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Original Articles

CASE OF PYOPNEUMOTHORAX WITH HEMIPLEGIA.

BY R. J. DWYER, M.B.(TOR.), M.R.C.P.(LOND.)

Lecturer in Medicine and Clinical Medicine, Toronto University; Physician to St. Michael's Hospital; Registrar Toronto General Hospital.

L. C., aged 24; news carrier; admitted February 7th, 1903; complained of weakness of right arm and leg, and difficulty in speaking. The symptoms appeared suddenly, thirty-six hours before admission, while he was at work. They did not compel him to cease work until about eight hours later, but they rapidly became worse, so that he had to be removed to his home. Family history: Father living and healthy, age 53; mother dead, of consumption, aged 45; one brother and one sister living and healthy. Personal history: He has always been delicate; seven years ago had pleurisy; a year ago had consulted his family physician, who reports that he found the heart "on the right side of the chest." His occupation, as a news carrier, has exposed him to considerable fatigue and inclemency of weather. For some years has been addicted to the use of stimulants, consuming several glasses of whiskey a day; does not use tobacco. No history of rheumatism nor venereal disease.

Present condition: Pulse 78, respiration 28, temperature 98.4 deg. General inspection: Development and nutrition much below the average; presents the appearance of a delicate youth of 16 rather than that of a man of 24. Little sign of beard; has never shaved. Expression somewhat disturbed. Faint zymotic

tint of nose, ears, and cheeks; complexion generally pale; breathing quiet and regular.

Special examination: Right side hemiplegia marked, though not absolute, impairment of movement being more marked in the upper extremity than in the lower, and in the distal joints of both, than in the proximate. Thus, in the arm, movements at the wrist are abolished, and almost so in the fingers. He can, however, with difficulty flex the forearm, while the shoulder movements are fairly well preserved. In the leg flexion is readily though weakly performed, while movements of the ankle and toes are almost absent. Right side of the face smoother than the left, but little asymmetry of forehead. Tongue protruded to the right, apparently no anesthesia. Speech is slow and labored, pronunciation being difficult and objects occasionally misnamed. Understands promptly spoken and printed language, and can read aloud much better than he can converse.

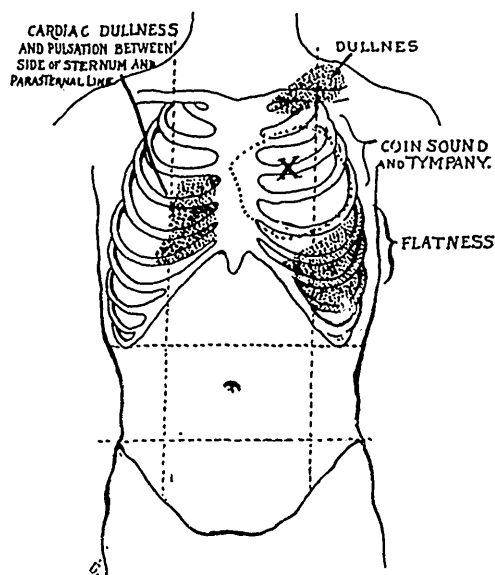
Respiratory system: Inspection shows the left half of the chest to be uniformly distended, immobile, and absence of apex beat. The right half shows marked thoracic breathing and cardiac impulse in the fifth and sixth interspaces near the nipple line. Percussion: There is flatness on the left side up to the clavicle in front. At the side, and behind the left of the scapular spine, above the clavicle and above the scapular spine, dullness is nearly complete. On the right side cardiac dullness extends almost to the anterior axillary line. The liver on palpation, is found to be displaced downwards to one inch below the ribs in the nipple line, and two inches below in the parasternal line. Auscultation: Neither breath sounds nor cardiac sounds over the left front. Very faint breath sounds in the left supra-spinous fossa. On right side breath sounds are harsh, but clear. Heart sounds heard best in right parasternal line. Has occasional cough, with scanty expectoration; no abdominal distension or edema of the legs.

Orders were given for immediate aspiration, which was done, by the house physician, Dr. Wainwright. About thirty ounces of opaque white fluid pus, of a faintly greenish tint, were drawn off. Examination the following day revealed the presence of pneumothorax on the left side. The space occupied by the air extending almost to the clavicle above, and to the right edge of the sternum internally; and below, to the sixth rib in the nipple line, the outer boundary being about the anterior axillary line.

(This area, as well as the area occupied by the heart will be most readily seen by a reference to the following chart, with its accompanying legend.)

On raising the patient to the sitting posture, the level of the fluid promptly shifts from the sixth to the third rib in front; no succussion, however, could be obtained.

Subsequent history: Microscopical examination revealed no tubercular bacilli in the sputum, and no organisms were discovered in the pus, though special search was not made for tuberculous bacilli. Careful search failed to reveal the site of the opening in the lung. For two weeks all his symptoms improved, the hemiplegia almost disappearing, the grasp of the right hand be-



Level of fluid comes to X on sitting up. Note that the area of tympany extends almost to the right edge of sternum, also that the cardiac dullness is still on the right side.

coming quite firm, though obviously weaker than the left; the aphasia, too, becoming much less pronounced, though it was observed that sustained conversation gradually increased it. At the end of this time, however, the symptoms somewhat suddenly returned, so that he was worse than on admission, the hemiplegia being nearly complete, and the fluid, as shown by the dullness, increased to the level of the fourth rib. Two days later both aphasia and hemiplegia were complete. At this time marked increase in the knee jerks and supinator response on the right side were first noted; extensor response also present. Aspiration was again performed, and fifty ounces of fluid, similar to the last,

were drawn off. After this aspiration, the signs of pneumothorax extended down to the seventh rib, and out to the mid-axillary line.

Several days later he made some attempt at speaking, and was reported to have pronounced several words distinctly. About this time an interesting phenomenon was observed. On being spoken to, he would make desperate efforts to reply, the only result being an oath, which was rhythmically repeated. Obviously, this was very distressing to him, as he quite understood spoken language.

At present, this peculiarity is absent, having gradually passed off, and speech has somewhat improved. Two weeks from the last aspiration, this operation was again performed, and seventy ounces of fluid drawn off. During this interval there was no change in the hemiplegia, but some rigidity of both arm and leg has appeared, and all the reflexes have become more exaggerated, and a marked ankle clonus developed. Ten days later another seventy ounces of fluid was removed, having gradually reaccumulated in the interval.

His condition at present is as follows: The signs of pneumothorax extend down to the sixth rib, below, and out to the anterior axillary line; evidently the fluid is returning. The heart has not materially changed its position; pulsations still being in the second, third, and fourth interspaces on the right side, and the dulness as shown in the chart. The hemiplegia has slightly improved, so that the movements are about as they were on admission. There is no movement, however, in the wrist joint. The reflexes are much exaggerated, and there is distinct rigidity, with extensor response. There is little or no cough, and his nutrition has not diminished; appetite good; bowels regular; urine normal; no loss of control of bladder or rectum. Throughout his sojourn in the hospital his temperature has been generally low, ranging between normal or sub-normal, and 100.2; on two occasions for several days it went up to 101 in the evening.

The foregoing case presents several rare and very interesting features, the most prominent of which are the long duration and uncertain onset and the hemiplegia. The probable course of events has been: First, the establishment of pneumothorax, followed by pyothorax. But the history of sudden severe pain and dyspnea, characteristic of the usual onset of pneumothorax, is wanting, unless it is supplied by the history of pleurisy seven years ago; for it is hardly possible that an illness so distressing and dangerous as an acute pneumothorax nearly always is, would have been entirely forgotten both by the patient and the relatives.

We must then conclude either that the condition has lasted beyond the usual length of time, or that the onset was latent.

In a recent work entitled "Diseases of the Organs of Respiration," by Samuel West, is a table showing the duration of the condition in 76 cases, 39 being known accurately, 37 approximately. Of this number 45, or 60 per cent., died in the first month, and of the remainder nine died in the second month, but one case being alive at the end of nine months.

On this point, it is further stated that 46 per cent. die within the first week, and "of those that were fatal within the first two weeks, no less than one-third died on the first day."

In our case it is all but certain that the condition has lasted for a year at least, for the family physician reports having found "the heart on the right side" so long ago, and that, too, when there had been no unusual symptoms pointing to the chest. The possible objection that there is a condition of congenital transposition of the viscera is practically disposed of by the fact that there is no such condition within the abdomen.

With regard to the latency, this is a rare mode of onset of pneumothorax. In the list of cases above referred to there were but five examples. In such cases the usual striking symptoms are either entirely absent or so slight as not to attract attention, the condition being accidentally discovered by the presence of the characteristic physical signs.

As in the more common form, this atypical onset may occur in the course of phthisis, which may or may not have been previously recognized.

The hemiplegia is another rare feature of this case. There is a well recognized connection between such pulmonary conditions as abscess, gangrene, excavation, etc., and cerebral abscess. The same relationship exists between empyema and cerebral abscess, but abscess is not the only intercranial lesion resulting from empyema, as thrombosis, embolism, and softening have been recorded. The site of such lesion being most frequently branches of the sylvian artery, when such complication occurs, there may be hemiplegia, which is sudden or gradual in onset, and usually accompanied by headache and convulsions. The probable origin of the embolus is from thrombi, which are formed in the lungs, and from there carried to the left heart.

In the present example, the gradual onset, without at any time loss of consciousness, the marked initial recovery, with subsequent relapse, would indicate a thrombosis, following on a small embolus. As to the origin of such embolus, the absence of cardiac murmur, and of any other modification of the heart sounds would

make it probable that it is from the usual source, viz., the pulmonary vein.

Excluding those cases of pneumothorax which are the result of traumatism, statistics show that between 80 and 90 per cent. are due to tuberculosis, the remainder being due to such acute diseases as pulmonary gangrene, abscess, and infarct, or the more chronic conditions, as cancer, hydatids and emphysema. Among these rare cases is to be mentioned lung-hepatic fistula, the result of gall-stones and abscess. Gangrene and abscess may be the result of labor pneumonia, broncho-pneumonia, or infarct. The essential cause of such destructive changes being the advent of various septic or putrefactive organisms. In all such cases as would be expected, the course of pneumothorax is short and fatal. When it occurs in the course of phthisis, it may do so either early or late in the disease, indeed it may occur so early as to be the first recognized indication of pulmonary disease. On the other hand, it not infrequently terminates the course of chronic phthisis.

The following brief notes of two cases which were under my care in St. Michael's Hospital, will illustrate the above points:

J. D., aged 18; was admitted late at night, suffering from severe pain in the right side and extreme dyspnea; he was cold, pulse small and rapid, and was in extremis. He stated that while going home about an hour and a half previously he was instantly seized with pain and shortness of breath; he reached home with great difficulty, but was so distressed that he had to be brought to the hospital. Examination showed the right side of the chest immobile and slightly distended, with high pitched, though clear percussion note, and total absence of breath sounds. Face pallid, breathing rapid and gasping, and patient unable to lie down. He died in about three hours. At the autopsy the right half of the diaphragm was much depressed, and air escaped with force on puncturing. On the anterior aspect and near the middle of the right upper lobe was a patent opening about the calibre of a knitting needle, the edges of this opening were firm, and some recent adhesions were about and immediately beneath it. In the substance of the lung was a cavity the size of a small filbert. Several tubercular nodules were found scattered throughout this lobe, and some old adhesions were about the apex. A few small nodules were found also in the left apex, and in the right pleural cavity a small quantity of sero-fibrinous fluid. Special inquiry before his death elicited the fact that, though not considering himself ill, he had not been in the best of health for some two or three months, and had in fact had a slight cough, for which he was taking medicine.

M. S., aged 36; in hospital for several weeks, with advanced tuberculosis of both lungs. While lying in bed he was seized in the middle of the afternoon with severe dyspnea and vague distress in the thorax not amounting to pain. On examination was found to be almost pulseless, bathed in cold perspiration, and cyanotic, tympany and absence of breath sounds were found in the left axillary region, and in front to about the level of the third interspace. He died that night. No post-mortem was obtainable, but there is no doubt it was a case of limited pneumothorax, occurring in an advanced stage of phthisis.

The above examples will illustrate the clinical features of the usual onset and course of pneumothorax, while the first case forms a good description of the morbid anatomy, though according to the work above mentioned, the rupture takes place most frequently in the postero-lateral region of the upper lobe rather than the front.

To revert for a moment to the case which forms the subject of this paper, the duration, the absence of septic rises of temperature, and also the character of the fluid withdrawn, are evidences that the case is tuberculous. So far, however, there is no evidence of such a condition in the other lung.

REPORT OF A CASE OF HEMOTHORAX.—PROBABLY DUE TO SECONDARY CARCINOSIS OF THE LUNGS.

BY T. B. RICHARDSON, M.D., TORONTO.

Toward the end of April, 1902, I was called to attend Mrs. G., aged 55, married; who complained of dull pain in the region of the base of the left lung, and also in the left lumbar region. With the exception of one illness, her previous history was unimportant. The illness referred to, however, was due to malignant disease of the cervix uteri, and was attended by severe hemorrhages. She was operated on about one year and a half prior to my seeing her. (I neglected to make a careful report of the case at the time, and so am compelled to trust to my memory for the details.) On examination of her lungs, I was unable to make out any abnormal condition. Thinking of possible recurrence of the malignant trouble, I advised her to undergo an examination by the surgeon

who had operated on her. This examination was satisfactory, no sign of recurrence being visible. Thinking I had to do with a case of lumbago, I advised hot baths, a local anodyne liniment, and prescribed salophen. In about three weeks' time she seemed to have sufficiently recovered to warrant my advising her to take a trip to Lake Champlain, which she undertook about the middle of June. Before she left I again examined her lungs carefully, but could find no sign of disease. She complained of some difficulty of breathing, and also pain in the left shoulder joint. As there was no swelling of the joint, or pain on manipulation, I did not think seriously of it, and encouraged her to get away for her holiday. On her way she "took cold" on the train, and had a distinct chill when she left the train at Montreal. She was unable to continue her journey for about one week, during which time she was quite ill, and was attended by one of the leading surgeons of Montreal. His diagnosis was "pleurisy with effusion," but on tapping the chest he failed to find any fluid. He advised her to continue her trip, which she did, but after a short sojourn at the lake, she became so ill that it was necessary for her to return home. On her return, I found her suffering from great dyspnea, the pain in the left side and left shoulder much worse, and her facial expression indicating a cachectic condition. Examination of the left side of the thorax gave evidence of the presence of fluid, as high as the seventh rib in front, and as high as the sixth rib behind. The apex beat was found to be about two inches to the right of its normal position. I saw her in consultation with a prominent physician of this city, and he pronounced it "chronic pneumonia and chronic pleurisy, with possible pericardial effusion." As I could not agree with his finding, another consultant was called, who expressed his opinion as "chronic pneumonia *without* pleural effusion." My own diagnosis at this time was secondary carcinosis of the left lung, at its base, with pleural effusion. At this juncture the surgeon who had operated on her about two years before for malignant disease of the uterus, returned to the city, and saw her with me. He agreed as to the presence of fluid in the left pleural cavity and advised tapping, which was done forthwith. About twenty-six ounces of highly blood-stained fluid were withdrawn, by which means the patient's breathing was much relieved. Microscopic examination of the fluid showed nothing but blood corpuscles. There were no direct evidences of the presence of a neoplasm, *i.e.*, no cells or shreds of malignant tissue, but the presence of a large amount of blood in the serum, together with the increasing dulness in the left lung, soon followed by

dulness in the base of the right lung, and the previous history of malignant disease of the uterus (I think it was a malignant adenoma) seemed to point to secondary involvement of the lungs. About two weeks after the first tapping, it was found necessary to repeat the operation, when about sixty-nine ounces of bloody serum were withdrawn. The apex beat was found in its normal position after this. However, the patient's cachectic appearance increased rapidly from this time on. She lost flesh rapidly, the pain became more and more intense, the dyspnea became extreme, and she died in the early part of October, nearly two years and a half after she had undergone the hysterectomy.

Unfortunately, I was unable to procure a post-mortem, so it may be urged that there was a possibility of error in the diagnosis. However, when the whole clinical history is taken into account, I think it may be reasonably assumed the hemothorax was incidental to secondary carcinosis. I was not able to find much literature on the subject. Foster & Godlee's work on "Malignant Diseases" threw the most light in this regard.

A CASE OF HYDROTHORAX.

BY FRED. PARKER, M.D., BRUCE MINES, ONT.

Mrs. S., aged 57; married; two healthy children; no adverse family or personal history, except that she had a carcinoma removed from her left breast in a Toronto hospital about two years ago. No external signs of a recurrence since, and remained in her usual good health continuously till about December 1st, 1902. She then began to complain of not feeling well, but could not give any definite symptoms except that she felt occasional pains in and around her left chest, which made her fear that there might be a recurrence of her cancer. She continued to grow worse, and about Christmas was taken to her bed, feeling too weak and debilitated to go about. She then called in a local physician, who cared for her for some time, but eventually came to the conclusion that her condition was due to a secondary malignant growth within the thorax, and said he could not hope to do anything for her.

I was wired for to see her on January 29th, 1903, and found her considerably weakened, and with history already given.

Temperature normal, pulse very weak and 110, respiration 39, no pain, no cough, tongue clean, no appetite, could rest only by lying on left side in semi-recumbent position. Upon careful examination, I found every indication of an extensive effusion in the left pleural cavity; yet there was no cough, no temperature, and no pain. I immediately aspirated and removed carefully two and one-half quarts of serous fluid, with a slight bloody tinge—not of the usual straw color. I gave her the usual diuretics and saline cathartics, etc., and she was reported to me to be ever so much better and improving rapidly for about two weeks, when she again began to show signs of a relapse, in consequence of which I was sent for again. I found her almost as bad as ever so far as the effusion was concerned, but she was feeling much better. I again aspirated and took away three quarts of the same peculiar-looking fluid, which seemed to greatly relieve her; but alas! it was only for a time. In about two weeks more I was sent for again and compelled to aspirate, taking away positively over three full quarts. This time, however, she was not improved by the aspirating; she simply continued to get weaker and weaker, her stomach gave out, and she gradually sank until she died, about a week after my last visit.

Now, to me, this case had two remarkable features, upon which I would like some light thrown: (1) The large accumulation of fluid without any one of the common symptoms always found in such cases, viz., elevated temperature, cough, pain in side, sweats, and chills; (2) the very rapid recurrence of such enormous effusions, which seemed not to be hindered in the slightest by aspirating, and the administration of the usual remedies which have been found useful in similar cases. I have wondered whether the whole condition was not due to malignancy.

A CASE OF HEMOTHORAX.

BY W. H. LOWRY, M.D.
House Surgeon, Toronto General Hospital.

W. G., age 16; a butcher's boy; was accidentally stabbed in the back with a butcher's knife on Tuesday, December 30th, at eleven o'clock in the morning. The skin wound was situated over the inferior angle of the left scapula, a point where the bone would seem to prevent further progress of the knife. But it

must be remembered that the scapula has a wide range of movement, and the boy must have been reaching forward at the time, moving its inferior angle outward, for the knife penetrated the seventh intercostal space, at a point corresponding with the skin wound. The knife was easily withdrawn, and there was very slight hemorrhage from the skin wound. In a few minutes the boy felt faint and complained of a suffocating feeling, and in response to his cry for fresh air, he was taken outside into the cold air. Shortly he was brought in again, and in an hour was able, with some difficulty, to walk a short distance to his home.

On reaching home he was faint, deathly pale, and was unable to breathe lying down; evidently signs of extensive hemorrhage into the pleura. All afternoon he sat by the stove in this condition, and by evening his pallor had somewhat disappeared. Wednesday the dyspnea was marked. Thursday he coughed considerably, the expectoration containing blood, which led to a more thorough examination of his chest being made. It was found that the left side was quite dull on percussion, that no air entered the left lung except at the apex in front, and that the apex beat of the heart was displaced to the right side. The pulse was about 135, the temperature 100 deg., the respiration 35, and the respiratory distress marked.

On the following Sunday the chest was aspirated, and 22 ounces of a dark, sero-hemorrhagic fluid were removed, the physician noticing that the flow ceased suddenly, evidently from blockage of the needle by clots. This operation greatly relieved the dyspneic symptoms. On Tuesday aspiration was again done, thirty ounces of a similar fluid being removed, and during the period of relief which followed, he was removed to the General Hospital, under the care of Dr. Peters, who has kindly permitted me to report the case.

On admission the boy looked very poorly; he looked anxious, was very pale, his lips were blue, he perspired freely, and was very restless. He had orthopnea; he coughed considerably, with blood-stained expectoration, and constantly cried for the window to be opened. The left side was absolutely dull on percussion, tactile and vocal fremitus were absent, and no air entered the left lung, except at the apex in front. There was no expansion on the left side, and the extraordinary respiratory muscles were in use. The apex beat, located with difficulty, was found in the fourth right interspace at the nipple line. The pulse was running at 126, with disturbed rhythm, the respirations were 40, and the temperature 102 deg. The wound was almost healed.

Purgation was commenced, and strychnia with morphia

sulph., gr. 1-16th, was given, the latter to relieve the extreme restlessness. Wednesday, after the bowels had moved freely, he felt relieved, but still the pulse was 134 and the temperature 103 deg. in the evening. On Thursday morning thoracentesis was done, and fifty ounces of a dark, sero-hemorrhagic fluid were removed, which on examination proved to be mostly blood, a culture of which showed the presence of the staphylococcus pyogenes aureus. The removal of this fluid relieved the patient greatly, a greater amount of lung coming into use, and the pulse dropping to 116. Nothing was now done for a week, in the hope that the lung would expand, and that the accumulating fluid would become absorbed. But no progress in either direction was made. Then, as it was now over two weeks since the lung had become collapsed, it was feared that the obliteration of the air cells, bronchials, and blood vessels might, unless relieved, become permanent from disuse, as well as from the formation of fibrous tissue in the lung itself, and in the plastic exudate covering it, and so it was decided to open and drain. I might also say empyema was thought of, from the presence of fever, and the organism above mentioned. Consequently, under chloroform anesthesia, an opening was made in the sixth left interspace, at the mid-axillary line. A large amount of blood-stained fluid, with some clots, gushed out, but there was no pus. The lung could be felt in a collapsed condition, lying against the thoracic vertebral bodies. A large drainage tube was inserted, and a copious dressing applied.

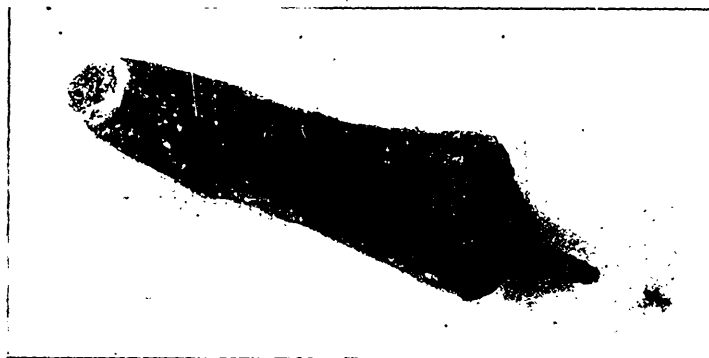
From this on the boy improved; the fever left him, the pulse improved, coming down to 98, the dyspnea disappeared, and the boy picked up generally. There was profuse discharge from the tube for about three days, then it ceased. Unfortunately, later on, clots, which evidently would not go through the tube, became infected, causing a purulent discharge, which continued for some days. On March 10th, examination showed the apex beat to be behind the fifth rib, one and one-half inches within the left nipple line, with a good pulse running at 80. Air entered the lung freely in the infra-clavicular region in front, and in the supra-scapular region behind. The chest had fallen in somewhat, and there was still some purulent discharge.

Whether the hemorrhage was caused by a cut, intercostal artery or vein, or by injury to the lung, it is hard to say definitely. The coughing up of blood would indicate injury to the lung, but as the blood did not appear for two days after the injury, it is probable that the greater part of the hemorrhage came from injury to the intercostal vessels.

CASES IN PRACTICE.

BY FRANK HALL, M.D., VICTORIA, B.C.

Boy; aged 11; had been in fairly good health until New Year's, when he began to suffer from symptoms of biliousness, which were, however, considered as being due to New Year's sickness. He continued getting gradually worse, until he complained of a very severe pain over the abdomen. A diagnosis of appendicitis was made, and he was transferred to the hospital. Upon opening the abdomen, general peritonitis was found, the intestines being covered with lymph, and two distinct abscesses,



APPENDIX.—ILLUSTRATION DOUBLE NATURAL SIZE.

one in each iliac fossa. The appendix was found perforated, and a pin, encrusted with phosphates, protruded through the opening. Thorough irrigation of the abdominal cavity was followed with wiping the intestines and drainage. For several weeks the abdominal wound discharged freely, and patient began to recover. A later report records the death of child.

Laborer, aged 52; at work excavating one hour after eating a hearty breakfast, tunnelling under a bank some fourteen feet high. A large block of clay, weighing between 1,500 and 2,000 pounds, loosened and struck him, throwing him on his right side, which position he was found in, being partially covered with the clay. He suffered severely from the shock. Radial pulse not perceptible; conscious; no vomiting. He was at once removed to the hospital and placed on the table, being immediately transfused. Examination disclosed a double fracture of the pelvis. Upon passing a catheter, no urine was found, but a little blood

adhered to the end of the instrument upon withdrawal. Upon opening the abdomen, I found a rupture about three-quarters of an inch in length in the posterior part of the bladder, and the ilium completely severed in two places within a length of three inches, the rent passing a short distance into the mesentery; the rectum was also torn. The bladder and rectum were sutured, and a small part of the ilium between the two fractures was removed, and the parts united with a Murphy's button, but death immediately ensued.

NOTES FROM ROYAL ALEXANDRA HOSPITAL, FERGUS.

BY A. GROVES, M.D., FERGUS, ONT.

OPERATION FOR TRAUMATIC EPILEPSY.

The patient was a young man of 19, who up to the age of between seven and eight years had been very healthy. About this time he developed epilepsy, the attacks gradually becoming more frequent, until at the time he came under observation he had three or four seizures every week, and occasionally two, or even three, in twenty-four hours. They were not preceded by an aura, and no particular groups of muscles were affected, except that the right side appeared to be convulsed more than the left. On careful inquiry it was ascertained that a few months before his first attack he had fallen off a horse, striking his head on a stone, and sustaining a wound of the scalp about an inch in length; but as it healed rapidly, nothing more was thought of it.

The site of the injury was about an inch and a quarter to the left of the middle line of the head, slightly behind the parietal eminence. Although there was no depression, it was decided to trephine at the position of the scar, and, on doing so, the bone was found to be three-eighths of an inch in thickness. Bone was removed until the opening in the skull measured two and a quarter by one and a quarter inches, when all the thickened bone was got rid of. The recovery was uneventful, so far as the wound was concerned. On the second day a mild convulsive attack came on, and at the end of a month another seizure occurred, but it was very slight. Since that time he has had occasional comparatively slight attacks, but his condition is wonderfully improved. Now, with reference to the original injury, it would appear that there was a fracture, with depression of the inner table of the skull, and the space between the tables filled in by new bony growth.

The pressure caused by the depression brought on the epileptic attacks, and the long continuation of this pressure apparently caused changes in the brain substance, which it is reasonable to hope may gradually disappear, and a complete cure result. At any rate, the very great improvement ought to be sufficient ground for adopting surgical measures in all cases of epilepsy where there is a history of injury to the head, even when that injury is not of recent date, and where there is no outward evidence of depression.

INTESTINE RUPTURED BY KICK OF A HORSE.

The patient was driving a waggon, and leaned over to release one of the reins from under the horse's tail. The horse kicked, striking him in the abdomen with such force as to knock him out of the waggon. The boy got in again, and went on delivering goods for half an hour, when, on account of the pain, he had to quit. On examination, no mark was visible, nor was the slightest evidence of injury to be seen at any time externally. Abdominal muscles were tense, pulse rapid and rather weak, and some nausea. Immediate operation was decided upon, and within two hours from time of injury the abdominal cavity was opened. The small intestine was found to have been torn almost entirely in two at one point, and six inches from this tear was an opening which freely admitted a finger. A comparatively small amount of intestinal contents had escaped into the cavity. The rents in the bowel were sutured with silk, first bringing together the mucous edges by stitches very close together, and then stitching the peritoneum. The cavity having been cleansed, the abdominal wound was brought together layer by layer, and a plain gauze dressing applied. Recovery was rapid and complete.

DOCTORS WITH WHOM I WAS AND AM ACQUAINTED.

BY J. S. SPRAGUE, STIRLING, ONT.

Pro vera gratias.

First, those with whom I was personally acquainted: In presenting this article for publication, no other motive than that of illustrating the financial successes of my fellow-practitioners has been the incentive, and from the vantage ground of more

than thirty years in active practice, the views are not, nor have they been, decidedly charming or encouraging in the greater number of instances.

Dr. B., my preceptor, practised his profession in a small and non-progressive village, for thirty-five years, and in a city for twenty-five years. Some fifteen years before his death he said to me: "I am nearing the end of my work, and I am thankful that I have kept the wolf from the door," but the wolf would have come had not his brilliant daughter, who was then, as she is now, principal of a high-grade academy in the city of —, assisted very continuously as a "bread winner." B. never took one holiday, nor had he an extravagant family. He certainly was not extravagant; he engaged in only one speculation, by which he lost a few hundred dollars. Although he was in active work for sixty years, I know that at his death he was not worth two hundred dollars.

Dr. M., for fifty years was a confrere of Dr. B., in same village. Lived during that time in a house given to his wife. The value of said house was never more than \$300. Dr. M. and wife, with their three daughters, lived very economically. The doctor never took one holiday, was always busy, and a good collector, and, like Dr. B., was a type of the country doctor, well educated, and a man among men. B. and M. are my ideals of men and doctors. In consequence of sickness he retired four years before his death, with a bank account, it is said, of six thousand dollars, and nothing else.

Dr. H., late of this village, where he for 45 years was engaged in practice and in the drug business, was put through college (McGill) by the *old farm* and a few years' earnings as school teacher, preferring the M.D. degree to a farm, *i.e.*, in gift of a farm offered by his father (his three brothers were wiser, and accepted the gifts of farms, on which they, with strong sons, now live). Dr. H., by marriage received three thousand dollars, yet with economy not eclipsed by family of Dr. M., with the profits of drug store and twelve years' incomes or salaries as M.P.P., and constant attention to his professional work when not at Parliament, Dr. H. left not more than \$2,000 (the residence and drugs were sold for \$1,500). One year before his death this venerable man said to one of his dearest friends, "If I live three or four years, I am sorry to tell it, I will see poverty." He often told me he lamented not taking a farm, regretted his political life and association of the drug business with his practice. Dr. H. left one daughter, who, with her husband, a Canadian lawyer, is living in poverty on the Pacific coast.

Dr. L. practised medicine and kept the corner drug store in

the village for 48 years. His frugality was not eclipsed by that of those named. The drug business brought in dollars, and his practice the cents; was considered a first-class surgeon; his experience as army surgeon gave him reputation. He was always in active practice until two years before his death. Engaged in banking; interfered with those who devoted their whole time to the profession; never charged more than living rates for out-of-town visits; in fact, was in the way, a stumbling block to those who were living by their practice. At his death it was said he was worth about five thousand dollars, of which two thousand dollars was in life insurance. (Dr. L. was a Queen's M.D.)

Dr. C. (McGill, 1858), practised medicine, engaged in farming, and was valuator for a land company in this village for thirty-five years. By his wife he was given three thousand dollars at his marriage, and by his father a larger sum. For several late years, he, although in good health, has been supported by a municipality in the county of Northumberland, and lately was arrested at Cobourg as a *tramp*. The doctor has no children, and, like the other M.D.'s above named (except the last), had no bad habits, and was devoted to church work.

Does this sketch please the young M.D.?

(To be continued.)

MEDICAL CONSIDERATIONS.

In Ontario, Quebec, Nova Scotia, Manitoba, New Brunswick, British Columbia, and our North-West Territories, there are, respectively, the following number of physicians: 3,510, 1,400, 476, 344, 243, 214, and 95. Of the 3,510 licentiates in Ontario, 650 live outside of the province, and the residences of 360 are unknown, and if one will note the spring movement of our young M.D.'s, he will find that nearly one-third of these seek homes in the United States. That such movements are not uncommon, one has only to look over the announcements of our universities and the registers of licensing colleges. Michigan, which nearly twenty-five years since welcomed hundreds of our young M.D.'s, has lately exacted such restrictions that but few M.D. Canadians will seek residence there. Our own western provinces invite them, and such as accept the invitation are wise, if they but become possessors of the gift of lands now offered.

The doctor who makes his own cough, tonic, etc., remedies in Winchester quantities (as any one has time to do), will derive more wealth, and give his patients better satisfaction than if he prescribes such compounds prepared by pharmaceutical companies; so many of these preparations signally fail to do what is expected of them. Anyway, the use of such goods as last named indicates that the poor doctor is deficient in his materia medica, and is really the laughing stock of the village or town druggist, who is quietly giving such to "his patients," using your name as endorsing the usage. The doctor should know as much as the druggist, more, too, really, as regards medicines, but too frequently the village druggist and the pharmaceutical man are getting too much of his hard-earned wealth.

The druggist with whom you deal learns very easily your favorite tonics, etc., such as are done up in Winchesters (of course, for us), yet the druggist is doing a big practice in too many instances by saying, "I will fix you up a tonic, such as Dr. Smith uses," and his customer is satisfied.

The same druggist receives a fine money acknowledgement for securing a testimonial from "Joe Bowers," for his cure of rheumatism, the means employed being a patent medicine, on which he makes his profits.

Instead of using the many, really quack, ointments for eczema, I use a combination of oil of tar and oxide of zinc ointments, with starch, and if such does not work quickly, I use pure tar, and have always good results; especially if well selected diuretics are employed and regulation of diet be enjoined; if erythematous eczema, I employ one part of camphor, powdered, three parts of zinc-oxide, and fifteen parts of starch, and so far I have used in many cases this preparation with first-class results.

Would it not be wise for those dear pharmaceutical and other companies to name their quack compounds, which they so kindly announce to us—also, the druggists—by such names as "Gastricine," "Pulmonine," "Cardine," etc.? Such would not bother our memory, and save us the trouble of studying our works on the actions of medicines, and at the same time encourage these concerns to further their invasion among us, making us slaves and degrading us and our profession?

The most successful M.D., that is, who cures the most patients, is he who knows but few remedies and knows them well, and is the last, like any wise man, to lay aside well and long-endorsed curative means for the ever-changing and temporarily lauded cures, endorsed by many paid college professors, and some very ignorant (of medical ethics) and very fresh M.D.'s.

"Honor Graduate of Toronto University," I have frequently noticed in connection with the newspaper advertisements of dentists. Does every dentist secure such distinction? It would appear as if such was the case; if so, why is it? Is dentistry in any sense to be considered a profession? If so called, we can find no authority that distinguishes it as such.

Acetanalid, sed. bicarb., caffeine alkaloid, am. carb., of 16—12—1—1-2 parts respectively, is an excellent compound, surpassed by no other as an antipyretic, when cautiously used.

AD DIVAM NICOTINAM.

BY R. J. BONNER, '90.

In March Number of "University of Toronto Monthly."

(With apologies to Horace.)

Quam divam potius te, Nicotina era,
Collaudare decet, quae colis insulam
Praeoptatam aliis Hesperii maris,
Seu poscas fidibus, carmine seu velis?

Tu curas misero pectore dimoves;
Spes et tu revocas mentibus anxiiis.
Terrarum domini membraque barbari
Picti te pariter sollicitant prece.

Quem non mirifice post epulas tuo
Adventu recreas? Ingenio admoves
Tormentum leviter, dux sapientiae
Dulcis. Quid sine te non gravius pati?

Tandem, oro, statuas ducere naribus
Tus fumans penitus, nam foliis tibi
Flavis ara calet plurima fictilis;
Nec fragrant violæ nec rosa suavius.

Semper virginibus vel pueris nefas
 Ritus scire deæ, nec veniat licet
 Si quis caeruleum paliuit halitum.
 Coctu verba procul tristia pellite.

Large pone, puer, ligna super foco.
 Nunc sermone iuvat noctis amabilis
 Horas nos vario degere pesteri
 Securos quia nos, alma dea, aspicias.

Translated into English by James S. Sprague, M.D. (Victoria University, '69). Author of "Medical Ethics and Cognate Subjects," Vice-Pres. Toronto University Alumni Society, County of Hastings.

TO THE GODDESS NICOTINA.

What goddess is it more seemly to extol,
 Whether with the lyre or in song?
 Oh, my mistress, Nicotina, thou who inhabitest the island which
 is more
 To be desired than all others of the Western sea.

Thou dost remove cares from the oppressed bosom,
 Thou recallest hopes to anxious minds,
 The masters of empires and the painted
 Savages alike importune thee with prayer.

Whom dost thou not marvellously refresh
 When thou appearest after the sumptuous banquets?
 Thou appliest gentle compulsion to the clever,—
 Thou harbinger of precious wisdom, whatever not too hard to be
 borne without thee?

I beg that thou, exhaling, dost breathe deep
 Into our nostrils the sweet incense;
 For full many an earthen altar adorned with golden leaves smokes
 for thee,—
 Nor is the violet more fragrant, nor the rose more sweet.

Always it is wrong for the youthful
 To know the mysteries of the Goddess;
 Nor must he who dreads the bluish smoke be a devotee.
 May all sad words be removed from our assemblies.

Therefore, youth, place abundant wood under the altar;
How in pleasant evenings it is delightful to us
To while away the time in speculative talk,
Because then, oh thou bright divinity, lookest upon us in our quiet
security.

Stirling, March 23rd, 1903.

RUPTURE OF BLADDER.

BY WALTER MCKEOWN, B.A., M.D., M.R.C.S. (ENG.), TORONTO.

Late on the evening of Saturday, February 28th last, I saw, in consultation with Dr. McKenna, a man about 45 years of age, whom Dr. McKenna himself had seen for the first time only an hour previous. The patient, I was informed by his friends, was a hard-working man, whose only failing was a desire to occasionally vary the monotony of an otherwise very even life by going out and getting drunk. He had been seized of this desire about seven o'clock on the morning of the day upon which I saw him, and had evidently enjoyed himself unrestrainedly, for although only an hour away from his home, he was found at eight o'clock lying upon an ice-covered walk at the side of the house, stupid with alcohol and suffering intense pain. He was not able at this time, nor subsequently, to give any history of what had happened to him in the interval. A physician was not called until the afternoon. He had frequently suffered from "cramps," and his relatives thought the pain could be ascribed to such a condition, and so informed the physician who saw him first; the latter, acting upon this supposition, ordered an anodyne mixture, which was administered until late at night, when, as there was no improvement in the condition, Dr. McKenna was called.

The patient, when first seen by me, was sitting on the side of the bed, evidently in great agony, vomiting frequently; the vomit was of a dark color, and thrown up explosively. The pulse was good (under 100); the temperature, on account of the restlessness of the patient, I could not obtain. Dr. McKenna had made a diagnosis of an intestinal obstruction, and I agreed with him. The patient had for years a hernia, but as he resolutely refused to lie down, through dread of increasing the pain, I was unable satisfactorily to examine for a possible strangulation, nor

to examine the abdomen. I tried my best to induce him to lie upon the bed, and when tired coaxing him I tried to force him to do so by lifting up his legs, which were dependent over the side of the bed. It was evident that I caused him such pain that I desisted, and Dr. McKenna commenced the administration of chloroform in the sitting position. I mention this at length, because I cannot recall a similar case where a patient could not be induced to lie down, even momentarily, on account of the increased pain. Under anesthesia the inguinal canal was found free, and nothing special made out in the abdomen. I felt reasonably certain that the case was one of intestinal obstruction, and had him at once removed to St. Michael's Hospital, prepared for operation, and, assisted by the house surgeon, opened the abdomen at 3 o'clock on Sunday morning, nineteen hours after he was found on the ice. Immediately on cutting through the peritoneum, much to my surprise, blood poured out in large quantities. I was quite unprepared for such a sudden change in my view of the case, and knew not where to look for the source of the hemorrhage. Nothing abnormal could be felt over the liver or spleen when I first explored. I then asked one of the assistants to pass a catheter, through which a small quantity of blood and urine ran out. With this knowledge, I put my hand down into the pelvis, and found in the posterior wall of the bladder a tear running vertically from the fundus to the peritoneal reflector, large enough to pass my four fingers through. The bladder itself was contracted behind the pubis, and with considerable difficulty partly raised. The abdomen was then emptied of at least a gallon of blood and urine, the rent stitched with catgut in two layers, one bringing the muscular coat together without penetrating the mucous membrane, and the second closing the peritoneal covering. The whole abdomen was thoroughly flushed with decinormal salt solution, a gauze-drain left in, the abdominal wound closed. A catheter was inserted into the bladder, and tied. The operation lasted about an hour.

The patient was returned to bed markedly shocked; pulse 140, temperature 95; urine passed at first blood-stained, but within twenty-four hours quite clear. The catheter was removed at the end of forty-eight hours, with instructions to have it passed every four hours. The patient showed some improvement for four days, although the pulse never came below 120. The bowels moved without purgatives, there was little vomiting and less distension. On the third day after the operation he insisted on the orderly giving him the urinal, and passed about six ounces of quite clear urine into it. His condition continued to improve until the fifth day, so much so that but for the undue pulse rate

I would have felt satisfied that he would surely recover. Upon the fifth day, however, he vomited considerably, there was some distension evidently, and, much to my chagrin, the house surgeon informed me that he had passed a catheter but could get no urine. Later on I passed a catheter and got a couple of teaspoonfuls of clear urine. The patient died upon the sixth day.

Owing to the circumstances, an inquest was ordered, and a post-mortem made by Dr. Silverthorne. Extensive peritonitis was found; kidneys normal; marked hypostatic congestion of both lungs.

The bladder wound was completely healed upon the peritoneal surface and practically so on the mucous surface. There had been no leak, although scarcely any urine was contained in it. This is of interest as demonstrating that in a patient with healthy kidneys, severe vomiting, combined with a low blood pressure, may practically completely inhibit the secretion of urine.

SOME OBSERVATIONS ON MUMPS IN THE ADULT MALE, WITH ORCHITIS, WITHOUT ANY APPARENT INVOLVEMENT OF SALIVARY GLANDS.

BY GRAHAM CHAMBERS, B.A., M.B.

Physician and Dermatologist at St. Michael's Hospital; Lecturer on Clinical Medicine,
Toronto University.

During the session of 1901-02 at the Ontario Veterinary College, there was an outbreak of mumps among the students. About thirty to forty, out of a class of one hundred and seventy-five, were ill at the same time. Dr. D. King-Smith informs me that he attended twenty-three of these cases, of whom eighteen had orchitis. In four or five the orchitis was the first sign, the salivary glands becoming slightly affected later in the course of the disease. Of four cases under my care, two had orchitis, following inflammation of the parotids.

Another outbreak occurred recently among the students of the Ontario College of Pharmacy. Ten students became ill with the disease in the course of three days. Of these, four had parotitis, four parotitis with orchitis, and two orchitis without parotitis. In one case of parotitis, the submaxillary glands became inflamed when the inflammation of the parotids was subsiding. I append brief clinical reports of the cases of orchitis:

A. D., aged 23. Patient was taken ill on Friday, March 10th,

complaining of headache, general malaise; temperature 100.5. During the following two days his condition remained about the same. On Monday, March 23rd, he complained of pain in both testicles. Temperature was 103. On Tuesday, both testicles were considerably swollen. During the following three days his condition remained about the same, and then his condition rapidly improved, temperature becoming normal on Saturday, March 28th. The testicles remained swollen and painful for four days longer. At no time during the course of the disease was there any indication of involvement of the salivary glands.

A. B., aged 24; was taken ill on Thursday, March 26th, at 2 a.m., with severe pain in the right testicle. The pain was so severe that he could not sleep. At 9 a.m. of the same day his temperature was normal. In the afternoon the painful testicle began to swell. Temperature was 102. After three days the fever abated, but the testicle remained swollen for a few days longer. No indication of parotitis or inflammation of any salivary gland.

A CASE OF TETANY FOLLOWING MEASLES.

BY GEORGE ELLIOTT, M.D., TORONTO.

Tetany is not such a common condition that the report of a case may be of some interest.

J. S., colored; aged 2 years and 2 months. The family history shows that this is the second child; and the mother states that she herself is troubled with some affection of the heart. Her own family are all subject to rheumatism. Her father had rheumatism and consumption. There is no history of any nervous diseases on her side of the house. The father of the child has rheumatism. The personal history shows that the boy was a breast-fed baby. At 12 months of age he was weaned, when he was sent to the hospital for circumcision. The operation, however, was not performed for some reason, as the prepuce was exceedingly long. While in the hospital he contracted diphtheria, being altogether in the institution seven weeks. Ever since he was born he has had some difficulty with his breathing. After leaving the hospital he had bronchitis up to the time of his present illness. There is no history of any other sickness up to within a short time of this illness, with the exception that his mother states he has had fits on five or six different occasions. On the 13th of February, 1902, he was attacked with measles; bron-

chitis continued. He had convulsions when the measles started, his condition then being described by the mother in her own words as "frothing at the mouth, rolling of the eyes, and jerking and straightening out stiff." When seen by me on the night of the 22nd of March, 1902, the child's carpal and pedal extremities presented the strikingly characteristic attitude of tetany, all the extremities being similarly affected, the particular point about the contractions being their marked symmetry. It was learned that the condition had started in the hands the day before. On the night of the 21st the child had tried to walk in his usual manner by pushing a chair in front of him, being not as yet able to walk unaided. It was noticed that he could not even walk in this way that night, and fell to screaming and crying, which finally ended in an attack of convulsions. Sleep was very much disturbed on the night of the 21st. On the next morning the feet were noticed to be swollen and doubled up, and the hands became worse. He was continually crying all day, and would not take much food, and what little he did take, vomited soon afterwards. Handling of the hands and feet gave pain, as the child would cry out and moan for some little time thereafter. During observation the left hand was seen to relax, but on being touched resumed its contracted state. A bromide and chloral mixture was prescribed, along with a full dose of castor oil, and when seen the next morning the condition in the feet had very nearly vanished. The hands remained contracted until the following day, when they regained their normal condition. There was, in addition, a history of loose, irregular, greenish, fetid discharges from the bowels. There were no signs of rickets. The marked feature of the case was the symmetrical contractions, the attitude being the same in both hands, while both feet were precisely affected.

ABORTION OF FELON BY ALCOHOL UNDER AIR EXCLUSION.—Dr. J. R. Eastman, of Indianapolis, Indiana, claims that a commencing felon will always be aborted by the local application of alcohol under perfect air exclusion. Cotton is saturated with the alcohol and placed about the affected part, and a thin rubber finger-stall applied over all. Seventy-two hours usually suffices to give relief, and even effect a cure. He learned this in Von Bergmann's polyclinic in 1897, since which time he has not had occasion to lance a single felon the treatment of which was begun in time by this method.—*Medical Council.*

AMERICAN UROLOGICAL ASSOCIATION.

The American Urological Association meets first Wednesday of each month, except July, August, and September. Annual meeting the last day of the American Medical Association's meeting and the day following. This year's meeting, New Orleans, May 8th and 9th. President, Ramon Guiteras, M.D.; secretary, Ferd. C. Valentine, M.D., 31 West Sixty-first Street, New York.

FERD. C. VALENTINE, Secretary.

**A SENATORSHIP FOR DR. T. T. S. HARRISON,
SELKIRK, ONT.**

Dr. F. N. G. Starr, late secretary of the Canadian Medical Association, has interested himself in a very laudable undertaking, viz., that of bringing to the attention of the Prime Minister of Canada, the Rt. Hon. Sir Wilfrid Laurier, the name of Dr. T. T. S. Harrison, who now for so many years has been an honored and much-esteemed practitioner of medicine in this province. Dr. Harrison represents those pioneers in the medical profession in this province, who, locating on the borders of civilization, at a time when the backwoods gave no promise of the rich future before it, and who day by day and year after year steadily plodded along, doing their duty to humanity faithfully and well, and in his individual case to attain at the hands of his confreres all over the Dominion the proudest position in their gift, that of President of the Canadian Medical Association. Not less has he been distinctly honored in his own province, for he has also occupied the position of President of the Ontario Medical Association. In fact, for many years he has been a prominent figure at all of the great medical meetings; and at after-dinner speech the medical profession delights to hear no one better than their old friend, Dr. Harrison. He is ever ready, as he is always welcome. No more graceful act, should the Premier desire to call Dr. Harrison to the Upper House, could possibly be conferred upon the medical profession. To grow gray in the constant and laborious life of a general practitioner, to merit and to keep the confidence and esteem of contemporaries, at the same time being loved and revered by the younger men, surely is a proud day to which to aspire.

Desiring to make a practical, useful journal for the General Practitioner,
the Editors respectfully solicit Clinical Reports from subscribers and others.

Dominion Medical Monthly

And Ontario Medical Journal

EDITORS:

GRAHAM CHAMBERS, B.A., M.B. WALTER McKEOWN, B.A., M.D.

MANAGING EDITOR:

GEORGE ELLIOTT, M.D.

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No. 4.

DOES THE PRACTICE OF MEDICINE PAY?

Dr. George R. Patton, Lake City, Minn., is the author of a practical brochure having the above title, a notice of which appears in our review pages. Now and again there appear in the editorial columns of the medical press statements and opinions regarding the emoluments of physicians, from which it would appear that the practice of physic is not a money-getting profession, that, in fact, very few of the rank and file ever become rich, or even make more than a bare livelihood. As in the reprint quoted, the whole burthen of blame seems to lie in the unwillingness on the part of the practitioner to become in addition to a professional man, a man of business, with business foresight and business habits. Primarily professional, he shrinks at the asperities of the collector's calling, and so shirks the work, thus wrecking his own financial success, and at the same time undermining that of his confrere. This makes the non-collecting physician doubly responsible for the contempt under which the profession lies through the well-known adage, "As hard to collect as a doctor's bill." No doubt the seeming slur on the business ability of the

average doctor can be met, and has been met, by the rejoinder, that as his paramount duty and work in life is to minister to the bodily ills of humanity, he has no particular time—and even if he had, no particular inclination—to practise the habits of an invoice clerk, or become familiar with the ordinary routine labors of a ledger-keeper. There have been and there still are men in the ranks of medicine who never send out a bill, depending altogether upon chance collections; men who year in and year out have kept up this custom, as selfish as it is dishonest, dishonorable, and disgraceful, and who have scandalously used it as a weapon of defence against younger and newer rivals in the same field of labor. Surely “the laborer is worthy of his hire,” and to extend charity to the man who can pay, and would pay, if asked, or was made to pay, is besmirching a noble profession, which is ever ready and willing to extend the right hand of fellowship to true and deserving charity. The man in the ranks of medicine who has attained to some degree of financial success, is the man who should seek to guard well the name of the profession, and not assist those blackguards who would wantonly, in the name of charity, despoil a noble profession of its noblest pillar. The practice of medicine can never pay, so long as there are in its ranks men who place such a low price upon their labor as never to send a bill for services rendered, and who by so doing, or rather by so not doing, contribute to the diversion of coin from their neighbor’s exchequer. The practice of medicine would pay if action were taken along the line of monthly or bi-monthly statements. This is a duty the older owes especially to the younger, and all and each to one another.

ONTARIO MEDICAL ASSOCIATION.

It has been decided to hold a three days’ session of the Ontario Medical Association this year in Toronto, on the 16th, 17th and 18th of June. Dr. J. C. Mitchell, formerly a general practitioner at Enniskillen, but now of the Toronto Asylum, is the president, and his well-known energy in medical matters will be

almost enough of itself to insure great success for this meeting. Then he has been very fortunate in his choices for the chairmanships of the committees. Dr. W. P. Caven has charge of the Committee on Papers and Business, while Dr. Bruce L. Riordan will be the chairman of the Committee on Entertainment and Arrangement. Dr. Caven may be counted on giving us a three days' intellectual treat; Dr. Riordan is quite capable of making it three days of "solid enjoyment." Dr. Musser, of Philadelphia, is to be present and contribute a paper, and our old friend, Dr. Thomas Cullen, of Baltimore, will also be with us. During the meeting a discussion will be conducted on arterio-sclerosis. On the evening of the first day there is to be provided a smoking concert; on the second, the usual luncheon. Those contemplating contributing papers, should send in titles of same at an early date to the general secretary, Dr. Harold C. Parsons, Bloor Street West, Toronto.

CANADIAN MEDICAL ASSOCIATION.

London is not losing sight of the fact that they are to entertain the Canadian Medical Association this year; and as London is the centre of a populous medical district, a little extra work in the way of working up an attendance will be sure to produce results second to no other meeting yet held. The dates decided on are the 25th, 26th, 27th and 28th of August. The president, Dr. Walter H. Moorehouse, on the advice of his Executive Committee, has been successful in securing Dr. James Stewart, Montreal, Professor of Medicine in McGill, to deliver the address in Medicine. Dr. Alexander Hugh Ferguson, of Chicago, a Canadian who has attained prominence in the "Windy City," has consented to deliver the address in Surgery; while Dr. Matthew D. Mann, Buffalo, one of the leading gynecologists of the continent, will deliver the address in Gynecology. It will thus be seen that London has already made a good start. Those members of the profession who contemplate contributing papers to the thirty-sixth annual meeting of our great national medical

organization, should send in their titles at once to the general secretary, Dr. George Elliott, 129 John Street, Toronto.

Recently Dr. Moorehouse appointed a special committee *re* a Dominion Health Bureau. This consists of Dr. R. W. Powell, Ottawa (convener); Dr. T. G. Roddick, M.P., Montreal, and Dr. E. P. Lachapelle, Montreal. This committee has had an extended interview on the subject with the Premier, Sir Wilfrid Laurier, who has given them encouragement and promised that the proposal receive all due consideration. From now until August 25th, all eyes should be turned towards London. Particularly should the Western Peninsula turn out strong. Year by year the association has been advancing, both in importance and in numbers in attendance at the annual meetings. Let the West see to it that there will be no lack of a cordial and loyal support. There is an invitation from the British Columbia Medical Society to meet in Vancouver and Victoria in 1904. The great Canadian West is every day becoming more and more an important constituent of the Dominion, and it is to be hoped that Manitoba, the North-West Territories, and British Columbia will send down a large delegation to support their very kind invitation for next year.

THE PROPHYLAXIS OF PNEUMONIA.

Under the title of "The New 'Captain of the Men of Death,'" the *New York Medical Journal* recently had the following short editorial: "Accepting Dr. William Osler's transfer of John Bunyan's phrase from consumption to pneumonia, Dr. Arthur R. Reynolds, the energetic Health Commissioner of Chicago, recently addressed the Sixth General Conference of Health Officials in Michigan on the subject of the importance of the prophylaxis of pneumonia. He would take the same precautions as in the matter of tuberculous pulmonary disease. In this we believe he is undoubtedly right."

We are probably not yet duly alive to the awful death rate from pneumonia, a disease which most authorities now tell us runs its course in spite of any and all treatment. Calm reflec-

tion upon the number of deaths in 1902 in Montreal from this disease, as compared with the number from consumption, will show that the work of the "New Captain" is positively astounding—tuberculosis, 664; pneumonia, 544.

AN ACADEMY OF MEDICINE AND DOCTORS' CLUB FOR TORONTO.

Although there has been no official or authoritative announcement on the subject, we believe that a movement is quietly and steadily gaining ground in Toronto, looking towards the amalgamation of the existing medical societies with the Ontario Medical Library Association into an Academy of Medicine, and the establishment in connection therewith of a doctors' club. As there seems to be very little if any opposition to the proposal, why not proceed rapidly and make it a pronounced success. Not only would this be a distinct advantage to the profession in Toronto, but we believe that the announcement that such a consummation had been reached, would be read with decided interest by the profession throughout Ontario, if not throughout the Dominion.

ALAS, POOR YORICK!

We had occasion to comment a short time ago upon a much-exploited consumption cure, which certain practitioners in Toronto had become foster parents to in this community, and to flatly deny that any such good results had been accomplished as had been asserted. As no answer has ever to our knowledge been vouchsafed to this in our medical press, the so-called "cures" must have been mythical. A circular letter was recently sent to the profession in Toronto, stating that this "cure" would hereafter be demonstrated at the Toronto Western Hospital, an institution which now denies over the signature of its secretary, we believe, that any such arrangement had ever been made. Such "hot shot" will probably riddle the "cure." Let us hope that we will hear no more of it.

News Items

DR. HODGSON, of Staffa, has gone to Moosejaw.

DR. VARDON has been appointed medical health officer of Galt.

DR. P. D. WHITE, Kingsville, Ont., has disposed of his practice in that town.

DRS. J. G. CAVEN and Fred. Fenton are building new houses on Bloor Street East.

DR. LORNE ROBERTSON, of Stratford, is in Germany, taking a post-graduate course.

DR. G. R. McDONAGH, Toronto, has returned from the South, and has resumed practice.

DR. J. E. ELLIOTT, Toronto, has just been appointed a coroner for the County of York.

DR. E. T. EEDE, of Leamington, has been appointed an associate coroner for Essex County.

DR. A. N. HAYES, Sarnia, has been appointed associate coroner for the County of Lambton.

DR. NOBLE, of Brampton, has removed to Toronto, and is in partnership with Dr. H. J. Hamilton.

WE are glad to be able to announce that Dr. Gibb Wishart is recovering from an attack of erysipelas.

DR. H. R. McCULLOUGH, of Harriston, has been appointed associate coroner for the County of Wellington.

DR. J. ALGERNON TEMPLE'S new house on Bloor Street West is nearing completion, and will be ready for occupancy in May.

DR. J. M. ELDER, Montreal, has been appointed associate professor of surgery, and lecturer on clinical surgery in McGill University.

DR. W. H. PEPLER has purchased a brown stone front house on the west side of Spadina Avenue, just above Wilcox, and will remove there in May.

DR. THOMAS VERNER, of Blandford, N.S., but formerly of Toronto, had his residence destroyed by fire a short time ago, which is supposed to have been the act of an incendiary.

WE understand that Dr. Silverthorn has purchased the house adjoining Broadway Tabernacle, and that Dr. McKenna, Spadina Avenue, has purchased the property on College Street, just west of St. George Street.

NOTRE DAME HOSPITAL, Montreal, has selected a site for its proposed contagious diseases hospital. It has been purchased at a cost of \$15,000, and occupies an extent of 52,000 square feet. The Montreal City Council will contribute \$15,000 annually towards its maintenance.

DR. J. P. HUBBARD, B.A., Forest, Ont., has left for Europe, to attend the International Congress of Medicine at Madrid, Spain, at which seven thousand medical men will meet from all parts of the world, after which he will go to Germany. The doctor will return early in July. During his absence Dr. McGougan will have charge of his practice.

Obituaries

DR. D. GILBERT GORDON, TORONTO.

Dr. D. Gilbert Gordon, Professor of Hygiene in Trinity Medical College, and Associate Professor of Clinical Medicine, in the same institution, died at Baltimore, Md., on Saturday, the 28th day of March, and was buried from his late residence, 646 Spadina avenue, on the afternoon of the 30th of March. We deeply regret Dr. Gordon's untimely end. A man of solid parts, of splendid attainments, faithful in his practice as in his teaching, his untimely demise at the early age of 44 years, in the full enjoyment of a large and ever-growing practice, is a sad stroke indeed; and the medical profession in Toronto has lost one who was always honorable and ever charitable. Such, however, is the chance of life, from which not even members of the medical profession are exempt. About a month prior to his death, Dr. Gordon became ill with tubercular peritonitis. An operation was performed, the wound healed kindly, and Dr. Gordon went to Old Point Comfort, hoping that the balmy breezes of Virginia would soon recuperate his failing strength. Shortly after he was

removed to Baltimore, but this latter change and hospital care and treatment were of no avail. The late Dr. Gordon was a graduate in Arts of Toronto University, having entered that institution as a matriculant in 1879. Before entering upon the study of medicine he was a master at the old Upper Canada College on King Street West; and after being graduated in medicine he spent some time in Great Britain and on the Continent. Returning to Toronto to commence the practice of his profession, he was appointed to the Anatomy Department of Trinity Medical College, and after a few years' service promoted to the Chair of Hygiene, and also became Associate Professor of Clinical Medicine. He was an out-door physician to the Toronto General Hospital, and was a past president of the Toronto Medical Society. Dr. Gordon excelled in and was very fond of outdoor sports. He was an ardent footballer in his younger days, and in later life curled and bowled. In the latter he was considered one of the steadiest players in Toronto. The large concourse of physicians and students at his funeral was a testimony to the position he occupied in the medical profession in Toronto.

DR. ANDREW HALLIDAY, HALIFAX, N.S.

One of the most promising physicians of Nova Scotia, in the person of Dr. Andrew Halliday, Associate Professor of Pathology in the Halifax Medical College, died on the 10th of March, at the early age of 36 years. The late Dr. Halliday's medical course was taken at Glasgow University, from which he was graduated M.B., C.M., with honors, in 1891. He began the practice of his profession in Nova Scotia, at Stewiacke, but after a few years removed to Shubenacadie. A few years ago he spent a year abroad in the study of pathology, bacteriology, and sanitary science, and on his return to Nova Scotia was appointed on the staff of the Halifax Medical College, as associate professor of pathology. But tuberculosis had marked him for its own, and a sojourn at Gravenhurst was of no avail. Dr. Halliday was a very faithful worker in scientific medicine, and an exceedingly brilliant career was before him. His death is a very great loss to the medical profession of Nova Scotia, and particularly to scientific medicine.

DR. RICHARD JOHNSON, CHARLOTTETOWN, P.E.I.

The death is announced of Dr. Richard Johnson, a leading physician of Charlottetown, P.E.I.

DR. HOWELL, OF JARVIS.

Dr. William Allen Howell, of Jarvis, known throughout the eastern part of Norfolk as a highly successful and favorite medical practitioner, is dead, in his 65th year. He had been ill for a number of years, and out of active professional life since 1888.

DR. ROBERT M. COOPER, LONDON, ONT.

Dr. Robert M. Cooper, of London, Ont., died suddenly on the 21st of March, during an epileptic attack. Deceased was 33 years of age, and had practised in London about six years.

The Physician's Library

The Surgical Diseases of the Genito-Urinary Organs. By E. L. KEYES, A.M., M.D., LL.D., Consulting Surgeon to the Bellevue and the Skin and Cancer Hospitals; Surgeon to St. Elizabeth Hospital; formerly Professor of Genito-Urinary Surgery, Syphilology, and Dermatology, at the Bellevue Hospital Medical College, etc.; and G. L. KEYES, JR., A.B., M.D., Ph.D., Lecturer on Genito-Urinary Surgery, New York Polyclinic Medical School and Hospital. A revision of Van Buren and Keyes' Text-Book, with 174 illustrations in the text, and ten plates, eight of which are colored. New York and London: D. Appleton & Co. 1903.

The first edition of Van Buren and Keyes' work on Genito-Urinary Diseases, with Syphilis, appeared in the year 1867. It was then the first work in any language grouping these maladies. In 1888, after the death of Van Buren, a total revision was made, and considerable new matter was added. The present edition is the second revision, which is even more thorough than the first. The subject of syphilis has been entirely eliminated, as it is only a genital disease in its method of approach. The advances in the surgery of the urethra, bladder, uterus, and kidneys made during the past few years, and the great interest taken by the profession in the diseases of these regions of the body, have given

the authors an opportunity to produce a work of great value to the profession. We think that none can be better equipped in experience than they. The younger Keyes has all the advantages of a modern education, while the elder has the long clinical experience which is essential to the production of a practical book. We believe that this is one of the best works published on the subject, and strongly recommend it to both students and practitioners.

Obstetrics. A Text-Book for the Use of Students and Practitioners. By J. WHITRIDGE WILLIAMS, Professor of Obstetrics, Johns Hopkins University; Obstetrician-in-Chief to the Johns Hopkins Hospital; Gynecologist to the Union Protestant Infirmary, Baltimore, Md. With eight colored plates and 630 illustrations in the text. New York and London: D. Appleton & Co. 1903.

In a work embracing 845 pages, the distinguished author, who deservedly stands as an authority on the subject of obstetrics and gynecology, has set forth aspects which will make it a practical guide to the obstetrician at the bedside. What enhances this book and stamps it as distinctly original, is the fact that all illustrations, excepting those relating to pure embryology, have been drawn from his own specimens, and under his own supervision. The representations of the different operative procedures are particularly good and striking; they have been drawn from photographs taken from life. Williams' *Obstetrics* will be sure to take its place, side by side, with the best in this branch of medicine.

Harrington's Hygiene. A Manual of Practical Hygiene for Students, Physicians, and Health Officers. By CHARLES HARRINGTON, M.D., Assistant Professor of Hygiene in the Medical School of Harvard University. New (second) edition, revised and enlarged. In one octavo volume of 755 pages, illustrated with 113 engravings, and 12 full-page plates in colors and monochrome. Cloth, \$4.25 net. Philadelphia and New York: Lea Brothers & Co.

The demand for a second edition of this work within a little more than a year from the appearance of the first is very satisfactory evidence of the appreciation which it has met. During

the interval, research in the field of hygiene has been active and fruitful, and the results have been incorporated in the present edition. A chapter on the Relation of Insects to Human Diseases has been added. Many of the other chapters have been entirely rewritten to present the latest knowledge, and throughout the book will be found evidence of the searching revision to which it has been subjected. The present century brings with it the generally accepted teaching that within the field of preventive medicine lie the greatest possibilities for future success in the reduction of disease prevalence. It is, therefore, an important duty which every practitioner owes to himself and his patients, to render himself thoroughly conversant with the most up-to-date theories and practical ideas in this science. For this purpose we know of no book that is better adapted than "Harrington's Hygiene." In its pages the subject is considered thoroughly, clearly, and in its most modern aspect. The work is so comprehensive, and at the same time so admirably simple, that it serves equally the needs of student, physician, health officer, and scientific sanitarian.

The American Year-Book of Medicine and Surgery for 1903. A Yearly Digest of Scientific Progress and Authoritative Opinions in all branches of Medicine and Surgery, drawn from journals, monographs, and text-books of the leading American and foreign authors and investigators. Arranged, with critical editorial comments, by eminent American specialists, under the editorial charge of GEORGE M. GOULD, A.M., M.D. In two volumes—Volume I., including "General Medicine," octavo, 700 pages, fully illustrated; Volume II., "General Surgery," octavo, 670 pages, fully illustrated. Philadelphia, New York, London: W. B. Saunders & Co. Canadian Agents: J. A. Carveth & Co., Toronto. 1903. Per volume: Cloth, \$3.00 net; half morocco, \$3.75 net.

We do not know of any similar publication, either American or foreign, that can compete in any way with this excellent Year-Book, published by W. B. Saunders & Co. It is not an indiscriminate collection of extracts, clipped from any and every journal: the matter is carefully selected, edited, and in numerous cases commented upon by eminent authorities, whom Dr. Gould has enlisted as his assistants. Every new theory and scientific discovery worthy of the consideration of the profession has found a place in this unusually complete Year-Book; and the names of the several editors are a sufficient guarantee of a proper discrim-

ination. The work comes to us in the same dress as last year—in two volumes. Volume I. contains "General Medicine," and Volume II. "General Surgery," the volumes being sold separately if desired. As usual the illustrative feature is well taken care of, there being eleven full-page inserts, besides many excellent text-cuts. We strongly recommend Saunders' American Year-Book as the best work of its kind on the market.

Clinical Treatises on the Pathology and Therapy of Disorders of Metabolism and Nutrition. By DR. CARL VON NOORDEN. Frankfort-on-Maine: translated under the direction of BOARDMAN REED, M.D., Philadelphia. Part III., Membranous Catarrh of the Intestines (Colica Mucosa). New York: E. B. Treat & Co. 1903. Price, 50 cents.

Membranous catarrh of the intestines was until very recently considered very difficult to cure. The reason for this was, no doubt, the imperfect knowledge of its etiology and pathology. The author traverses all these questions in a thorough manner, and then outlines the treatment, which has given him a large proportion of cures.

The International Medical Annual. A Year-Book of Treatment and Practitioner's Index. New York: E. B. Treat & Co. 1903.

Now in its twenty-first year, the present volume keeps up with the preceding volumes. It presents a concise, yet faithful reflection of the medical knowledge of 1902, and the work has been admirably performed. Those who wish to keep abreast of the times will find that this book will keep them alive in up-to-date knowledge.

Does the Practice of Medicine Pay?

Messrs. P. Blakiston's Son & Co., 1012 Walnut Street, Philadelphia, will send this wholesome reprint to any address for ten cents. It contains especially good advice on the subject of the collection of accounts.

Selected Articles.

PSYCHIC NATURE OF SOME DISTURBANCES OF THE ACTS OF URINATION AND DEFECATION.

BY CHARLES J. ALDRICH, M.D., CLEVELAND, OHIO,

Lecturer on Clinical Neurology and Anatomy of the Nervous System, College of Physicians and Surgeons, Cleveland; Neurologist to the Cleveland General Hospital and Dispensary;
Neurologist to the City Hospital.

Within the last ten years I have observed a number of patients with nervous or psychic disturbances, accompanying or associated with the acts of urination and defecation. Careful notes of these cases have been preserved, and it has occurred to me that a brief consideration with a detailed report of some of the purer types would be both interesting and instructive. Few general practitioners or surgeons of experience will fail to recall some of these peculiar psychoses, but the gynecologist and neurologist meet a far greater number. I will consider the cases under two separate heads, beginning with psychoses of urination.

Psychoses of Urination.—Before taking up the psychic and neurosomal phenomena connected with urination it will be well to devote a paragraph to the consideration of the physiology of the act. Considerable uncertainty and differences of opinion as to the physiologic mechanism of micturition have obtained. Goltz's description of the series of events which occur in micturition is given most frequently, and is perhaps the most logical and clear explanation which we possess:

The distention of the bladder by urine finally causes stimulation of the sensory nerves in the muscular coats, thus producing a reflex contraction of its musculature, which squeezes a small amount of urine into the urethra. These few drops exert a stimulation upon the sensory fibres and give rise to a conscious desire to urinate. If no obstacle is presented the accessory muscles of urination and the bladder wall itself contract vigorously, while both the inhibition of the will and the automatic centre in the spinal cord, which are doubly involved in control of the sphincter, are taken off; it relaxes, and the act of urination is in force. If the bladder is not too full and the sphincter is kept in contraction for some time the contractions of the bladder may cease, and the desire to micturate pass away.

The proverbial frequent visits to the urinal by the student up for his final examinations is not always due to polyuria, for not infrequently it is accompanied by tenesmus and the passage of but small amounts of urine. Soldiers in the excitement of battle also frequently lose control of their sphincters. Emotional and hysteric people often complain of polyuria, tenesmus, and even of incontinence or retention of urine.

An able-bodied and not overly nervous physician of my acquaintance cannot urinate in the presence of another person, no matter who it is. He can give no reason for this, but states it is not due to shame. Inquiry among physicians who do a large amount of insurance examinations reveals a large number of like inabilities.

A patient told me recently that his wife, physically vigorous but neurotic, could not urinate in his presence, although the act was accomplished with ease in the presence of women.

A perfectly healthy, middle-aged woman informed me that she could not urinate in a public urinal, and that travel was a terror to her because of this fact. Even to urinate in a private bathroom in a hotel was impossible. The use of a night-vase, however, was attended by no difficulty. Defecation was accomplished without the slightest trouble in any of these places, but urination could not be accomplished. Believing this phobia to be a fear of contamination, I suggested her carrying an ordinary glass urinal, which she tells me she uses with the greatest ease when on the cars, steamships, or in public closets.

The mother of an athletic young woman, who is very fond of camping out, consulted me recently because of the great difficulty experienced by her daughter in urinating while in camp. Questioning revealed the curious fact that when a little girl she "could not sit down out of doors," as her mother put it. I have not learned the result of my advice to carry a portable closet into camp with her.

All are acquainted with the reflex effect produced by hearing running water, or by allowing cold water to run upon the hands. A neurasthenic patient once told me that she never dared wash her hands in a stream from the tap without having urinated previously.

A neurotic boy was brought to me for respiratory tic. Among other neurosal and psychic stigmata it was related that he could not urinate in a dark room. If, however, he was out of doors the darkness did not affect the control of his sphincters.

A hysterical girl of 17, whose attenuated brain held a hundred aberrant notions, could not urinate unless in a darkened room. So firmly fixed was this idea that on one occasion, under

circumstances which did not conform to her distorted ideas, she retained her urine so long that she got an over-distended bladder which the catheter alone relieved.

Another case is that of a girl of 16, with hysteric mania, whose axial delusion, and around which revolved a dozen others, was that she could not voluntarily pass urine. Acting upon the advice of Drs. W. J. Scott and M. Rosenwasser, the mother was taught the use of a catheter, and the girl was confined to a dark, unfurnished attic. She urinated voluntarily the next day, and later resumed her place in the family, although her mind did not clear for months afterward.

By far the most singular case of this curious collection is that of a little girl of 12, endowed with a neurosis hereditary enhanced by much infantile illness. When she was 12 years of age, it was found that during urination she repeated rapidly throughout the entire act, "number one! number one! number one!" When taken to task for this peculiar reiteration, she declared that it was impossible to urinate without repeating this formula. Threats, rewards, and punishment had no effect upon her. Upon gaining her confidence, I found that when a little child she would go to her mother, telling her that she wanted to do "number one" when she wanted to urinate, and "number two" for defecation. As is often the case with neurotic children, she seems to have micturated very frequently, and she would run to her mother many times a day, saying "number one! number one! number one!" She soon found herself repeating this during urination, at first to herself in a whisper, but at last her oblique psychology was satisfied only when the words were repeated aloud. It is a devious route, full of much speculation to attempt to establish connection between an evident psychic tic and the loss of power to co-ordinate the complex combination of nervous impulses supplied by the will and the various spinal and intrinsic bladder centres presiding over normal micturition. When last heard of the child's condition was unchanged, no further manifestation of a disordered psychology had appeared, but if she lives long enough more will follow.

The following case presents features worthy of careful study:

Miss S., aged 21; a stenographer, was referred to me by Dr. R. E. Skeel. She gives a negative family history. She suffered considerable sickness during childhood, but none since maturity. She gives no history of hysteria or other functional nerve disease. She is a lover of good literature; has had a good education, and is refined and cultured. She is distinctly a neuropath. In personal appearance she resembles the voluptuous

type of hysteric; she has red hair, brown eyes, well rounded figure. She states that one day, at noon, while riding home on a street car, she felt a sudden and almost irresistible desire to urinate, although she felt sure that her bladder was not unduly full. She suffered considerably in her efforts to control this impulse, and on reaching home was not surprised to note the fact that while comparatively little urine passed the desire at once disappeared. Before starting on her return to the office, she visited the closet, but about half-way to her destination the desire to urinate came upon her with such irresistible force that she was compelled to leave the car, when to her surprise the desire quickly disappeared without the passage of urine. She walked to her work for several days, and experienced no trouble, but whenever she attempted to ride the impulse became so marked as to force her to the street immediately. For some time she avoided cars, but her distress was complete when one morning, as her employer began to dictate to her, the impulse to urinate came upon her with the same force and imperiousness as when on the street-car. Morning after morning her work was a perfect misery between going to the closet and fighting the now well-nigh irresistible impulse to urinate during the taking of dictation. Careful analysis of her sensations while the impulse was upon her revealed a complexity. The impulse came so quickly and forcibly that the will control of the sphincters was not always sufficient to prevent a slight jet of urine issuing with considerable force. During this time she became confused, was possessed by a nameless fear, her face flushed and burned; fingers and toes tingled, and a degree of mental excitement, coupled with an intense desire to go to the urinal became almost uncontrollable. If she retired to the closet a small amount of urine would pass in a natural manner, and all her symptoms disappear, but she would be no more than seated at her desk when the impulse would return with all of its terrifying accompaniments. Thinking perhaps it was a manifestation of sexual excitement possibly not understood by the innocent girl, I suggested the wearing of a napkin, which would absorb the few drops of urine that would pass after the first impulse had forced her to the closet. This was tried without benefit; although she would dampen the napkin, the impulse remained, nor would it depart until she sat upon the closet. When this impulse became timed to the hours of dictation it permitted her riding on the street-cars, with constant teasing, however. Although she was vouchsafed this slight measure of relief, the psychosis soon manifested itself whenever she went to church, the theatre, to a party, or to any gathering outside her home. Strange as it may

seem, she could entertain any number of friends in her own home without the least personal discomfort. This latter observation was made by Oppenheim in a study of a series of these cases. Dr. Skeel treated her for local conditions, and found a spot at the base of the bladder which appeared irritated. Careful systemic treatment failed to aid her. Becoming convinced that he had a neurosal or psychic ailment to deal with, he referred the case to me.

I found, in addition to the foregoing manifestations, quite a list of the stigmata of degeneration. One hand was larger than the other, and one leg was much larger than its fellow, and the seat of a peculiar paresthesia. Belladonna and arsenic carried to toxic limits, suggestion and the pill of three valerimates have produced marked benefit, although the patient is now, at the end of three and a half years, compelled to keep the valerinate pill on hand, to aid in maintaining control of her urinary impulses.

Miss J. S., white, aged 22; a dressmaker by occupation. She may be described as an erotic psychopath, whose natural tendencies are strongly repressed by great will power and good training. Her previous health has been good, and except for a hernia, she has been perfectly sound up to the beginning of the present ailment. About three months previously she noticed that when she went into society, or to church, or to any place where many people were assembled, she experienced a distressing desire to empty the bladder, accompanied by a feeling of fear, a rush of blood to the face and head, cold extremities, and a peculiar sinking at the stomach. Unable to find any organic foundation for her distressing condition, and discouraged with my ill-success in affording her relief, I referred to Dr. M. Rosenwasser, who returned the patient to me, with the following note: "Examination of Miss S. reveals no physical or pathologic condition to account for her symptoms. The urine is normal. There is no pain in the bladder, nor is there any evidence of disease of the urethra. The kidneys are not loose. My conclusion is that the condition is neurotic, and I would suggest treatment along that line."

Her condition kept her from the theatre, concerts, parties, and church for nearly two years. While she was under my care during that time many medicines and measures were used, but I believe that suggestion and liberal doses of the tincture of time and essence of patience were the only remedies that aided her in obtaining her present fairly comfortable condition.

Psychoses of Defecation.—As in the consideration of the peculiar disturbances encountered in urination, I will precede the

relation of my one case of a psychosis of defecation by a brief reference to the physiology of the act.

From the experiments of physiologists, it seems that the whole act of defecation is a complex combination of involuntary reflexes, and while the chief physiologic centre of this complex automatism probably lies in the lumbar cord with accessory centres in the organs themselves, yet it has sensory and motor connections with higher centres which make this act largely controlled by voluntary impulses. It is also true that various physiologic states and even the emotions often exert profound effects upon the act. Goltz has shown that in dogs with the spinal cord severed, defecation is performed normally. In another experiment, in which the entire spinal cord, except the cervical and upper part of the thoracic region, was removed, it was found that after the animal had recovered from the operation normal defecation took place once or twice a day, clearly indicating that the rectum and lower bowel act by virtue of their own intrinsic mechanism. In infants the involuntary character of the act is well known, but higher control is acquired later until the adult, through the action of the will, can almost completely control the operation of both the spinal and intrinsic nerve mechanisms concerned in the complex act of defecation. The chief voluntary factor consists in the "taking off" through action of the will the inhibitory power of the spinal and intrinsic centres controlling the two sphincters. This "taking off" of the inhibition seems to put in motion not only the peristalsis itself, but by an almost imperceptible aid of the will the glottis is closed, the diaphragm fixed, the abdominal muscles powerfully contracted, the intra-abdominal pressure raised, and the act accomplished.

I have observed that although the internal sphincter is said to be involuntary and largely innervated by the sympathetic system, and the external sphincter composed of striate muscle tissue, and more directly under control of the will, yet it appears that whenever the feces are sufficiently fluid to pass the internal sphincter successfully and produce irritation of the mucous membrane, the most powerful effort of the will must be exerted to prevent the external sphincter opening and a putting in motion of the powerful impulses which tend to produce an involuntary contraction of the accessory muscles of defecation, combined with the active peristalsis which is a part of the internal sphincteric relaxation.

My experience would be to indicate that the psychoses of defecation are far less frequently encountered than those of micturition. Indeed the following case is the only one of clearly defined type that I have had the opportunity to study and record:

Mr. A., a Hebrew merchant, aged 47; was referred to me by Dr. C. B. Parker. His ancestral history is negative. His wife is an amiable cultured woman. They have two daughters, the eldest of whom has a slight spinal curvature and has had hysteria; the youngest was referred to me by Dr. Rosenwasser, because of hysteria and chorea. Mr. A. is a moody man, given to worry about his business, and has for years suffered from obstinate constipation. He has run the gamut of laxatives, cathartics, and physiologic and dietetic cures, but with no lasting benefit. He was operated upon for hemorrhoids by Dr. T. C. Martin about two years ago. From his piles he was relieved, but the constipation remained as obstinate as before.

He came to me eighteen months ago, complaining of peculiar psychic phenomena following defecation. When he sat down in my office he presented the most perfect picture of dejected hopelessness that I have ever witnessed. It appeared that he would arise in the morning, feeling well, and go about his work, and if he had no stool would remain in normal condition; if, however, the bowels acted, the most intense mental and psychic dejection followed; to such a degree that thoughts of suicide continually recurred to him in spite of the horror and fear which they excited in his reasoning mind. This condition would last for two or three hours, then slowly recede, leaving behind some worry as to his condition, but no foolish thoughts, and but little depression. He was treated by galvanism, the negative pole in the rectum, the positive dispersing pole over the lumbar spine, tonics, suggestion, and cold baths. He improved, and I flattered myself that the psychosis was caused by some local rectal trouble. About two months after his last treatment he again appeared at the office and informed me that, following some unusual business worries, he had a return of the awful depression, but it now followed urination instead of defecation. The periods of depression were identical in character, but not so deep or prolonged as the former ones. No such trouble followed defecation now, not even if he passed urine at the same time. Careful examination disclosed no local disease nor other evidence of nervous or psychic disturbance. The shifting of the scene had placed the case in the category of a pure psychosis not dependent upon any local lesion. The negative bulbous sound in the urethra instead of the rectum instituted an improvement, which has continued for over a year.

In this rambling relation of a number of cases which have been observed during a long period of time there has been no attempt at classification other than the division observed in their recounting. Possibly it may be of advantage to refer briefly to

some of these cases in an analytic way, and draw some conclusions as to their origin as well as of their nature.

In the case of the physician, notwithstanding his statement that it is not shame that prevents his urinating in the presence of others, I am positive that ingrained modesty is the origin of this not uncommon inability to harmonize the various complex reflexes associated in the act of normal micturition. Inquiry also revealed the fact that the woman, who was unable to urinate in the presence of her husband had neither a brother nor a father who "looked upon her in childhood" since infancy. I believe that we are justified in believing that shame or innate modesty was sufficient to disturb her co-ordination of normal reflexes. In another instance the difficulty in urinating experienced by the young lady while in camp, may be explained upon the hypothesis of some fear that developed when a child while attempting to urinate on the ground out of doors. In the case of the woman who was unable to use a public urinal, the idea that it was a fear of contamination which prevented a correlation of the reflexes sufficient to accomplish the act was proved correct by her adopting my suggestion of carrying her own urinal, with subsequent relief. This is analogous to recorded instances of women, apparently sane, who, because of ungovernable pathophobia, are afraid to touch their genitals with an ungloved hand. It is difficult to explain the case of the neurotic boy who could not micturate in a dark room, and more difficult to explain why he was not troubled when out of doors in the darkness. The same remarks apply to the hysteric girl who could urinate only in a dark or darkened room. In the case of the little girl who repeated aloud "number one! number one! number one!" during micturition, we have to deal with a form of convulsive tic, and the occurrence of obsessional ideas connected with one of the uncommon functions of life. It is also a question if the case of Miss S., which was related in detail, is not also another example of a tic of the bladder itself, in which the convulsive movements are entirely confined to its muscular walls, affording contractions of sufficient force to exude a few drops of urine into the urethra already hypersensitive, and thus set in motion not only the intense desire but the force of the accessory as well as the intrinsic muscles of micturition. Her disturbed mentality, flushing, etc., are all understood in the light of her emotional nature and refined and modest character. It cannot be denied, however, that the whole aspect of the case is one markedly suggestive of those peculiar obsessional ideas and actions which at times possess the psychopath. These latter remarks may be applied with equal

force to the case of the little girl in her repetition of the obsessional words which appear to come to her unbidden, yet she is compelled to use them throughout the act. In the case of Mr. A., there is a purer psychosis, and one perhaps exceedingly hard to explain, especially when we recall the experience of every healthy man, who feels a sense of relief, satisfaction, well-being, and stimulation, physically, mentally, and psychically, following a normal and thorough evacuation of the bowels. An inversion of this sensation would account very readily for his depression and dejection which brought to him the most sombre ideas, including fearful ones of self-destruction. But why, when the conditions changed, and he was relieved of his difficulty, it later returned as an accompaniment of micturition, no explanation can be offered except that of an ingrained psychic obliquity.

NOTE.—Since the above article was written, the following case was related to me by Dr. H. B. Kurtz, of Cleveland:

Mrs. H., a healthy married woman, without any marked nervous or psychic stigmata has never been able to urinate or defecate while sitting upon the closet seat. The only way she can accomplish either act is to get upon the seat with her feet, and sit down, as it were, upon her legs, the nates not being brought in contact with the seat. She states that this condition has existed since childhood, and the only explanation that she can offer is that when a child, the opening on the out-door closet seat was large, and that she recalls a fear that she might fall into this opening, and always got upon the seat, placing her feet astride the opening. In using the night-vase, if she sits firmly down upon the vase, she experiences to some extent the same inability, but it immediately disappears when she raises herself. This lady is a woman of education and refinement, and there is nothing in her family history that is indicative of degeneracy or mental or psychic disease.—*American Medicine*.

SUGAR—ITS DIETETIC USE AND ABUSE.

BY GEORGE H. TAYLOR, M.D.

Sugar is intermingled with other dietetic ingredients for the purpose of rendering them more acceptable to the sense of taste; in this sense it is a condiment. It is freely and abundantly appropriated by the vital organism in the support of its expendi-

tures, and in this sense it is an aliment. It is practically fluid on entering the digestive cavity, and is therefore transferred to the circulation without essential changes, and in this sense is equivalent to predigested food. This ingredient of the ingesta therefore requires careful consideration in each of the roles it is destined to play in the vital organism, to discover, if possible, the consequences of these influences, singly and combined; how they comport with, and how oppose physiological interests, and the nature of the ill effects which may arise therefrom.

At this point it is proper to advert to the fact that sugar in its isolated form is a comparatively modern product: the modes of separating it from the juices of plants and its modern uses, such as intermingling it freely with all sorts of food and drinks, were practically unknown to the ancients. The substitute for sugar in ancient times was *honey*, a saccharin substance whose restricted and difficult production and irregular supply precluded its general and constant use even by persons regarded as favorites of fortune.

In modern times sugar is obtained cheaply and in almost unlimited abundance from the juices of several plants: for commercial purposes chiefly from the sugar cane, the beet root, and the sugar-maple tree. It is also procurable by the transformation of starch, abundant in edible seeds, roots and plants, by processes involving chemical knowledge.

The juices of sugar-yielding plants and roots always contain a due proportion of the *nitrogenized* ingredient of food, usually in the form of fluid albumen. The mechanical processes for obtaining sugar are in reality, processes for separating and *discarding the albuminous ingredient*, as well as the woody fibre, the vegetable extractives and acids which coexist in the juice of the plant. The heat employed for concentrating the juice also coagulates the albumen, and renders its separation an easy mechanical process.

Starch and sugar are, in nature's processes, mutually convertible into each other. In the ripening of fruits, the starch, abundant in the green fruit, becomes the saccharin ingredient of the ripe. The sugar of the sap of the growing cereal becomes the starch of the ripened grain, and the sweet sap of the tree is afterwards its leaf twig and fibre. The starch of grains is transformed to sugar before becoming alcohol.

In each and all these transformations, the nitrogenized ingredient, naturally associated with starch and its alternate sugar, is practically unaffected. The presumption is natural and direct, that for nutritive purposes the proportions between the nitrogenized and non-nitrogenized ingredients of the edible parts of

plants are correct, and do not require to be essentially altered, to comply in the best manner with physiological needs. This presumption is confirmed, by observations of the physiological habits and physiological requirements of the whole animal world, for the life of all inferior creatures is maintained and development promoted by aliment consisting of commingled non-nitrogenized and nitrogenized ingredients. The starch and sugar of vegetable food are replaced by oleaginous matters in animal food.

The progress of modern arts having greatly increased and cheapened the separation of sugar and its saccharin equivalents from the ingredients naturally associated with it, has contributed to an enormous increase of its consumption; and its use under the several inducements above noted is practically unrestrained among all classes of people. Our commonest drinks, tea, coffee, chocolate, lemonade, soda-water and many others, often imbibed many times a day, are loaded with sugar. Other semi-liquids in constant use, as ice-creams, sorbets, jellies, canned fruits, are thick with sugar. Additions of sugar to farinaceous articles of food, as cake, etc., simply increase the ingesta for which digestion is not required, as all saccharin ingredients are practically fluid when the digestive organs are reached. Illness is popularly and professionally regarded as requiring liquid or predigested food; and saccharin material being the ready means of contributing to that purpose, it follows that the food of the sick contains even a larger proportion of this ingredient than does that of the well.

Facts like the above pertaining to modern direct usages seem to indicate the possibility of what might properly be called the *sugar habit*, from the prevalent use of sugar for the mere purpose of impressing the gustatory sense.

The sugar habit (if the expression be allowed) differs from those unequivocally pernicious, like the use of spirits, tobacco, etc., inasmuch as its impressions are strictly confined to the gustatory sense, while those referred to do not particularly affect this sense; but by impressing the general nervous system, pervert the appetite and subordinate the vital organism to inferior physiological uses.

We may now inquire as to the consequences, probable and possible, of excessive additions of saccharin ingredients to aliment.

The *discriminating power* of the sense of taste is impaired by excess of saccharin ingredients of ingesta. Sugar has great power to mask other impressions. Hence the disagreeable taste of medicaments is in general concealed by the liberal saccharin admixture. So also are spontaneous deteriorations of quality, acci-

dental admixtures of injurious ingredients, and falsifications of food, made practically undetectable by convenient recourse of sweetening. It follows that *one* physiological purpose, and that a very important one, of the gustatory sense is partially defeated, and the victim's liability to disease is increased by the dietetic usage referred to.

The enjoyment afforded by the gustatory sense is impaired. The curtailment of gustatory enjoyment has these two phases. The patent fact of concealing disagreeable qualities of ingesta covers also those naturally adapted to make agreeable gustatory impressions. The more delicate and refined sapid impressions of the inherent flavoring ingredients are covered by the stronger and more constant saccharin impression. This fact involves the practical restriction of gustatory resources. The multiple enjoyable impressions derivable from a variety of sources are practically exchanged for the dead level of that afforded by the saccharin addition to food.

The sense of taste becomes, under the circumstances, morbidly developed. The evidences of truth of this statement are these: Saccharin impressions resemble those made by non-nutritious condiments in the fact that incitation of gustatory function involves nutritive activity, in the source of this sense, and its development in compliance with well understood physiological law—tending toward disparity with and ultimate supremacy over other nervous functions, extending even to the judgment as to what is, and what is not, proper food. Another evidence is the prompt rejection by the victims of the miscultivated sense, of aliment, nutritively unexceptionable and unqualifiedly wholesome, till the usual saccharin additions have been made.

The sense of taste is made too active and exacting in comparison with the demands of appetite. The desire for food is naturally appeased by the ingestion of the required quantity. But continued saccharin impressions on the sense of taste lead to ingestion regardless of appetite, and in excess of the demand for nutritive purposes. Confusion and disorder are thus introduced between these two necessary guides and guards of nutrition tending to alimcination without its natural and necessary check. Food is ingested to satisfy the over-developed and misleading sense, with too little reference to the legitimacy of the demand. The order of nature in the supply of nutritive requirements is reversed. Some form of reaction, producing suffering of the organs of digestion, is the inevitable penalty.

Unlimited saccharin affords non-nitrogenized ingredients in excess of the requirements of the vital organism, and invites morbid consequences. This is the conclusion which is involved

by preceding physiological statements. Some of these may here be recapitulated. Expenditures undoubtedly determine the nutritive activity of the vital organism, and therefore the need for and the amount of nutritive materials. The actual supplies afforded by the digestive organs and the waste of expending processes are consequently co-equal. This equality is maintained by the co-operation of the expending and the digesting or fluidizing processes. The nature and the quantity of the nutritive matters being functioned, that is, expended, are physiologically determined in digestive secretions. Certain provisions inhere in the vital mechanism, to obviate the introduction into the vital parts through the circulation of an unfunctionable excess. The first and most important of these provisions is the insolubility. The saccharin ingredient of food is practically fluid, and is slowly transferred from the digestive organs without essential change to the circulation, and subjected to the physiological chemistry.

The question for determination is, when is the use of the saccharins an injurious evasion of the physiological law, and when is it not?

It is evident that the proportion of the saccharin ingredient which obtains in cereal grains and fruits, is physiologically desirable. This ingredient in that proportion seems to commend the whole by its impression on the gustatory sense, and by wholesomely calling forth the appetite. The consciousness is agreeably impressed, and through it the whole nervous system exercises a wholesome and needed influence over the nutritive processes. It should be kept in mind that the relation of the nitrogenized and non-nitrogenized ingredients of foods remains unaltered. The saccharin contingent is practically transformed, *predigested* starch.

It is also evident that evasion of physiological law which demands the sanction of the digestive process for the introduction of nutrients, by supplying saccharins which do not call for the digestion process, is comparatively harmless, even though the quantity supplied be considerable, so long as physiological oxidation remains vigorous, and the demands do not exceed the capacity of the organic chemistry. The physiological test of the sufficiency of this process is the absence or presence in the system of morbid residuals, whether the evidence of the fact be in the digestive cavity, membranes and glands, local or general capillaries, interstitial fluids, the nature of excretions, or in the reaction of vital parts caused by the untolerated presence of residuals at any point in the organism.

Nitrogenized and non-nitrogenized food as related to phys-

iological chemistry.—The saccharin ingredients of food are rapidly transferred to the circulation and soon disappear, being transformed by oxidation to carbonic acid and water. These ingredients, together with the converted starch, are not the only sources of the sugar destined for oxidation within the vital organs. For it has been conclusively shown by leading physiologists that the *liver* is a source of saccharin material, since sugar is found in blood passing from that organ which could have no other source. This substance is therefore formed by its processes from residuals extracted from the blood it receives.

When it is observed that saccharin ingredients are more amenable to physiological oxidation than other chemical forms, the *purpose* of the transformations described becomes apparent. This is to facilitate oxidation and thereby the more rapid removal of all systemic residuals.

The general principle that non-nitrogenized ingredients of the saccharin order are more readily removed from the vital organism than the nitrogenized, is confirmed by the behavior of the two classes of ingredients under other circumstances than those presented in the vital organism, and may be regarded as inherent in this class.

If physiological analogies are trustworthy, it is probable that the secretions which transform starch to sugar are withheld on the ingestion of the latter; although an abundance of watery mucus appears, necessary for protective, but impotent for digestive purposes: the active agent being reserved for the starchy contingent of food.

The physiological conclusion from the above statement is that sugar simply displaces starch, which remains undigested and perfectly innocuous in the digestive cavity, and is finally discharged along with other undigested portions of ingesta such as woody fibre, the connective tissues, chondrin, membranes, superfluous fatty substances, and bile resins and extractives, which together form a large portion of all edible substances.

The preference for saccharin food arises from the agreeable impression of this ingredient on the sense of taste. The desire to continue this impression leads to excess of ingestion of the agent which causes it. Excess of ingestion may be defined as any amount which exceeds the physiological limit determined by expenditures. These are subject to constant fluctuations. This limit is not indicated by the sense of taste, for this now acts under abnormal, at least excessive, incitation; nor by the appetite, for this is now subordinated to the gustatory sense; but by the consequences, the more noteworthy of which are too far

removed in point of time to have the necessary restrictive influence.

The *protective* functions connected with the vital mechanism have been shown in a previous chapter. Excess of saccharin food weakens this in a perilous degree, for the normal powers of the digestive organs for *excluding*, which parallels their including powers, are rendered nugatory by the fluid form of the saccharin ingredient. It is transferable to the circulation whether required for support of expenditures or not.

We may arrive at a trustworthy basis for estimating the quantity of saccharin ingredients which may, without detriment, exist in food. A healthy animal digests, that is, converts into the saccharin form, just so much starch as, being correlated with other ingredients of food, complies with current demands of expending functions. It is obvious the same amount of saccharin might be physiologically substituted for the starch, and the latter omitted.

If, now, both starch and saccharin be coincidentally ingested, one or more of these consequences must follow: The digestion of the starch is superseded, and it remains an undigested inert residue. Or, it is wholly digested, and doubles the quantity required, and other branches of the protective functions are called into requisition, such as impaired secretions, diminished appetite, local, ominous residuals, etc. Or, it is *partly* digested, while the whole of the saccharin additions are necessarily absorbed, producing the same consequences in an inferior, and possibly imperceptible though positive degree. The latter is the case ordinarily prevalent in modern civilized communities.

It is wrong to infer that the residuals which acquire morbid preponderance in consequence of saccharin excess belong necessarily to the non-nitrogenized order of ingredients. The chemical nature of these matters is determined not by that of the ingredients ingested, but by degree of imperfection of the chemical phase of the vital processes. Since saccharins, under ordinary, non-vital circumstances, are more susceptible to oxidation than nitrogenized or albuminous ingredients; and since the motions which inhere in vital objects greatly facilitate the oxidation of the latter class of ingredients, it plainly follows that in case of great weakness and insufficient manifestation of muscular power, the non-nitrogenized ingredients will disappear from the organism, while the nitrogenized may be more tardily eliminated. This inference is abundantly confirmed by the nature of the ailments to which persons of abundant digestion and restricted motion (equivalent to restricted chemical phase of physiological activity) are most liable.—*Dietetic and Hygienic Gazette.*

FOREIGN BODIES IN THE VERMIFORM APPENDIX.

BY JAMES BELL, M.D., MONTREAL,

Professor of Clinical Surgery, McGill University; Surgeon to the Royal Victoria Hospital, Montreal, etc.

It is safe to say that in the earlier days of operations upon the appendix vermiformis, less than two decades ago, all of the laity and many members of the medical profession believed that appendicitis was generally, if not always, caused by the presence of a foreign body in the appendix. This belief arose from the fact observed in autopsies, especially those made upon fatal cases of peritonitis, that the appendix contained, or had recently contained, a concretion which was assumed to have a grape-seed, apple-seed, or some other foreign body as its nucleus. Indeed, within the last ten years (it was in 1893) a distinguished foreign physician, who was present at my clinic when I operated upon two cases of gangrenous appendicitis, in each of which a large concretion was a conspicuous feature, said to me, in speaking of the case after the clinic was over: "Excuse me, but I did not hear you bring out the fact (in the history) as to when these patients had eaten the grapes."

Surgical treatment of the inflamed appendix and its consequences necessarily led to a careful and thorough examination of the parts removed, as well as of all the tissues involved, and especially of the concretions and other contents of the appendix. The result has been an absolute demonstration that appendicitis does not depend upon the introduction of foreign bodies; and moreover, that real foreign bodies in the appendix are very rare indeed. The concretions so constantly found nearly always consist of inspissated fecal matter without nuclei of any kind; and all degrees of inspissation are observed.

I will now go further and state my opinion that, when foreign bodies do enter the appendix, they are either accidental occupants, or, if they give rise to symptoms at all, they do so in a different way, and do not, as a rule at least, cause a genuine appendicitis. In the last ten years I have found the following foreign bodies in the appendix in cases operated upon for its removal, viz.: In two cases, ordinary pins; in one, a forked fish-bone; in another, a large and a small gall-stone; in another, two seeds (probably flax-seeds); in another, a bit of woody fibre (probably apple core); and in another case, in which a portion of the appendix had sloughed off, a large lumbricoid worm lay in the localized abscess.

This is not a large number to have discovered in, say, about 900 to 1,000 operations, and yet, so far as I know, it is much larger than the average proportion. I have discussed this question with a good many surgeons who have each done a large number of operations every year, without ever having found a foreign body in the appendix. Of course, I refer to real foreign bodies, introduced from without, and do not include those fecal concretions or accumulations (coproliths), some of which may contain foreign material. The fish-bone, the flax-seeds, and the apple-core, were probably accidental occupants of the inflamed appendix, although it could not be shown that they had no relationship to the disease, and the worm had probably escaped through the open end of the appendix, and had nothing whatever to do with causing appendicitis.

In one of the pin cases the discovery was made so late in the suppurative process that no references could be reasonably drawn one way or the other. In this case the patient, a young man, had suffered from an abscess in the right Scarpa's space, which had been opened and drained. A sinus had persisted, and he came to the hospital several months afterward. In following up this sinus, it was found to extend beneath Poupart's ligament, and to communicate with the open extremity of the adherent appendix. The appendix was removed and an ordinary pin was found lying in the abscess cavity at its extremity. The symptoms had been indefinite and subacute, and had not caused any suspicion of appendicitis. In all probability perforation of the appendix at its tip by the pin had occurred, causing adhesion and abscess without any inflammation of the appendix itself.

In the other two cases, which were observed in the acute and early stages, the symptoms and pathological changes produced were those of intestinal perforation. They were, briefly, as follows:

CASE I.—A boy, 16 years of age, was admitted to the Royal Victoria Hospital on the afternoon of July 9, 1894, with a diagnosis of acute appendicitis, and immediately operated upon. He stated that he had been kicked in the abdomen on the 7th, forty-eight hours previously, and that pain and vomiting had begun almost immediately. There was a definite hard and tender mass in the appendiceal region lying well anteriorly. On opening the abdomen this was found to be the appendix embedded in an enveloping mass of omentum. The whole mass was removed, and on examination a black pin of medium size was found protruding through the appendix near its apex. Two-thirds of the pin lay outside the appendix in a small collection of pus. The

mucous membrane of the appendix did not seem to be abnormal, and bacteriological examination of it was negative. The boy stated that for a year previously he had slight attacks, of short duration, of pain in this region. This history seems to show very clearly that the pin had found its way into the appendix several months previously, and had given rise to very little in the way of symptoms until a blow upon the abdomen caused it to perforate the appendix; and then arose a train of symptoms due to perforation without pre-existing inflammation.

CASE 2 has a very similar history. A young woman, aged 22, on the afternoon of Thursday, July 31, 1902, had stepped up on to the seat of a chair to enable her to place a heavy book upon a high shelf. In stepping down, afterward, the chair tilted and the back of it struck her in the lower abdomen, and gave her some pain, and she felt sore for the balance of the day and the next day, Friday. On Saturday she scarcely felt it, and did her day's work and ate her evening meal about six o'clock with her usual relish. About 9 o'clock, however, she began to have severe pain in the abdomen. This was so severe that a physician was called and gave her a hypodermic injection of morphine, and she had a fairly good night. On Sunday she had a good deal of pain, and vomited frequently. Sunday night she suffered a good deal, and about 8 o'clock on Monday morning the pain became unbearable, and she could not "get her breath." The ambulance was sent for, and she was brought to the hospital. I was summoned at 10 o'clock a.m. She then showed all the evidences of having a severe general peritonitis. She was livid, breathing with difficulty, short catchy breaths; pulse 140 to 160; temperature 102 degrees, and the abdomen somewhat distended and absolutely rigid. The previous history could not be fully obtained under the circumstances, but these two important facts were elicited—she had had an attack when she was thirteen years of age which had been diagnosed as appendicitis, and she had never suffered from dyspeptic symptoms. In spite of these statements I thought that the peritonitis was probably due to a perforated gastric ulcer, and opened the abdomen in the middle line above the umbilicus. There was a gush of gas and a flow of pus when the perineum was opened. The whole cavity was literally swimming in pus. There was no perforation of the stomach, and the gall-bladder and gall-passages were normal, but a mass was felt by the hand within the abdomen, in the appendiceal region. An incision was made over this, and the cecum delivered through it. The appendix stood upright, with an opening near its base as large as a five-cent piece, partially blocked by a large faceted

gall-stone more than half an inch in diameter. A small faceted gall-stone lay in the appendix beyond the larger one. On moving the bowel so as to displace the stone, liquid feces poured out of the opening. The appendix, including the stone, was removed, the peritoneal cavity cleansed and drained, and the patient did well. On August 11 the gauze was removed, and the wound sutured. On the 20th, the temperature began to go up. On the 25th, there was slight cough but no pain, some slight increase in the area of dulness in the right side, some slight upward increase in the area of hepatic dulness. An aspirating needle introduced in the eighth intercostal space just behind the posterior axillary line, found pus. Next morning, on the 26th, a portion of the eighth rib was removed and a healthy plural cavity opened. A portion of the ninth rib was then removed, and adherent pleura encountered, but no pus and a crepitant lung. A needle introduced through the lung withdrew pus. The lower border of the lung was then perforated at the spot by the cautery, but no pus found. The finger introduced found neither pus nor cavity, and separated the adherent lung from the diaphragm for some distance. In the meantime the patient began to cough, and expectorated about half an ounce of pus. Since that time a moderate discharge of pus has developed through the lung, and an occasional small quantity is expectorated. The patient is still feverish and weak, but has neither symptoms nor local signs, and her abdominal condition is all that could be desired.

It will be noted that the first symptom in this case occurred from 50 to 52 hours after the injury, that operation was performed about 38 hours after the first abdominal symptoms, and that the later symptoms of subphrenic abscess penetrating the pleura occurred about 21 days after the operation.

Here again the foreign body had been in the appendix for a long time (nine years), and a slight blow upon the abdomen was the initial factor in producing a large perforation of the appendix, close to the bowel, with precisely the same result as would have followed had an opening been produced by a shot-gun, stab-wound, or other traumatism, or by an acute or chronic ulceration from within.

Incidentally I may point out that this case is almost unique in the number and variety of unusual and grave pathological conditions. In the first place, the passage of gall-stones is unusual at such an early age; secondly, there is clear demonstration that the large gall-stone must have passed along the gall-ducts into the intestine, as I examined carefully the gall-bladder at the time of operation, and ascertained that nothing in the way of spontaneous anastomosis (if one may use the term) between the

gall-bladder and any part of the intestinal canal had occurred. Thirdly, the perforation after a slight traumatism and, finally, the extraordinary course of the pus, which found its way into the lung three weeks after operation. In explanation of the latter condition, I believe that it must have found its way into the mediastinum along the right crus of the diaphragm.

It would, of course, be absurd to draw general conclusions from such a small number of cases as I have been able to report in the present communication; but when, on the one hand, such an overwhelming number of cases of appendicitis are due to causes other than the presence of foreign bodies in the appendix (causes with which we have at present no concern), and, on the other hand, when the cases which have been observed of foreign body in the appendix seem to show that the foreign body had no such causative relation to the disease; and, finally, when these facts are *a priori* in accord with the results of general surgical experience, the conclusion would seem to be almost irresistible that such foreign bodies have no essential relationship to the condition which is so widely and generally known as appendicitis. I am well aware that it is unnecessary to argue this point, as no one at the present day would seriously dispute the foregoing conclusions, but the discussion of this subject has given me the opportunity of placing on record a couple of very interesting cases, and calling attention to a cause of intestinal perforation which has not heretofore been generally recognized.—*Phila. Med. Jour.*

EFFECTS OF TIGHT DIAPERS.—A. T. Cotton (*Arch. of Pediatrics*), thinks that the ordinary diaper of unyielding material, pinned tightly about the plastic pelvis of an infant, in which the ossification of the bones is not yet completed, may be responsible for pronounced deformities. The contracted pelvis, the most frequent cause of dystocia in America, he thinks, may be due in a considerable measure to the compression of the American diaper. The practice also of wadding a large amount of inelastic material tightly between the thighs is plainly responsible for deformities of the femora. There is little doubt in the mind of the author that many cases of genu valgum have their beginning in this cause. To obviate these defects Dr. Cotton advocates the use of light diapers, and no more material than is absolutely necessary for the absorption of discharges. Absorbent cotton, either loose or in pads, preferably the latter, retained by a T bandage or triangle of some flexible material, such as cheese cloth, secured by safety pins to the shirt, before and behind, has been found to meet all the requirements.—*Pediatrics*.

Special Selections

A RECENT PLAN OF TREATMENT FOR PULMONARY TUBERCULOSIS.

BY C. W. CANAN, M.D., B.S., ORKNEY SPRINGS, VA.

We desire to write a short article upon the treatment of that trite subject, Pulmonary Tuberculosis. Probably no disease has received so much thought and study as this terrible affection, yet the death rate has been reduced very little; thousands of deaths still occur annually from its ravages. Probably no disease that affects the human race has been treated under so many different plans, and with so many remedies; no less than fifty have been brought forward as beneficial in treating this disease. There is no doubt that many of these remedies have some virtue in this direction, but there has been a continual changing. Men who a few years ago thought they had found a specific in nitrate of strychnia, sulphuretted hydrogen, cod-liver oil, antitubercular serum, and a host of others, have since almost discarded them, and are now prescribing other remedies, in part at least. Some of these changes have been due to advanced knowledge in the pathology of this disease, but the main cause has been from a desire to find something that will yield better results in arresting the onslaught of this hydra-headed monster, and stop him at once in his path of destruction. With this object in view, we will briefly lay down a plan of treatment which, in our hands, has surpassed anything yet tried by us. While our experience with this plan of treating tubercular troubles covers a period of only four years, yet the results were so gratifying that we believe it far surpasses anything offered to the profession up to the present time.

In each of the cases treated by the plan described in this paper there was no doubt as to the diagnosis being correct, because each case was verified time and time again by the use of the microscope. These cases came under treatment in all stages of the disease, many of them far advanced. One-third of all cases treated made, we believe, permanent recoveries; two-fifths improved, and of the remainder, four-fifths died. Many of those who died were far advanced when they began this plan of treatment. Some of those classed with those improved are well so far as external observation goes, yet there were certain manifes-

tations that prevented us from placing them upon the cured list.

Our plan of treatment is as follows:

The patients must be placed where they will have every advantage of hygienic surroundings, plenty of pure air and sunshine, in the country, and, if possible, where pine and cedar forests abound. Exercise is a very important factor in making a cure, but should be prescribed with good judgment, according to the ability of each patient to perform it; good walks and drives are very essential to the welfare of the patient.

We now come to the medicinal part of the treatment. Of this, terraline forms not only the foundation, but the framework. We, at one time, believed that cod-liver oil would do this sooner than any other remedy, but from actual tests we are convinced that terraline will do it quicker. Then there are many other things in favor of the latter; being odorless and almost tasteless, the most fastidious patient seldom objects to its administration. It can also be retained and digested in many cases where cod-liver oil can not. Under its administration the patient's appetite improves, he digests and assimilates better, expectorates more freely and easier, the cough becomes less troublesome, and the bodily weight invariably increases. Under this plan, when the patients once begin to improve, they seldom relapse so long as the treatment is carried out fully.

When patients come to us in the second or third stage of the disease, with the hectic flush, evening rise in temperature, night sweats, loss of flesh, anemia, sleep broken by paroxysms of cough, and all that train of symptoms which indicate that unless something is done quickly to stay the tottering structure, a fatal termination will be the result, then it is that every effort should be put forth. Besides placing the patient in the most favorable situation as to hygienic surroundings, as described in this paper, the effect of terraline should be aided by a generous diet and one that will give the digestive apparatus as little work as possible, but at the same time yielding the greatest possible amount of nutrition. Strychnia and often whiskey should be administered when indicated.

When patients have been under treatment for thirty days, the paroxysms of cough are less severe, the night sweats are less exhausting, the hectic flush on the cheek grows paler, the patient sleeps better, and feels refreshed when he awakens, the red blood discs increase, and the percentage of hemoglobin is raised; the microscope shows that the bacilli are decreasing in number; the patient breathes less rapidly on taking exercise, begins to gain in bodily weight, and there are general indications of improvement.

We will now report one clinical case which will illustrate the whole class of those who were cured, and in a degree those who improved.

Mrs. Edna W., aged 32 years; wife of a lawyer, had lived in Washington, D.C. History of consumption in family on mother's side. Had severe attack of la grippe during the winter of '98, which left her weak and anemic. A very severe cough came on with the attack, which improved to a marked degree after la grippe disappeared, but never entirely left her. By July of that year she found herself losing flesh rapidly, cough increasing, breathing difficult on the slightest exertion, menses disappeared, night sweats and all that train of symptoms that belong to an acute case of pulmonary tuberculosis. Her physician advised a change to the country, and she came under my care the first of August of that year. Arrangements were at once made to carry out the treatment in detail. The apex of the left lung contained a considerable cavity, with dulness extending over nearly all the posterior portion, and rales were heard in all directions. From her statement, she was thirty-five pounds below her normal weight, as she only weighed one hundred and three pounds at this time. The diagnosis was made positive by the use of a microscope. Treatment was begun on August 3rd, and it was August 20th before any improvement was noticed. On this date her evening temperature fell to normal, which had varied between one-half and two and one-half degrees above normal. She slept better, and had no night sweats, was less irritable, and could take some exercise without gasping for breath. On September 3rd she had improved in many ways, having gained four pounds in weight, and the bacilli were rapidly disappearing from the sputum. On October 3rd, sixty days from the time treatment was begun, she had gained twelve pounds, could walk up a flight of stairs without any inconvenience of breathing, cough seldom disturbed her at night, night sweats entirely gone, red blood cells and hemoglobin were up to the normal, and the tubercular bacilli only numbered one-fourth as many as when treatment began. Ten days later she was sent south to spend the winter, but instructed to continue the terraline. On January 5th, 1899, I received the following letter:

DEAR DOCTOR,—In reply to your last letter, I must say that I cannot find words to describe how grateful I feel in reference to my condition. I believe I am absolutely well. I now weigh 125 pounds, only have a slight cough when I first get awake in the morning, all aching and pain in my left shoulder and side have disappeared. I now walk two miles once, and sometimes

twice per day to a sulphur spring, when the weather will permit, and experience no inconvenience in breathing, or in any other way. My periods returned last month, and you cannot imagine how glad I was, for I felt sure that I was getting well. I continue, according to your instructions, the terraline, and still paint my chest with iodine occasionally.

I have a niece, 17 years old, whom the doctor thinks has lung trouble. They will send her to you in the spring, or sooner if she seems to grow worse, or would it be advisable to send her now? She is in Charlotte, N.C. Please advise me in reference to her, as I am very anxious about her condition. I will look for an early reply.

From your obedient patient and friend,
MRS. EDNA W.

This lady has been kept under observation. She, we firmly believe, is cured. Last winter she contracted a deep cold, and had a severe cough for some weeks, but recovered fully. This case is a typical one of those who have recovered under the plan.

We would be glad to report other cases, but space and time forbid.

March 31st, 1902.

CHLOROFORM EFFICIENT TO REMOVE TAPE-WORM.—In the *Southern Practitioner* of December, 1902, Dr. James M. Clopton, of Huntsville, Ala., gives full credit to Dr. William Porter for having cured him of a tape-worm that he had harbored for several years, during which time he had passed many pieces of his unwelcome tenant, aggregating several hundred feet in length. Three drachms of Squibb's chloroform, placed in a large-sized capsule, was taken at the rate of one capsule every few minutes until he was well under its influence. A nearby medical friend was present, and gave him an active purgative of salts and senna as soon as stupor became manifest. After a period of not many hours he was "parted from" his "old enemy." Since this he has applied the same treatment to other cases, with invariable success, despite many previous failures in the use of other vaunted remedies, as in his own case, in which he used everything available during a period of several years, so that he finally became bedridden in his efforts to rid himself of the worm.—*Medical Council*.

Toxic sexual impotence may often result from the continued use of the bromides, camphor, lupulin, arsenic, salicylic acid, morphin, alcohol, tobacco, e.c.—*Medical Council*.