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Original Communications.

TUMOR OF HAIR, WEIGHING 1 LB. 7 OZ., TWO FEET IN LENGTH, REMOVED FROM THE STOMACH OF A WOMAN, WITH RECOVERY.*

By HERBERT A. BRUCE, M.D., F.R.C.S. (Eng.).

Associate Professor of Clinical Surgery, University of Toronto; Surgeon St. Michael's Hospital; Surgeon Outdoor Department, Toronto General Hospital.

GENTLEMEN,—The history of the case which I am presenting is briefly as follows: Mrs. G. B., aged 26, married six years; two-para. A lump was noticed in abdomen, two months previous to birth of last child, by the attending physician. He thought it twin pregnancy. The patient had no symptoms in connection with this lump. After parturition the lump was found to be unconnected with the uterus or any of the pelvic organs. The doctor then thought it was a displaced spleen. Different consultants were of the same opinion, or that it might be malignant disease of the stomach, omentum or kidney. On examination a lump could be felt and seen in the upper part of the abdomen, about 12 inches in length, the left border being slightly convex and the right somewhat regular, but with a deep notch or sulcus in it. The lump was about five inches in width. It could be lifted forward and moved from side to side freely and downwards also to a less extent, until the lower end reached three inches below the umbilicus. It could be pushed up under the ribs on the left side, until it was almost out of reach. It seemed to be anchored somewhere behind the lower left costal cartilages. It felt very hard. No special discomfort was

* Read at meeting of Canadian Medical Association, Winnipeg.

caused to the patient by moving it about. There were absolutely no symptoms present apart from the patient's knowledge of the lump. She was never nauseated and had a good appetite. She was a little thinner than usual, but not more so than she had been after the birth of her first child. Dr. H. B. Anderson made an examination of her blood, and reported it normal, with no evidence of leukemia. Three days before the operation she ate most of a chicken, stating that she did so because she knew she would not get solid food for some time after. When I examined her I thought I could make out splenic dulness, but I did not think that the lump conformed to the shape of the spleen, and advised an exploratory operation. This I did at St. John's Hospital, on the 24th of July last, assisted by Dr. R. J. Wilson and Dr. Ross. Chloroform was given by Dr. Hendrick. On opening the abdomen in the middle line, the spleen and kidneys were found in their normal positions, but there was a large mass free in the stomach. On the anterior wall of the stomach, a greyish white area about the size of a ten-cent piece was seen. I could make out the mass to be lying free in the stomach and extending through the pylorus. It seemed like a couple of limbs meeting below at an acute angle, where there was a movable joint. The portion extending through the pyloric end of the stomach felt as if jointed. In fact it felt very much like an arm with the elbow below and wrist joint at pylorus. The stomach was brought outside the abdomen and an incision made into it between four and five inches in length, midway between the curvatures. After removing the mass of hair, the opening in the stomach was closed by a continuous suture of catgut for the mucous membrane, and a continuous suture of silk for muscular and peritoneal coats, and outside this a row of Lembert sutures. The after treatment was as follows: Eight ounces of hot salt solution every two hours. Nutrient enemata every six hours for first two days. Then salt solution discontinued, and nutrient enemata given twice daily for two days, and then once daily for a week. Twenty-three hours after the operation sips of hot water were given by the mouth, gradually increased until in six hours two ounces of hot water were given. Then two ounces given every hour. Forty-eight hours after the operation the patient was given one ounce of milk and half ounce lime-water every hour. This was gradually increased until in two days later the patient was taking three ounces of milk and one ounce lime water every two hours. Albumen water and barley water were added to the milk diet. For first four days after the operation $1/30$ grain strychnine was given hypodermically every four hours. The patient only vomited once after the operation. She sat up in bed on the sixteenth day

walked about the room on the eighteenth day, and left the hospital very well on the twentieth day. She was then taking ordinary light diet.

On examining the tumor, it was found to consist entirely of hair, twisted and intimately woven together, of a brownish color, and exactly the same shade as that of the patient. Single hairs were dissected out 10 and 12 inches in length. The mass measures 24 inches in length. The large end, which lay at the cardiac end of the stomach, is $6\frac{3}{4}$ inches in circumference; from this it gradually enlarges, until at angle it measures $8\frac{3}{4}$ inches in circumference. From angle it gradually tapers until 15 inches from large end it is $3\frac{1}{2}$ inches in circumference, and 19 $\frac{1}{2}$ inches from large end it measures $1\frac{1}{2}$ inches in circumference. The latter end extended through the pylorus and into



the duodenum to the extent of 6 inches, the latter $4\frac{1}{2}$ inches consisting of only a couple dozen of hairs, and being covered with fecal matter.

I think I am right in considering this case as rare, if not unique. Hair balls are sometimes found in the stomachs of ruminants, and I have here a specimen of a ball of hair found in the stomach of a cow, and kindly loaned me by Dr. Smith, of the Ontario Veterinary College. This is an average size, and only weighs six ounces. He tells me these are found in cows, pigs and sheep, and then usually in young animals, from licking one another. These balls have been found in the manger, having been brought up in the process of rumination, and dropped out of the mouth. These masses are called bezoars, or, if composed entirely of hair, trichobezoars.

My patient declares she has never swallowed her hair, and I would not consider her hysterical. There is no doubt, of course, that she did swallow this hair.

Her temperature never reached 100 after the operation, and was normal after the first three days. Pulse went up to 120 immediately after the operation, but in twenty-four hours was 110, and in three days was 80, and remained about this until she left the hospital. One of the most interesting and remarkable features of the case was the entire absence of symptoms pointing to any disturbance in the stomach. It is now three months since the operation, and she is enjoying the best of health.

In the *Medical News* of February 16th, 1901, Dr. Nathan Jacobson, of Syracuse, reports a case very similar to mine. His patient was a girl, eleven years of age. Unlike my case, she had evidence of gastric disturbance for about a year before the operation, such as vomiting of frothy mucus, and a considerable amount of colicky pains in the stomach. The photograph of the hair mass removed, which he calls a hair-cast, shows it to be very similar in shape to the one I am presenting. It is smaller, however, only weighing 15 ounces. His patient admitted that she had been in the habit of biting off the ends of her hair from the earliest years of her life. At first she thinks she did it simply because she was nervous, but later she rather liked the tickling sensation produced by the hair in its transit to the stomach.

Dr. Jacobson, in reviewing the literature, finds nineteen authentic cases where the patients have swallowed a sufficient quantity of hair to create within the stomach a hair-tumor. Only one of these was a male. Dr. W. G. Brewster, in the *Boston Medical and Surgical Journal*, reports a case in which an accumulation of hair became lodged in the small intestines, and produced intestinal obstruction. The patient, a girl of 10, survived the operation of enterotomy only five hours. The youngest patient was 10, the oldest 34. None of these patients were insane, and but few sufficiently nervous to be described as hysterical. In nearly every instance the habit of hair-swallowing was of years' continuance. In one case it had existed for thirteen years, in another fifteen, in a third seventeen, and in a fourth twenty-two. The stomach became gradually accustomed to the presence of the foreign body, and in many instances tolerated it without the slightest rebellion.

The largest mass of hair removed from the stomach, on record, is one weighing 5 lbs. 3 oz. Of the nineteen cases, ten were discovered *post mortem* and nine upon the operating table. It is very surprising that the discovery of the hair-cast was very unexpected. In not a single case had a correct

diagnosis been made, and no physician or surgeon had ever surmised that he had to deal with a foreign body in the stomach. As a rule, the diagnosis was splenic or omental tumor, or movable kidney, or fecal or other impaction in the transverse colon. As a rule, the hairs had simply been bitten off the ends of braids or flowing locks, but in other instances hairs of great length were found. One woman was said to have pulled the hair out of the back of her head whenever she became nervous, rolling it up into a ball and swallowing it; while another deliberately swallowed her combings night and morning.

INTESTINAL OBSTRUCTION FROM A SURGICAL STANDPOINT.

BY J. P. RUTHERFORD, M.D., CHATHAM, ONT.,
Surgeon to St. Joseph's Hospital; Surgeon to C. P. R.

The mortality rate of the human race has diminished considerably from the time when this grave malady was first treated surgically. In olden times, when distension of the gut with air or water was the only method of treatment, the prognosis was very unfavorable, but surgery has made such rapid strides in the last decade, that at the present time a person suffering from intestinal obstruction has a very good chance of recovery.

After the diagnosis has been made, and all efforts of distending the gut with air or water have failed to remove the obstruction, celiotomy is always resorted to by a follower of modern surgery.

Distension with air and water is, I think, a dangerous practice, because by this means the bowel, which is in a weakened and distended condition, is very prone to rupture. Then, again, the uncertainty of success, together with the loss of time, is enough to condemn that old-time practice. While successes under this method of treatment have been reported, still if it should prove unsuccessful, I would advise that the patient should not be allowed to come out from under the effects of the anesthetic, but should undergo a laparotomy.

Having introduced my subject, I will now proceed to describe three cases, two of which are intussusception, while the third is intestinal obstruction from stenosis.

Case I.—J. G., male, age 22, came to my office on Saturday. Symptoms: He complained of vomiting, which came on suddenly. He knew no assignable cause for it. Had no fever nor tenderness over abdominal region. I gave him stomach

sedatives, and calomel to be followed by magnesium sulphate. These had no action. Next day, Sunday, I visited him and found him very sick. He had no passage from the bowels, and had several attacks of vomiting. Patient was removed to the hospital and given enemata, which simply moved lower bowel. Monday, temperature, 99.2; pulse, 80. He had vomited everything taken per mouth. Physic increased vomiting and pain. He had passed no mucus nor blood per rectum, nor could a tumor be felt in rectum. Some tenderness and swelling had begun to appear, however, two inches to the left of McBurney's point. Diagnosis of intussusception rather than appendicitis was made on account of mode of onset, location of tumor and temperature. Elevation of temperature came on late from local peritonitis due to disturbed circulation. A consultation was held, and it was decided to operate the next morning. Wednesday, fourth day: pulse, 96; temperature, 100.2. Pain and tenderness had increased, and stercoraceous vomiting had occurred. On opening the abdominal cavity I found an ileal intussusception about two feet from the ileo-cecal valve. On the withdrawal of the invaginated portion of gut, a large body, symmetrical and movable, was found inside the ileum. We then deliberated whether we would do an enterotomy, but decided to work it through the collapsed portion of gut into the ascending colon. This was done. The great omentum was spread carefully over the intestines and the wound was closed by interrupted sutures *en masse*. No bad symptoms followed, and he had a natural movement by the bowels on the third day after the operation. He made an uninterrupted recovery, and left the hospital in four weeks. He is now ranching in the North-West Territory.

Case II.—Intussusception. Mrs. B., age 45. Etiology: It was supposed to be caused by lifting a boiler from a stove. Symptoms: Patient complained of vomiting, the onset of which was sudden. She passed mucus, but no blood. A tumor could not be felt in the rectum, but one could, however, be plainly seen to the left of the umbilicus. Physic was given with no success, and on the fourth day after a consultation, I decided to do a laparotomy. On opening the abdominal cavity an ileal intussusception was found, and the intussusciens, when reduced, was very dark (ashen grey) in color, and very much distended. However, on the application of towels, dipped in hot saline solution, it improved in color, and consequently an enterectomy was thought to be unnecessary. A peculiar incident in this case was as follows: The appendix was found encircling and firmly adherent to the ileum. After the adhesions were separated it was removed. Patient rallied from the shock

of the operation, and had a natural movement of the bowels on the second day afterwards without the intervention of aperients or enemata. She made a hasty recovery, and was doing her household work in five weeks.

Case III.—Intestinal obstruction. Mr. B., age 40. He, of late years, had considerable trouble in keeping his bowels well moved. Finally they would not move, and suffering severe attacks of vomiting he consulted me. Kelly's sigmoid flexure tube, injections of water, and everything known to the arena of physic were tried, but to no avail, and consequently after a consultation laparotomy was deemed the wisest procedure. Operation as follows: The abdominal cavity was opened and the ileum was found firmly adherent to the parietal peritoneum about three feet from the ileo-cecal valve. After separating these adhesions, an inch and a half of the ileum was found to be contracted, knotty to the feel, and to separate the distended from the collapsed portion of the bowel. On further investigation this hard-like mass was found to occlude the lumen of the gut, as no fecal matter nor gas could be forced from the distended into the collapsed portion of the gut. This sclerosed and hardened mass felt and looked very much like a malignant growth. It took so long to separate the adhesions mentioned above, and the patient's condition, prior to the operation, was so weak that just when I was about to begin an enterectomy, the anesthetist said, "Hurry, the patient is in collapse." I then decided not to risk an enterectomy to remove the stenosed part, but simply to sew the ileum to the abdominal wound. This was done hurriedly. Patient revived, and on the next day the intestine was opened, and an artificial anus established. Patient did well, and after moving his bowels in this manner for seven weeks, he was very anxious to have a second operation to close the artificial anus, and to complete what was attempted at the first operation. Second operation was as follows: After cleansing the former wound as well as possible by modern antiseptics, the opening in the ileum was closed by a sponge, and after a very slow and tedious dissection eight inches of ileum were removed, and the two remaining ends were united by a "Murphy button." The toilet of the peritoneal cavity was accomplished by means of mops on forceps. I did not think it advisable to employ irrigation, as by this means septic peritonitis would be more liable to be set up. He rallied from the shock of the operation, and his temperature never went above 99.2. Bowels moved on the third day without the aid of aperients or enemata. Button was never found. He was given strychnine $\frac{1}{32}$ gr. hypodermically, and nothing more. In four weeks after the operation he sat up, and in two weeks more he left the hospital very much improved in health.

What I wish to deduce from these three cases is simply this. In severe cases of intestinal obstruction do not lose much time in giving physic, or trying to remove the obstruction by air or water, but resort to the knife, and do a laparotomy as soon as possible. I may here venture to say that if all practitioners would follow this method of treatment there would be fewer deaths from intestinal obstruction.

In closing, I must state that Dr. Backus, M.R.C.S., of Chatham, ably assisted me in these three abdominal sections.

THE FEAR OF DEATH.

BY DAVID C. WILSON, M.D., PARKHILL.

There are some subjects of vital interest to us that do not come in for a very wide discussion by the laity, possibly from a natural desire to avoid the morbid, or for fear of coming in conflict with the prejudices of our fellows.

I do not wish to discuss the mental state preceding death from a religious or sectarian standpoint, but merely as a mental phase which presents itself for our observation. To the average human, the fear of death is as the sword of Damocles. It is as much a part of our being as any of the natural senses. Though at times the moment of our dissolution seems far distant, a sickness, a danger, and the inevitable fear is upon us. This is brought home to us day after day. It crops up in conversation, we meet it in practice, we see it in the papers. It stares us in the face from the pulpit on the Sabbath day. The very law of the land serves to propagate this feeling, when it teaches that "death" is the extreme penalty, the greatest infliction, the acme of all the punishments that can be brought into use. The prime factors in the cause of this almost universal dread of dissolution seem to be two in number. It is, first, the result of our education and environment: and second, our superstition, a trait inherent in our natures which has been fostered in our early years.

First impressions seem to outlast all others. We see this illustrated in the old man, who clearly remembers the teachings of his youth. He will tell you of the old log school-house on the hill, and of how he and Silas Jones burned the teacher's rod, some seventy years ago: but ask him of the events of a few months ago, of the theories he mastered in later years, and the difference between the impressions of youth and those of later life will in many cases be clearly demonstrated. The average child is taught from early infancy of his or her ulti-

mate end. The good child is told of the glories of heaven, and the golden streets; while the disobedient infant is awed by stories of a dark and dismal world of pain and suffering, where the "devil" reigns supreme. No wonder when the years roll on, and the prospect of death draws nigh, from out the clouds of doubt and mystery shapes the terrifying vision of his early years. Ask the school child of to-day what will happen him hereafter if he is not good, and then almost invariably you will hear from his childish lips the story of a future land of misery and woe.

Another thing that seems to increase the aversion to our dissolution is the conventional funeral of the day, where a morbidly curious public are from time to time regaled by a panoply of horrors, and the survivors are entertained by long dissertations as to their approaching end. Again, no wonder a sickening fear takes possession of the sensitive person, when he pictures himself the centre of a similar exhibition. One reason why death on the field of battle is infinitely better than death in bed is that the victim's feelings are spared. Before death he does not have to lie and gaze into the blackness of an unknown world, lit only by the lurid flashes which superstition gives him, or listen to speculations as to how he shall spend eternity.

The human mind seems to be peculiarly affected by the unknown, with that which it cannot grasp, or which lies beyond its limitations. The child is terrified at the mere thought of entering a dark room or gloomy-passage, so in like manner with all mankind, although the educated mind is, in a degree, better able to resist the spell. The ignorant man would sooner face a fierce tiger, empty handed, than brave the sombre solitude of the midnight churchyard. It is the strange, weird sound from the darkness that strikes terror to the stoutest heart, and it is this element of the incomprehensible that seems to be the active principle in our fear of what is ultimately to come. Thus with regard to the angel of death, we look through the long vista of the years, and see its dim shape hovering over our journey's end, our fears have been awakened by the teachings of other days, and the prevailing sentiment—the vision of hearse and coffin, of tears and lamentations, of the conventional warning to the ones that are left—recurs to our mind. This is what constitutes the agony of death, although, as a matter of fact, only one in ten is conscious till the end. The misery is mental, and largely the fault of our progenitors. We are the victims both of superstition and misapplied attempts at education. Two classes seem to be to a great extent free from the troubled mental state that precedes dissolution in the average individual. These

are the religious devotee, who implicitly believes the doctrines of his peculiar creed or faith, who is absolutely sure of his hereafter; and the man of science, who rises far above doctrines or creeds, viewing the case from the standpoint to which original research and scientific labor has brought him, as some would say, the highest type of a reasoning, thinking intelligence.

The former, like the followers of Mahomet, who eagerly died behind the guns at Alexandria, view death as but the entrance to a state of felicity, hence for him the inevitable dissolution has lost its terrors. The scientist, on the other hand, may reject totally the dogmas of his sectarian brother. He views the human body as a physiological mechanism, actuated by that mysterious principle we call life. He is intimately acquainted with the theory of the development of the various structures that form its component parts. He is familiar with the phenomena of both molecular and somatic death, and for him dissolution comes as the solution of the one great mystery. He awaits its coming calmly and serenely, knowing he is on the borderland of a dreamless sleep, or a discovery compared with which the knowledge of the constellations is as nothing. The average individual, however, lacks the implicit faith of the religious devotee, while he cannot reach the height of the scientific intellect, hence it is for him, as it were, to bear the heat and burden of the day, and face in later years the agony of death. When we have conquered the monster of fear, it will be a victory as great as any in the annals of medicine or surgery, a boon to our race greater by far than can be supplied from the realm of physic. Mayhap the time may come when we shall sit down with Calvin and Knox, Huxley and Tyndall, with scientist and divine, and discuss the eternal mysteries of life and death, after it has been our turn to take passage with grim old Father Charon in his row-boat on the Styx.

Selected Articles.

DETAILS OF PRESIDENT MCKINLEY'S CASE.

NARRATED BY THE RECORDER AT THE OPERATION.

By NELSON W. WILSON, M.D., Buffalo, N.Y.
Sanitary Officer, Pan-American Exposition.

William McKinley, President of the United States, was shot while holding a public reception in the Temple of Music, at the Pan-American Exposition on Friday, September 6th, 1901, at seven minutes after four o'clock.

For full seven days the President lingered, dying at fifteen minutes after two o'clock on the morning of Saturday, September 14th, at the residence of Mr. John G. Milburn, to which he had been removed the day of the shooting.

When he was shot the President did not lose consciousness; he saw the crowd fling itself upon his assailant and bear him to the floor; he heard the angry cries for vengeance and stretched forth his hand as if in benediction and said: "Let no one harm him."

The ambulance clanged its way through the densely packed crowd and the stricken President was lifted from the chair into which he had sunk and was placed on the stretcher. This was lifted into place and the ambulance, surrounded by soldiers and police, whirled away to the hospital. Inside the vehicle lay the Chief Magistrate of the United States, carefully attended by Dr. G. McK. Hall and Mr. E. C. Mann, the latter a senior medical student on the staff of the medical department of the Pan-American Hospital.

AT THE HOSPITAL.

Arriving at the hospital the President was taken to the operating room and placed on the table. The doctors of the staff undressed him and ministered to his personal comfort. A hypodermic of morphine was given, and almost immediately the telephones began their jingling cry for help.

Dr. Roswell Park, medical director of the exposition, had gone to Niagara Falls to perform an operation. An effort was made to secure the services of Dr. Edward J. Meyer. He, too, was absent from the city. In the meantime Dr. M. D. Mann and Dr. John Parmenter had been sent for and found. Dr. Herman Mynter also was reached, and in a very short time word came that Dr. Park had been communicated with, and was on his way from the Falls in a special train.

Dr. Lee, of St. Louis, who was on the grounds at the time of the shooting, appeared early and voluntarily assumed charge of the medical department. He was relieved almost immediately by the resident staff. Miss A. M. Walters, superintendent of nurses, displayed excellent judgment in the disposition of the nurses and in the preparations for an operation. Instruments were sterilized and dressings prepared, and when at ten minutes after five Dr. Mann arrived, and with Drs. Mynter and Eugene Wasdin, surgeon of the Marine Hospital Service of the United States, who had reached the hospital a few minutes before, made an examination of the President and decided upon operation, he found everything ready for him. Dr. John Parmenter arrived five minutes later than Dr. Mann and went into consultation with the others.

A careful examination of the wounds showed that the first shot had struck near the middle of the sternum producing simply an abrasion. The second had penetrated the abdomen and was serious. The President's condition was one of shock. Mr. Milburn, and the President's secretary, Mr. George B. Cortelyou, with Mr. John N. Scatcherd were called in and informed that immediate operation was a necessity. They told Dr. Mann to do as his wisdom dictated, and when the President was informed that an operation was imperative, he said simply: "Gentlemen, I am in your hands."

THE OPERATION.

When the decision to operate immediately had been reached, Dr. Mann assigned their parts to his assistants. He requested Dr. Wasdin to administer the anesthetic, which was begun at twenty minutes after five o'clock, ether being used. Dr. Mynter stood opposite the operator with the Dr. Lee mentioned above; beside Dr. Mann stood Dr. Parmenter as adviser. Dr. Wilson was assigned to take the records of the operation and time. Mr. Simpson was at the instrument tray; Mr. Mann at the sutures; Miss Catherine Simmons, of Roosevelt Hospital, New York, assisted the anesthetist; Miss M. C. Morris and Miss A. D. Barnes, of St. Luke's, New York, were the sterile nurses; Miss Rose Barron, of the Long Island College Hospital, Brooklyn; Miss Mary A. Shannon, of the Cincinnati General Hospital, and Miss L. E. Dorchester, of the Buffalo General Hospital, were detailed as general assistants. Dr. Hall assisted Dr. Zittell in the general care of the hospital during the operation.

In nine minutes the President was under the effects of the anesthetic, and Dr. Mann after preparing the abdomen made a three inch incision, extending through the bullet hole. There was a deep layer of fat which necessitated the lengthening of

the incision an inch, when the peritoneum was reached. At the bottom of the incision and in the bullet wound was found a small circular bit of cloth, probably undershirt, which had been carried in by the bullet. On opening the peritoneum the intestines were examined and found to be uninjured. On examination of the stomach a bullet wound was found in its anterior wall. The stomach was drawn up and the wound sutured by a double row of silk sutures. Some stomach contents, which had escaped from the wounds, were wiped away.

The original incision was lengthened two inches so that the posterior wall of the stomach could be examined, and here another bullet wound was found, which was similarly sutured.

In the meantime Dr. Rixey, the President's physician, had arrived from the Milburn house where he had been in attendance on Mrs. McKinley.

A search was made for the bullet but it could not be found, and as it was in all probability lodged in the deep lumbar muscles it was decided not to make any effort to remove it.

Dr. Park was in the midst of an operation at Niagara Falls when he was notified of the shooting. Rapidly he completed his work and reached the hospital in two hours after the President had received his wound.

When he entered the operating room he asked what had been done and what had been found, and Dr. Mann told him. The operation was all but completed. All that remained was to flush out the abdominal cavity with salt solution and sew up the abdominal wound. This was done, the abdomen being closed without drainage. At ten minutes of seven the anesthetic was stopped and bandages applied. At this time the pulse was 122 and the respiration 32. The President during the operation had been given gr. 1-30 of strychnine and 25 min. of brandy hypodermatically. It was decided after consultation to remove the patient to the residence of Mr. John G. Milburn, and a full equipment consisting of bed, bedding and sick-room appliances was sent to the house in charge of Miss Simmons and Miss Barnes, who were to take care of the President during the first night. He was placed in the ambulance, and in charge of Dr. Park and Dr. Wasdin was moved to his destination.

ANXIETY AND HOPE.

Then came the anxious period of waiting. Bulletins were issued by the President's physicians at frequent intervals. There appeared to be no danger until Thursday night. Dr. McBurney, of New York, had arrived on Sunday, and expressed the opinion that the patient would be at his desk in Washington within six weeks. Throughout the land there swelled a feeling of intense relief and gratitude that the life of this good

man was to be spared. The surgeons came and went with light steps; they smiled with the confidence the conditions seemed to warrant. Thursday noon, Dr. McBurney went away. The bulletins said the President had had a piece of toast—some solid food—and that he was on the high road to recovery.

FEAR AND DESPAIR.

Soon after, late in the afternoon of Thursday, there was a change. An hour later was the beginning of the end.

The President is not so well; then, the President is worse. The President's heart is weak. There has been a collapse. Dr. Charles G. Stockton has been called in consultation. There is grave danger. Strong heart stimulants are being administered.

The President does not respond to the stimulants. Unless there is a change soon he cannot live. The doctors have not given up all hope, but there is grave danger. The President has rallied somewhat, but is very weak. The President has suffered another attack of heart failure. The doctors are administering oxygen. The President is dying. The doctors have given up all hope and have stopped the oxygen. And to the four corners of the world flashed the final bulletin: "The President died at 2.15."

THE OFFICIAL BULLETINS.

The official story of the President's case is told in the following bulletins. The men signing them were Dr. P. M. Rixey, the President's physician; Dr. M. D. Mann, Dr. Roswell Park, Dr. Herman Mynter, Dr. Eugene Wasdin, Dr. Charles McBurney, Dr. Charles G. Stockton and Mr. George B. Cortelyou, Secretary to the President.

First Day: Friday, September 6th, 7 p.m.—The President was shot about 4 p.m. One bullet struck him in the upper portion of the breast bone, glancing and not penetrating. The second bullet penetrated the abdomen five inches below the left nipple and one and one-half inches to the left of the median line. The abdomen was opened through the line of the bullet wound. It was found that the bullet had penetrated the stomach. The opening in the front wall of the stomach was carefully closed with silk stitches, after which a search was made for a hole in the back wall of the stomach. This was found and also closed in the same way. The further course of the bullet could not be discovered although careful search was made. The abdominal wound was closed without drainage. No injury to the intestines or other abdominal organ was discovered. The patient stood the operation well. Pulse of good

quality, rate of 130. Condition at the conclusion of the operation was gratifying. The result cannot be foretold. His condition at present justifies hope of recovery.

10.40 p.m.—The President is rallying satisfactorily and is resting comfortably. Temperature, 100.4 ; pulse, 124 ; respiration, 24.

Second Day : Saturday, September 7th, 9 a.m.—The President passed a fairly comfortable night and no serious symptoms have developed. Pulse, 146 ; temperature, 102 ; respiration, 24.

8.30 p.m.—The President continues to rest quietly: no change for the worse. Pulse, 140 ; temperature, 102.2° ; respiration, 24.

9.30 p.m.—Conditions continue much the same. The President responds well to medicine. Pulse, 132 ; temperature, 102.5° ; respiration, 25. All temperatures reported are taken in the rectum.

Third Day : Sunday, September 8th, 9 a.m.—The President passed a good night and his condition this morning is quite encouraging. His mind is clear and he is resting well ; wound dressed at 8.30 and found in a very satisfactory condition. There is no indication of peritonitis. Pulse, 132 ; temperature, 102.8° ; respiration, 24. Rixey, Mann, Park, Mynter, Wasdin, Cortelyou.

9 p.m.—The President is resting comfortably. Pulse, 130 ; temperature, 101.6° ; respiration, 30.

Fourth Day : Monday, September 9th, 9.20 a.m.—The President's condition is becoming more and more satisfactory. Untoward incidents are less likely to occur. Pulse, 122 ; temperature, 100.8° ; respiration, 28.

9.30 p.m.—The President's condition continues favorable. Pulse, 112 ; temperature, 101° ; respiration, 27.

Fifth Day : Tuesday, September 10th, 9 a.m.—The President's condition this morning is eminently satisfactory to his physicians. If no complications arise a rapid convalescence may be expected. Pulse, 104 ; temperature, 99.8° ; respiration, 26.

10.30 p.m.—The condition of the President is unchanged in all important particulars. His temperature is 100.6° ; pulse, 114 ; respiration, 28. When the operation was done on Friday last it was noted that the bullet had carried with it a short distance beneath the skin a fragment of the President's coat. This foreign material was, of course, removed, but a slight irritation of the tissues was produced, the evidence of which appeared only to-night. It has been necessary on account of this slight disturbance to remove a few stitches and partially open the skin wound. This incident cannot give rise to other

complications, but it is communicated to the public, as the surgeons in attendance wish to make their bulletins entirely frank. In consequence of this separation of the edges of the surface wound the healing of the same will be somewhat delayed. The President is now well enough to begin to take nourishment by the mouth in the form of pure beef juice.

Sixth Day: Wednesday, September 11th, 9 a.m.—The President rested comfortably during the night. Decided benefit has followed the dressing of the wound made last night. His stomach tolerated the beef juice well, and it is taken with great satisfaction. His condition this morning is excellent. Pulse, 116; temperature, 100.2°.

10 p.m.—The President's condition continues favorable. Blood count corroborates clinical evidence of the absence of blood poisoning. He is able to take more nourishment and relish it. Pulse, 120; temperature, 100.4°.

Seventh Day: Thursday, September 12th, 9.30 a.m.—The President has spent a quiet and restful night, and has taken much nourishment. He feels better this morning than at any time. He has taken a little solid food this morning and relished it. Pulse, 120; temperature, 100.2°.

8.30 p.m.—The President's condition this evening is not quite so good. His food has not agreed with him and has been stopped. Excretion has not yet been properly established. The kidneys are acting well. His pulse is not satisfactory, but has improved in the last two hours. The wound is doing well. He is resting quietly. Temperature, 100.2°; pulse, 128.

12 M.—All unfavorable symptoms in the President's condition have improved since the last bulletin. Pulse, 120; temperature, 100.2°.

Eighth Day: Friday, September 13th, 2.50 a.m.—The President's condition is very serious and gives rise to the gravest apprehension. His bowels have moved well, but his heart does not respond properly to stimulation. He is conscious. The skin is warm, and the pulse small, regular, easily compressible, 126; respiration, 30; temperature, 100°.

9 a.m.—The President's condition has somewhat improved during the past few hours. There is a better response to stimulation. He is conscious and free from pain. Pulse, 128; temperature, 99.8°.

5.35 p.m.—The President's physicians report that his condition is grave at this hour. He is suffering from extreme prostration. Oxygen is being given. He responds to stimulation but poorly. Pulse, 125; respiration, 40.

9.30 p.m.—The President is dying.

Ninth Day: Saturday, September 14th, 2.15 a.m.—The President is dead.

THE AUTOPSY REPORT.

The autopsy was performed by Dr. H. R. Gaylord and Dr. H. G. Matzinger, of the Buffalo State Pathological Laboratory, on Saturday, the day of death. It was apparently an exhaustive examination occupying several hours. The official report is as follows :

The bullet which struck over the breast bone did not pass through the skin and did little harm.

The other bullet passed through both walls of the stomach near its lower border. Both holes were found to be perfectly closed by the stitches, but the tissue around each hole had become gangrenous. After passing through the stomach the bullet passed into the back walls of the abdomen hitting and tearing the upper end of the kidney. This portion of the bullet track was also gangrenous, the gangrene involving the pancreas. The bullet has not yet been found. There was no sign of peritonitis or disease of other organs. The heart walls were very thin. There was no evidence of any attempt at repair on the part of nature and death resulted from the gangrene which affected the stomach around the bullet wounds as well as the tissues around the further course of the bullet. Death was unavoidable by any surgical or medical treatment, and was the direct result of the bullet wound.

Signed : Harvey R. Gaylord, Herman G. Matzinger, P. M. Rixey, Matthew D. Mann, Herman Mynter, Roswell Park, Eugene Wasdin, Charles G. Stockton, Edward G. Janeway, W. W. Johnston, W. P. Kendall, Surgeon U. S. Army ; Charles Cary, Edward L. Munson, Assistant Surgeon U. S. Army, and Hermanus L. Baer.—Synopsis, *Buffalo Medical Journal*.

REMARKS ON THE OPERATION BY MATTHEW D. MANN, M.D.

The difficulties of the operation were very great, owing partly to the want of retractors and to the failing light. The setting sun shone directly into the room, but not into the wound. The windows were low and covered with awnings. After Dr. Rixey aided us with a hand mirror, the light was better. Toward the end of the time a movable electric light with reflector was put in use. The greatest difficulty was the great size of President McKinley's abdomen and the amount of fat present. This necessitated working at the bottom of a deep hole, especially when suturing the posterior wall of the stomach.

The operation was rendered possible and greatly facilitated by a good operating table and the other appliances of a hospital, and by the presence of many nurses and assistants. Still, the hospital was only equipped for minor emergency work, and had but a moderate supply of instruments. Unfortunately, when

called I was not told what I was wanted for, and went to the Exposition grounds entirely unprepared. Dr. Mynter had his large pocket case, the contents of which were of great use.

As has already been noted, further search for the bullet was rendered inadvisable by the President's condition. The autopsy shows that it could not have been found, and that the injuries inflicted by the bullet after it passed through the stomach were of such a nature as to render impossible and unnecessary any further surgical procedure. A bullet after it ceases to move does little harm. We were often asked why, after the operation, we did not use the *x*-ray to find the bullet. There were several reasons for this. In the first place, there were at no time any signs that the bullet was doing harm. To have used the *x*-ray simply to have satisfied our curiosity would not have been warrantable, as it would have greatly disturbed and annoyed the patient, and would have subjected him also to a certain risk. Had there been signs of abscess-formation, then the rays could and would have been used.

My reason for not draining was that there was nothing to drain. There had been no bleeding or oozing; there was nothing to make any discharge or secretion; the parts were presumably free from infection, and were carefully washed with salt solution. As there was no peritonitis and the abdomen was found *post-mortem* to be sterile, we may safely conclude that no drainage could have been provided which would have accomplished anything. My experience teaches me never to drain unless there is a very decided indication for it, as a drain may do harm as well as good.

In conclusion, I wish to thank all the gentlemen who so kindly and skilfully assisted me. They were all surgeons of large experience in abdominal surgery, and their aid and advice were most valuable. Especially I wish to acknowledge my great obligation to my associate, Dr. Mynter. Not only was he an assistant, but he was much more, and helped me greatly by his skill and, as a consultant, with his good judgment and extensive knowledge of abdominal work. Although called first, he waived his claim, and generously placed the case in my hands, willingly assuming his share of the responsibility.

The anesthetic was most carefully administered by Dr. Wasdin, and the knowledge that he had charge of this very important duty relieved me of any anxiety on that score.

In the eventful week that followed the operation, Dr. Park and Dr. McBurney were towers of strength in helping to decide the many difficult questions which came up.

Dr. Rixey was in constant charge of the sick-room, aided later by Dr. Wasdin, who was detailed for this special duty. Both were unremitting in their care, and faithful to the end.

Dr. Stockton helped us in the last three days with the highest skill and best judgment.

Never, I am sure, under like circumstances, was there a more harmonious or better agreed band of consultants. That our best endeavors failed was, I believe, no fault of ours; but it must be an ever-living and keen regret to each of us, that we were not allowed the privilege of saving so noble a man, so attractive a patient, and so useful a life.—*Sour. A. M. A.*

The autopsy was performed by Dr. H. R. Gaylord, pathologist to the New York State Pathological Laboratory, assisted by Dr. Matzinger. Dr. Gaylord concludes his report as follows:

In summing up the macroscopic and microscopic findings of the autopsy, the following may be stated: The original injuries to the stomach-wall had been repaired by suture, and this repair seems to have been effective. The stitches were in place, and the openings in the stomach-wall effectually closed. Firm adhesions were formed both upon the anterior and posterior walls of the stomach, which reinforced these sutures. The necroses surrounding the wounds in the stomach do not seem to be the result of any well-defined cause. It is highly probable that they were practically terminal in their nature, and that the condition developed as a result of lowered vitality. In this connection there is no evidence to indicate that the removal of the omentum from the greater curvature and the close proximity of both of these wounds to this point, had any effect in bringing about the necrosis of the gastric wall, although circulatory disturbances may have been a factor. The fact that the necrotic tissue had not been affected by digestion strongly indicates that the necrosis was developed but shortly before death. The excavation in the fat behind the stomach must be largely attributed to the action of the missile. This may have been the result of unusual rotation of a nearly spent ball, or the result of simple concussion from the ball passing into a mass of soft tissues. Such effects are not unknown. The fact that the ball grazed the superior aspect of the left kidney, shown by the microscopic investigation of that organ, indicates the direction of the missile, which passed in a line from the inferior border of the stomach to the tract in the fat immediately superior to the kidney. There was evidence that the left adrenal gland was injured.

The injury to the pancreas must be attributed to indirect, rather than direct, action of the missile. The fact that the wall of the cavity is lined by fibrin, well advanced in organization, indicates that injury to the tissues was produced at time of shooting. The absence of bacteria from the tissues indicates that the wound was not infected at the time of the shooting, and that the closure of the posterior gastric wound was effec-

tual. The necrosis of the pancreas seems to us of great importance. The fact that there were no fat necroses in the neighborhood of this organ, indicates that there was no leakage of pancreatic fluid into the surrounding tissues. It is possible that there was a leakage of pancreatic fluid into the cavity behind the stomach, as the contents of this cavity consisted of a thick, grayish fluid, containing fragments of connective tissue. In this case the wall of fibrin would have been sufficient to prevent the pancreatic fluid from coming in contact with the adjacent fat. The extensive necrosis of the pancreas would seem to be an important factor in the cause of death, although it has never been definitely shown how much destruction of this organ is necessary to produce death. There are experiments upon animals on record, in which the animals seem to have died as a result of not very extensive lesions of this organ. One experiment of this nature reported by Flexner (*Journal of Experimental Medicine*, Vol. II.) is of interest. The fact that concussion and slight injuries of the pancreas may be a factor in the development of necrosis, is indicated by the researches of Chiari (*Zeitschrift für Heilkunde*, Vol. XVII, 1896, and *Prager medicinische Wochenschrift*, 1900, No. 14), who has observed (although a comparatively rare condition) extensive areas of softening and necrosis of the pancreas, especially of the posterior central portion which lies directly over the bodies of the vertebra, where the organ is most exposed to pressure or the effects of concussion. The wound in the kidney is of slight importance, except as indicating the direction taken by the missile. The changes in the heart, as shown by the macroscopic inspection and the microscopic examination, indicate that the condition of this organ was an important factor. The extensive brown atrophy and diffuse fatty degeneration of the muscle, but especially the extent to which the pericardial fat had invaded the atrophic muscle fibres of the right ventricular wall, sufficiently explain the rapid pulse and lack of response of this organ to stimulation during life.—*N. Y. Med. Jour.*

THE CELEBRATION OF RUDOLPH VIRCHOW'S EIGHTIETH BIRTHDAY.

THE ORDER OF THE CEREMONIES.

The great day of the Virchow celebration has come and gone. Never yet has homage so wide, so general, and so deeply felt been paid to any private individual before. And this too: In that illustrious assemblage, no personality was more interesting, more characteristic than the unbent, spare and wiry little figure of the octogenarian, with his keen but passionate face, his level voice and sober demeanor, as he stood for hours in his Pathological Museum, again for hours at night in the Abgeordnetenhaus, without a trace of excitement or fatigue, up to the very last moment.

VIRCHOW'S ADDRESS.

On October 12th the official proceedings began at 11.30 in the Pathological Museum. Dr. Studt made a speech, presenting a marble bust of Virchow, which is to remain in the museum. Then a move was made to the Lecture Hall. Needless to say, that a tremendous reception was accorded to Virchow as he stepped up to his laurel-wreathed lecturer's desk. He began by words of thanks and welcome, and then led up to the subject of his address: The History of Pathology. For more than an hour he spoke, touching upon malformations, upon trichiosis, tuberculosis, and upon the enlightenment to be gained on all these subjects by the collections of the Pathological Museum.

A stand-up lunch and inspection of the treasures of the five-storeyed museum under Virchow's leadership closed the morning's proceedings at about half-past three. It may be interesting to note here that no fewer than 20,883 objects are arranged on view in the museum, while upwards of 2,000 more have still to be placed there.

THE BANQUET.

At half-past six a "small and intimate" banquet of 220 covers united the Virchow family with the foreign delegates and chief personages of the Virchow celebration. Lord Lister and Bacelli, the Italian pathologist and Cabinet Minister, were perhaps the most remarked among the guests.

ADDRESSES OF DELEGATES.

Meantime the guests, who were to witness the great official function of the evening, had assembled in the Parliament Hall, the ladies in the galleries and boxes above. The banqueters from the dining hall slipped in in groups and took their places, and at a quarter to nine a flourish of trumpets announced and welcomed the entrance of Virchow. And then began a series of addresses and presentations from all quarters of the globe, the mere enumeration of which would fill pages—in truth, a grand and universal homage to intellectual achievement! As the hours passed, medals, pictures, caskets, and rolls of addresses accumulated on the chairs and tables around Virchow, until at last he stood—for he stood through it all, the wonderful youth of 80!—fairly surrounded by them.

Professor Waldeyer gave the opening address.

The Cultus-Minister Studt read aloud a letter from the German Emperor, words of congratulation and grateful appreciation of Virchow's great lifework, with the bestowal of the Great Gold Medal for Science.

A congratulatory telegram from the Imperial Chancellor, Count von Bülow, was also read.

Loud applause greeted Bacelli, who in the name of the Italian Government presented a picture (the heads of Morgagni and Virchow side by side, with the hexameter motto, "Ut quos corda fovent presentes lumina spectent"), and read a beautiful and enthusiastic address written in Latin.

Dr. Langerhaus, President of the Town Council, read an address full of gratitude for Virchow's labors for the weal of the city of Berlin.

Professor Cornil, the French delegate, was much applauded.

Enthusiastic calls greeted Lord Lister, who said: Reverend master, I am here as a delegate of the Royal Society of London, of which you are an honored member, and on behalf of which I have to present to you a loyal address. I have been also requested to hand you addresses from six other societies which greatly regret that it has been impossible for them to send special delegates. They are as follows: (1) The Anthropological Section of the British Association for the Advancement of Science; (2) The University of London; (3) the University of Edinburgh; (4) the Faculty of Physicians and Surgeons of Glasgow; (5) the Medico-Chirurgical Society of Edinburgh; (6) the Royal Academy of Medicine in Ireland. All these bodies join in recognition of your gigantic intellectual powers, in gratitude for the great benefits that you have conferred upon humanity, and in admiration of your personal character,

your absolute uprightness, the courage which has enabled you always to advocate what you believed to be the cause of truth, liberty, and justice, and the genial nature which has won for you the love of all who know you. The astonishing vigor which you displayed in the address to which we listened to-day justifies the hope that, when many of us your juniors shall have been removed from this scene of labor, it may be granted to you to celebrate your 90th birthday not only in health and honor, but in continued activity in the service of mankind."

A graceful and modest speech was Sir Felix Semon's, who said that he had been selected to convey the sincere congratulations of the Royal College of Physicians of London first because the College considered that it would be agreeable to Virchow to receive its good wishes from the mouth of an old and faithful pupil, and secondly because by selecting a native of Germany the College wished to emphasize the old scientific brotherhood which had so long united German and British science, and to express its sincere gratitude for the beneficial influence that Virchow had exercised no less upon English than upon German science.

It was long past midnight when Virchow's former and present assistants, headed by Professors Liebreich (Berlin) and von Recklinghausen (Strassburg) came up at last to offer their homage and congratulations.

THE VIRCHOW KRANKENHAUS IN BERLIN.

The new Berlin Municipal Hospital, which is to bear the name "Virchow Krankenhaus," when completed will be by far the finest hospital in Berlin, nay, probably there will be few to rival it anywhere in the world.

THE SITE AND GENERAL PLAN.

An enormous plot of ground of irregular shape has been most sagaciously planned and laid out; the hospital pavilions have been kept as much as possible in the centre, away from street noises, whilst the administration, the stables, machine houses, store houses, etc., in fact all departments communicating with the outer world, are so arranged that they can be entered and left without approach to the hospital proper. The æsthetic effect, too, is most happy. Sixty-two buildings cover the ground without being crowded, and at every turn the eye finds garden parterres, shrubberies, and trees to rest on.

MEDICAL STAFF.

The medical staff is entirely resident, and comprises four directors, that is, the Chief Physician, the Chief Surgeon, the Chief Gynecologist, and the Chief Administrator. Each large pavilion has its own head medical officer and "Volontär-arzt" (unpaid assistant medical officer). The hospital is arranged for 1,650 patients, but can contain 1,900 at time of pressure. The staff numbers 550 in all, but room is provided for 600 if necessary. The nurse-training institute is planned for 75 pupils.

LABORATORIES, ETC.

There are separate anatomical, histological, and bacteriological laboratories, and each infectious and venereal pavilion is furnished with a laboratory of its own. The extent to which the hospital is to be used for clinical investigation and the instruction of students has not been finally decided yet, but it is settled that the infectious departments are to furnish investigation material for the Koch Institute for Infectious Diseases, which is situated near by.—*Abstract, Brit. Med. Jour.*

Society Reports.

TORONTO CLINICAL SOCIETY.

The first regular meeting of this Society for the session of 1901-1902 was held in St. George's Hall, Elm Street, on the evening of the 2nd of October.

Dr. J. F. W. Ross, the President, occupied the chair.

The following Fellows were present: Pepler, Elliott, Small, McIlwraith, Orr, Lehman, Anderson, McCallum, Bruce, Macdonald, Grassett, Greig, Silverthorn, Oldright, Ryerson, Aikins, Parsons, Thistle, Trow and Baines.

Specimen of Hairy Tumor Removed from the Stomach.—By DR. HERBERT A. BRUCE.

A report of this has already been published in the medical journals.

DISCUSSION.

Dr. Oldright asked Dr. Bruce why he gave milk every hour after the operation.

Dr. Thistle asked about the condition of the stomach, whether there were any gastric symptoms, from the presence of the tumor in the stomach.

Dr. Anderson asked what information one might have got had an analysis of the stomach contents been made.

The President stated he had seen the patient in consultation with Dr. Bruce, and he had never made a more careful examination of a patient in his life, and the surprise was that they did not discover that the tumor was in the stomach. The idea was that the tumor must be the spleen, though the splenic enlargement did not fit in with the condition, and then it would be impossible for a woman with such a large spleen to be in such a healthy condition. He doubted if any hair would have come up had an examination of the stomach contents been made.

Dr. Lehman asked Dr. Bruce to explain what caused the small gray spot on the tumor.

Dr. Bruce in reply: Dr. W. H. B. Aikins asked when solid food was first given after the operation. She had milk forty-eight hours after the operation. The first solid food was given in about ten days; fish and chicken in about two weeks. Answering Dr. Oldright's question, Dr. Bruce stated that he had frequently found that the administration of milk in that

way agreed with the patient very much better than when a larger quantity was given at a longer interval. Reply to the questions of Dr. Greig and Thistle, there were none whatever pointing to the stomach. Patient had a splendid appetite and took her nourishment well and was always hungry. Dr. Anderson had examined the blood for leukaemia going on the possibility of splenic enlargement. He did not think that a stomach examination in the usual way would have helped in the diagnosis. As to the grey spot, it was thought to be due to pressure.

(a) Cystic Tumor in Popliteal Space—(b) A Case of Polymastia.

Two patients were presented by Dr. A. A. Small, which proved of considerable interest. The first occurred in a woman of about forty years of age and was situated about the lower part of the popliteal space of the left leg.

Dr. Grasett considered that it was an interesting tumor. It seemed to be cystic and was perhaps connected with a bursa or was growing from a tendon sheath.

Dr. W. H. B. Aikins had seen the patient about a month ago at the city dispensary and had diagnosed a popliteal bursa. He referred to a similar case he had seen in London in '81.

The tumor in the second case was situated on the back of a woman of fifty-five or sixty years. It was near the posterior border of the right axilla, was about three or four inches in diameter and had a smaller nipple-like tumor at its centre.

Dr. McIlwraith, who had examined the tumor closely, stated there were no evidences of any milk ducts opening on the surface at all; and on pressing the tumor one does not feel any divisions. He had ascertained that it had developed only within the last four or five years, and practically after the woman has passed the child-bearing period of life.

Developing after that time of life would seem to be a very unusual thing. He thought it might probably be a lipoma rather than a supernumerary gland.

Dr. Silverthorn agreed with Dr. McIlwraith, and stated that the tumor seemed to be distinctly capsulated. Occurring in a woman of sixty years of age who had borne children, and development coming on only within the last few years, and previous to that no sign of activity of the so called supernumerary breast, negatives the diagnosis of polymastia, and then, the smaller tumor does not seem to be a real nipple at all.

Speaking of the first case, Dr. Silverthorn thought the tumor cystic and probably from a bursa.

Dr. Small stated that the nipple has always been present

Dr. Ross referred to the fact of there being no enlargement during the time the woman was nursing her children; and the

nipple is not characteristic at all. He further referred to a case in Hirst's text-book.

Tumor of Breast.—Specimen and Clinical Notes.

Dr. A. A. Macdonald showed a specimen of a fibro-cystic adenoma. There was one point of interest in connection with the case worth noting. It occurred in a woman of forty-six years who had three or four children. Her mother had died of cancer of the liver, the father being alive and healthy. Eight weeks before removal of the growth she consulted Dr. Macdonald. She came for pain in the breast. On examination the surgeon could find no trace of disease or undue enlargement; he could not tell any difference between the two breasts. Practically normal breast tissue. The pain, however, persisted, but her general health improved a trifle. She again consulted Dr. Macdonald and this time on examination found a circumscribed tumor with a fairly definite outline. An operation was performed three days after this latter consultation and the growth removed. Section showed a cyst with a hard fibrous mass attached. Dr. Macdonald thought it well to cut wide of the tumor and therefore removed the whole breast. The interesting point is its rapid growth. This is usual in cystic tumors of the breast, but not in fibromata. The fibromatous portion of this tumor may have been present at the time of his first examination, but the cystic portion developed subsequently; the presence of pain during the early history of the case is characteristic of benign tumors. Such tumors never invade the surrounding tissues and never recur. Microscopic examination confirmed the diagnosis; and Dr. Macdonald believes removal to be the correct thing.

Dr. H. B. Anderson, in discussing this case, stated that in fibro-cystic adenoma complete removal of the breast is the correct thing.

The discussion was continued by Drs. Oldright, Silverthorn and the President, the latter pointing out that when operating on a galactoceles, do not let the cream run into your wound. If you do, you will have a nasty wound. Another point: incision into these tumors should always be made.

Dr. Macdonald replied, emphasizing this latter point of Dr. Ross.

NOTICE OF MOTION.

Dr. C. Trow, seconded by Dr. W. B. Thistle, that Article X of the By-Laws be amended, to read, that the number of resident Fellows shall not exceed 100.

The meeting then adjourned for refreshments.

GEORGE ELLIOTT,
Recording Secretary.

Progress of Medical Science.

OBSTETRICS AND GYNECOLOGY.

IN CHARGE OF ADAM H. WRIGHT, JAMES F. W. ROSS, ALBERT A. MACDONALD,
AND K. C. McILWRAITH.

Facial Presentation.

Ostreil (*Medical Press*, July 24, 1901) gives an analysis of 11,513 cases delivered at the "Hebammen" Clinic of Prague, of which fifty-nine, or 0.5 per cent., were face presentations. Of these fifty-nine, one-third were primiparæ, and two-thirds multiparæ. This position was no more dangerous for the mother than the vertical pole, except that labor was more protracted. Infant mortality is high, being 41.8 per cent. In six cases, or 10 per cent., instruments were used, with two fetal deaths. In one case perforation was performed; twice turned; while nine were improved by Thorn's manual correction.

Ostreil recommends the earliest possible interference to correct the position according to that recommended by Schatz, which may be easily performed if sufficiently early diagnosed and no complications present.

When the head has descended well into the pelvis, and the os fully dilated, chloroform should be given, and Schatz's method tried; failing this, Thorn's method may be undertaken—*i.e.*, pass the hand into the uterus till the occiput is firmly grasped, which is then drawn forward while the face recedes. This operation is assisted by the second hand manipulating the external surface of the abdomen.—*The Medical Age*.

Ophthalmological Aspects of Pregnancy.

Dr. Casey A. Wood, at a meeting of the Chicago Academy of Medicine, declared that pregnant women are liable to suffer from paresis of accommodation; reading, writing, and near work generally, may be difficult, or even impossible for the briefest periods. Muscular insufficiency is also to be observed, the strength of the ocular muscles being less than normal during pregnancy. This weakness of the muscles is not different from weakness observed elsewhere in the body at this period, and is due to the fact that pregnancy alters the nutritive condition of the eye as of other organs. Increase of the apparent refractive error is quite common in pregnancy. Primiparæ not infrequently require the aid of glasses, which can be discarded in many cases after the child is born.

Pigmentation of the eyelids may be seen in pregnancy, and is merely a part of the general pigmentation of the skin so commonly seen in gravid women. Violent and long-continued vomiting may produce small hemorrhages into the subconjunctival tissue. These superficial hemorrhages are not serious, but if hemorrhage occurs into the interior of the eye, damage to the vision is to be expected. Unfortunately, intraocular hemorrhage is a not uncommon result of persistent vomiting, and detachment of the retina has been seen to occur from the same cause.

Retinitis albuminurica frequently accompanies pregnancy, but the disease of the retina shows itself in a more favorable form in pregnancy than it does in the ordinary forms of Bright's disease. The prognosis is not as grave in pregnancy from albuminuric retinitis as it is in chronic Bright's disease, although the conditions are about the same. Occasionally a patient who is pregnant, whether albuminuria be recognized or not, has partial or even complete blindness, which may last from a few hours to a few days. These patients almost invariably get well. Nothing pathological can be seen in the fundus by the ophthalmoscope.—*Medical Review of Reviews.*

Antistreptococcus Serum in Puerperal Fever.

Blumberg (*Berl. klin. Woch.*, Nos. 5 and 6, 1901) has used Marmorek's antistreptococcus serum in twelve cases of puerperal fever in the University Clinic of Leipzig. In general all the cases were severe; cases where there was long-standing fever which showed no tendency to fall. The investigation makes it appear probable that the serum is of value, especially when the puerperal fever is due to a pure infection with streptococcus. In two such cases the patient recovered. The one had had fever for two and a half days up to 40 deg. C. and above: after she had received 20 grams of serum the temperature was normal, and remained so for two days; it then rose again to 40.4 deg. C. in the rectum, but fell again on the further administration of serum, and remained normal thereafter. As complications of the injections, urticaria, erythema and general and local exanthemata were noted. The local eruptions can be avoided if care is taken to inject the serum entirely into the subcutaneous tissue, and not into the skin.—*Epit. B. M. J.*

Gangrene of the Uterus in the Puerperium.

Zaborowski (*Gazeta Lekarska*, Nos. 1 to 3, 1901) has prepared a monograph on this disease, which was first described correctly as "metritis dissecans" by Syromiatuikow in 1881. He collects the reports of forty-one cases published since that date. In his own case the patient was a young primipara.

Six days after delivery fever, rigors and urticaria set in; then abdominal swelling occurred, followed by fetid vaginal discharge. At the end of a month the curette was applied; then a perforation of the posterior wall of the abdomen was detected; the uterus was therefore removed entire, and the patient recovered. It appears that metritis dissecans may have a well defined line of demarcation, or this may be wanting, then the entire inner aspect of the uterus is invaded. Young women are most subject to this affection, especially when affected with serious general disorders, or when labor is lingering, and obstetrical operations are needed. The clinical features are usually just as described in Zaborowski's own case. Rashes are common. In some cases the uterus takes to contract and expel sloughy parts of its mucosa and muscular walls, sometimes the whole mucosa comes away. Abuse of caustics frequently causes this singular complication. The mortality is 32 per cent. Complete cure is rare, the uterus being much damaged. In bad cases hysterectomy alone will save the patient.—*Epit. B. M. J.*

The Value of *Veratrum Viride* in Puerperal Eclampsia.

The editor of the *Therapeutic Gazette* addressed an inquiry on this subject to some of the leading obstetricians of the United States. The replies of eight of them are published in the August number of that journal. Three of the gentlemen applied to have never had sufficient confidence in the drug to use it, and have, therefore, no experiences to record. The observations of all are of great interest. There is one point that is noted by all who have used the drug, and as this point seems to be the means of determining whether it should be used or not, we subsume their opinions on it.

J. Clifton Edgar, M.D.—With the pulse *strong*, as well as rapid, *veratrum viride* offers the most certain means at our command for temporarily, or even permanently, controlling the spasms. With a weak pulse morphine hypodermically, inhalations of chloroform, and chloral administered per rectum, together with stimulation, if necessary, may be used instead.

Richard C. Norris, M.D.—When the pulse is feeble and rapid, the patient profoundly toxic and irresponsive to the usual treatment, I have never seen any benefit from *veratrum*; indeed, such cases require stimulation of the circulation, rather than depression.

Barton Cook Hirst, M.D.—The drug is most valuable in cases with a strong, bounding pulse, with suffused face, and danger of cerebral apoplexy. In an asthenic kind of case, with feeble pulse and pale face, I would not employ it.

Edward P. Davis, M.D.—In cases with full, heavy pulse, and increased pulse tension, it lessens arterial tension, slows the

pulse, diminishes the tendency to convulsions, and promotes the dilatation of the cervix uteri.

The above four gentlemen have used *veratrum viride*, and found it useful.

George M. Boyd, M.D.—If used at all, I believe it is indicated only in the sthenic cases. I have used it to its physiological effect (reducing the pulse rate from 130 to 70), with no improvement in the patient's condition, but, on the contrary, it acted as a powerful depressant.

In the same number of the *Therapeutic Gazette* there is quoted an article by Marx, from which the following remarks are extracted on the subject of *veratrum viride*:

“Unquestionably it will reduce both the volume and rapidity of the pulse; but of what value is such a reduction when it is symptomatic and not curative? The statement has often been made that when under its influence the pulse becomes soft, slow, and compressible, convulsions do not occur. This is emphatically denied, and in unmeasured terms, by the author, since he has seen awful convulsions when the pulse was 60 and alarmingly feeble. In a fatal case, that of the wife of a physician, a convulsion occurred one-half hour after an induced labor. The pulse was full and bounding and 178 to the minute, Hypodermics of full doses of *veratrum viride* sent the pulse down to 50, when it was hardly to be felt, and yet the worst convulsion the patient ever had occurred at this time, and she succumbed to the malady in a short time. And yet in another woman full doses of a reliable preparation were given to control the fits while the pulse was full and bounding and the face deeply cyanotic, and neither the pulse nor the very severe convulsions were controlled. These and other cases, the results in which were entirely unsatisfactory, make one a sceptic as to the real curative value of this drug; and while it is not doubted that physiologically the drug will achieve its end, yet what we are after is not this—a symptomatic cure restricted to one symptom—but a clinical and complete cure.”

The doses used vary from 8 to 20 minims of the fluid extract hypodermically, some beginning with 8 minims and repeating 5 minim doses every fifteen or twenty minutes *pro re nata*, and others giving an initial dose of from 10 to 20 minims. The writer of this review has used *veratrum* in only one case—a sthenic one, with full, bounding pulse; 20 minims of the fluid extract (P. D. & Co.) were given hypodermically. The result was immediately and permanently satisfactory. The pulse fell inside of an hour from 150 to 60, the patient became calm and conscious, and perspired profusely. She recovered completely.

K. C. M.

PEDIATRICS.

IN CHARGE OF ALLEN BAINES, W. J. GREIG, AND W. B. THISTLE.

Some Practical Points.

In acute diseases of infants, the chief blood conditions to be watched for are pallor from destruction of red cells, and lividity from insufficient blood aeration. The last symptom shows most plainly about the mouth and nose, and when it is well marked, convulsions are to be feared.

An irregular pulse in infancy, if rapid, has no special significance.

Do not place much reliance on the condition of the tongue in infants or young children. A clean tongue is very often present in chronic cases of indigestion, and death may take place without a coating having ever appeared on the tongue.

Physical signs, especially in children, are not to be considered to the exclusion of the patient.

The French claim that the best treatment of chronic ileocolitis is sodium sulphate, in doses of from 50 to 75 grains to an infant of a year old, daily.

Icterus in Children.

If icterus neonatorum lasts longer than five or six weeks, look for some cause other than simple functional disturbance. The cause of even the ordinary cases is obscure, but may be due to obstruction of the ducts by the very thick bile which is present during the fetal life. Even if the jaundice, lasting as long as five or six weeks, does disappear, care should be exercised in giving a prognosis as to the future.

The conditions to be excluded are cirrhosis, syphilitic hepatitis or congenital obliteration of the ducts. The intensity of the jaundice is a good diagnostic point, but is not always reliable.

In children beyond the age of infancy, jaundice is usually catarrhal. Slow pulse and itching of skin are uncommon in children. Toxic symptoms, due to the accompanying indigestion, are most prominent.—*Still. Medical Press.*

Water is a cheap medicine for babies; but it is one of the best, if used properly. Milk is the best food for infants; but other food should be given at the proper time.

Cold Bathing.

A short, cold sponge or shower bath after the usual morning tub is about the best tonic for a child. Dry rapidly with a rough towel afterward.

Every infant should be accustomed to a cold bath by gradually lowering the temperature of the water in which they are bathed, till at six months the water is only 90 degrees Fahrenheit, and the rapid sponge-over is five degrees cooler.

A child brought up in this way will more than pay for the extra trouble in bathing by not taking cold. Even in those cases where the child is said to be always "taking cold," the giving of the cold bath will soon overcome the tendency.

An attack of indigestion is a serious misfortune to a young child. The younger the child, the greater the misfortune. A single careless feeding may be the beginning of weeks of digestive disturbances.—*Diet. and Hygienic Gazette.*

It is necessary to exercise care lest one generalizes from the fact that some babies seem so constituted that they are able to stand almost any kind of abuse.

Specific Action of Human Milk.

Is it possible, Esrich asks, that there is some substance in mothers' milk which stimulates metabolism? This would explain the inconsistencies observed and the result of natural feeding where there is almost a specific reaction to mothers' milk. If so, this renders futile all our attempts to do more than approach mothers' milk in artificial feeding.—*Diet. and Hygienic Gazette.*

[We were under the impression that the peculiar phosphorus combination present in human milk was the cause of the influence on general nutrition.] C.S.M.

Prevention of Pulmonary Tuberculosis in Predisposed Children.

Robison (in *Jour. Amer. Med. Asso.*) claims that equal consideration should be given to the two factors in the causation—heredity and the bacillus. Predisposition in about 38 per cent. of cases. Healthy persons possess a certain degree of immunity, and transmit this to their offspring. One parent being tuberculous lessens the immunity of the child, and both being tuberculous, the child is in great danger. Children of infected parents are themselves easily infected, directly or indirectly.

It is the duty of physicians to educate parents in proper methods of rearing predisposed children. Watch the diet of infants, and keep nutrition up to the highest point. Especially accustom them to fat. In children, pay particular attention to the nitrogenous food.

At the critical period of puberty, educate the children so that they will understand the physiological laws coming into play at that time.

All other education should be taken easily. There is too much crowding and cramming, and other exceedingly unhygienic conditions, the weak being required to do the same work as the strong. Class methods of teaching are bad for these children.

Mind and body must be developed symmetrically, especially in these cases.

Occupations for after life should be looked forward to with apprehension, unless they are outdoor ones.

Clothing of such a child must be warm and loose. No corsets or waistband supports.

Hydrotherapy, cleanliness, good air, and sunshine.

The so-called benign children's diseases, measles, pertussis, etc., should be carefully watched, and the parents warned as to their very real dangers.

Nutrition is the foundation stone on which to rear all other treatment.

C. S. M.

Unbalanced Physical Development and Pubertal Morbidity.

Christopher, in a paper in the *Journal Am. Med. Assn.* for September 14th, gives the results of certain measurements made of some six thousand school children. These were all children attending public schools and belonging to families who are in comfortable circumstances, a fact which has considerable bearing on the results. The measurements included net height, sitting height, weight with indoor clothing, endurance as measured by the ergograph, strength of grip of right and left hand, and "vital capacity."

Numerous charts and tables are given, and should be carefully studied by all who desire to understand the reasons or much that is puzzling in children about puberty, and, indeed, before.

The conclusions drawn from the work done are as follows:

1. There is an exaltation of life processes at the pubertal period which finds expression not only in an increased rate of growth, but also in development of physical power. This exaltation is preceded by a period of relative quiescence. In the sexes this exaltation differs, in that it commences earlier and has a shorter duration in girls than in boys: moreover, it is more marked in girls than in boys in weight and in stature, but less in measurements involving physical power.

2. Puberty is also a period of great individualization, as indicated by the great normal range of physical measurements at this period.

3. The range of all physical measurements at all ages in childhood, including puberty, is distributed uniformly above and below the line of average measurement.

4. At puberty, mortality is low and morbidity high.

5. Neuroses, psychoses, neurasthenias, cardiopathies, deformities and anemias are the principal morbid manifestations of the physical, intellectual and emotional turmoil which characterizes puberty.

6. The great range at puberty of the measurements of the physical features of the child expresses the condition which permits the existence in individual children of unusual lack of balance in physical measurements, or maladjustment of physical features.

7. Unbalanced physical development is an important factor in producing morbid manifestations. It is operative throughout the developmental period of life. It occurs with the greatest frequency at puberty, and there finds its most marked expressions. It is found in causal relation with most of the morbid manifestations of puberty, particularly disturbed heart action, dilatation of the heart, fatigue, anemia, many of the neuroses, round shoulders and scolioses.

C.S.M.

Report on Child-Study Investigation.

A report issued by the Chicago School Board on the above subject is to hand. The work done was among children of American parentage, well clothed and fed, the object being to obtain measurements of fairly normal children. The measurements mentioned in the extract above were taken as well as tests of hearing.

The tables and charts show much that is interesting. In work on the ergograph the charts show the girls to be everywhere below the boys in endurance, the difference being nearly constant during the ages 6, 7, 8, 9, but after that the boys increase in endurance much more rapidly than girls. On the average, the girls have 79 per cent. of the strength of boys. If true, these results ought to have some bearing on co-education.

Strength of grip and vital capacity charts show somewhat the same differences in favor of the boys.

In regard to Prof. Porter's observation that the brighter children in a room had a greater mean weight than the mean weight of the whole room, the reporter's conclusions are that on the average these pupils who have made great intellectual advancement, are taller, heavier, and stronger than their duller companions.

[This is on the average only, it must be remembered.]

In the observations on height, it is shown that the tallest pupil in the third grade is but little shorter than the shortest pupil in the eighth grade, a reason for adjustable desks.

Ergograph charts show that the extremes of endurance are not so divergent in the lower grades as in the higher, therefore in the higher grades the work should be more elastic.

Extremes of strength and vital capacity are also more divergent in upper than lower grades. Rooms are graded on an intellectual basis only, therefore physical culture, as at present carried on, is wrong.

In hearing, the number of pupils whose hearing is subnormal so far as to place them at a disadvantage, increased from 6 per cent. at 6 years to 33 per cent. at 14 years. For lack of space it is not possible to conclude extracts from the reports at hand or to comment on them. We hope to finish quoting from present reports next month, and at the same time show the inestimable benefit such work is capable of conferring on our school child. . . It is also possible to use the plan of measurements in private practice, where, once used and thoroughly understood, they will not be given second place to any other form of examination in many cases, if not most, of the troubles referred to above.

C.S.M.

Editorials.

THE LATE PRESIDENT MCKINLEY.

No Sovereign, no President, no man in any country outside the British Empire was so highly respected and so much beloved by the citizens of Canada as the late William McKinley —“ without reproach in life or fear in death, Christian knight, twenty-fifth President of the United States” (*Jour. A. M. A.*). While we all deeply sympathize with the citizens of the United States in the appalling calamity which has befallen them, our chief aim as medical journalists is to consider the illness and death of Mr. McKinley in their surgical aspects. We have purposely abstained from giving minute particulars or making any comments until full information was at hand. There is now such an abundance of literary material at our disposal that we are only able to give a brief synopsis of the most important articles on the subject which has been published.

We publish in this issue a detailed account of the case, as nearly complete as possible, with the limited amount of space at our disposal. First, we give an abstract of the very interesting narrative by Dr. Nelson W. Wilson, the sanitary officer of the Pan-American Exposition, published in the October issue of the *Buffalo Medical Journal*, edited by Dr. Wm. Warren Potter. The other portions of our report are taken chiefly from the bulletins issued daily, and from the official report of the physicians and surgeons as given to the medical press, including the remarks on the operation. We omit many details as to treatment, urinalyses, blood examinations, and other matters.

Of course, many criticisms came from all parts of the world. Most of the unfriendly and even unjust criticisms appeared in the medical and lay press of New York City. The most unfriendly medical criticism appeared in the *Record*. The first question that arises is: Was early operation advisable? The results of non-intervention in cases of perforating wounds of the abdominal cavity during the wars, from the time of the American civil war to that of the Spanish-American and the Anglo-Boer wars, have been so satisfactory that masterly

inactivity on the battlefield is approved of by such authorities as Senn, Nancrede and Parker, of the United States, and Mac-Cormack, Treves and others, in Great Britain. It has been pointed out, however, by the surgeons whom we have named, and others, that rules which apply to military surgery are not the best in civil practice. One of the chief reasons for this statement is the fact that the modern rifle ball is small, conical, travels with great velocity, and cuts like a knife, with little or no bruising. The ordinary pistol ball, on the other hand, is usually larger, rounder, travels with less velocity, makes a larger and more ragged opening, with much more bruising. We are glad to be able to say that there is a general consensus of opinion that immediate operation in this case was the right procedure.

Was the operation properly performed? All will probably agree that the operator showed great skill and good judgment, so far as he went. Should he have gone further, and learned more about the direction and condition of the bullet-track and surrounding structures? It was deemed advisable, chiefly on account of the President's condition, not to spend any further time in making such an investigation. We firmly believe that the operator exhibited that virtue not always possessed by surgeons—he knew when to stop. All the evidence goes to show that further search would have done no good, and might have caused death on the operating table.

Was the patient properly treated after the operation? The only adverse criticism in this connection was the statement that a mistake was made in the administration of solid food on the morning of the seventh day. According to the bulletin, he had "chicken broth, a very small piece of toast, and a small cup of coffee. He did not care for the toast, and ate scarcely any of it." We know now that the little bit of toast was not the cause of the serious symptoms which appeared on the afternoon of that day. The physicians apparently thought it did not agree with him, as they decided to give him no more solid food for some time. As this is rather a small matter we think we can dismiss it, and state without reservation that the after treatment of the patient was good.

Were the surgeons and physicians justified in taking such a favorable view of the case on the 5th, 6th, and 7th days? The

grave charge made against them is, that they showed too much optimism. If they erred in this respect, as in a certain sense they did, we think the error was on the right side. An atmosphere of optimism in a sick chamber is better than one of pessimism. Optimism, however, is distinctly wrong when it leads to carelessness or negligence, and worse still when, connected with it, there is a concealment of facts. In this case there was neither carelessness, negligence nor concealment. The surgeons were as frank and truthful as possible. Let us consider some of the facts. At 3.30 p.m., the day after the operation, we find the following: "The President continues to rest quietly; no change for the worse. Pulse, 140; temperature 102.2°; respiration, 24." On the fifth day we find: 9 a.m., "The President's condition this morning is eminently satisfactory to his physicians. If no complications arise a rapid convalescence may be expected. Pulse, 104; temperature, 99.8°; respiration, 26. In the afternoon some stitches were removed, and at the same time some foreign material carried in by the bullet." Full particulars were given in the bulletin. We find on the sixth day: 9 a.m., "The President rested comfortably during the night. Decided benefit has followed the dressing of the wound last night. His stomach tolerates the beef juice well and it is taken with great satisfaction. His condition this morning is excellent. Pulse, 116; temperature, 100.2°."

On the morning of the seventh day we are told: "The President seemed at his best. The time for peritonitis and sepsis had passed. The bowels had moved, and gas passed freely. The tongue was clear, and the appetite increasing; and he seemed to be able to digest food. There was no pain nor tenderness in the abdomen, and he was able to turn easily and to sleep on his side. The urine was steadily increasing. His spirits were good and his mind clear, while his pulse, though frequent, was strong and of good quality, and the temperature low."

We think these records showed so many good features in the way of improvement that the physicians had good reason to hope for recovery, although the patient could hardly be said to be out of danger. Drs. Mann and Park, who incurred the chief responsibility, state positively that at no time were they free from anxiety.

The *British Medical Journal* (friendly in all its criticisms) says: "In abdominal cases the character of the pulse and its frequency are, it is no exaggeration to say, of greater consequence and import than all other signs." That statement is correct, although we are not quite so certain that another statement—"The pulse-rate was never even moderately satisfactory"—is exactly right. When, after an abdominal section, the rate of the pulse steadily increases from day to day for five or six days, we can generally say, without much, if any, consideration of other signs, that the patient will die. This is especially true when it also becomes weaker. But when a pulse drops from 140 to 104 in five days, and at the same time becomes stronger in character, we think it may be considered, at least, moderately satisfactory. When, at the same time, with this marked improvement in the pulse, there is a decided improvement in almost every other direction (as ordinary signs go after abdominal sections), we think there are fair grounds for a favorable prognosis. It should be remembered that the President's pulse was naturally fast, or at least, had been so for years.

While we express such an opinion, we must, at the same time agree with the London *Lancet*, when it says: "In no part of the body are sinister surprises more likely to be met with than in the abdomen. Patients who have progressed, and are progressing, most favorably cannot be considered to be out of danger until they have ceased to be patients. Great as is our knowledge to-day of the injuries of the abdomen, many as are the resources of the surgeon, skilful as may be his operations, yet there are elements in any case of abdominal injury which may render in vain all his knowledge, his resources, and his skill."

Many stories were circulated as to mutual recriminations between the surgeons after the President's death. We are happy to say that all such statements were absolutely without foundation. Mynter, who arrived first, gave way to Mann, who operated. Park, who, as director-general of medical matters at the Exposition, should have performed the operation, was twenty-five miles away, and only arrived when the operation was nearly finished. Yet Mynter and Park worked cheerfully and faithfully with Mann and the other surgeons and physicians in their untiring efforts to save the

life of their patient. The coterie of devoted men who attended President McKinley were as fine a body of scientific and practical surgeons and physicians as could be gathered together in any part of the world. Bitter is our disappointment at their failure; but great is our respect for their bravery, their skill, and their care in the treatment of their distinguished patient. They have earned the gratitude, not only of a great nation, but also of the whole civilized world.

WORKMAN'S INSURANCE IN GERMANY AND ITS EFFECT IN THE TREATMENT OF CONSUMPTION.

While on the Continent a few months ago, the writer was told that the system of insurance for workmen in Germany had proved in all respects successful. In an article which recently appeared in the *British Medical Journal*, written by Privy Counsellor Bielefeldt, much useful information as to the methods in vogue in that country will be found. In accordance with an Act passed in 1891, a large proportion of the workmen since that time have been insured against sickness and old age by contributions in equal parts from the employers and the employees. We have been told that in certain cases the Government also contributes a certain amount towards the fund. Whether this be correct or not we are not sure, but we know that the Government renders at least indirect assistance. "The insurance is under the supervision of the Imperial Insurance Department, and is effected by means of local institutions or clubs." One of the chief advantages of such an arrangement is that all parties—both employers and workmen especially—are interested in preventing any unworthy or fraudulent claims.

An investigation some years ago showed that of every 1,000 cases of sickness 350 were suffering from phthisis. A law was enacted whereby the insurance companies were empowered to undertake methods of cure or of prevention. Not much attention was paid to this law for some time; but, during the last three or four years, it has been discovered that money may be more economically expended in preventing and curing diseases than a simple caring for those who are sick. As a consequence

there have been established in Germany a large number of sanatoria for consumptives. In 1900 more than 3,000,000 marks were devoted to the relief of consumptive patients. As the laws now stand, the insurance companies can send the sick to hospitals, sanatoria, health resorts, or to the care of private persons as may seem best: but, at the same time, no compulsion is allowed. Much has been said about the large number of sanatoria for consumptives in England. They are mostly, however, built and owned by private individuals for the benefit of those who are able to pay. We believe that the result of the changes in the laws and customs of Germany has been the inauguration and building of a larger number of sanatoria for consumptives among the working classes than will be found in any other country.

THE CELEBRATION OF RUDOLPH VIRCHOW'S EIGHTIETH BIRTHDAY.

The celebration of Virchow's eightieth birthday was probably the most flattering thing of the kind which the world has known. All peoples of all countries in the civilized world appeared to unite in doing honor to this great scientist. The chief event in connection with the celebration on this continent was the dinner held in New York on the evening of October 12th. Among those present were Professors Osler (who acted as chairman) and Welch of Baltimore; Dr. Gould, of Philadelphia; Drs. Jacobi, Andrew H. Smith, and C. L. Dana, of New York, and about one hundred other representative medical men.

We publish in this issue an abstract of a very interesting account of the proceedings of the chief celebration in Berlin which appeared in the *British Medical Journal*, October 19th. In the same issue we find an article, entitled "A Personal Impression," by Sir Felix Simon, a native of Germany, a resident of London, England, and a former pupil of Virchow's. We quote as follows from his remarks on the official function: "The celebration from beginning to end was so extraordinary of its kind, that as yet but three things stand out prominently from the kaleidoscopic impressions which overwhelmed us

yesterday: the conviction that surely never before had a richer life been lived than Virchow's, the joy and gladness that on the evening of such a life the achievements of this unique man are universally acknowledged without a single dissentient voice being heard, the thankfulness that such a man should have been spared to the world in such astonishing vigor of mind and body as this 'Grand Old Man of Science.' For to begin with the last-named fact, surely it was astonishing that in the morning this octogenarian should have on the eve of his eightieth birthday treated the audience, which he had invited to his pathological museum, the pride and the joy of his old age, to a wonderful retrospect of the past, and a sketch of the future of pathology, made a speech of one and a half hours' duration, a speech made without notes, should have sat through and have made at a two hours' dinner in the evening one of the most felicitous and humorous dinner speeches ever heard, and should after this have listened and replied—standing almost the whole time—to speech-making, which lasted from 9.30 to 12.30 p.m., without any interruption, saying a kind word or two to almost everybody who had come to do him honor."

CONGRESS OF NURSES.

A congress of nurses was held in Buffalo during the week ending September 21st. It is said to have been the largest gathering of nurses ever known in the world. This is the third world's congress of nurses, the first having been held in Chicago during the World's Fair in 1893, and the second in England in 1899. One hundred and two separate nurses' organizations were represented at the Buffalo meeting, with memberships totalling something like fifteen thousand. Two meetings were held daily, morning and afternoon, and among the subjects discussed were the following: Hospital Administration, The Three-year Course, Nursing of the Insane, Army Nursing, Women on Hospital Boards, Tenement-house Inspectors, and Preparatory Instruction of Nurses. Miss M. A. Sniveley, Superintendent of the Training School for nurses, Toronto General Hospital, was one of the Vice-Presidents of the Congress. Apart from the admirable and interesting work done at the various sessions the visiting members were entertained most generously by the women of Buffalo.

Personals.

Dr. Law has been appointed Medical Health Officer of Ottawa.

Dr. James Stewart, of Montreal, visited Toronto, October 19th.

Professor Wm. Osler, of Baltimore, returned from Europe, September 24th.

Dr. James Curry Smith, Barrie, was married, October 3rd, to Miss Ethel B. Scott.

Dr. Jerrold Ball, of Toronto, spent the month of September on the Atlantic coast.

Hon Dr. Borden, Minister of Militia, sustained a fracture of the fibula at the recent accident in the Hon. Mr. Tarte's yacht.

Dr. John Hunter, of Toronto, left October 3rd for New York and Baltimore, where he spent some weeks at work in the hospitals.

Dr. Alexander C. Robertson, formerly of Madoc, Ontario, now of Dawson City, Y.T., was married, September 23rd, to Miss Lila G. Thayer.

Dr. Agnes Turnbull, who recently visited her friends in Canada, has returned to Central India, where she is engaged in Presbyterian mission work.

Dr. W. E. Struthers sailed from Montreal for Europe, October 5th. He expects to spend a year at post-graduate work in London, Edinburgh, Vienna and Berlin.

Dr. Harry W. Spence, of Toronto, has passed the examinations for L.R.C.P., London, and M.R.C.S., England, and is now a surgeon in the SS. *Mombassa*, one of the British India Steamship Company's passenger steamers sailing between London and Calcutta.

Hon. Dr. Montague, formerly Minister of Agriculture, is still in Australia, and is said to be doing good work for Canada by his public speeches in which he urges the importance of more intimate relations between the Commonwealth of Australia and the Dominion of Canada.

Dr. J. F. Boyle, '96, left for Europe on October 11th, 1901. He has been appointed ship's surgeon to the Elder-Dempster Co. His first commission is on a vessel sailing to the Madeira and Canary Islands and the West African coast. After sailing about a year he expects to take up post-graduate work in London and Edinburgh.

FRED. C. WALKER.

Dr. Fred. C. Walker, a well-known Toronto boy, a graduate of Parkdale Collegiate Institute, and a student of Trinity Medical College for the last four sessions, died September 23rd in the Western States.

WILLIAM STOTEN FRANCIS, M.A., M.B.

Dr. W. S. Francis, of Gore Bay, Algoma, died October 16th, aged 68. He graduated in the University of Toronto as follows: B.A., 1857; M.A., 1858; M.B., 1859. His remains were buried in Owen Sound, October 19th.

JAMES GUN, M.D.

Dr. James Gun, of Durham, died October 23rd. He was a native of Thurso, Scotland, and came to Canada in 1852. He graduated, M.D. at McGill in 1861, and settled at once in Durham, Grey County, where he was engaged in practice up to the time of his last illness.

GEORGE M. McMICKING, M.D.

Dr. George M. McMicking, of Toronto, died at his home, No. 1 Washington Street, October 13th, aged 77. He was born in Chippewa and received his education chiefly at Upper Canada College and McGill Medical College. After graduating in 1849 he practised in Chippewa until 1867, and then removed to Goderich, where he practised until 1889, when he came to Toronto.

TRUEMAN WALLACE DUNCOMBE, M.D.

Dr. T. W. Duncombe, of St. Thomas, died suddenly in his office, October 2nd, aged 42. He had been slightly ill for a few weeks, but no serious results were anticipated. He had done his work as usual during the day, and at 10 p.m. he was seized with a severe pain in the heart, and in a few seconds fell to the floor. The doctors who were hurriedly summoned found him dead.

Dr. Duncombe graduated, M.D., University of Trinity College, Toronto, in 1882, and in the following year became L.R.C.P., Edinburgh. After returning from Europe in the latter part of 1883, he commenced practice in St. Thomas, where he remained in active work until the day of his death. He was well known in Western Ontario, and highly respected by all classes. He was a prominent Liberal, and was mentioned as a probable candidate in the coming election for the Local Legislature in West Elgin.

Correspondence.

THE PHILOSOPHY OF THE SCIENCE OF LIFE.

To the Editor of the CANADIAN PRACTITIONER AND REVIEW :

SIR,—At no period in the history of nations can we find any evidence that would indicate a wider dissemination of education, learning and general knowledge than obtains in the present. Yet it is a deplorable fact that superstition and puerile credulity continue to exercise their baneful influence on mankind. To such an extent is this influence felt that a partial paralysis of a nation's energies may ensue, followed, endemically, by torpor, stagnation, retrogression and decay. Nations, like individuals, may therefore succumb to an inertia resting on ignorance and fatalism.

It may be assumed that the cause of such a condition of things may be either gross ignorance on the part of the masses, or to one-sided education and cupidity on the part of a few. But the danger and the difficulty in connection with the subject will be found to lie not so much in the ignorance of the masses as in those whose education is one-sided, and whose thoughts and opinions were moulded by the philosophers and metaphysicians of, say, two thousand years ago. One-sided education tends, if not to intolerance, to egotism and bigoted narrowness, so that men and women who are ignorant of the physical sciences, or who decline to recognize positive scientific achievements as facts, are in a great measure unworthy of trust in educational matters, and are but indifferently qualified in any sense to teach their fellow-men and women of the twentieth century. Yet aggregations of such people continue to constitute themselves into oracular bodies to fashion the lives and determine the destinies of the thinking and unthinking masses of mankind.

Such one-sided teachers are apt to be eminently conservative and opposed to modern thought and progress. They represent the class of men who dominated the world in mediæval and more recent times, and they sometimes act as if they entertained feelings of regret that their predecessors did not effectually extinguish the lights of such men as Friar, Bacon, Copernicus, Galileo, Kepler and Newton, and, in later times, of Priestly in England, and Lavoisier in France. Much, therefore, of the rampant but irrational credulity that flaunts itself before the eyes of the world to-day in the form of Christian science, spiritualism and miracle working can, and must be attributed to one-sided egotistical education. This does not apply to the clergy any more than to the press. For both

press and pulpit are equally culpable in neglecting to properly qualify as true scientists in order that they may be able to distinguish between the genuine and the counterfeit, for they should know that there is science and pseudo-science.

It should be the aim, therefore, of medical men to discountenance one-sided education on the part of teachers, preachers and others, and to administer the proper antidote on every opportune occasion to neutralize its pernicious effects by insisting as a *sine qua non* that all men and women who profess to teach mankind, either in the school, the church or the newspaper office, in matters pertaining to science in any of its many branches, shall be thoroughly qualified to do so. No one can know anything of science unless he be well grounded in up-to-date chemistry, physics, biology and physiology. Any one who talks science and is yet wanting in a knowledge of the foregoing essentials is usually a friend of the spiritualist, the faith curist and the Christian scientist, and is, as a rule, a firm believer in ghosts and miracles.

Prof. Huxley says: A thorough study of human physiology is a broader and more comprehensive education than much that passes under that name, and that there is no side of the intellect which it does not call into play, nor any region of human knowledge into which its roots or its branches do not extend. Its waves wash the two shores of mind and matter, and through its intervening waters lies the road, if such there be, from the one to the other.

Socrates, a few hours before he drained the fatal cup, is said to have entertained his sorrowing friends with a discourse on the immortality of the soul. He left posterity nothing, however, which would clearly show that he knew anything positively about the nature of the soul. His arguments were purely speculative and metaphysical, and furnish but little assistance or comfort to a modern investigator. The philosophy of Aristotle and Plato is of the same nature and of the same value as that of Socrates. We admit these men were great philosophers and metaphysicians, but they knew absolutely nothing of the properties of matter as we know them. Our knowledge of the physical or material universe has enabled us to invade the realm of metaphysics to such an extent that only a fragment of it may be said to remain unexplored. That fragment is the battle-ground on which the monist and dualist is now contending for life and supremacy.

Scientific materialism, or monism, affirms that everything in the world goes on naturally, and that every cause has an effect. It assigns to casual law its place over the entire series of phenomena that can be known, and it positively rejects every belief in miracles and every conception of supernatural pro-

cesses. It does not recognize metaphysics in any region, but relies throughout its arguments and demonstrations entirely on physics to show the inseparable connection between matter, form and force. This position, I need hardly say, is greatly in advance of that occupied by Priestly, and from which his opponents endeavored to drive him by persecution, but they only succeeded in forcing him into exile. Priestly and Lavoisier having demonstrated that the atmosphere was composed of sensible gases, it remained for their successors in every part of the world to carry on the work unremittingly in order to acquire a positive knowledge of the properties of the atoms and corpuscles that constitute the unseen universe about us.

Philosophers, like Descartes, discoursed learnedly about etherial waves, etherial rings and etherial vortices, but they knew positively nothing of their nature or their properties. We know that ether is but matter in a subtile form, and that its properties and phenomena are due to its accompanying energy, so that logic and abstract reasoning are only good up to a certain point, after which they must yield to something more substantial.

The philosophy of scientific dualism which is opposed to that of monism, implies a belief in a spirit or in some force, or efficient cause other than material or mechanical. This scientific dualism must not be confounded with theological dualism, which is entirely metaphysical, and supposes two co-eternal principles—one good and one evil, but which the Christian Church, while ostensibly practising, has always condemned. Scientific dualism, then, believes in mind as distinct from matter. This position, until recently, was apparently very reasonable and almost unassailable.

The ultimate conception of matter was formerly conceived to be any atom. Now we know that an atom may be divisible into a thousand smaller particles, known as corpuscles, which may be seen and investigated as Lennard's rays, as they are thrown off the cathode or negative pole into a Crooks' tube. It has been found that these corpuscles are charged with negative electricity, while the atoms which are thrown off at the anode, or positive pole in a Crooks' tube are charged with positive electricity. From this it may be fairly assumed that matter may be subjected to some process by which the ultimate divisibility of its corpuscular particles may be carried so far as to practically destroy it. Or it may, in other words, be changed into an intermediary substance seemingly having neither material nor spiritual properties. Such a substance would, however, be identical with ether, and we know that ether is only matter in an extremely subtile state.

The views of monists and dualists are mainly in accord on inorganic phenomena; and it is only when they enter the organic kingdom and meet life that a divergence between them is seen. The dualist who may, or may not, be a theologian, declares that the cause of inorganic things is not sufficient to explain the life of organic things. He wants a second cause. The scientific monist on the other hand, asserts that between inorganic and organic things there is no real break, and that the cause which explains the inorganic will likewise explain the organic. This view of the monists must not be taken as materialism nor pantheism. Existence, then, consists of either one order of things or of two. That is of matter only, or of matter and mind. If we accept the former, then the thing we call matter must possess consciousness and intelligence to govern and guide its energy. For if matter were not associated with consciousness it could not be, in the sense of being. That is, if we could strip ourselves of consciousness, we would annihilate ourselves and attain to nothingness; or, as Mr. Spencer says, something unknowable, and this unknowable would have to be considered the cause of everything that science endeavors to reveal. But, aside from consciousness, we do not know that the unknowable exists, so that while the unknowable may be something we could not know what that something is.

Prof. Clifford, who dismissed the idea of God and the soul, observed brusquely that atoms and ether leave no room for ghosts. Yet he maintained as strongly as anyone could have done that atoms and ether are things of whose essence we know nothing. Huxley was constantly expressing and explaining similar views. Prof. Tyndall also entertained similar sentiments on this subject. Prof. Heckel admits that matter is a thing beyond our comprehension: but he, like other monists when speaking of matter, does not mean a lifeless, inert mass, or an infinite totality of lifeless particles which require some external force to move them, but something with inherent power and intelligence to move and effect combinations.

Pantheists think matter the sum of existence. Scientific thinkers, however, repudiate that idea, and those who believe in the monistic theory, conceive that the universal substance or matter was not a creation of God, nor is it permeated by God. But, on the contrary, that it is an aspect of God, which He himself could no more alter than he could alter His own nature. Nor could He divest himself of this substance without ceasing to be. They say, moreover, that consciousness, which we have attributed to God, is developed gradually in individual lives, and that while the universal substance may

be a mystery, it is no more difficult to suppose an eternal, self-existing and self-energizing substance, than it is to suppose an eternal self-existing and self-energizing God. This is not an irrational supposition. In fact, as a hypothesis, it looks as reasonable as the religious conception.

But the dualistic scientist and theologian or theist conceives that God is a spirit, and that this spirit created the material universe, and that this spirit is both imminent and transcendent, and that this spirit is the source of the energy which gives movement to matter. They say that science is necessarily agnostic; but they agree with science in saying that all the empirical elements may at last be reduced to one. That is to say, the seventy odd elements that we may have knowledge of are but that many forms of the same thing resulting from the various combinations of corpuscles or atoms under different degrees of heat and pressure. In a word, matter primarily had but one form.

The theistic dualist assumes a second cause as the author of life or the soul. The phenomenon of life differs from all those that lead up to it, and from the moment it makes its appearance it is apparently capable of independent action.

The monist says, that while science has not yet produced organic life artificially it is gradually filling up the rift between the inorganic and the organic, and should it fail to evolve life it would not be fair to assume that it was never done at some early period of the world's history. "If," says Heckel, "when referring to this question, physical and chemical forces alone are at work in the fields of inorganic nature, while intelligent and regulative forces dominate the organic world, we must abandon the mechanical and accept the teleological system or admit miracles" He says further: "To reject abiogenesis is practically to admit miracles. The unique phenomenon of organic life is movement, to which must be added consciousness and intelligence. Whence does this phenomenal movement come? Is organic movement evolved from the inorganic, and do the movements of crystallization resemble the movements of the protist? We cannot liken thought to brain matter any more than we can to a lump of carbon. It is not the brain that thinks, but something within the brain. This is admitted by monists no less than by dualists; but the monist says that that something which we call consciousness is but a final manifestation of a property of the universal substance which he claims to be matter.

Heckel says this hypothesis explains consciousness; and further, that consciousness is transcendental. How mental activity is affected by material conditions, and how substance comes to feel, to think and desire is a mystery which philo-

sophical science may never be able to satisfactorily explain. The explanation of this mystery may be insurmountable. If so, religion need have no fear from the assaults of science. There are those, however, who think religion is not touched by the controversy about life and consciousness. Religion teaches a belief in a cause that is a conscious being, intelligent and prescient, and that He is good and regards man with benevolence; that it consists not merely in a doctrine of God, but also with regard to man, and that man has a soul which is immortal, and that he has a will by which he determines the destiny of his soul. And, further, that the unseen order of existence of consciousness transcends the order of existence revealed to us.

The scientific monist says living organisms are due to some rigid and uniform laws that prevail through the sensible universe, and that the higher life is but the mystery of the primary cell. *Omne vivum e cellula*: all life comes from a cell. If life is something different from matter it is only known to us as its inseparable companion, and that individual life disappears never to reappear, and that all separate lives are only a part of the same general life. So that the life of a louse does not differ from the life of a human primary cell, nor from that of a saintly martyr. He also affirms that consciousness is a phenomenon of the same character.

There are those, as we have already said, who think that the controversy about the origin of life and the phenomena of consciousness has nothing to do with the problem of religion. The views of the monist may create doubt and unrest, but unless they become more positive and demonstrable they will never effectually destroy the belief in a personal God, the soul and the will. While on the other hand the assumptions of the dualist may, or may not, lead us to a conscious and benevolent God. So that religion does not begin with the phenomena of life, but with the doctrine that life is immortal; nor with the phenomena of consciousness, but with the doctrine that the will is free. The only fair deduction then to be drawn from these arguments must be that the question is still *sub judice*.

But men will continue to search and explore until more of the mysteries of life have been revealed, both in its incarnated and in its free state; and not until it shall have been shown that the non-material life or soul does not dissolve and lose its identity, or otherwise when it leaves the body at dissolution, will men be satisfied to rest and be content.

JAMES BAUGH, M.D.

HAMILTON, October, 1901.

THE AKOULALION OR AKOUPHONE.

Editor of CANADIAN PRACTITIONER AND REVIEW.

DEAR SIR,—Many inquiries have been made in regard to this new instrument. It is an electrical apparatus, which is claimed to have wonderful power in making the deaf to hear. If it is of no more value than many other devices in the market, it is well to be aware of the fact. The following candid statements, from the editorial columns of the *Canadian Mute* of October 1st, 1901, are of value in this connection. Speaking of the instrument it says: "Does it hold out the hope of relief to even a considerable minority of the deaf? In view of the very wide interest aroused in this instrument, it was decided to set aside one session of the convention of the Instructors of the Deaf at Buffalo for a thorough test of the Akouphone, in order that those present who were familiar with the deaf, and could not be easily deceived, should be able to judge of its merits for themselves, and to pronounce authoritatively upon it. The Convention comprises Superintendents, Principals and Teachers of Institutions and Schools for the Deaf in the United States and Canada, and there were enrolled at Buffalo nearly four hundred members." . . . "The test was begun with some deaf subjects. The words chosen were 'pa' and 'mamma;' and it seemed successful at first, until Mr. Mathison suggested as the one word had one syllable and the other two, the subjects could distinguish between them by the number of vibrations, and also by the facial expression and motions of the speaker. So the operator was asked to place the deaf persons so that they could not see him, and also to add "man" to the other words. He reluctantly did so, and then the test was a total and admitted failure, for the subjects were quite unable to distinguish one word from the other." So far as to the test at Buffalo. The Akouphone was, however, tried at Toronto a few weeks ago. After discussing this trial in an extended article the same paper sums up the results of this trial as follows:

"1. For those simply dull of hearing but can still hear what is said to them in a loud voice, the Akouphone may be a help. Those who intend to purchase it must understand the liability to get out of order, and that it takes in and delivers to the ear only what is brought close to the mouthpiece, and that it is no good at church, public meetings, or to hear conversation at a distance.

"2. For those whose hearing is too much impaired to hear spoken words, but who can still hear sounds distinctly, it will

only be a help after the ear has had long training in its use, perhaps for years.

"3. For those with a slight degree of hearing, and the totally deaf, the instrument is valueless." M. D.

LONDON TUBERCULOSIS CONGRESS.

Editor of CANADIAN PRACTITIONER AND REVIEW.

SIR,—Please grant me space for a comment upon two items of information of general interest contained in your recent article headed "London Tuberculosis Congress."

Professor A. McPhedran, M.D., of Toronto University, admits his presence at the Congress, but makes no mention of any part taken by him in its proceedings. The full reports of those proceedings published in the weekly medical journals, are evidence of his silence.

The Professor expresses regret that the Muskoka Sanitarium for the treatment of consumption was not represented at the meeting. Others entertain the same feeling. The solitary Ontario sanatorium for consumptives ought to have made itself heard at the great London International Congress on Tuberculosis.

Greater regret, however, is justifiable at the neglect of the Medical Faculty of Toronto University to take part by any representatives, in the important deliberations of that large assembly. Representative authorities in Medicine from the European nations, many States of the American Union, the Province of Quebec, even from Egypt, and antipodean Tasmania, had papers to read, addresses to deliver, and opinions and advice to offer, bearing on the Great White Plague and possible measures for its extermination. No voice was heard from the Provincial University of Ontario, while Professors Adami and McEachran, of McGill College, Montreal, well upheld the standing and authority of that centre of medical science.

Before concluding, permit me to point out that the Provincial Board of Health likewise failed to be heard at the Congress. Had the Board sent Dr. Bryce, the able Provincial Medical Inspector, as it ought, Ontario would have taken a prominent part in the transactions and the interests of the Province would have been advanced.

Yours respectfully,

LUCIUS S. OILLE.

ST. CATHARINES, October 1st, 1901.

Book Reviews.

Pocket Account Book for Physicians. By J. J. TAYLOR, M.D. Published by Medical Council, Philadelphia, Pa. Price, complete in leather case, \$1.00.

This is a very convenient pocket ledger for a physician who is not employing his own book-keeper. All his accounts are accessible at any time and the amount due is always in plain view. It may also be used as a visiting list by those who prefer to keep office books, and as it is undated it may be begun at any time.

Elements of Practical Medicine. By ALFRED H. CARTER, M.D., M.Sc., Fellow of the Royal College of Physicians, London; Professor of Medicine, University of Birmingham; Senior Physician to Queen's Hospital, Birmingham; Emeritus Professor of Physiology, Queen's College, Birmingham; Consulting Physician to the Corbett Hospital, Stourbridge; the Bromsgrove Hospital and the Smallwood Hospital, Redditch, etc. Eighth edition. London: H. K. Lewis, 136 Gower Street, W.C. 1901.

Since this book came out twenty years ago it has steadily grown in popularity, and has up to the present run through seven editions. This, the eighth edition, has been carefully revised, large portions have been rewritten and is in every way what its author has designed it to be—a simple and most complete introduction to the subject of medicine. The work is really up-to-date as a book of ready reference, and should receive the same support as it has had in the past.

Manual of the Diseases of the Eye. For Students and General Practitioners. With 275 original illustrations, including 36 colored plates. By CHARLES H. MAY, M.D., Chief of Clinic and Instructor in Ophthalmology, Eye Department, College of Physicians and Surgeons, Medical Department Columbia University, N.Y. Second edition, revised. New York: William Wood & Co. 1901.

In reviewing the first edition of this book, we expressed a high opinion of its merits. That opinion has been justified by the rapid sale of the edition, it having been exhausted in less than eight months. An examination of the second edition now before us shows that the work has been carefully revised. The first edition, however, was brought well up-to-date, so that not many changes would be expected in the second. The most notable change is the addition of seven new colored plates. These, with the plates which were contained in the first edition, make it as the author remarks, a short, practical ophthalmological atlas, in addition to its other uses. It may be commended as one of the best of the smaller works on ophthalmology.

J. T. D.

Principles of Surgery. By N. SENN, M.D., Ph.D., LL.D., Professor of Surgery in Rush Medical College in Affiliation with the University of Chicago; Professorial Lecturer on Military Surgery in the University of Chicago; Attending Surgeon to the Presbyterian Hospital; Surgeon-in-Chief to St. Joseph's Hospital; Surgeon-General of Illinois; Late Lieutenant-Colonel of United States Volunteers and Chief of the Operating Staff with the Army in the field during the Spanish-American War. Third Edition. Thoroughly revised with 230 wood engravings, halftones, and colored illustrations. Royal octavo. Pages xiv.—700. Extra cloth, \$4.50, net; sheep, or half-russia, £5.50, net. Delivered. Philadelphia: F. A. Davis Company, Publishers, 1814-16 Cherry Street.

To those of our readers who are not familiar with the former editions of this work we would say that it is very extensively what its name implies, "A Treatise on the Principles of Surgery;" that it omits *seriatim* details to make room for a thorough consideration of the various morbid and reparative processes, for the etiology and pathology of the former and the histology of both, and for the principles of repair. For example, the principles of the processes by which fractures are repaired are fully given and the general means to be adopted, but not the mechanics of the occurrence and treatment of such individual fracture. In some cases, however, detail is given, e.g., the treatment of brain abscess; and in some of the morbid processes the principles necessarily cover all the details of treatment. In this edition two new chapters are introduced, one on "Degeneration," the other on "Blastomycetic Dermatitis." The rest of the book has been re-written and kept in the advance line by the interweaving of recent knowledge. Many skiagraphic plates of osteomyelitic, tubercular and other bone lesions appear. Those who know Dr. Senn's busy life and something of his clinical work will wonder where he finds time and energy left for the writing of systematic general treatises.

The Diagnostics of Internal Medicine. A clinical treatise upon the recognized principles of medical diagnosis, prepared for the use of students and practitioners of medicine. GLENTWORTH REEVE BUTLER, A.M., M.D., Chief of the Second Medical Division, Methodist Episcopal Hospital; Attending Physician to the Brooklyn Hospital; Consulting Physician to the Bushwick Central Hospital, etc. Five colored plates and 246 illustrations and charts in the text; 1,058 pages. Cloth, \$6.00; sheep, \$7.00. New York: D. Appleton & Company. 1901.

This is a magnificent book and one which no student or physician can afford to be without. It is good all through, the sections on the blood and venous system especially being worthy of remark. For assistance in practical work or for reading we have yet to see its superior. It is up-to-date, practical, and as accurate as medical knowledge of symptoms and indications as diagnostic of disease will allow. We prophesy a large sale for the work on account of its general worth to the

physician or student. The author says that most of the illustrations are original. That very many are cannot be denied. Somebody assisting or connected with the work has a very large acquaintance with a very good taking and accommodating list of lady models. Rarely have we seen so many exact and natural half-tone reproductions in any book; never in a medical work. They might be taken from *Vanity Fair* were it not for the fact that the posing seems evidently to have been done specially for this text-book; and then, the *Vanity Fair* models have generally a drape on somewhere. That illustrations are valuable mnemonic aids the author evidently believes strongly, and we venture to say that no one will ever forget the areas mapped out on the body in the half-tones, say, on page 501, or, if they do, they at least will not forget where to turn to refresh the memory.

Practical Surgery: A Work for the General Practitioner. By NICHOLAS SENN, M.D., Ph.D., LL.D., Professor of Surgery, Rush Medical College, Chicago. Handsome octavo volume of 1133 pages, with 650 illustrations, many in colors. Philadelphia and London: W. B. Saunders & Co., 1901. Cloth, \$6.00 net.

Dr. Senn's great work has been awaited by the profession with much interest, for it represents the practical operative experience of the author for the last twenty-five years. The book deals with those sections of surgery that are of special interest to the general practitioner. The author has aimed to simplify those subjects that come within the legitimate sphere of the daily routine work of every practising physician. Special attention is paid to emergency surgery. Shock, hemorrhage and wound treatment are fully considered. All emergency operations that come under the care of the general practitioner are described in detail and fully illustrated.

The section on Military Surgery is based on the author's experience as chief of the operating staff in the field during the Spanish-American war, and on his observations during the Græco-Turkish war, thus adding materially to the value of the book as a guide to practice. The book is in all respects well adapted for the needs of advanced students, surgeons and general practitioners. Dr. Senn is well known in Canada, not only as a broad-minded surgeon, but also as a great teacher of surgery. We can assure his many admirers that a careful perusal of this book will not result in anything like disappointment. His practical, common sense method of putting things will, we are sure, be highly appreciated by all.

Selections.

SURGICAL HINTS.

In bad injuries of the fingers, in which you consider rest essential, it is often best to splint the hand and whole forearm, as nothing else will induce certain patients to keep the limb quiet.

To remove foreign bodies in the ear, dip the end of a camel's hair brush in glue and leave it in position against the body. When dry after a few hours, pulling upon the brush will remove the whole thing.

Sterilized oil and liquid vaseline are the best lubricants for steel sounds, which should be dipped in them as far as possible. The use of semi-solid lubricants is unadvisable because they cannot be well kept sterile, and because they may be wiped off by the urethra in great part, leaving the unlubricated surfaces.

In fractures of the head nothing but an antiseptic dressing, if the scalp is torn, is allowable, unless there is evident depression of bone or there are brain symptoms evidently pointing towards compression. And in the latter case no surgical attempts are permissible unless it is certain that the compression has taken place in an accessible region.

When passing a stomach tube upon a refractory patient, as in many cases of attempted suicide, a mouth gag is necessary. If a regular instrument is not at hand, cut a piece of wood sufficiently wide to distend the mouth when placed over the molars. In the middle of this make a hole large enough for the tube to pass through, and push the latter firmly down.

In most cases of vaginismus, if the surgeon looks carefully, he will find some lesion of the mucous membrane which seems to bear a causative relation to the existence of the trouble. It is either red and erythematous, or there are little fissures or tears, or protruding spots made by inflamed pupillæ. Forced dilatation of the vagina with local treatment for the lesions will give the best results.—*International Jour. of Surgery.*

Rupture of the Heart.

Jolly (*Independ. Med.*, July, 1901) reports a case entering the Hotel Dieu with symptoms of respiratory embarrassment for some days, but showing only some slight pulmonary congestion. Death took place two days later, while the patient was in the act of vomiting. At autopsy a distended pericar-

dium was at once visible, from which, on opening, a serous fluid exuded, followed by several laminated ante-mortem blood clots. On further examination a small depressed area, with a distinct fissure 4-6 mm. in length, was found in the left ventricle quite near the apex. The fissure communicated freely with the left ventricular cavity. The heart muscle showed an advanced condition of fibrous myocarditis, the fissure seeming to exist in one of the numerous fibrous patches.—*International Medical Magazine*.

Urotropin in Intestinal Decomposition.

Prof. E. Loehisch, at a recent meeting of the Medical Society of Innsbruck, gave the results of his experiments upon the use of urotropin in intestinal decomposition. Loehisch found quite accidentally that the drug inhibited intestinal fermentation, through his failure to find indican in the urine of patients taking urotropin. He showed by tables prepared by his assistant that the indican decreased *pari-passu* with the amount of urotropin administered; but in inverse ratio; until finally it disappeared altogether. He then endeavored to see whether this property could not be utilized therapeutically. It is well known that indican is increased in the urine in obstruction of the small intestines, chronic wasting diseases, such as cancer of the stomach, and, in general, it is considered to indicate disturbance of the normal decomposition processes of the alimentary canal. Disinfection of the intestinal canal is desirable in many cases in which agents like calomel are not appropriate; and the drugs generally used have not been found altogether practicable because, perhaps, most of them are poisons. Urotropin is very soluble in water, inhibitory to intestinal decomposition, valuable in certain urinary diseases, and is said to be harmless even when taken for weeks in medicinal doses.—*International Medical Magazine*.

Gersuny's Subcutaneous Paraffin Protheses. L. MOSZKOWICZ *Weiner Klin. Woch.*

Gersuny has now an experience of thirty cases treated by the subcutaneous injection of paraffin and the results have been invariably satisfactory. Two years have elapsed since his first experiments and the result now is the same as at first, demonstrating that the prothesis can be considered permanent. The paraffin evidently becomes encapsulated in time and persists indefinitely without change. The patient first treated—a prothesis of the testis, May, 1899, after bilateral castration—has since passed through a typhoid fever with temperature of 40 C. The paraffin seemed to be temporarily much softer at this time. Otherwise the artificial testis are the same as at first. No. 2

was a woman cured of incontinence of urine due to total loss of the sphincter and urethra—already mentioned in *The Journal*. The paraffin was injected around the vesical sphincter and the ring pushed into the bladder. This forms a valve projecting inward, which has put an end to the oozing of urine which had been continuous for five years. The effect has been permanently satisfactory. Pfannenstiel failed in a similar case as he did not reduce the paraffin ring and consequently the valve opened outward, and was not water-tight. He injected paraffin with a melting point at 45 C., which is much too high, as it can not be injected unless it is hot, and this favors its absorption and is liable to cause pulmonary embolism, which, in fact, did occur in his case. In patients Nos. 3 and 4, paraffin was injected into the palate or roof of the mouth to close a defect interfering with speech. Nos. 5 to 8 were injected in the anal sphincter to close a cicatricial defect in the sphincter left from a periproctitic abscess or extirpation of a rectal carcinoma. Prolapse of the rectal mucosa was cured in one patient by injecting 10 c.c. under the prolapsed tissue. His artificial anus was also rendered continent for the first time by the injection of 6 and later of 8 c.c. of paraffin around the orifice, partially closing it. The anus is thus rendered continent and the desire gives ample warning, but hard stools require some effort to void them. Nos. 9 to 11 were patients with hernia who refused operation. By the injection of a ring of paraffin around the hernia, an internal pad was formed, which supplemented the action of the truss and kept the hernia definitely under control. The paraffin injections have also proved useful in operations on the joints to prevent ankylosis, as the unabsorbable substance interposed between the articulating parts, prevents their growing together. Gersuny added a disinfectant to the paraffin for these cases, and after the joint had completely healed he removed most of the paraffin by puncture. In a case of resection of the upper maxillary bone, a violent neuralgia appeared in the domain of the trigeminus, requiring resection of a portion of the second branch. In order to prevent the regeneration of the nerve, 2 c.c. of the paraffin were injected. The patient has been completely cured since. In the balance of the thirty cases, the paraffin was injected to cure deformities, usually of the nose consecutive to syphilis or trauma. In another patient the paraffin was injected to remedy a defect in the cheek from an operation, first detaching the parts from the bone beneath. The paraffin was also injected in a case of extensive pitting from smallpox. Gersuny injected for this purpose a mixture of four parts olive oil to one part of the paraffin. This caused the tissues to swell, but after the olive oil had been absorbed, the cicatrix was left level with

the surrounding skin, from which it was distinguished only by its smoothness. A young girl was injected with 65 c.c. of paraffin to remedy the cicatricial retraction of the thorax left after resection of several ribs on account of an empyema. The cosmetic results have been most satisfactory in every case. There have been no inconveniences of any kind and the results persist indefinitely the same as at first. The technique which Gersuny follows and which he claims is the only safe method as determined by his experiences in the clinic and by experimental research conducted under his direction, is as follows: The paraffin or unguentum paraffini must have a melting point between 36 and 40 C. This is a soft salve at the temperature of the room and is nearly fluid at that of the body. This soft, yielding body does not irritate the tissues but usually heals in place without reaction and can be palpated as a doughy mass at first, gradually growing harder, until after two months it feels cartilaginous from the proliferation through it and the encapsulation by connective tissue. Intense edema appears after injections in the scrotum or eyelids. In one case some of the vaseline had to be removed on this account. The vaseline is heated to boiling and then cooled by standing the dish in cold water. The syringe is filled while it is still warm and fluid, but it is not injected until it has cooled to the temperature of the room when it emerges like a worm from the point of the fine needle. Embolism from vaseline of this consistency seems to be impossible as there is no absorption as of a fluid. In loose tissue the vaseline must be protected from pressure and muscular movements to keep it at the desired point. In compact tissue a place must be made for it by a previous infiltration anesthesia and only a small amount should be injected at a time. In injecting paraffin to correct a deformity in the nose, Gersuny inserts the needle from the bridge of the nose down to the tip and injects the paraffin as he gradually withdraws it. When the entire framework of the nose is destroyed, the paraffin must be injected also under the *alæ nasi*. In injecting cicatricial tissue, if the needle is inserted too close to the surface a visible reaction follows and the parts become red for three or four weeks. The exact melting-point is determined by coating the bulb of a thermometer with the vaseline and then placing the thermometer in water gradually heated. After it melts and floats on the surface of the water the temperature of the cooling water should be noted when the transparent drops become opaque once more.—*Jour. Amer. Med. Asso.*