the best method of treatment.

In the fracture of the clavicle at the coraco-clavicular ligament there is no displacement. In fracture of the clavicle external to the coraco-clavicular ligament there is no downward displacement, and the forward displacement is not observed at the time of the fracture, but becomes very evident at subsequent date. Treat all fractures by simple means; let wood, pasteboard, and lead (in cases in which the patient is confined to bed) be your mainstays, avoid all special forms of apparatus.

In *sprains*, carefully applied elastic pressure, with wadding, combined with massage and passive movement, gives the best results.

In diagnosing an injury look before you touch the limb. Remember the normal relations of the styloid processes in diagnosing injuries in the region of the wrist; the relations of the head of the radius to the external condyle, the relations of the olecranon to the internal condyle of the humerus in the elbow-joint; and let the coracoid process and its relation to the head of the humerus be the principal guiding landmark in injuries of the region of the shoulder.

Always expose the uninjured corresponding region, examine it in the first instance, and let it be your standard (having satisfied yourself that it is normal) in diagnosing the injury on the opposite side.

In *amputations of the toes*, a partial amputation may be performed in the great toe; in the other toes partial amputations are inadmissible; avoid any incision in the sole of the foot. Remember that the foot is a tripod, and that its stability rests on the integrity of three points of support—the ball of the great toe, the ball of the little toe and os calcis; interference with any one of these lessens the value of the foot as a basis of support. Any narrowing of the foot approximating the two anterior points of support also renders the foot less stable.

Utilize the plantar surface for the principal flap in amputations through the tarsus and at the ankle joint. In amputation at the tarsometatarsal joints and in amputation through the centre of the tarsus, after marking out the flaps by incision down to the bones, it is best to disarticulate and dissect the bones off the long plantar flap from behind forwards.

In all amputations in the lower extremity sacrifice length in order to obtain a stump that will

bear pressure. A painful stump is worse than useless; with it the patient has no comfort, and cannot wear an artificial support.

In amputations above the ankle the long anterior flaps give the best result. In amputation below the knee the modified circular is, as a rule, preferable to the long posterior flap. If the latter method is adopted a posterior leaden splint, curved so as to support the long posterior flap is the best means of preventing retraction. In all amputations the posterior leaden splint is the best steadier of the stump. Lead as a splint, from its weight and plasticity, makes an excellent splint in many injuries, and after operations, both in upper and lower extremities.

In sawing the bones in amputations in the leg always enter the saw upon both bones at once, so that the fibula may be divided before the tibia. In amputation below the knee it is often difficult to secure the arteries. When such difficulty arises take a curved needle, threaded with catgut, and pass it into the tissues behind the bleeding point so as to include the tissues around the vessel in the ligature.

In amputation for injury through the shaft of a long bone the periosteum may be divided at a lower level than the bone; if this is done it is best to save the periosteum on the anterior surface of the bone, and allow a flap of periosteum to hang over the divided medullary cavity. Do not stitch it for fear of deep-seated tension.

In amputation at the hip-joint amputate by the circular method below the trochanters, tie the vessels, turn the patient round so that he lies on the uninjured side, make a vertical incision over the trochanter, keeping well back where the vessels are not important and the trochanter is most superficial, and disarticulate the head of the bone.

In all amputations for injury, in which the patient has lost much blood, save any blood escaping at the time of the amputation, and mixing it with a 5 per cent. solution of phosphate of soda, as described by Mr. John Duncan (*MED. ABS.*, p. 59), inject it into the main vein before stitching together the flaps.

Ulcers are due to a local or constitutional cause; in most cases the local cause is the direct excitant, the constitutional cause rendering the patient more liable to evil consequences from the local irritation. Unless in the case of a burn or other distinct traumatic cause, always be suspicious of a constitutional cause if the ulcer is situated on any part of the body except the lower half of the leg, and even then be suspicious if the ulcer is on the posterior aspect of the limb. Ulcers are prevented from healing either by a congested or an injured state of the limb. Simple rest in the recumbent posture, elevation of the limb, and careful elastic pressure are the indications for treatment under which painful, foetid, and spreading ulcers will, with few exceptions, become painless, sweet, and clean. Improve the vitality of the soil, and the putrefactive organisms will die out, not finding a suitable nidus or their further growth and development. The use

of antiseptics, such as iodoform and chloride of zinc (40 grs. to the ounce) is of secondary importance to an improvement in the vitality of the limb. They are, however, very valuable as adjuncts to the elevation treatment. After the ulcer has assumed a healthy appearance, if the patient must go about, apply elastic pressure *before* the patient arises from bed. This is a most important point, which possibly Dr. Martin was the first to insist upon.

When a patient is brought under your notice with pain in the knee, for which you cannot find any evident local reason, always carefully examine the hip; and in a patient who limps as if from hip-joint disease, if you do not find in the hip evident objective symptoms of joint disease, always carefully examine the back. He may be suffering from vertebral disease, with effusion into the psoas muscle under the psoas fascia.

In fractures of the leg use the box splint—two pieces of wood rolled in a sheet. See that the foot is kept at right angles to the leg, and thus retraction of the heel is prevented. Take care that there is no eversion of the foot. In oblique fractures use extension.

In fractures of the patella fix to the anterior aspect of thigh a large piece of sticking-plaster, and make through it extension on the quadriceps extensor cruris—elevating the limb on an inclined plane with a foot piece.

In fractures of the thigh use extension with the weight and pulley, take care that the weight is not too heavy, and measure the limb every third day, so that the weight may be reduced. The too prolonged use of the weight may result in delayed union or in non-union. In children, in restless adults, and in cases of delayed union, use a double long splint with a transverse cross piece. In other cases a single long splint is sufficient; with the double long splint the patient is fixed in a wooden box, so that he can only move his arms and his head.—*Edinburgh Medical Journal*, June, 1886.

NOCTURNAL INCONTINENCE OF URINE.

BY DR. H. PICARD.

(*Le Progrès Médical*, May 15.)

In order to form an exact idea of the mechanism of nocturnal incontinence—which belongs almost exclusively to young children—it is necessary to thoroughly understand in what micturition consists. The urinary apparatus has two functions to fill: The production of urine and its expulsion. We now speak only of the latter function. In the normal condition the urine which fills the bladder cannot flow back through the ureters because their orifices are closed by a sort of valve whose occlusion becomes more and more hermetic as the bladder becomes full. On the other hand the bladder, when full, contracts without our consciousness, and in compressing its contents against the uretro-vesical orifice, which it distends, gives rise to the desire to urinate. The urine does not run forward, firstly because the tonicity of the muscular fibres

of the vesical sphincter and the urethral orifice suffices to retain it in the bladder when a flow is not needed; and secondly, if the desire is marked, and we wish to resist it, the contraction of the muscles of Guthrie and of Wilson comes under the influence of the will, reinforces the involuntary muscles, and maintains the urine in the bladder. In the contrary case we make, in the first place, a light effort, which, in contracting the diaphragm, supports the intestines upon the bladder and aids its contractions; and then we relax the voluntary muscles of the deeper parts of the urethra so that the involuntary muscles being no longer sustained, the urine cannot fail of expulsion. Here is then, in the physiological state—and this is a capital point in the subject which occupies us—an *opposition* between the action of the bladder and that of the urethra. The contraction of the latter, it is seen, is indispensable to the distention of the former during its time of repletion. Urethral relaxation, however, is voluntarily effected when the bladder contracts for micturition. Now, it does not matter in how small a degree the equilibrium may be interrupted between these two forces—the urethral which retains and the bladder which expels—the disturbance must result in incontinence. Well, in the infant up to 15 or 18 months, this equilibrium is absent, the contractility of the bladder being very great, whilst that of the urethro-vesical sphincters does not exist. The involuntary muscles are too weak at this time and the will is still incapable of causing the voluntary muscles to contract. So, in early infancy, incontinence is normal, and is diurnal as well as nocturnal.

When incontinence is prolonged after 2½ to 3 years it is abnormal, and at 4 years it has already become an infirmity, only, it ordinarily becomes at that age, wholly nocturnal. This abnormal prolongation of a normal condition is not invariably the origin of nocturnal incontinence, and sometimes we see cases of children who, although they have adopted correct habits at 3 or 4 years, become nocturnal urinators at 7 or 8.

Why does incontinence cease in the daytime in children who have it at night? Because in the waking condition the will intervenes in contracting the urethral muscles subjected to its influence. Also, it is observed that some children sleep so profoundly that the desire to urinate is powerless to awaken them. In these cases the sensation goes to the medulla which conducts it to the brain; but this organ, made insensible by sleep, does not perceive the impression and, therefore, does not make any effort to contract the voluntary muscles. But the medulla, which perceives the sensations and responds to them as well during the night as during the day, relaxes the muscular fibres so that the neck of the bladder being no longer closed by either, allows the urine to escape without the knowledge of the individual. In children within this category the emission takes place at the time when sleep is most profound. Trousseau cites a striking example in the case of a girl who was

always awakened during the first half of her sleep and caused to urinate, but who, nevertheless, urinated in her bed during the remaining half of her slumber. As she explained it, she urinated during the second part of her sleep because it was then that she slept most heavily.

In many urinary incontinents, the vesicle contraction is so prompt and energetic that the urine emerges almost before they have been conscious of the desire, and without their having been able to arrest its flow. So, during the day, if by idleness or distraction, these children do not attend to the first sensation of a desire to urinate, they soon become suddenly pressed by the necessity, and often let the urine flow into their clothing. The equilibrium is broken, the expulsive force of the bladder having been augmented, whilst the retaining force of the urethra had remained the same, or had become weakened. This is shown clearly in the fact that if you make an incontinent child urinate in your presence at the time they usually feel the desire, you will see the urine thrown out by a violent impulsion; Again, if we introduce a catheter into the bladder, and gently throw in an injection, we find that it returns with force through the instrument, though we had no trouble whatever in introducing the instrument itself; and this shows how vesical power, when conjoined to sphincterian weakness, upsets the equilibrium.

In certain cases of incontinence of urine, sleep is normal, but the impression of the desire to urinate appears so weak that it is powerless to cause the contraction of the sphincters. The same consequences follow, the child urinates without awaking. In this kind of incontinence the urine sometimes flows involuntarily during the day, but without the jet being thrown out more energetically than in the normal state.

Whatever may be the result of too forcible vesical contractions, of powerlessness in the neck, of too profound sleep, or of weakness of sensational impression, these are not the only occasional causes of incontinence. A too dense condition of the urine will produce the same effect because its acidity excites vesical contractility and makes the desire to urinate livelier and, therefore, more pressing. This kind of urine is easily recognized without scientific examination. Ordinarily limpid, though sometimes nebulous, we find that at the time of its emission it thickens in proportion to its lowness of temperature. When cooled it leaves thick deposits which are often taken for pus but are chiefly urates. The urine becomes clear again when subjected to heat.

Some of the vermicular inhabitants of the rectum, which emerge at night, and invest the genito-urinary organs, provoke an irritation which gives rise to a desire to urinate by contracting the bladder, thus acting in the same way as acid urine.

A contracted prepuce or meatus is often accompanied by incontinence of urine. But in these cases the mechanism of the trouble is differ-

ent. It is generally an incontinence caused by engorgement. The bladder is full, and the little patient retains his urine on account of the pain which micturition causes him, so that the urine escapes from time to time in spite of his efforts to retain it. If you introduce the catheter after he has urinated you will find that a considerable amount of urine has been left in the bladder.

Inflammation of the deeper parts of the urethra produces the same results, whilst inflammation of the bladder does not permit any accumulation of urine.

All of these causes may also have the effect of giving rise to dreams during the course of which the child urinates in the belief that he is doing so in his vessel. I say nothing about children who urinate in bed from pure laziness; that kind of incontinence is not a malady.

Has the general condition an influence upon the incontinence of urine? The question is much discussed. To me it is evident that delicate children are more subject to the trouble than others. But an undeniable cause lies in heredity. The children of nervous parents, and especially those suffering from nervous diseases, are often predisposed to incontinence. This is not surprising in a malady which, whatever idea we may form of its mechanism, can be little else than a neurosis of sensibility or motility.

Nocturnal incontinence of urine generally ceases with puberty, but we not unfrequently meet with cases of persons of 20 to 25 who are troubled with it more or less constantly.

The principal medicaments used in this affection are: Belladonna, when the trouble results from an exaggerated contraction of the bladder; and nuxvomica, when it proceeds from weakness of the peri-urethral muscles.

The rules for the giving of belladonna have recently been laid down by Trousseau. He commenced by giving a pill of 1 centigramme of the extract at bedtime; this was continued for several days. Then, without stopping on account either of the cessation or persistence of the malady, he augmented the doses to 6, 7, 8, 9 and 10, and in some cases to 15 or 20 centigrammes. If there was no intolerance he pursued the treatment for a month or two, or for a considerable time after the cure seemed to be effected. Where the pills are not well borne a syrup of equal parts of syrup or belladonna and syrup of tolu is used.

Where belladonna causes congestion of the face and eyes, we may use bromide of potassium in doses of 15 centigrammes for a child of 4, and 50 for one of 12 years. Very much larger doses may be given if they do not disagree. A good way to give it to children is in soup.

Nuxvomica is usually given to children in syrup, containing 5 centigrammes of sulphate of strychnia and 100 grammes of simple syrup. The dose is a dessertspoonful (containing 5 milligrammes of the drug) for children of 5 to 10 years, and it is given morning and night for two days. If

it is well supported, an interval of two days is allowed, and then 3 teaspoonfuls are given morning and night for two days. Then follows another interval and a further augmentation of dose until the amount has reached to 6 teaspoonfuls. Care must be taken to make the intervals with exactitude. This accomplished, the doses are raised by a dessertspoonful, and continued in the same way up to six dessertspoonfuls (containing 60 grammes of syrup and 3 centigrammes of strychnia). A tablespoon is then substituted and the dose augmented until it reaches 120 grammes of syrup. Above the age of 10 we commence by giving a dessertspoonful, and progress in the same way to 200 grammes of the syrup, or 10 centigrammes of its active principle.

Strychnia in augmenting reflex actions may, in high and long continued doses, create a tendency to spasm. The patients must be watched, and the treatment interrupted when they complain of stiffness in the jaws and the muscles of the neck, of headache, vertigo or visual troubles. The accumulative properties of the medicament must also be borne in mind, and proper intervals made when necessary.

Owing to the care needed in the administration of strychnia, some practitioners are now making successful use of ergot in these cases. Like strychnia it certainly has the power of causing muscular contraction. It is given in powder, 20 centigrammes in sweetened water morning and night for a child of 4, 25 cent. for those of 5 to 6, and 30 to 50 for those of 14 or 15 years. These doses may be continued for 10 or 15 days and interrupted for a few days during a month, or a little over, when it will usually be found that the medicine has produced its effects. Of ergotin be preferred it may be given in pills of 10 centigrammes, of which 2, 3 and even 5 may be taken daily at proper intervals. In certain cases where the augmentation of the vesical contractility appears to be associated with a weakness of the urethral muscles, strychnia or ergot—which would here be better—may be used in conjunction with the belladonna.

Of all the remedies used for the incontinence caused by contractile insufficiency in the urethral muscles, electricity is perhaps the most efficacious. One of the poles may be applied over the perineum and the other upon the abdomen over the bladder, or in the rectum. Grusse reports very many cures by this method. In obstinate cases one of the poles is introduced into the urethra and the other is applied to the hypogastrium, the perineum, or is introduced into the rectum. The use of this method sometimes frightens children and their parents, but it is not painful. Its effects, when it cures, is almost immediate, and when it does not cure it affords great relief. The peptonate of iron is a proper adjuvant to use simultaneously with ergot, strychnia or electricity, for if these give special tone to the muscular fibre, the albuminate fortifies the general system and reconstitutes the

blood corpuscles. Hydropathy, like iron, is a powerful tonic, but should be used prudently. Sea baths are often successful with lymphatic and scrofulous subjects, and sulphur baths in cases of nervous affections.

Where incontinence is caused by inflammation of the bladder the best means is to inject the organ with a few drops of nitrate of silver of 1 to 200 or 1 to 500, according to age and the severity of the case. Soothing drinks, with a little bicarbonate of soda added, act well in cases where the urine is too dense, or too acid. Incontinent children should take their evening meal early, and be somewhat restricted in the use of drinking water at night.

Parents should be directed to find out the hour at which the child is likely to urinate in bed, and wake him up a short time before it arrives. In the daytime care should be taken to encourage him to urinate only at certain hours fixed at a reasonable time apart. This is the best way to habituate the bladder to retaining urine. Where it is certain that incontinence is caused by carelessness, prudent correction should be administered. Trousseau tells of an obstinate case of incontinence in a full-grown girl, whose malady had resisted all medicaments, but who gave way at last to the nightly attacks of a determined mother armed with a whip.

INTERNAL HÆMORRHOIDS AND HOW TO TREAT THEM.

By C. B. NANCREDE, M. D.,

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Unless indurated, an internal hæmorrhoid often escapes detection by the examining finger if the patient is recumbent. An injection of warm water, followed by straining efforts, or a gentle dilatation of the sphincter under an anæsthetic, is the most satisfactory method of detecting them; sometimes a speculum will suffice, without either injection or dilatation. Careful examination by the finger should be made of the rectum higher up, since the piles may be symptomatic of a stricture of the rectum. If, after inspection, there remains any doubt as to whether a pile be external or internal, or whether it is both, Allingham's advice of returning all the protrusion possible within the sphincter and by gentle pressure, while the patient is directed to draw up the lower part of the gut, will resolve all doubts, *i.e.*, that which remains outside is external pile.

For the radical cure of internal hæmorrhoids these procedures are available, *viz.*: 1, injection; 2, strangulation with the ligature; 3, the clamp and cautery; and 4, screw crushing. Excision must never be contemplated, since fatal hemorrhage has often followed it. The ecraseur is only mentioned to be condemned.

Injection.—For this purpose pure carbolic acid is far superior to all other agents. Although some

authorities contend that all varieties of internal piles are adapted for the carbolic acid treatment, we consider this to be an error, and one calculated to bring this method of operating into disrepute, as it has done that by nitric acid in the past. Only those piles which are but slightly hyperplastic, and situated well above the sphincter, should be injected. These piles may prolapse, but when returned, lie well above the sphincter. In this form they are merely varicose blood vessels, whose contents can be coagulated, or whose walls can be stimulated to contraction after partial or complete thrombosis of some of their tributaries has decreased the intravascular tension. Perhaps, in addition, some hyperplasia of the submucous tissue may be set up, which will prevent any future tendency to prolapse, and strangulate also some few vessels. Restricted as I have said, this method will prove useful, especially in cases with regurgitant heart lesions or enlarged prostate. It should never be used for indurated piles, since, unless sloughing is set up, the tumors—and with them the tendency to prolapse—cannot be removed, and if the tumors are to be removed, more exact and controllable methods should be employed. Although often unattended with discomfort, this method sometimes gives agonizing pain. Small marginal fistulæ may result, requiring splitting up if they do not spontaneously heal. If the injection, especially if strong, be thrown *beneath* the pile into the general submucous tissue, or if too strong a solution be used for a small pile, a most serious ischio-rectal abscess often results. Ulceration is said to be not uncommon, but tractable. I believe most of these accidents can be avoided by care, and by only injecting piles such as I have described.

Operation.—The tumors must be well exposed by a previous warm-water enema, aided by the patient's straining. If this do not suffice, use a speculum (the small end of a Sims' uterine acts admirably when not too large), or draw down the tumors by toothed forceps or a tenaculum. An ordinary hypodermic syringe will do, but the one specially constructed for the purpose, as sold by most instrument makers, is better. The needle point "must be entered perpendicularly from the apex, and not passed upward under the mucous membrane in a longitudinal direction, so that the injection reaches the central tissue of the pile." After injection, the pile, if prolapsed, must be gently replaced, and each injection had better be followed by a day's rest in the horizontal posture. In some cases all rest may be dispensed with, but quiet is better. Provided the patient's bowels act regularly, no after treatment is required. The strength of the solution must vary with the result aimed at. Kelsey advocates the injection of five drops of pure carbolic acid into large, vascular, well-defined prolapsing tumors, "expecting to produce a circumscribed slough resulting in a radical cure." Such an injection will, in some instances, produce evanescent toxic effects. I have never myself used the pure acid, and should

hesitate to do so with my present experience of other methods. A solution containing one-third carbolic acid, repeated several times, will, according to this author, produce a cure without slough. "A small, slightly-protruding, non-pedunculated tumor, merely felt as a prominence on the mucous membrane, may be cured by a single injection of a five per cent. solution, which will cause it to harden and shrink, while a fifty per cent. solution might give a good deal of trouble." With the weaker solutions the treatment will last from three to four months, the injections to be repeated twice weekly, unless sloughing is produced. One pile only should be treated at a sitting, but if very large, two or more injections may be used of a solution varying from five to twenty per cent., introduced some distance apart. As can be gathered from the foregoing sentences, even in the hands of its most ardent advocates, this method is neither always painless, nor does it insure against confinement to the house, and, more rarely, serious sequelæ follow. I must confess to considerable disappointment following my own use of the method; still, I consider, for soft, non-prolapsing or only slightly prolapsing piles, especially in those with chronic hepatic or cardiac trouble, it is the best, if not the only, method to be advocated.

Operation by the Ligature.—Gentle, but forcible stretching of the sphincter should be a preliminary to either the ligature, cautery or crushing operation. This manœuvre gives ready access to the parts, and saves the patient from the painful pinchings of an irritated sphincter. The best position for the patient in all pile operations is the Sims' position for operations on the uterus or vagina, in which he should be placed after full anæsthesia has been induced. Some few patients, by previous injections of a four per cent. cocaine injection into the bases of the piles, will permit an operation without general anæsthesia. A preliminary evacuation of the bowels by means of a laxative given the night before, and a tepid enema a half hour or so before the operation, should not be omitted. After full dilatation of the sphincter, each pile in turn should be seized with a volsellum-toothed forceps or tenaculum, and separated from the muscular and connective tissues by dissecting it up with the scissors parallel to the bowel. The incision is to be started in the sulcus, commonly indicated by a whitish line, where the mucous membrane and skin meet. As the vessels run parallel to and just beneath the mucous membrane, entering the pile at its upper part, the dissection can be carried on without danger until the tumor is connected by a pedicle composed only of the vessels and mucous membrane. A strong, well-waxed ligature must now be carried well down to the bottom of the wound, the pile be firmly pulled out, and the thread tightly tied as high up the pedicle of the tumor as possible. The surgeon had better begin with the smallest piles when a number are present, lest they be overlooked, and

the most inferior ones should be attacked first, so that the flow of blood may not obstruct the operator's view.

After each pile has been tied, the bulk of it must be removed by the scissors, leaving only enough to prevent the ligature from slipping; the latter must be cut short, and when all the hæmorrhoids have been dealt with, the stumps must be carefully returned into the bowel well within the sphincter, after having been well dusted with iodoform. Any external tabs of skin requiring removal should now be snipped off in a radiating manner with the scissors, bearing in mind that a too free removal of skin may cause undue contraction of the anus.

Before recovery from anæsthesia, a rectal suppository containing a couple of grains of opium should be introduced into the rectum, and a compress of lint or cotton firmly secured over the anus by a T bandage. This tends to obviate anal spasm and consequent pain.

Operation by Clamp and Cautery.—Each tumor must be separately dealt with, being firmly drawn out by a volsellum or tenaculum, so that the clamp can be carefully applied to the base of the hæmorrhoid. After securing the clamp tight, the operator should remove, with a pair of curved scissors, all of the tumor which projects above the clamp, except about a "scant fourth of an inch;" if the stump be cut too short, the cautery cannot act effectively in sealing the vessels. The stump, after having been wiped dry, should be slowly and thoroughly cauterized with the iron at a dull red heat, destroying the stump down to the surface of the clamp. Special attention should be paid to sealing the vessels at the upper end of the pile, where its chief vascular supply enters. Another method is to use either a dull chisel or serrated-edged cautery, which must be made to travel along the upper surface of the clamp until the protruding portion of pile is removed.

Whichever method has been employed, after the cauterization has been completed, the clamp must be loosened, turn by turn, and while this is being done, care must be taken to press it well down against the bowel, lest the stump slip out too soon; if, during the loosening, any vessel bleeds, it must be cauterized anew, with or without retightening the clamp, according to the flow of blood. All the piles having been treated, the stumps are to be gently returned well up the bowel by the oiled finger, an opium suppository introduced, and an anal pad and heavy T bandage applied. Some oozing always results from the mucous membrane where compressed by the clamp, but must be disregarded.

The advantages of the cautery over the ligature are said to be immunity from tetanus, pyæmia and hæmorrhage, the less chance of retention of urine and the freedom from pain. All these accidents have, however, happened, and while I personally prefer this method to the ligature for prolapsing indurated piles, yet no method—not

even the injection plan—can be said not to occasionally terminate fatally. *This fact must never be forgotten.* Upon the other hand, a tenaculum, a pair of scissors, and ordinary strong ligature silk are all that are needed for the tying operation. These the general practitioner has always at his command, while a proper clamp and cautery—I prefer the Paquelin, when obtainable—is only in the possession of the few. I think the cautery is a safer operation when done by one accustomed to this method, but I would recommend the tyro to depend upon the ligature.

In the same way, Mr. Pollock's operation of "screw crushing," as modified by Allingham, requires a special instrument, which none but specialists, or, perhaps, a few general surgeons, will possess, so that I shall not speak further of this method beyond saying that it has received the unqualified sanction and preference of so great an authority as Mr. Allingham.

After-treatment.—This is the same for any of the radical operations. The diet should be light and unstimulating, such as beef or mutton broth, beef tea, milk, tea and toast, etc., until after the first movement of the bowels, when a more liberal diet may be instituted. Unless there is some special condition demanding their use, wine, beer or spirits should be strictly interdicted. If retention of urine occurs, a warm hip bath is indicated, and often suffices; if not, the catheter must, of course, be used. The bowels had better be opened on the third or fourth day by castor-oil emulsion, aided, perhaps, by an olive-oil injection carefully thrown into the bowel just before the stool, which may be thus rendered almost painless, although the patient should be warned that he may experience severe pain and have a little bleeding. The bowels—kept quiet, if necessary, by paregoric—should be again relieved in two or three days, when—*i.e.*, after the lapse of a week—if the patient has not, previous to operation, lost much blood, he may be allowed to exchange his bed for a sofa. At the end of ten days—better two weeks—although the cut surfaces are not usually entirely healed, they are in a condition to allow of moderate exercise or a return to light work. An enema should precede every motion for at least two weeks longer, since a positive movement or hard straining at stool will sometimes, so late as ten days or more, induce rather smart bleeding from the congested granulating surfaces. Should the resulting ulcers fail to heal, or extend after any method of operating, *rest in bed* and stimulating local applications, with attention to the action of the bowels and general health, must be resorted to.

When a very extensive operation has been performed, it may be well for the surgeon or patient to pass the well-oiled forefinger or a small rectal bougie through the anal orifice once or more daily for a few weeks, to prevent undue contraction; this is, however, very rarely necessary, unless the skin around the anus has been recklessly cut away.

I think that I have now demonstrated that there

is no such thing as "the best treatment" for piles, but that each variety and each individual case must be treated indifferently; that many cases will need no operative treatment so-called, and that a minute scientific knowledge of this disease, as of all others, teaches, theoretically, what proves to be the best treatment, and explains why methods empirically adopted are clinically successes or failures.—*Phil. Polyclinic.*

THE TREATMENT OF GONORRHOEA BY IODOFORM.

Dr. Alexander V. Khrul, of Irkutsk, recommends (Proceedings of the Eastern Siberian [Irkutsk] Medical Society, 1885, p. 34) the treatment of gonorrhoea after the method of Dr. Watson Cheyne (described in the *British Medical Journal*, 1881), somewhat modified, which he has successfully practiced about two years. An ointment made of one part of iodoform and ten parts of vaseline is somewhat liquefied by heating, and then aspirated (by suction) into a fine elastic catheter, the latter being anointed externally with the same mixture, and introduced into the urethra to the depth desired.

The ointment is blown out of the catheter by the operator's or patient's mouth applied to the free end of the instrument. The advantages claimed for this plan by the author, on the ground of seventeen cases, are as follows:

1. It enables even deeper parts of the urethra to be subjected to the direct action of the iodoform.
2. While covering the urethra walls, the ointment gives them sufficient protection against any irritating influence of the urine.
3. The method enables us to get rid of internal administration of balsamic drugs, which are injurious, being apt to produce renal pain, albuminuria and nephritis.
4. On the other hand, it enables one also to get rid of the treatment by watery injections, which do not allow any prolonged contact of the medicaments with the diseased mucous membrane.
5. The ointment produces a strikingly rapid narcotic and disinfectant action, the painful phenomena of the acute stage disappearing within twenty-four hours.

The method is especially indicated in persons with irritable urethra and kidneys. The single drawback is the necessity of aspiring and insufflating the ointment by the mouth, which procedure may appear rather unattractive, even to not over-fastidious people. However, it might be replaced by the use of an India-rubber contrivance.—*London Medical Record.*

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SUDDEN CHANGES OF CLIMATE.

Mr. E. V. Robins, in the *Popular Science Monthly* for December, says:—

"If a blizzard of unusual severity were coming from the northwest that would send the thermometer down 50° or 70° in three hours, we should expect a great increase of pneumonia and other respiratory diseases, resulting in many deaths. Now, instead of three hours, suppose the mercury were to drop threescore degrees in three minutes—or, take another step in fancy, and suppose this great change to take place in three seconds—what would likely be the effect on health? And yet we bring about, artificially, changes to ourselves quite as sudden and as severe as this.

We make an artificial climate in our houses. We live in-doors in an atmosphere heated by stoves, furnaces, or steam pipes, to 70° or 80°, and we pass from our parlor or hall, so heated, into the open air. At a step, literally in a breath, the temperature of the air has, for us, dropped 50° or 70°. We may put on an extra coat or shawl and shield the *outside* of the body and chest, but we cannot shield the delicate linings and membranes of the air-passages, the bronchial tubes, the lung-cells. *Naked* they receive the full force of the change—the last breath at 70°, the next at freezing or zero—and all *unprepared*. We have been sitting, perhaps, for hours in a tropical atmosphere; nay, worse, in an atmosphere deprived by hot iron surfaces of its ozone and natural refreshing and bracing qualities. Our lungs are all relaxed, debilitated, unstrung, and in this condition the cold air strikes them perhaps 60° below what they are graduated to and prepared for. Is it strange if pneumonia and bronchitis are at hand?

If we are at the West Indies, or even in Florida, and wish to come north in winter, we try to make the change gradual. But in our houses we keep up a tropical climate, or worse, for you have not the freshness of air that prevails in an open tropical atmosphere, and we step at once into an atmosphere as much colder as 40° difference of latitude will make it. It is in effect going from Cuba to Iceland, or at least to New York, at a

step, and we make the journey perhaps a dozen times a day. And often, while we are still shut up in our domiciliary Cuban climate, Iceland comes down upon us from an open window. Especially is this likely to occur in school-houses, where children will instinctively seek to get a breath of fresh air that has not had all its natural refreshing qualities quite cooked out of it by hot stoves, furnaces, or steam-pipes. And all these sudden changes and shocks of cold come upon us while the whole system has its vitality and powers of resistance gauged down to the low necessities of a tropical climate."

There is, of course, a great deal of truth in the above remarks, and those of us who reside in the northern part of the continent are, perhaps, a little better fitted to realize the fact, than are those who live where intense cold is not the rule in winter. Yet nature is wonderfully alive to the necessity which exists to train up those thus situated to withstand the sudden transitions to which they are subjected. Theoretically speaking, we should have a series of apartments, each of a gradually lower temperature, through which we should pass, with a brief sojourn in each, before passing into the outer atmosphere. This is the rule in Turkish baths. Of course, in our daily life, such a practice is quite impossible, and that we do not suffer by passing from a room at a temperature of 70 to a temperature of 20 below zero is simply because nature has trained our apparently delicate internal organization to it. Still even with us, there comes a time when our organization is so weakened, either by failing health or advancing age, that Pneumonia, Pleurisy or Bronchitis is a common result of this sudden transition of temperature. Can anything be done to prevent it? We think there can: Aged and weak persons should not go out during intensely cold weather, and any who may be compelled to do so should be taught to breathe through their nostrils, and to keep the mouth shut. This, we believe, is the route which nature intended air should pass on its way to our lungs. But to many this is a practice difficult of accomplishment. Such persons should wear a respirator, and in this way warm the air they breathe. If this was done we are satisfied that many a life would be saved, which is now lost during our severe winter weather.

PERSONAL.

Dr. F. W. Campbell, Surgeon of "B." Co. Infantry School Corps, took rank as a Surgeon Major in

the Canadian Militia in October last, after twenty years service as a Surgeon.

Dr. J. Leslie Foley, (M.D. Bishops College, 1880) has recently successfully passed the examination for the fellowship of the Massachusetts Medical Society. He is in practice in Boston. We hear he was lately offered the position of Assistant Physician of the Utica Insane Hospital at an excellent salary and perquisites. His prospects in Boston, however, are so good that he declined.

Dr. Howard, of St. Johns, Que., who has been so seriously ill since August, 1885, is, we are glad to say, so far improved as now to be able to get out occasionally. We but echo the wish of his many friends when we express the hope that before many months, his improvement may be still more marked.

Dr. Blackmer (M. D. Bishops, 1883) of St. Louis, Mo., was in Montreal this month on his wedding trip.

Dr. J. M. Mackay (M.D. Bishops College, 1879) has been appointed Inspector of Anatomy for the City of Quebec.

Dr. Kannon (M.D. Bishops College, 1879) has removed from Montreal to Los Angeles, California. He was doing well in Montreal, but he made the transfer on account of his wife's health. We regret to hear that hardly had he arrived at Los Angeles than the house in which he was staying took fire, and that the Doctor lost most of his goods, including his Diploma from Bishops College, and the License of the College of Physicians and Surgeons of Quebec.

Dr. Gillard, (M.D. Bishops College, 1885) of Jamaica, is at present in Montreal on six months sick leave. Dr. Gillard is employed in the Colonial Service.

Dr. Blackader, Instructor in diseases of children in McGill University, Faculty of Medicine, has returned from a three months' sojourn on the Continent in search of the latest medical knowledge. We are glad to find Dr. Blackader looking much improved from his trip.

Dr. Roddick, Professor of Clinical Surgery, McGill University, has gone to Florida on a trip for the benefit of his health.