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CANADA

MEDICAL AND SURGICAL JOURNAL.

ORIGINAL COMMUNICATIONS.

Case of Dislocation of the Femur Downwards and Forwards into the Thyroid Foramen – Successful Reduction after Eight Weeks —Recovery with Useful Limb. By A. DIXON WAGNER, M.D., C.M., Dickinson's Landing, Ontario.

On the 4th January, 1873, I was requested to see a little girl aged ten years, who was represented as suffering from rheumatism. The chief seat of pain was in the left thigh. There was no swelling, but she complained of a dull aching in front and about the junction of the middle. with the upper third of the thigh. On examination in the standing position, the left thigh was flexed and abducted, the heel raised from the floor, the limb was advanced, the toe pointed outwards and forwards, the body was inclined forwards towards the affected side, and on rotating the limb the round head of the thigh bone could be felt distinctly in the thyroid foramen. There was considerable flattening of the hip, the trochanter major was not as prominent as on the other side, and the adductor muscles on the inside of the thigh were rigid, the limb was lengthened 1¼ inches. There was considerable immobility, but the child could walk and bear the weight of the body on the limb, the gait, however, was awkward, and she limped badly.

The previous history was as follows: J. B., aged ten years, a spare but well-nourished child, while returning from school on the 12th November, 1872, attempted to jump across a pool of water, the left leg being in advance, she slipped, the left ankle turned under her and she fell heavily on the left hip. She was considerably jarred and was unable to rise, the left leg was out from the body and she could not bring it on a level with the other side. With assistance she managed to get on her feet and succeeded in reaching home, though with some difficulty. During the ensuing week she was unable to get about, but on the sixth day after the accident, or on the 18th November, she returned to school, walking half a mile with much inconvenience and some pain. At the

end of a week the pain in the hip was so considerable that she remained at home, but was not confined to her bed. Matters were allowed to progress without professional advice up to the 4th January, seven weeks and four days after the accident, when I was requested to treat her for an attack of rheumatism. I informed her friends of the nature of the injury, and appointed the following day, when, with the assistance of my father, W. H. Wagner, M.D., I purposed attempting reduction of the dislocation.

January 5th.—The patient was thoroughly placed under the influence of chloroform, and the round head of the bone was satisfactorily made out in its abnormal position. As there was great fixity of the limb it was decided to make use of the pulleys. This was done in the usual lateral method. After continuing the extension for some time the ankle of the affected side was grasped and the limb strongly adducted in a plane beneath that of the sound limb. These efforts were continued for some time, but without effect. Fearing that reduction was not likely to take place, this method was relinquished and rotation resorted to. The left hand grasping the limb below the knee and the right the ankle, the leg was carried round in the usual way and rotation inwards practised, but without success. This was repeated several times, but not wishing to excite much inflammatory action we desisted. On examining the limb we found that mobility was greatly increased, eversion somewhat diminished, and with slight force the heels could be brought together. This, I supposed, was due to the rent in the capsule being enlarged; or, that the anterior fasciculus of the Y ligament had been ruptured.

The following day a second attempt was made. On this occasion extension was made from the ankle, while a strong piece of cotton was passed around the upper part of the thigh and over the shoulders of an assistant who made strong lateral traction. Adduction was simultaneously practised, but without effect. After both attempts the little patient suffered considerable pain about the joint, and morphia had to be given to obtain rest. After a consultation with the friends it was decided to make one more trial and to procure further surgical assistance. With this end in view I telegraphed my friend Dr. G. E. Fenwick, of Montreal, and he came up on the following Thursday, 9th January, when reduction was effected in the following manner: A wet towel was placed on the limb above the knee, to which the pulleys were attached. A sheet was passed between the thighs and fastened over the shoulders on the sound side. A strong jack towel, through which one end of the sheet passed, encircled the limb at its upper extremity. All being now ready, chloroform was given, and when

the little patient was thoroughly under its influence, traction was made in the direction of the axis of the limb, that is downwards and outwards. The jack towel, over the shoulders of an assistant, forcibly drew it outwards from the body, at the same time the limb was forcibly adducted, the towel in the groin acting as a fulcrum. After some little time the bone slid into its socket with a slight jar, which was distinctly felt but not audible. After removal of the apparatus the appearance of the limb had materially changed. The trochanter was as prominent on the one side as the other, the head of the bone could no longer be felt in the thyroid foramen, the adductor muscles were no longer on the stretch, and the limbs were of equal measurement. The patient did not complain of pain, but said her leg was sore above the knee where the skin was slightly ruffled from the bandage; in every other respect she said she felt comfortable. As it was necessary to secure absolute rest the limb was put up on a long splint, without a perineal belt, but with a broad band encircling the pelvis.

January 10th.—Patient passed a good night; no pain or uneasiness, but general soreness; no starting of the muscles; eats well and feels comfortable.

January 14th.—Since last visit no change has occurred; everything appears to be progressing; the joint, however, is tender, as a slight blow over the trochanter occasions pain. There was nothing of importance to notice up to January 30th, when I removed the splint and examined the joint. Pressure behind the trochanter elicits pain, and a blow over the trochanter has the same result. The general symptoms remain unchanged. The splint was reapplied for the purpose of keeping the joint at rest. This was kept up for a fortnight longer, when it was removed and a long splint with weight attached substituted, as I feared subsequent hip-joint trouble. The tenderness appeared to me greater than at first examination, although she did not complain, nor did her general health in any way suffer. This extension was kept up for three weeks, when the tenderness appeared to have gone. The dressings were then removed and she was allowed to leave her bed. At the time of making this report she is up and able to go out. Her general health is very good. She can walk on the limb, but it is rather stiff, nevertheless it may be reasonably hoped that in time she will regain the entire usefulness of the limb.

It may be regarded as very rare, the reduction of this form of displacement after eight weeks. Sir A. Cooper was of opinion that although dislocations of the hip had been reduced at longer periods, yet for the hip, eight weeks after the dislocation is the limit at which

surgeons should attempt reduction. There are, however, several cases on record where reduction of a dislocated hip was effected after six months, and even after twelve months.

According to a table published in Professor Frank Hamilton's excellent treatise, it would appear that reduction of dislocation of the hip has been effected twice at the end of a year, and five times at the lapse of six months. These cases were instances of dislocation of the femur upwards on to the dorsum of the ilium. It appears to be the generally received opinion, however, that dislocations of the hip, if reduced after a lapse of two months, are exceptional. Sir William Fergusson has never seen a successful attempt beyond the period of three weeks, but he considers it advisable to make the attempt and resort to all reasonable means at a much longer date. We must bear in mind that long-continued or repeated attempts at reduction in old dislocations have been followed by various disasters, such as fracture of the neck of the femur, inflammation in and around the joint, suppuration, rupture of blood vessels, and even fatal peritonitis, or death from irritative fever.

The success of this case has induced me to publish the results, which are gratifying to myself and, I feel, of value to the profession.

DICKINSON'S LANDING, April 17th, 1873.

Case of Cerebral Apoplexy—Death. By Dr. W. B. BURLAND.

(Read before the Medico-Chirurgical Society.)

On the evening of the 6th March I was called to attend Mrs. S. Upon entering the room I found her lying on the floor in a comatose condition. The facts of the case are these: She had risen that morning feeling quite well, and had gone about her household duties as usual. While at supper (7 o'clock) her son observed that she suddenly ceased to take part in the general conversation and appeared to him, for the moment, to be "taking a nap," as she was in the habit of doing; her head was thrown forward upon the chest, and she was reclining in her chair. Her son asked her if she was going to sleep so soon. Receiving no reply he spoke louder and, finally, shook her; but still to no purpose. Feeling alarmed for his mother's condition, he immediately came for me, and during his absence the other members of the family had placed the patient upon the floor. From her previous history I noted the following: That she had suffered from rheumatism; that she frequently complained of pains at the lumbar region, and as a female member of the family expressed it, "she was fre-

quently troubled with gravel," for which she used to take sweet spirits of nitre; she would, moreover, at times complain of a fulness in the head, with great pain referable to the parietal region, and this was followed by more or less stupor and inability to comprehend (for the time being) what had been said to her; at other times slight emesis would succeed these head symptoms; she would, on such occasions, remain in bed for one, two or, perhaps, three days, and return to her avocations in apparently excellent health; her appetite was very good, but she suffered considerably from indigestion and constipation, frequently going for three, four or five days without having a stool. In stature she was large and broad-chested, with neck proportionately large, but not unnaturally short; she was fifty-four years of age. In my opinion, she was rather of the phlegmatic than plethoric habit.

At my first examination I found the pulse soft, slow, and compressible—beating at 58; face pale and natural; pupils contracted, with the eyeballs fixed; there was also considerable emesis, of the appearance and consistence of coffee grounds, and she had micturated and defecated involuntarily. I regret to say that I was unable to obtain her urine. At this stage I failed to perceive any evidence of paralysis. Finding the patient in this critical condition I called Dr. Roddick in consultation, who promptly responded to my request. Before Dr. Roddick arrived she had a convulsive attack which lasted a few seconds, and was followed, for some time, by an increase in the heart's action; the pulse now being full and bounding; the face presented no alteration in colour, neither did it exhibit any marked evidence of paralysis (the spasmodic contractions of the muscles being symmetrical), and the pupils were now contracted to about the size of a pin's head; there was no strabismus; spasmodic action of the diaphragm, evidenced by hiccough, continued for some time after the attack, or rather until gastric irritation was relieved by vomiting. Now, for the first time, the respiration became stertorous and remained so for a few minutes, when, gradually losing its pitch, it became much hurried. I now found the pulse beating 60; respirations, 32; the pulse-respiration ratio being thus considerably disturbed. The temperature, which was, of course, increased with the circulation, now became much lowered, and a clammy sweat bedewed her body. I deemed it advisable to administer a stimulant, and ordered 1 ounce brandy, which she swallowed quite readily, thus showing no impairment in the power of deglutition.

Shortly after this Dr. Roddick arrived. Hearing from her friends of her rheumatic history, we carefully examined her heart, but found nothing to indicate an abnormal condition of that organ.

With the somewhat imperfect history of the case obtained from her friends, and the symptoms presented, the question in our minds, as to diagnosis, rested between embolism and cerebral hæmorrhage. The fact of there being no heart murmur recognised was no proof that there might not have been vegetations (small fibroid growths) on the valves, one of which might have been displaced and carried to the middle cerebral artery. Again, taking her history as a guide, and from the age of the woman, we were also warranted in the assumption that the arteries were diseased, one of which had given way in the brain, resulting in effusion of blood. Hemiplegia was now well marked, the right side being paralysed, from which we concluded that the lesion was in the left side of the cerebral mass. One circumstance which, perhaps is worthy of notice was that at times she would raise her left arm and carry it to her head, and with her hands pressing firmly against the side of her head.

At Dr. Roddick's suggestion I treated the patient on the principle of counter-irritation; applied a sinapism to the nape of the neck, followed by a blister; a large sinapism over the epigastric region; and I also administered a stimulating enema of castor oil and turpentine, with the effect of producing copious evacuations. Excepting a slight increase in temperature, no further change took place till about one o'clock, when she again had slight convulsions, just sufficiently long to enable me to discover paralysis of the left side of the face. The symptoms succeeding this attack were very characteristic of approaching dissolution. The heart's action became tumultuous; the pulse hard and full, but very irregular; the respiration exceedingly harsh, and she evacuated the contents of her bowels profusely. The reactionary stage now set in rapidly; the pulse became soft and thready; breathing much laboured, the respiratory muscles acting forcibly, and the temperature of her body fell considerably; the pupils were dilated and quite insensible to light. In this condition she remained until about half-past three o'clock, when she died comatose, thus having been for a period of nearly nine hours unconscious.

Having formed the opinion that the case was one of cerebral hæmorrhage, I was anxious to satisfy my mind as to the correctness of my view, and accordingly, although with considerable difficulty, I prevailed on the family to permit a post-mortem examination. The results of the autopsy, at which Drs. Roddick and Bull kindly lent their assistance, are, in so far as we were enabled to proceed, herewith submitted:

Thirty-two hours after death rigor mortis was not well marked. On removing the calvarium, which was firmly adherent to the

dura mater, the latter was found intensely injected, so that its entire surface was covered with points of bleeding veins; the membrane was also dark, and the surface of both hemispheres was covered by large veins gorged with blood; the arachnoid membrane was thickened and dull in appearance, with effusion of serolymph beneath it. At the base of the brain the sub-arachnoidean spaces were filled with serum in which flocculi of lymph were floating. On making a section into the left hemisphere, in the position of the centrum ovale minus, the punctæ vasculosæ were noticed to be very large and injected. In the attempt to demonstrate the lateral ventricle the knife revealed a dark substance which on further investigation proved to be a blood clot. This latter was found to occupy the entire lateral ventricle, besides having broken down by its pressure a large portion of the matter surrounding the ventricle. The clot was firm, but very dark in appearance, and extended even through the midline into the ventricle of the opposite hemisphere. On the right side nothing abnormal was discovered excepting the intrusion of a portion of the clot as above described. We examined carefully, and afterwards removed the entire circle of Willis, with the hope of finding the ruptured vessel, but without any very satisfactory result. The arteries were, however, extensively diseased, plates of atheroma being scattered here and there over their surfaces. I saved the entire circle and beg to submit it for your inspection.

To be obliged to desist at this stage of the examination was no less mortifying to us than it will be a disappointment to you; but the wishes of the friends had to be acceded to, as they were determined that we should proceed no further. We could not even gain access to the bladder, by which we might have added another link to the evidence, by obtaining a specimen of the patient's urine. We were most anxious, besides, to obtain a view of the kidneys, which, perhaps, would have resulted in the discovery of fibroid disease of those organs. The valves of the heart, too, might have added considerably to the interest of the case, for although, as I have stated in a previous part of my report, there was no valvular murmur discovered, still there might have been some evidence of atheromatous disease in the heart itself, or the vessels immediately arising from the heart.

Right Hemiplegia with Aphasia. Reported by T. G. Roddick, M.D., House-Surgeon, Montreal General Hospital.

(Read before the Medico-Chirurgical Society.)

G. D., aged 62, jail-guard by occupation, was admitted into the Montreal General Hospital on the 14th January, 1873, under the care of Dr. Howard, being recommended by Dr. Scott. Is a short, stout man, hair and whiskers grayish, ruddy complexion, short neck, limbs muscular; has never indulged in spirits or malt liquors for twenty-two years. On the morning of Saturday, (January 11th), preceding his admission to hospital, he came from the jail, as usual, to breakfast at his own house. His wife noticed that the juice of the tobacco he was chewing was constantly trickling out of the right corner of his mouth, which she remarked more particularly on account of his ordinarily very cleanly habits. While at breakfast, also, the coffee he drank would run out of the same corner of his mouth and annoy him incessantly. At 11 a.m. same day he tried to split wood, but the axe was constantly flying from his grasp, and when he made a blow at the billet his right leg would give way under him, and he staggered and almost fell several times. At dinner he was much worse than in the morning, and could not bring the knife to his mouth without the assistance of the left hand. He persisted in going on duty at 2 o'clock in the afternoon, and while pacing the jail yard was seen by one of the prisoners to fall as though struck down. When found he was deeply insensible, and made no attempt to speak for an hour, at the end of which time he was removed to his residence. When spoken to he would invariably say "yes" to every question asked, and when any reference was made to his condition he pointed to his head, and altogether appeared to understand all that was said to or of him. He remained precisely in this condition until his admission to hospital three days after the attack. Up to this time he has never passed water in bed, but would insist on being raised when requiring to empty his bladder or bowels.

His condition on entering the hospital was as follows: Total loss of sensation and motion of the entire right side; the eyelids are not closed simultaneously; the tongue is protruded slightly to the right side; the leg is slightly rigid; the arm not so; he is very emotional, crying when suddenly spoken to, or when he finds he cannot speak; makes desperate efforts to articulate, but fails; evidently understands what is said to him, as he makes signs with his left hand; cannot even say "yes," as he did at first; there is now incontinence of urine, but it is difficult to keep a urinal in position on account of his restless condition; pulse 96, and regu-

lar; temperature 98¼ on sound side, and 99 4-5 on paralysed side; respiration normal.

Jan. 15.—Has been very restless all night; he is still unable to articulate, and still very emotional; the pupils are alike; the difference in power over the eyelids is more marked to-day; the leg is still slightly rigid, but not the arm; the breathing is still more laboured and stertorous, and on examination of the throat the soft palate of the affected side was found to fall loosely, not acting like the other; there was no evidence, from stethoscopic examination, of heart affection. The urine was drawn off and carefully examined for albumen, with negative result. He was asked to write his name, which he did correctly with his left hand. It was subsequently ascertained that he had been from childhood left-handed. The temperature to-day is about normal and equal on both sides; pulse 90—full and regular. Ordered Potas. Iodid. grs. v. every four hours, and a turpentine enema.

Jan. 16.—No apparent change in condition. There is still the same trouble to keep him dry, but a flexible urinal has been secured which will, no doubt, answer the purpose better than the ordinary kind. On being asked to-day to write his name he would sometimes write "George," sometimes "Davis," and, again, part of each word. When shown any object, as a watch or pencil, and asked to write its name, he invariably wrote "George," though he at once saw and appeared surprised and annoyed at his mistake. Finally he became quite impatient at his repeated failures and refused to try any longer.

Jan. 17.—Facial paralysis is much more marked to-day, and he is very restless and anxious-looking. He was placed on a water-bed to prevent the occurrence of bed-sores. The bowels are rapidly becoming tympanitic He is ordered another turpentine enema; Chloral, grs. xv. at bedtime.

Jan. 19.—Passed a very restless night and is much weaker to-day. In spite of every precaution bed-sores are beginning to form on the right buttock. He is still as conscious as before, and is evidently in no pain, but is sinking. Pulse, 118; temperature, 101¾°; respirations, 44—very laboured. Ordered a mixture containing Ammon Carb., grs. v. every three hours; Chloral, gr. xv. at bedtime.

Jan. 21.—Is rapidly growing worse; was very restless all night, crying out repeatedly. To-day he lies on his back seemingly in a semi-conscious condition, but when spoken to loudly is roused into more perfect consciousness. The bronchial secretion is rapidly collecting in the lungs as indicated by the breathing. The tongue is dry and moist and he cannot protrude it. He swallows with

great difficulty. The urine was again examined, and again found to contain no albumen. Died Jan. 22nd, at 1:15 p.m.

AUTOPSY TWENTY-FOUR HOURS AFTER DEATH.

Condition of Brain.—Membranes and surface of hemispheres normal and alike in appearance. On opening the left lateral ventricle an extensive patch of non-inflammatory softening was found extending for about an inch external to the corpus striatum of that side. The corpus itself was less firm than natural, and it as well as the softened brain substance was of a brownish-yellow colour. There was no fluid in the ventricle, and no appearance of a clot anywhere. The right side was healthy. At a subsequent examination of the arteries of the brain I found extensive atheromatous disease of their coats in places, and likewise made out the very interesting fact in connection with the case, viz., that there was a long and firm clot involving the entire calibre of the left middle cerebral artery for about three-quarters of an inch of its extent. There was also a small clot in the anterior cerebral of that same side, but soft, and near the termination of the vessel.

Kidneys—Left on the whole healthy. A considerable amount of fat in the pelvis, and the cortical portion was slightly thinned in places. The capsule could be removed with ease. Weight, 6 ounces.

Right Kidney very slightly congested, and cortex a little deficient. Weight, 5 ounces.

Heart very large; weight, 21 ounces. A large straw-coloured anti-mortem clot was found in the right auricle completely filling it, passing thence through the tricuspid orifice into the right ventricle and extending for about an inch into the pulmonary artery. The aortic valves were healthy. There was a small deposit of osseous matter around the fibrous ring of the mitral valve.

Lungs much congested, but otherwise healthy. There were old and strong adhesions on the left side binding the pleura down.

Liver, Spleen, &c., healthy.

I am in part indebted to Dr. Montgomery Jones, a graduate in medicine of this year, for the clinical facts above recorded.

Since this case was read before the Medico-Chirurgical Society I have found, from conversation with the man's wife, that she and the other guards at the jail with him had noticed, of late, many peculiarities in his manner and habits which he had not before possessed. From being of a somewhat amiable disposition he had become morose and very undecided in his movements. His memory, also, had become very much impaired, and this tended

to make him peevish and child-like. Very trifling accidents would upset his equanimity, and he failed signally in the attempt to cope with matters of any moment. He was especially grieved at his failures. This state of mind had existed for probably two months before he was finally struck down, and would lead one to suppose that the atrophic softening had been gradually progressing, the current of blood not having been completely obstructed through the artery. The atheroma present would probably favour the view of a gradual formation of clot, as minute quantities of fibrine might be from time to time arrested and separated from the general current by little projections of this adventitious growth within the arteries. There were no vegetations present on the heart valves, or, in fact, any valvular disease to account for the presence of this clot on the principle of embolism proper.

The aphasia or aphemia present might be considered the most interesting, if not the most instructive feature in the case. The theory propounded by Broca respecting the function of the third left anterior convolution found an exception in this case, as the atrophy did not extend to that point in the hemisphere. It will be seen, also, in the report of the case, that the patient was educated to the use of his left hand entirely, wherein is also an exception to the theory that the left is the educated hemisphere and, consequently, the one to which the faculty of articulate language should properly belong. Certainly the views on this subject, as generally entertained at the present day, received no fresh light from the case here recorded.

Case of Strangulated Femoral Hernia—Recovery. Under the care of Dr. HOWARD. Reported by T. G. Roddick, M.D., House-Surgeon, Montreal General Hospital.

M. M., aged 41, was admitted into Montreal General Hospital on the evening of January 17th, 1873, under the care of Dr. Howard.

Previous History.—Is a medium-sized, wiry-looking woman, dark hair, the mother of nine children, the youngest being six years old. Has never been troubled with constipation, but bowels have been regular all her life. Eight years ago she received a kick in the back from her husband, which shook her greatly, and in four or five days after she noticed a swelling in the *left groin*, which must have come on gradually, and was accompanied by little or no pain. She positively asserts that it never went away entirely, but that there has always been a little swelling in the part. Two years since it suddenly became much larger, accompanied by vomiting and

intense pain, and after fourteen hours it just as suddenly disappeared, leaving her quite well.

History of Present Illness.—During the forenoon of Thursday (16th) she was scrubbing very hard, lifting a heavy tub, &c., and about noon was seized with interior pain in the bowels, with constant vomiting and nausea. About 2 o'clock, while vomiting, the hernia again appeared, when the pain and vomiting increased. This condition of things lasted until the afternoon of Friday, 17th. when she was seen by Dr. Drake, but failing with the taxis without chloroform, she was ordered to the hospital, where she arrived at 7 p.m.

Present Condition.—On admission the vomiting still continued, but unaccompanied by pain. Dr. Howard saw her soon after and ordered her a hypodermic injection of morphia. He returned about 11 p.m. accompanied by Dr. Drake, with the intention of trying the taxis, or, if necessary, operating. Under chloroform, the former was found to be impossible, so the operation was decided on. The hernia had now lasted thirty-three hours. Pulse, 120.

Operation.—While under chloroform, Dr. Howard transfixed the skin and cellular tissue with a sharp-pointed bistowry in the long axis of the tumour, viz., obliquely from without inwards. and almost parallel to the position of Poupart's ligament. Carefully dissecting down on the director and finding he had not room, a short incision was made at right angles to the first. The sac was at length exposed and, on being opened, out flowed about ʒij. of serous fluid. The bowel was quite dark and congested, but could be returned with the greatest ease. There was little or no hæmorrhage. The edges of the wound were brought together with silver wire sutures, and the whole dressed with a large circular pad of lint, kept in situ by a strip of plaster and a flannel bandage. Pulse, 92. Ordered gruel and milk.

January 18th, 9 a.m.—Pulse 88, and regular; slept well without an opiate; free from all pain and uneasiness. Noon.—Dressings removed; all well. 10 p.m.—Pulse, 80; continues to take nourishment in small quantities; no inclination to vomit.

Janunry 19th.—Still very comfortable; pulse, 80; no pain; slept well during night; dressing changed; wound looks admirable; carbolic acid lotion applied.

January 20th.—Bowels moved during night and this morning; some pain during the motion; dressing removed; wound commencing to suppurate; removed two sutures; pulse, 78; is very comfortable.

January 21st.—Was very well up to the afternoon, when an

uneasy feeling commenced about the bowels and she began to complain of inability to pass water; her menses appeared also to-day. 10 p.m.—Dr. Howard had a catheter passed and about a pint of urine was withdrawn; considerable tympanitis.

January 22nd.—Had a motion during the night and passed urine at the same time; quite comfortable this morning; pulse, 82; wound is now suppurating freely; two more sutures removed and the carbolic dressing continued.

January 23rd, 10 a.m.—Begins to complain of pain in right inguinal region, with difficulty of micturition; pulse and temperature rose; pulse, 96; temperature, 101 2-5 °. 9 p.m.—The retention disappeared towards night, but the pain in the bowels continued; gave an opiate and applied sinapisms.

January 24th.—Quite comfortable again; pulse, 80; no pain; slept well.

February 19th.—Wound continued gradually to improve; bowels regular; discharged cured.

Strangulated Femoral Hernia of Three Days' Standing—Operation—Death. By T. G. Roddick, M.D., House-Surgeon Montreal General Hospital.

On the evening of Sunday, 20th April, I was hurriedly called to see a woman in St. Urbain street, who was represented by the messenger to be in a dying condition. On reaching the house I found that the priest had also been sent for and that no hopes of recovery were entertained by the numerous friends who crowded the house. On inquiry I made out that about mid-day of the Thursday previous the patient, a woman over sixty years of age, had been suddenly seized with agonizing pain in the abdomen, chiefly on the right side, followed immediately by vomiting, and accompanied with feeling of great prostration. She attributed these symptoms to a constipated condition of the bowels, and accordingly, towards evening, took a dose of castor oil. This, however, only added to her misery, for throughout that night and all the day following she vomited incessantly, the smallest draught of water or other fluid being ejected immediately on reaching the stomach. On Saturday morning she was advised to try a dose of Epsom Salts, which she contrived to keep down for a couple of hours, when it was also rejected. The pain, during this time, was rapidly diminishing until, by the evening of Saturday, there was simply an uneasiness remaining. Hitherto the matter vomited had been clear and watery, containing, of course, any food or medicine she may have taken; but, early on Sunday morning it

became darker, having an offensive odour, and being, in fact, stercoraceous in character. This was repeated several times during the day until, about 7 o'clock in the evening, the woman being at the point of death, it was *desirable* to seek medical advice.

I found the woman lying on her back, with the right leg slightly drawn up, a tympanitic distension of the abdomen, and the entire body bathed in a clammy sweat. The lips were bluish, extremities cold beyond the wrists and ankles, and she spoke in a whisper. I had great difficulty in counting the pulse, but made it out to be about 150, and a mere flicker. From the history of the case and present condition of the patient I at once suspected hernia, although the woman was not herself cognizant of its presence, nor had she suffered from rupture. On examination I discovered a hard, circumscribed tumour, about the size of a walnut, in the right groin, having the position and ordinary characters of a femoral hernia. Even rather rough handling of the part caused apparently no pain, from which circumstance, and the fact that over three days had now elapsed since the occurrence of the rupture, I thought it advisable not to persist in any further attempts at reduction by the taxis. Having ordered brandy and ice in small quantities, with heat and friction to the extremities, I left to seek my friend Dr. Fenwick, whom I had decided on consulting as to the advisability of an operation. We returned in a couple of hours and, after careful examination of the case, decided that operative interference was the only warranted course. Accordingly, with the additional assistance of Dr. Chipman, Assistant-House-Surgeon, and Mr. Cameron, Apothecary of the Montreal General Hospital, I proceeded to operate, the patient being first well plied with brandy and put under the influence of chloroform. An incision of two inches in length was at once made through the skin and underlying fat in the line of Poupart's ligament by transfixing a fold of these tissues with a bistoury. With the aid of a scalpel and director the sac was soon reached and the bowel within felt to be firm and resilient. With the advice of Dr. Fenwick I did not open the sac, nor was it found necessary even to nick the ligament, simple distension of the stricture with the finger proving sufficient for the ready reduction of the hernia. The parts were felt to be in easy position within the cavity, the edges of the wound were brought together by three interrupted wire sutures, and a large compress of dry lint applied and secured with a flannel bandage. Strict quiet was enjoined. Nothing to be given the patient but small pieces of ice. Half an hour after the operation the pulse was 140, and much fuller than before.

Monday, 5 a.m.—The son reports that his mother has been very

comfortable since we left; that she slept soundly for three hours, and has never vomited or felt the least nausea.

9 a.m.—Pulse 96, of comparatively good volume; extremities warm; skin moist; no pain; no tendency to vomit; tympanitis less; craves for food. I ordered a tablespoonful of milk containing half a teaspoonful of brandy to be given every half hour. She expresses herself thankful for the relief the operation has afforded and the friends are hopeful. Dr. Fenwick called about mid-day and found her in the condition just described. He could make no further suggestion as to treatment, &c.

4 p.m.—Pulse 88, but not so full as in the morning, and the hands and feet are cool and damp to the feel. She still has no pain and no tendency to vomit. The tympanitic condition of the bowels is now more marked than at any time since the operation. The face is flushed and, altogether, she is not so bright intellectually as I would like to see her. She continues to take the milk and brandy, the latter of which I ordered to be given more freely and in the form of punch.

I called again about 8 o'clock in the evening, but she was then evidently sinking, being in precisely the same condition as when I saw her twenty-four hours previous. She died, apparently of exhaustion, in about two hours.

That the operation prolonged the woman's life there cannot be the shadow of a doubt. From being absolutely *in articulo mortis* she came to be as strong as she had been during any part of the previous forty-eight hours. As will be seen by the report, she never had the slightest pain or tendency to vomit after the operation, the latter of which symptoms had been especially persistent. It may be asked: Why subject the patient, in such an extreme condition, to the fatigue and immediate dangers of so formidable an operation? Her age, too, might be seen to contraindicate such a course. But the result here speaks for itself, and was, considering the circumstances, most gratifying. The taxis, it may also be said, had not received a fair trial; but, on reflection it will be seen that too much care could not be taken in the manipulation of a knuckle of intestine in which gangrenous action had, in all probability supervened. Had the strangulation been recent we would have endeavoured to return it without operative interference.

Notes on Meteorology and Health. By THOS. D. KING.

That atmospheric changes have considerable influence on the state of our health is now universally admitted. During what has been denominated unhealthy weather, when medical practitioners have spoken of the general ill-health of their patients, circum-

stances have been remarked which denote an irregular distribution of the atmospheric electricity.

"There can be no doubt," says the editor of the *British Medical Journal*, in an able review of a published paper on the effects of meteorological facts on insanity, "that, in certain low states of health, especially when the brain and nervous system are implicated, man becomes much more susceptible of atmospheric changes than when in health. Hitherto our meteorological observations have been limited to noticing the temperature, barometric pressure, amount of rain, the direction of the wind, presence of ozone, solar and terrestrial radiation, etc., without at all providing any means for watching the variations, either in quantity or quality, of *atmospheric electricity*—an omission that is all the more remarkable when we consider how universally ozone, the product as it were of electricity, has commanded attention both at home and abroad."

As far back as 1815, Forster, in his admirable treatise entitled "Researches about Atmospheric Phenomena," says: "But though we admit the influence of atmospheric peculiarities on our health, yet the manner and extent of their operation cannot easily be ascertained. They may deprive persons, already weak, of a portion of their electricity, and thus the energies of the brain and nervous system may be diminished; or the atmospheric electricity, being unequally distributed in the air, or propagated downwards at intervals, it may occasion an irregular distribution of it in our bodies, and produce an irregularity of function. A living animal consists, as to its vital parts, of numerous nerves, which give life, as it seems, to all the parts, and compose different organs of vitality and mind, and these must have some mover. We do not know that this moving principle is *electricity*, but it seems reasonable to ascribe it to something in the air; because deprived of good air we soon die. It would be vain to inquire into the principle of life; but as good air is necessary to its continuance, so bad injures it: so to some peculiarity in its quality we can reasonably ascribe as many unknown disorders, even were there not remarkable appearances in the atmosphere at the time of their prevalence. In whatever way the nervous functions may be disturbed, a disordered action of the digestive organs will be the probable consequence; and a state of nervous and digestive disorders being once induced, other diseases may insue, to which there may be a constitutional predisposition."

There can be no doubt—all experience proves it—that those persons are most likely to be disordered by atmospheric peculiarities, who have the greatest susceptibility of constitution, and, at the same time, the greatest weakness.

The ancients thought that there was an unhealthy quality in the air which was believed to excite disorder. See Lucretius, de Rer. Nat. Lib. VI.

Again, atmospheric peculiarities have their effect upon the lower animals. There are many instances on record of epidemic distempers among animals, which have prevailed only for a time, and which seem to be referrible to the atmosphere, to wit, the "Epizootic," which proved, during the past autumn, so fatal to the horses on this continent.

Virgil, in Georg. Lib. III., aptly alludes to the influence of unhealthy air on animals, though not subject to some of the general causes of human diseases, such as intemperance, gluttony and mental anxiety:

——— "Atqui non Massica Bacchi
Munera non illis epulæ nocuere repostæ,
Frondibus et victu pascuntur simplicis herbæ.
Pocula sunt fontes liquidi atque exercita cursu
Flumina, nec somnos abrumpit cura salubres."

That electricity is greatly concerned in the matter there cannot be much doubt, and it is satisfactory to find that the subject is being taken up in England.

The Rev. Thomas E. Crallan, Chaplain to the Sussex County Lunatic Asylum, has found that with regard to *Melancholia*, with one single exception, that instances of augmented melancholic relapses occurred after considerable disturbance of atmospheric pressure and solar radiation, either in the same or in the opposite direction. There is no doubt left on his mind of the fact that such disturbances are always accompanied by, if not due to, *some alteration in the electricity*. He found that *ten* of these relapses occurred during thunderstorms.

Dr. Moore, of Dublin, Physician to the Cork-street Fever Hospital in that city, in a lecture recently delivered by him before the Royal Dublin Society, considers that the principal meteorological data which influence disease and death amongst the population of Dublin are, perhaps, mean temperature, rain fall, and humidity, and he treats the subject under three headings: *First*, the influence of season on thoracic and abdominal affections respectively; *second*, the influence of season on the progress of epidemics of recent years—namely, cholera and small-pox; *third*, the influence of season on four principal endemic and epidemic diseases—namely, measles, whooping-cough, scarlatina and fever.

The lecture entitled "Meteorology in its Bearing on Health and Disease," is worthy the study of the Faculty. The practical bearing of Dr. Moore's investigations is that some of the diseases

under consideration tend to prevail in the warm seasons of the year, particularly when there is a great excess of heat; others in the winter when there is a great excess of cold.

The practical object in alluding to meteorology in connection with disease and health is to induce the Faculty not to rest until a complete and proper series of observations are daily taken at regular intervals, say 6 and 9 a.m., noon, 3, 6 and 9 p.m., not only with the barometer, thermometer, and hygrometer, but with the electrometer.

An inexpensive and simple apparatus, made by that practical electrician Mr. Apps, of the Strand, London, can be adjusted to any house, either in the form of a conductor or of a captive balloon, with about eighty yards of gilt silk thread attached to it, and connected with one of Volta's condensing electroscopes.

Mr. Prince, of Uckfield, who has been long engaged in meteorological observations which he has published under the title of "The Climate of Uckfield, in the Weald of Sussex," remarks: "It is difficult to understand why certain animals should become so extremely sensitive to the approach of a decided change of weather. Some of them exhibit symptoms of uneasiness long before there are any visible signs, and often, too, when they have not the opportunity of going abroad. Hence it appears probable that any important change of weather is preceded by an indefinite alteration of the electrical condition of the atmosphere, the precise nature of which we are unable to determine."

Does it not become our bounden duty to attempt to determine these electric conditions? In order to do so "atmospheric electricity must be studied quite as carefully as the aërial temperature, moisture, and pressure; and, moreover, studied in connection with disease, and especially that of the nervous system."

The importance of these meteorological researches in connection with health and disease cannot be over-estimated, and yet, in the face of the ever accumulating testimony in favour not only of the speculative interest but also practical benefits of them, nothing comparatively is done in our Universities and public schools to give to students a knowledge of meteorological phenomena, such as the law of storms, the origin of cyclones, the causes of winds, the different electricities of the air, the electricities of showers, etc., and those peculiarities of atmosphere which affect the functions of organized bodies.

Medical students, in passing their examinations for the degree of M.D., are required to possess a certain knowledge of chemistry, botany, and other branches of natural history. It would not be amiss if they were required to have a knowledge of the use of the

microscope and certain instruments connected with the physical sciences, by means of which, they would acquire a power of the most valuable kind, applicable in a greater or less degree to the profession of medicine.

Coté, in his preface to the second edition of the *Principia*, 1713, says: "He must be blind who, from the most wise and beautiful contrivances of things, cannot see the infinite wisdom and goodness of their Almighty Creator; and he must be mad, or senseless, who refuses to acknowledge them."

There must be either blindness or obliquity of vision when such a study as meteorology is so utterly neglected by the Faculty, when we see the discoveries which philosophers are daily making relative to the extensive operation of the electric fluid, whose agency is concerned in producing every change in the Universe.

Correspondence.

I wish to draw attention to some erroneous statements which appear in Dr. Fenwick's medical journal concerning remarks upon Dr. Ross' case of meningitis.

The one point I brought before the Society at that time was concerning the nature of the meningitis, and from the history and post-mortem appearances I then thought, and think still, that it is questionable if it was a case of tubercular meningitis. I did not question the presence of pleurisy, but said that while at Quebec the man most probably had pneumonia, and that the history and post-mortem appearances of the lung inclined me to the belief that that organ was destroyed from that cause and not from tubercular softening, and that pneumonia was the chief factor present, without excluding pleurisy. I took occasion to clear up an ambiguity by remarking to Dr. Ross, *during his reply*, that I did not call in question his remarks concerning the presence of pleurisy, and that he had misunderstood me upon that point; so far, therefore, as concerns this subject, Dr. Ross' remarks in refutation are mere idle words spent in destroying an imaginary creation of his own mind The real question is: Was the meningitis tubercular or was it not tubercular? That this question is a debatable point seems clear enough to me from the fact that *no tubercle was present in the meninges*. The presence of tubercle in other parts of the body does not affect the question in the least, even had the middle lobe of the right lung been destroyed from tubercular ulceration, which, by the way, was not the case.

Now, as to the President, Dr. Howard's remarks, that "he could not comprehend that any one familiar with pathology could question the tubercular nature of the meningitis," he surely cannot be unaware that the greatest of pathologists differ as to what tubercle is, and that it is difficult, if not impracticable, to distinguish tubercular growths from the products of inflammation," and that "the theory that tubercle is the result of exudation and deposit is now abandoned," and surely the appearances of the deposit upon the meninges in this case was the result of an exudation, and not an "outgrowth from lymphatic tissue." The inflammation of the meninges was not basilar, but rather to the side and base on which the otitis existed, and "it is not an admitted fact" that "basilar meningitis, with central *softening* of the cerebral substances, proves the tubercular nature of the meningeal inflammation." If Dr. H. will kindly give his authority for these statements I shall be happy to bring before the Society authors which support the views I now advance.

To return to the case in question I would merely state, in conclusion, that *all the writers* I have consulted state that *tubercular granulation in the pia mater is* ESSENTIAL to the disease. "The anatomical lesions are miliary tubercles, gray, round and flat bodies on the surface and in the meshes of the arachnoid, 2-5th to 4-5th of a line in diameter, and can be felt as granular bodies. Often these tubercles are clustered around small arterioles of pia mater, but are more abundant at the base of the brain, optic chiasm and Fissure of Sylvius."

Aitken says, "The *essential* morbid character is tubercle on the pia mater in the shape of gray or miliary tubercles."

So much for the tubercular aspect of the case; and now we will see what Troltsch says about otitis, and how far it supports the theory I advanced as to the nature of the case under discussion. He says that as the brain and cerebellum lie close to the auditory canal, a thin, osseous diplöe—containing air—alone intervenes; that meningitis frequently occurs from inflammation of the auditory canal, without caries of the bones or perforation of the membrana tympani, and records a case of death from meningitis thus induced which occurred in Toynbee's hands, and another similar case in the hands of Sir William Gull.

I have made these statements in defence of what I believe to be the truth, and also in self-defence. I have not wished, and do not wish, to hurt the feelings of any one; but, as our object is mutual improvement, I have fearlessly criticised whatever has come before me, and shall continue to do so as long as I remain a member of the Society, I wish to enter my protest against unne-

cessary and vindictive misrepresentations, as well as harsh and abusive remarks about the views of others. We have so much yet to learn that we can afford to treat the views of honest *confrères* with charity.

E. H. TRENHOLME, M.D.

[Dr. Trenholme has thought proper to call in question the accuracy of the report of the proceedings of the Medico-Chirurgical Society which appeared in the last number of this journal. We are constrained in self-defence to state that the report is in every particular correct. This we have from the evidence of gentlemen who were present and listened to his statements, which were, to say the least of them, wild and undigested. When gentlemen make a wholesale onslaught on a paper and differ in opinion with the reader of the paper on questions of fact, they should not feel aggrieved if a fair and honest report is made and published, although it may make them appear somewhat ridiculous. With regard to the question of the pathology of tubercle we leave it to those interested in the subject to notice the position assumed by Dr. Trenholme, but we cannot agree with him in the views he advances as bearing on the particular case under discussion. Dr. Trenholme considers that the report published by us was calculated to injure him professionally, but he forgets that his observations, made in anything but a disingenuous spirit to elicit truth, were calculated to do injury to a fellow practitioner. If Dr. Ross, in bringing before the notice of the Society a case of rare interest, is to be called to account for the accuracy and truthfulness of his statements, and a theory allowed to be propounded which is not consistent with the facts as observed, the propounder of such a theory cannot reasonably complain if his theory is shown to be erroneous.—ED.]

INFLUENCE OF BELLADONNA ON SWEATING.

In some interesting communications to *The Practitioner*, Dr. Sidney Ringer brings forward an abundance of evidence to prove that belladonna and its active principle are able to check and prevent sweating, whether the result of disease, or induced by exposure to an elevated temperature. In the former case his observations enabled him to conclude that one two hundredth of a grain of atropia injected under the skin is generally sufficient to check sweating for one night. This dose produces dryness of the fauces, but does not dilate the pupils. Stramonium, it was found, is able to exert the same influence.

Reviews and Notices of Books.

The Science and Art of Surgery; being a Treatise on Surgical Injuries, Diseases and Operations. By JOHN ERIC ERICHSEN, Senior Surgeon to University College Hospital, and Holme Professor of Clinical Surgery in University College, London. A new edition, enlarged and carefully revised by the author. Illustrated by upwards of seven hundred engravings on wood. Vol. I. pp. 781; Vol. II. pp. 918. Philadelphia: Henry C. Lea. 1873.

This is a new American edition of Mr. Erichsen's well-known work on "The Science and Art of Surgery," published by the author in the United States, and is, therefore, not a reprint of the last London edition. The author remarks in his preface: "The "favourable reception with which the 'Science and Art of "Surgery' has been honoured by the surgical profession in the "United States of America has not only been a source of deep "gratification and of just pride to me, but has laid the foundation "of many professional friendships that are amongst the agreeable "and valued recollections of my life. In consequence of delays "that have unavoidably occurred in the publication of the Sixth "British edition, time has been afforded me to add to this one "several paragraphs which, I trust, will be found to increase the "practical value of the work." This edition, therefore, is the very latest enunciation of the surgical opinions and experiences of the author, and is additional evidence of his industry and increasing efforts to render his work worthy of that place in surgical literature which it deservedly occupies, not only as a book for reference, but for study by practitioners of surgery. The author, although desirous of preventing any unnecessary increase in the size of the volumes, found it impossible to keep within the limits of the last edition. A considerable addition to the text has in consequence been made, though much matter that had appeared in the edition of 1869 and had become somewhat obselete was struck out. Several chapters have been re-written; these alterations not being confined to any one section of the work; but the various subjects of which it treats have each in turn been carefully considered and revised. The illustrations have likewise undergone revision; several of the engravings have been re-drawn and about one hundred new illustrations added. The theory of the antiseptic treatment of abscess and wounds is so in accord with our own experience on this point that we cannot forbear calling attention to it. Mr. Erichsen, in speaking of suppuration and its

causes, observes: "We see suppuration take place in subcuta-
"neous wounds and in other situations (as boil and whitlow) into
"which no air has been admitted," in consequence "we cannot
"look upon the atmosphere as being either directly or indirectly
"the sole occasioning cause of this action." Our author goes on to remark that "it must be referred, in such cases, to the influ-
"ence of other agencies, amongst which certain morbid conditions
"of the blood, constitutional derangement of the patient, and
"intensity of inflammation are amongst the more important and
"direct," and, he continues, "it is undoubtedly these disturbing
"influences that prevent the complete success of the antiseptic
"method in a certain number of cases." It is only in adopting this common-sense view that we can account for many facts which appear to controvert the germ theory and the beneficial results of the antiseptic treatment of wounds; as, for instance, the fact that has been so often observed and reported of wounds healing without a drop of pus, in which no carbolic acid solution of any kind had been employed, nor other antiseptic agent, but in which common water has proved successful and been followed by similar results. These we have often seen. Sir James Simpson attributed successes of this nature to the use of the acupressure needle. In a private letter which we received from that distinguished physician two years before his death he remarks: "Lately, Dr. Pirie,
"Professor of Surgery, Aberdeen, wrote to me that he had fifteen
"cases of excision of the mammæ treated by acupressure, ten of
"these healed without one single drop of pus." Mr. Erichsen, however, lends the weight of his experience in favour of the antiseptic method of treatment, although fully recognizing the influence for good or evil of the state of the patient's constitution in the repair of wounds. He says: "When that is healthy and pure
"the wound will readily heal under any favourable local condi-
"tions, but under none, I believe, more readily than under the
"antiseptic method." This is in perfect accord with the observations of practical men.

The division of the subjects under consideration remains unaltered in any material degree. In the first division we have discussed the first principles of surgery, the opening chapters being devoted to general considerations on operations. Here is shown the objects of surgical operations, the knowledge required by a surgeon in attempting operations. This knowledge is not alone confined to a practical familiarity with the anatomy of the human body, but embraces an acquaintance with the science of surgery and medicine. Before resorting to operative interference the surgeon should acquaint himself with the nature of the local

disease, its extent, and any constitutional complications which may preclude the possible chance of beneficial results. It becomes a principle, therefore, from which there should be no departure, that surgical interference should never be attempted for the relief of a local malady where there exists extensive viciseral lesion. The author alludes to the practice of operating in notoriously hopeless cases, with a view to giving to the patient what is termed a "last chance." This he condemns as "much te be deprecated, and "should never be followed." And he goes on to remark: "It is "by operating in such circumstances, especially in cancerous dis- "ease, that much discredit has resulted to surgery; for in a great "number of instances the patient's death is hastened by the pro- "cedure, which, instead of giving him a 'last chance, only causes "him to be despatched sooner than would otherwise have hap- "pened."

We next have discussed, in the ensuing six chapters, the subjects of amputations and disarticulations, special amputations, inflammation, suppuration and abscess, ulceration, and the process of repair. This differs somewhat from the edition of 1869. In that edition the first principles were discussed in five chapters, and in the present edition the subjects of inflammation, suppuration and abscess, ulceration and the process of repair, have each a separate chapter.

In the second division on surgical injuries the arrangement and subjects discussed are in the same order of sequence, the matter, however, has received attention and revision.

The third division includes surgical diseases. In the edition of 1869 abscess and ulcers formed the two first chapters in this division; these subjects have, however, been changed in the present edition, and are considered in the first division of the work.

In conclusion, we must accord to Mr. Erichsen the highest praise for having, independent of his previously well-earned fame as a practical surgeon of eminence, and surgical author, continued to enhance the value of a work which can, with advantage and profit, be studied by practitioner and student, and which must be regarded, as a surgical authority—unrivalled in the English language.

Contributions to Mental Pathology. By I. Ray, M.D., author of the "Medical Jurisprudence of Insanity" and "Mental Hygiene." 8vo.; pp. 553. Boston: Little, Brown and Company. 1873.

Dr. Ray has already given to the profession an elaborate work on the "Medical Jurisprudence of Insanity," also a work on

"Mental Hygiene." These were well received by the profession and are frequently quoted and referred to by other authorities on this special branch of medical science. The work before us is a collection of papers which have already appeared from the pen of the author, and been published in various medical periodicals. In his preface he states that he is induced to put these papers in a more accessible form because "the subjects they discuss have lost none of their original interest, and many of the question they present, are far from being settled"; moreover, the interest taken in the disease insanity, which possesses such important bearings on private happiness and social order, has by no means abated; the profession and the public seeking with avidity for anything that will elucidate the subject.

The work consists of twenty-two separate papers. As an introduction we have an address delivered by the author on the occasion of the laying of the corner stone of the State Hospital for the Insane, at Danville, Penn. We next have a paper on the "Causes of Insanity"—a paper which will be found in the reports of the Butler Hospital for the years 1863–4. The next four papers first appeared in the *American Journal of Insanity*. These are severally on the "Statistics of Insanity," "Objections to Moral Insanity Considered," "Doubtful Recoveries," and a chapter on "Delusions and Hallucinations." Many of the other chapters, all of great interest to the legal and medical practitioner, appeared either in the *American Law Review* or the *American Journal of Insanity*. There are excellent papers on the "Insanity of Seduced and Deserted Women," on the "Management of Hospitals for the Insane," on the "Insanity of King George the Third," and on "Shakespeare's Illustrations of Insanity." All these subjects are treated in a masterly style and are deeply interesting. We heartily commend this work to our readers; more especially will it be found of use to members of the bar as to those who are engaged in the study of legal medicine. The style is clear, condensed, and very readable.

RECEIVED FOR REVIEW.

Manual of Chemical Analysis as Applied to the Examination of Medicinal Chemicals; a Guide for the Determination of their Identity and Quality, and for the Detection of Impurities and Adulterations. For the use of Pharmaceutists, Physicians, Druggists, &c., &c. By FREDRICK HOFFMANN, Ph.D., Pharmaceutist in New York. 8vo.; pp. 393. New York: D. Appleton & Co., 549 and 551 Broadway. 1873.

Surgery.

AN IMPROVED MEANS OF PLUGGING THE POSTERIOR NARES.

By A. Godrich, M.A., M.R.C.S.

I beg to submit to professional notice an instrument that I had constructed by Messrs. Louis Blaise & Co., of 67 St. James's Street, for plugging the anterior and posterior nares in cases of epistaxis. I have long been struck by the unsatisfactory means at our disposal in dealing with such cases. There is, in the first place, owing to its large curve, no little difficulty in passing Bellocq's sound, the point of the instrument often hitching on the posterior edge of the floor of the nasal fossa. In the next place, the adjustment of the posterior plug, requiring, as it does, the passage of the surgeon's finger into the fauces, not only causes much distress to the patient, but often entails a more or less severe bite on the operator, as I have found to my cost; and lastly, when the plug is in position, the string passing from it through the mouth causes so much irritation of the soft palate and fauces, that but few patients have the courage to submit to it.

The instrument consists of a small elastic bag stretched on the end of a hollow style, by means of which it is pushed through the nasal fossa into the pharynx. It is then dilated with ice-cold water by means of the ordinary ear-syringe, the nozzle of which is inserted into a piece of India-rubber tubing tied to the other end of the style. A small piece of thread or twine tied round this prevents the water from escaping. The bag, thus dilated, is now to be drawn well forward into the posterior nares, into which, by its elasticity, it will accurately fit. The anterior India-rubber plug is next to be slid along the style (this is more easily done if the style be previously wetted) into the anterior nares, which it fits like a cork. The cohesion between this plug and the style will, I think, be suffioient to hold both plugs in position; if not, a piece of string tied round the style in front of the anterior plug will eusure perfect security.

When it is necessary to remove the plug, all that the surgeon has to do is to cut the string tied round the piece of India-rubber tubing, when the water will be expelled by the elasticity of the bag, and the instrument may be removed without difficulty.

The instrument even at its thickest end, where the elastic bag is stretched over the style, is not larger than a No. 6 catheter; and it can consequently be passed through the nasal fossa without the

least difficulty, and with very little discomfort to the patient, as I have proved by frequently passing it through my own nose. The style being made of elastic material—in fact, a gum-elastic catheter, and therefore capable of being bent to any curve required—also facilitates the introduction of the instrument. When once the instrument is in position, and quiet, it is almost impossible to tell by the sensations alone that there is any foreign body in the nasal fossa at all; the dilatation of the bag causing but little discomfort, being above the sensitive palate and fauces.

In designing this instrument, it has been my object to combine simplicity and cheapness with perfect efficiency. If I have not fully accomplished my object, I ask any one to suggest any alterations that may bring this instrument nearer to perfection, and enable us to do away with our present barbarous and unsatisfactory plan of plugging the nares—*British Med. Journal.*

ACUPRESSURE: WITH A DESCRIPTION OF A MODIFICATION.

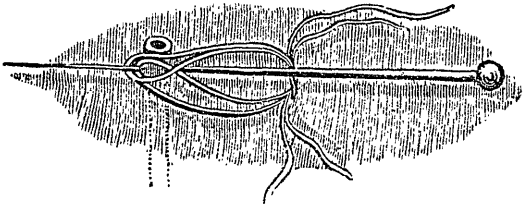
By J. C. Ogilvie Will, M. D.

Having attentively watched the progress of acupressure for nine years, during which period I have seen several thousand vessels acupressed, and having had ample opportunities of carefully comparing it with the various methods for arresting surgical hæmorrhage resuscitated or invented since Sir J. Y. Simpson's introduction of temporary metallic compression of cut vesaels, and having seen that the results obtained where acupressure has been used are infinitely superior to those where torsion, or silk, or carbolised catgut ligatures, aided by multifarious carbolised dressings, have been employed, I am naturally anxious to do anything to aid its advance. With this aim I purpose bringing before the profession a slight modification of acupressure, which will, I trust, from its simpilcity and evident security, find favour with such surgeons as are desirous of employing a hæmostatic which can be easily withdrawn when the period has arrived after which the presence of any foreign body in a wound, instead of adding to the patient's chances of recovery, must certainly militate against it.

Many surgeons, both British and foreign, have informed me that they entertained insuperable objections to the use of the wire in the method now called "circumclusion," on account of the danger of disturbing the clot, and also on account of the disturbance of the tissues caused by the "corkscrew" of wire during its withdrawal; they also stated that, as the other methods suggested did not seem to them to be sufficiently reliable, they did not feel warranted in giving up the use of the ligature in favour of acupressure.

To obviate this difficulty I now suggest, as a substitute for the wire, ligatures made of silk, well waxed and soaped, or catgut. The method of application will be easily understood by a glance at the accompanying engravings, assisted by the following short description.

Pass a pin underneath the vessel to be secured, making its point emerge a line or two on the other side of the artery; take two loops of ligature, place first one, then the other, over the point of

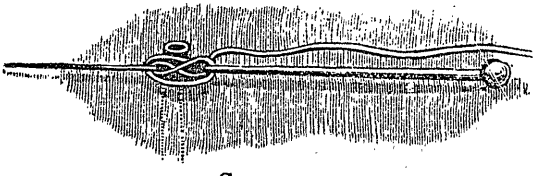


MODE OF APPLICATION.

the pin, bring them in front of the vessel, and tie by the usual surgical knot behind and a little to one side of the pin; lastly, cut off three ends, and bring out the remaining one by the side of the pin.

Two loops may seem unnecessary, but it is not so; for when only one is used, it takes such firm hold of the tissue about the vessel that, during its removal, the safety of the clot is endangered.

To withdraw: First remove the pin by a gentle twisting motion; after which, the knot being liberated, the ligature can be readily pulled out. I may here observe that the ligatures depicted in both sketches are rather more "rope like" than I intended; and in the second they appear to be less tightly drawn than would be desirable when in actual operation.



COMPLETED.

The advantages of this method are: 1, reliability; and, 2, the slight disturbance caused by the vessel and other parts during its removal. The only drawback to its use is the possibility of irritation being excited by the ligature; but as its sojourn in a wound would be of so short duration, such an objection could hardly be sustained. I would only advocate the use of filo-acupressure—if I may so call it—in the case of the larger vessels; retroclusion,

which Sir James Simpson often told me he considered the best of all modes when a pin alone was to be used, and, perhaps, torsoclusion, being employed for the smaller. I need only name these methods, as a full description of them may be found in an exhaustive paper on acupressure by Professor Pirrie in *The Lancet* June, 1871.—*Lancet.*

CASE OF LITHOTOMY, FATAL FROM EMBOLISM OF THE PULMONARY ARTERY.

By P. H. MacGillivray, A.M., Surgeon to the Bendigo Hospital.

Thomas S , aged 3½ years, was admitted to the hospital on the hospital on the 18th September. His father brought a note from medical man who had attended him, stating that he was suffering from stone, and he informed me that the symptoms had been present for two years. He was sounded the same afternoon, and a stone was readily struck.

Having arranged to operate on the 21st, a teaspoonful of castor oil was given the night before. This made him sick, and was repeated early in the morning. He was again very sick. At two the rectum was thoroughly cleared by an enema of warm water; and about half an hour before the operation a small qurntity of brandy and water was given. During the earlier part of the day he was feverish and much upset, seemingly from the castor oil; but at the time arranged for the operation he was much better, and there seemed no reason for postponing it.

The usual lateral operation was done. Some difficulty was experienced in getting the knife fairly lodged in the groove of the staff. The urethra at first cut very tough, so much so that the surgeon holding the staff remarked that he thought my knife must be blunt. As there was no escape of urine or distinct feeling of entering the bladder, the knife was run along quite to the end of the groove. The finger was then introduced, the stone at once felt, and the staff removed. The bladder was very large, and the stone rolled about so that it could not be extracted with the scoop which I first used. I then introduced a small pair of forceps, withdrawing my finger, when there was an immediate gush of urine. The stone was at once seized and extracted. A small piece of the outer layer broke off and was removed with the finger and scoop. The bladder was finally washed out. After the first introduction of the knife into the groove, there was no difficulty about the operation; and the hæmorrhage was very trifling.

After the operation, the patient progressed in all respects well. There was no sickness. and the urine soon commenced to escape

by the wound. At night the pulse was 130. As he was rather restless, he had a draught with three drops of tincture of opium. On the morning of the 22nd he was very well; pulse, 150; urine coming away freely. During the day nothing unusual was observed. He talked to me at my visit, and was all that could be desired. At the evening visit, at nine, everything was right. Afterwards, he became more restless, and another opiate (3 drops) was given at 1 a.m. He then fell asleep. He was well watched, but not disturbed, as he seemed sleeping quietly. Shortly before seven the attendant noticed that his appearance was changed, that he was pale, and breathing becoming very short and quick. When he spoke to him, he opened his eyes and recognised him. Mr. Penfold, the assistant-surgeon, was at once called, and found him dying. He thought at the time that the appearances were those of embolism. The lad died at half past seven.

The examination was made four hours after death. The operation wound was quite healthy. The rectum was uninjured. The urethra in front of the bladder was enormously dilated, and its walls thick. It had been opened for about an inch and a half by the knife. The neck of the bladder was very wide, readily admitting the finger. It was so wide that the knife, in running along the groove, had only divided the mucous membrane. The bladder was much hypertrophied. The ureters were greatly dilated, the right especially, being almost as large as the small intestine. There was some extravasation of blood about the neck of the bladder and a short distance up its left side. There was nothing about the parts concerned in the operation to in any way account for the death. On opening the chest numerous old, tough adhesions were found in the left pleura. Both lungs were congested posteriorly. The pericardium contained an unusual quantity of serum. The left auricle was filled with soft clot. The ventricle was empty. The right ventricle was filled with more consistent clot, extending into the pulmonary artery. The left pulmonary artery was tightly plugged, at its first division, by a firm, tough, fibrinous clot.

The stone was elliptical, smooth, long diameter 11-12ths of an inch, short diameter 9-12ths. It weighed one hundred and twenty grains.

This case is interesting in respect to the condition of the urinary organs, as revealed by the post-mortem examination, and as to the cause of death.

There can be no doubt that the dilatation of the urethra and neck of the bladder was caused by the stone being constantly forced forward by the childs straining in micturition, and that the hypertrophy of the bladder and dilatation of the ureters was

caused by its blocking up the urethra. When brought to the hospital the stone was in the bladder as it was at the time of the operation. The slight difficulty in exposing the groove of the staff seems to have been caused by the thick dilated urethra being pushed in folds against it.

The death from plugging of the pulmonary artery shows the necessity of carefully examining the heart and vessels when the cause of death from operation or injury is obscure. Of course no case is safe from such a contingency, and in this instance the lad progressed so favourably after the operation that there was no reason to anticipate any other than the usual favourable result of lithotomy in children.—*Australian Medical Journal.*

ANTISEPTIC INJECTIONS AND DRAINAGE TUBES IN EMPYEMA.

Edmund Andrews, M.D., Professor of Surgery in Chicago Medical College (*The Medical Examiner*, December 15, 1872), noting the great success of carbolic acid injections in arresting the purulent secretion, and consequent exhaustion and hectic of large abscesses, he determined to try it in a case of empyema, in which the patient had been stabbed in the back part of the left chest. The wound was closed, but effusion occurred, which became purulent, and discharged through a fistulous orifice, remaining after the tapping of the cavity. The opening was so small and crooked that his first effort to inject carbolated water into the fistula was unsuccessful. He then anæsthetized the patient and made a good-sized opening in the chest between the ribs where the fistula lay, and about a quart of pus gushed out. A piece of small rubber tube was inserted and tied in. Through this tube large injections of carbolated water, ten grains to the ounce, were freely thrown once a day. By this treatment the secretion of pus had been almost arrested; at the date of report, the patient was growing fat and vigorous, and was already able to take long walks. The cavity was quite small, and bid fair to be safely obliterated.

MEDICAL AND SURGICAL HISTORY OF THE WAR.

We beg to thank Surgeon-General Barnes, U. S. Army, for having sent to our address the first volumes of the Medical and Surgical History of the War of Rebellion. The Surgical History is a handsome volume, quarto size, and filled with valuable cases, fully and amply illustrated with wood engravings and coloured lithographs. The Medical volume contains reports of various epidemics which the army suffered from throughout the war, as also excellent maps. We will take an early opportunity of noticing this work more fully.

Medicine.

MEDICAL SOCIETY OF VICTORIA.

Dr. Day then read the following paper "On Ozonization of the Blood, as a Means of Preventing the Formation of Stone in the Bladder":

MR. PRESIDENT AND GENTLEMEN,—The theory I am about to submit for your consideration this evening will, if it be based on sound principles, place in our hands a much more powerful means of preventing the formation of urinary calculi than any we have hitherto possessed.

On the authority of Sir Henry Thompson, we are informed that nineteen out of twenty of the stones which are formed in the urinary passages, have uric acid for their basis; and, in all probability, the majority of such stones are primarily formed in the kidney, from whence, whilst small, they commonly escape into the bladder, where they may acquire a great size.

In Dr. Bence Jones' valuable lectures on "Pathology and Therapeutics" we find the peculiar diathesis which gives rise to uric acid deposits, classed among the diseases of suboxidation. He tells us that these are chemical diseases, some of which remain simply as such throughout their whole course—diabetes for instance—whilst others are followed by a secondary mechanical disease, and it is this secondary mechanical consequence of a primary chemical disease, which gives rise to so much suffering in the uric acid diathesis.

Dr. Jones says: "The relationship that exists between chemical disease and mechanical disease cannot be more clearly set forth than in the production of gravel or stone from errors in the chemistry of the body." Now, the error in chemistry which gives rise to the formation of uric acid gravel and stone, is imperfect oxidation of the effete tissues. In health, nearly the whole of the uric acid formed in the blood and textures is completely oxidized and converted into urea, carbonic acid and water; but when either uric acid is formed in excess, or imperfect oxygenation occurs, then this insoluble product is deposited; and thus to a primary chemical disease is added a secondary mechanical disease. The question, therefore, before us is, can we by any means render this uric acid soluble, and convert it into innocuous compounds, which may be readily eliminated from the system? I am disposed to believe that we can.

It has long been known that ozone acts chemically on uric acid,

oxidizing it, and rendering it soluble in water. My talented namesake Dr. Day, of Stafford, some years ago read a "Report on Ozone," at a meeting of the St Andrew's Medical Graduates Association, in which he says: "Ozone produces a rapid action on uric acid, causing it to be soluble in water. Upon being slowly evaporated yields yellow prismatic crystals, strongly resembling allantoin, and by a further evaporation of the water from which these crystals are obtained, a considerable quantity of urea may be procured." A very similar description of the action of ozone on uric acid is given in the last edition of "Carpenter's Principles of Human Physiology," and in most other modern works on physiology and chemistry.

Now, it seems to me that if we can bring this oxidizing and solvent property of ozone to bear on uric acid when it is abnormally present in the blood and textures, we shall become possessed of a powerful means of preventing the formation of lithic acid calculi.

For effecting this purpose the ozonic ether, or, to give it its proper name, etherial solution of peroxide of hydrogen, strongly recommends itself, both on chemical and physiological grounds, for it not only chemically acts on and dissolves the insoluble uric acid, but it also converts it into urea, the very substance into which it is converted by nature in the healthy body. The ether, by virtue of its high diffusive power, carries the peroxide of hydrogen rapidly into the circulation, where, on meeting with the blood globules, it is, by their catalytic action, transformed into ozone, which, having only a feeble affinity for the normal constituents of the blood, is free to act on uric act or any other substance which may be abnormally present.

You will naturally wish for some proof that peroxide of hydrogen really undergoes the change I have represented in the presence of blood, and I can easily show it to you.

One of the most characteristic reactions of ozone is its power of oxidizing guaiacum resin, and turning it blue. Here is a solution of permanganate of potash, which is known to contain ozone in a state which is readily set free. I will add a drop of tincture of guaiacum to a little of it, and you will at once observe a blue reaction. I will now add a drop of tincture of guaiacum to a little of the etherial solution of peroxide of hydrogen, which is known to contain active oxygen, but it is in the form of antozone—oxygen in the opposite polar state to ozone—and you will see that it is chemically indifferent to guaiacum, and produces no change in its colour. Neither does blood contain free ozone, for if it did it would blue guaiacum when added to it; it does not, however,

do so, as you may see; but on adding a drop or two of blood to a mixture of peroxide of hydrogen and tincture of guaiacum, a blue reaction at once takes place; thus showing that blood has the power of changing the condition of oxygen as it exists in peroxide of hydrogen, and giving it the properties of ozone.

I will now relate to you, as briefly as possible, the history of a patient who has been under the ozonic ether treatment during the last twelve months. He is a gentleman rather over 50 years of age, who has been a great sufferer from rheumatism, but whose health in other respects has been generally good, with the exception of a constant pain in the right kidney, which, when the new treatment was commenced, had lasted for more than a year, during which time he has been in the frequent habit of passing large quantities of uric acid gravel, sometimes in pieces of considerable size. His previous treatment, under my care, had consisted almost entirely in the occasional use of alkalies, and abstinence from sugar, pastry, beer, and wine. By these means the quantity of gravel passed with the urine was slightly diminished, but the improvement was not very marked.

The ozonic ether treatment was commenced in the early part of December last. It was given in doses of from half a drachm to a drachm, in a wineglassful of water, three times a day. In less than a fortnight the pain in the kidney had subsided, and there was an almost total absence of gravel in the urine. This treatment was continued for seven weeks, and then given up, the patient declaring himself to be perfectly well. Twice since that period the treatment has been resumed for a short time, in consequence of a slight return of the old symptoms. Although it has been my wish that he should still adhere strictly to the dietary scale originally prescribed, it has, I know, been very much disregarded. Indeed, I have constantly observed that, whilst taking the ozonic ether, he could drink ale and use sugar in moderation without their giving rise to the slightest apparent change in his urine, but on discontinuing the remedy whilst still taking the ale and sugar, the gravel quickly re-appeared in his urine.

I will conclude by suggesting that probably the debris left in the bladder after the operation of lithotrity, might be dissolved by weak injections of the watery solution of peroxide of hydrogen. Pus, which is probably always present in the bladder after this operation, having, like blood, the property of transforming the antozone of peroxide of hydrogen into ozone.—*Australian Medical Journal.*

THE LYMPHATICS OF THE SKIN.

Dr. Neumann, of Vienna, has been making a careful study of the lymphatic system in the skin, and has arrived at the following conclusions:

1. The lymphatics of the skin may be regarded as a system of closed tubes, whose walls are independent of the surrounding tissues, and are lined internally with flattened epithelium; these tubes have no orifices whatever, and consequently do not communicate with the so-called serous canaliculi, or any other similar network in the interstices; no openings exist between the epithelial cells, not even when the vessels have undergone pathological changes.

2. Of the blood and lymphatic capillaries, the former are always nearest the surface of the skin; in the deeper parts of the cutis, the branches and networks of each system intercalate with one another in an intricate way. No invagination of one lymphatic vessel within another was observed.

3. In the two series of lymphatic networks that exist in the cutis, the deeper one is made up of broader and stouter vessels. No valves or stomata are found in this situation, though in subcutaneous tissues they occur occasionally. Lymphatic tubes or loops are supplied to the papillæ.

4. The sweat-glands, hair-roots, and follicles are furnished with lymphatic capillaries. The fat lobules are similarly provided.

5. The distribution of the lymphatics varies in the different parts of the body. They are most numerous in the labia majora, scrotum, palms of the hands and soles of the feet.

6. Sometimes dilatation of these vessels is observed in parts that have undergone pathological change.

7. In ulcerative processes, when lymphatics are destroyed, they may be regenerated; when observed in cicatrical tissue, they are diminished in size.—*The Medical Record.*

CASE OF DISSECTING RUPTURE OF THE HEART.

By J. Higham Hill, F.R.C.S., Medical Officer of St. Pancras Workhouse.

The pathological interest of the following case induces me to place it upon record.

S. G. aged 65, a woman of spare habit of body, was on December 6th, while in her usual health, suddenly seized with an acute pain in the region of the heart, followed by considerable dyspnœa and vomiting. She was removed to bed, and my attention was called to her. I found her slightly collapsed, with cold extremi-

ties, breathing with difficulty and inclined to vomit. She still complained of pain in the region of the heart. On examination, I found that the cardiac action was irregular and very weak; there was, however, no murmur. She was ordered to have some brandy and Seltzer water, also a mustard-plaster over the heart, and a hot-water bottle to her feet. Under this treatment she rallied considerably; her circulation improved, and the dyspnœa, sickness, and pain were relieved. She continued in this apparently improved condition for about twenty four hours, when death suddenly took place, consciousness having been retained to the last.

On making a post-mortem examination, the pericardium was found to be full of blood, which was discovered to have escaped from the interior of the heart through a small rapture in the right auricle. The left side of the heart was considerably hypertrophied, the right side much atrophied, and the cardiac tissue generally in a state of fatty degeneration. There was no valvular disease present.

The chief point of interest in the case is, that the blood, in escaping, had not made a direct passage through the wall of the auricle, but, having broken through the endocardium and a portion of the degenerated muscular structure, had then dissected the wall of the heart for a considerable distance around into two distinct layers, and finally had broken through the outer layer into the cavity of the pericardium. Both openings were small—the external one being two inches nearer the superior vena cava than the internal one. The interspace made by this dissecting process in the wall of the heart was filled with a layer of quite recently coagulated blood. The lungs were healthy, but the liver and kidneys were in a state of fatty degeneration.—*British Med. Journal.*

OBESITY A CAUSE OF DISEASES OF THE FEMALE SEXUAL ORGANS.

According to H. Kirsch, of Prague (*Centralbl. f. d. Med. Wis.*, No. 34), diseases of the sexual organs in women are not unfrequently dependent upon the presence of an abnormal amount of adipose tissue. He bases his assertion upon the examination of 214 stout women. Of these, irregularity in the menstrual function presented itself in 208; and of these, 146 had leucorrhœa, 116 complained of scanty menstruation, and 56 of chronic metritis; 47 suffered from hysteria; 48 were sterile; 39 exhibited anteflexion and anteversion of the womb, and 11 retroflexion. The writer avers that most of these affections improve without further treatment when the obesity has been made to disappear. A course of diet somewhat like that advocated by Banting, combined with a moderate use of the waters of Carlsbad and Marienbad, is recommended.

CANADA

Medical and Surgical Journal.

MONTREAL, MAY, 1873.

THE REGISTRATION BILL.

We observe that a bill has been introduced before the Commons of Canada "to provide for the registration of marriages, births, and deaths, and for the collection and publication of Statistics." We regard this as the beginning of a new era for our country, and, if the Act, when it becomes law, is judiciously worked it will, without doubt, be of the greatest benefit. Some years since we endeavoured to arrive at some definite conclusions regarding the mortality of our country, but found that inasmuch as there was no system of registration which was in any way reliable we were unable to get anything positive, and, in consequence, relinquished the task. Hitherto a register has been kept by the clergy, but it is not correct; errors will creep in, even when the greatest care is employed to avoid them. A general registration law should be, entirely under government control, but it need not in any way prevent the exercise of the customary religious rites practised by all denominations. With many these ceremonies are regarded by believers as a matter of faith, and, therefore, cannot be interfered with; at least no law, however stringent or well administered, can supersede the carrying out of acts of faith by the people; nor is it expedient that a registration Act should possess such a tendency. In desiring, therefore, to see, which we do, the introduction of an Act which will be in its operation a civil Act, we do not in any way counsel the interference with any religious ceremony. The religious belief of the people is a matter with which the government has nothing whatever to do. The first principle of British independence is equal rights secured to all, be he prince or beggar; rights which are indisputable, and which cannot be meddled with so long as they do not contravene the law which, in the wisdom of the law-givers, is adopted for the general weal. The clergy, therefore, need not imagine that, in the introduction of a Registration Act, their customary privileges are in any way assailed. Indeed, in many parts of the country the government will be forced to seek the assist-

ance of the clergy, because, possibly, the clergyman may be the only person who would be likely to give the required information with anything like reliability.

There is one clause in the bill as submitted which, we think, requires careful consideration. We copy it in full so that there may be no misunderstanding as to our meaning. At section five it is stated: "5. Under the authority of this Act there shall be "established and carried into effect a system of registration of "marriages, births, and deaths throughout Canada, and a system "of collecting, compiling, tabulating, and publishing agricultural, "industrial, and other statistics." We cannot see what benefit is to accrue by combining the agricultural statistics with those purely vital. The latter should be separate and distinct from the former. The growth and produce of the country is of great importance. No doubt it is very necessary to show the gradual and steady increase in wealth, and the agricultural facilities of any country; for if a country cannot show a probable chance for yielding support to increased numbers in population it cannot hold out inducements in favour of emigration. But it must be admitted that unless it can be shown that emigrants, when they land, will be under as favourable salubrious conditions as they were in their own native country, they will not emigrate. These statistics appear to go together, but we fear that embracing to large an area will do more harm than good and lead to serious errors.

There is another point we would draw attention to, as it seems very odd; clause twenty-five states: "Every clergyman, every "medical practitioner, every representative of an institution, of "a corporation or company, who shall furnish to a Registrar the "information contained in sections thirteen, fourteen, and fifteen, "of this Act shall receive for each such detailed information, dictated or given in writing with attestation, to the satisfaction of "the Registrar of the subdivision concerned, and upon the certificate of the Superintendent Registrar of the division a fee of "*ten cents.*" Now, we think that this information should be compulsory, with a penalty attached for neglecting to give the required information.

Again, in the case of burials, it should be enacted that no keeper of a burial ground should, under any circumstance whatever, permit the interment of any body recently dead unless there is a certificate touching the cause of death, from a regularly licensed medical practitioner; failing such the coroner of the district should be compelled to hold an inquest; or, in other words, that no dead body should be permitted to be interred in any cemetery or burial ground except on the certificate of a regularly licensed medical practitioner, or on a coroner's order.

THE ONTARIO COLLEGE AND THEIR DIPLOMA.

In the last number of this journal we stated that many of the candidates who had passed the examinations of the College of Physicians and Surgeons of Ontario, and whose names appear as licentiates in the lists published by the College, did not possess a single document in the form of a diploma or other certificate in proof of their having submitted to the required tests. The article was copied in full by the Montreal *Gazette* and elicited the following letter in reply:

THE ONTARIO COLLEGE.

To the Editor of the Montreal Gazette:

SIR,—Permit me to state that each Licentiate of the College of Physicians and Surgeons of Ontario receives a printed Certificate of Registration from the Registrar of the College, and since the beginning of 1872 a handsome Diploma on parchment.

Yours respectfully,

L. C. P. & S. ONTARIO.

Montreal, April 15th, 1873.

It is not always wise to notice an anonymous communication. If a man fails to put his name to a document which he publishes, and which possesses public interest, the inference to be drawn is that he is not quite certain of the premises on which he grounds his argument. In this instance the assertion is dogmatic, giving the lie direct to what we had stated in our article. It is unsupported by proof of any kind. We presume the author has some positive evidence to offer; he may be one of the favoured few who has been decorated with a Diploma of the College of Physicians and Surgeons of Ontario. We possess evidence which is indisputable, of the correctness of our allegations. We showed it to the Editor of *The Gazette*, and he opened his columns to us; we preferred, however, to confine our remarks to our own periodical. We give below some few extracts of letters in our possession. For instance, one gentleman who passed his Final examination in April, 1872, in writing to us states that he was informed by the President of the College that he had passed, but "up to this date (17th April, 1873) I have not received a Diploma of any description." Another gentleman who passed this year, and whose name was published among the successful candidates, states: "I was informed I had passed by the President of the Board, but have not got anything to show for it. I suppose if I had asked the Registrar I might have got some sorry certificate. I heard that he gives a paper one for the asking, and if we pay five dollars we get a parchment certificate. As to a Diploma I do not

know of any any one who has got one." Another gentleman, writing to us under date 28th April, 1873, states: "Friday's *Globe* contains a list of those who passed the examination. I expect to receive some personal satisfaction on the subject. When it comes I shall let you know whether it is on parchment or paper."

These we deem sufficient for the purpose, and are satisfactory proof of the correctness of our statements. It is painful to have to call attention to these irregularities of a corporate body holding such an important legislative trust. We do not wish to oppose factiously the Ontario Medical Act, but we are desirous of seeing that Act fairly and honourably administered. When the Act was first introduced we did oppose the amalgamation scheme, and still we regard that portion of it as a great blunder. It is certainly humiliating to know that the profession to which we belong, and which we revere for the scientific truths which it unfolds, has, in one section of our country, been degraded, lowered, dragged through filth, and abundantly bespattered by ignorance and charlatanism. If we have written warmly we have done so honestly. No good can come of this measure. It is an act of abasement perpetrated by men whom we are bound to consider honest, but who lacked self-confidence. To justify themselves before the profession they point to the fact that no Eclectic or Homœopathic candidates have presented themselves for examination since the passing of the Act. But this has not prevented Eclectics and Homœopaths, who are unlicensed, from practising through the country. As we have elsewhere stated, no good can possibly accrue from such an unholy alliance, and the result has been just what might have been expected. The College has been associated with persons not commonly honest, and we fear that this evil communication has corrupted its good manners. We know and are sure that the majority of the men composing the Medical Council are honourable, high-minded gentlemen; yet we fear that a feeling of shame must have been experienced by some, at least, of those gentlemen, for that the irregularities connected with the management of the College have called forth public censure.

We hope that the Medical Council, at its next annual gathering, will fearlessly look into these matters and freely apply the pruning-knife wherever rottenness or incompetency exists. If this is done, and matters placed on a different footing, then, indeed, will the College take a firm stand in the right direction, and it will do that which is calculated to secure the confidence and co-operation of the profession generally. Without it, if the same condition as exists to-day is allowed to continue it cannot reasonably look for that support which, we fear, is sadly wanting at present.

COLLEGE OF PHYSICIANS AND SURGEONS OF ONTARIO —SESSION 1873.

RULES.

1. In all the subjects of examination, each candidate must write down all the questions as they are dictated by the several Examiners.

2. The answers are to be written upon one side only of whole sheets of paper, which are to be paged and fastened together in order, by means of paper fasteners, at the top left-hand corner, in such a manner as to have the first page facing outwards to the view; they are then to be folded neatly and enclosed in an envelope, on the outside of which each candidate is to write his name, and hand it to the Registrar or some one deputed by him to receive it. Neither signature, number nor sign is to be written or marked upon any of the sheets enclosed in said envelope.

3. In using abbreviations, candidates will take care to use only those which are generally understood, or which cannot be mistaken.

4. No candidate will be allowed to leave the hall after the questions are given out, until his answers have been handed in.

5. No candidate will be allowed in the hall during the hours of examination, except those actually undergoing examination.

6. Any Candidate who has brought any book or reference paper to the hall must deposit the same with the Examiner immediately before the commencement of the examination.

7. Candidates must not communicate with each other while examinations are going on, either by writing, signs or words.

8. Any infringement of the above rules will lead to the exclusion of the person who is guilty from the remainder of the examinations.

By order,

THOMAS PYNE, *Registrar.*

DAYS AND SUBJECTS OF EXAMINATION.

EXAMINATION PAPERS—PRIMARY BRANCHES.

WEDNESDAY, April 2nd, 9 to 10 a.m.—*Materia Medica and Therapeutics.*—Dr. Fulton.

1. Name the natural order of plants to which colocynth belongs, and give the composition of its principal officinal preparations?

2. What are the contra-indications to the use of opium? Give the principal alkaloids obtained from it; their doses and modes of administration?

3. Give the formula, mode of preparation, use, and ordinary dose of each of the following: chloroform, iodide of potassium, acetate of lead and strychnine?

4. Under what circumstances would you prefer a direct to an indirect emetic? State your reasons for that preference?

WEDNESDAY, April 2nd, 3 to 5 p.m.—*Physiology.*—Dr. Lizars.

1. What are the functions of the foramen ovale in the fœtus, and the results of its non-closure after birth?

2. What is the use of the cerebro-spinal fluid?

3. Describe the different kinds of muscle and their nervous supply?

THURSDAY, April 3rd, 9 to 11 a.m.—*Theoretical Chemistry.*—Dr. Sangster.

1. Explain the meaning of the terms "latent heat," "specific heat," and the "mechanical equivalent of heat"?

2. Describe the different compounds of S. with O., H. and C., giving the name, formula, molecular weight, preparation and properties of each?

3. Describe the compounds of As. with O., H. & S., as in 2nd?

4. Give the formula and molecular weight, and briefly describe the preparation of the following, viz., bromine, calomel, Scheele's green, vermilion, acetic, oxalic and carbolic acids?

5. Give the formula of the sucroses, glucoses and amyloses? Describe the preparation and composition of dextrine and gun-cotton?

6. Give a brief synopsis of the chemistry of milk?

FRIDAY, April 4th, 9 to 11 a.m.—*Descriptive Anatomy.*—Dr. Sullivan.

1. How would you remove the spinal cord for examination? At what vertebra does it begin, and where does it end? How it it retained in position? Describe the roots of the nerves; their difference and place of union?

2. Give the course of the large intestine, the relations of the rectum, and name the vessels and nerves supplying the latter?

3. Trace the superior longitudinal and lateral sinuses from the commencement to the point of termination, naming the bones grooved by them?

4. Describe the formation and course of the superior vena cava and greater azygos veins?

5. In the dissection of the neck, where do you see the first

branches of the cervical plexus? What nerves form it? Trace the longest branch, giving course and termination?

6. How would you expose the internal oblique? also the muscles passing round the external malleolus? Give their attachments?

7. Where does the radial artery pass into the hand? Give its course thence to its termination, and name the two largest branches given off in the hand?

8. What parts pass through the parotid gland? Give the general distribution of those parts?

FRIDAY, April 4th, 4 to 5 p.m.—*Toxicology.*—Dr. Tuck.

1. Name the principal narcotic poisons? Describe the symptoms produced by them and give treatment to be adopted?

2. Contrast the symptoms produced by narcotic poisons with those of natural disease?

3. Describe the symptoms and treatment of poisoning by corrosive sublimate and oxalic acid?

4. Describe the mode of detecting, in organized tissues, the presence of arsenic or corrosive sublimate?

SATURDAY, April 5th, 10 to 11 a.m.—*Botany.*—Dr. Morrison.

1. Describe the elementary vegetable cell?

2. Give two definitions of a flower, one as regards its structure, the other as regards its function, and describe fully the structure and function of the anther, pollen and stigma?

3. What organs or parts of a plant afford characteristics of the greatest importance? State the difference between a natural and artificial system in botany?

4. What is transpiration? How determined?

5. Describe the reproductive organs in mosses and ferns?

6. What are the histological characters and mode of production of cork, starch and vegetable ivory?

7. Explain the nature of carbonic acid and ammonia to the nutrition of plants, and describe the effects of growing plants on the atmosphere?

8. To what order does each of the following plants belong: aquilegia canadensis, cypripedium pubescens, aconitum napellus, arnica montanum and veratrum viride?

EXAMINATION PAPERS—FINAL BRANCHES.

TUESDAY, April 1st, 2 to 4 p.m.—*Medicine and Medical Pathology.*—Dr. Wright.

1. Give definition of dropsy, its causes, treatment and pathology.

2. Symptoms, pathology and treatment of scarlet fever?

3. What pathological conditions produce colic; varieties of the disease, diagnosis, prognosis and treatment?

4. What are the characteristic symptoms of delirium; in what diseases apart from mania does it occur; what are the pathological conditions giving rise to it, and how are these distinguished and treated?

5. What are the phenomena of pseudomembranous croup, its morbid anatomy and treatment?

TUESDAY, April 1st, 4:30 to 5:30 p.m.—*Medical Diagnosis.*—Dr. Strange.

1. Symptoms of epilepsy, and how do you distinguish the actual from the feigned disease?

2. Describe the points of resemblance between chronic bronchitis and phthisis; also, means to diagnose one from the other?

3. What affections are liable to be mistaken for the hæmoptysis of phthisis, and how would you distinguish between them?

4. Give the symptoms of pericarditis?

5. Give the symptoms of cerebro spinal fever?

6. Give the symptoms of inflammatory croup, acute laryngitis and diphtheria; give the distinguishing characteristics of each?

WEDNESDAY, April 2nd, 11 a.m. to 1 p.m.—*Surgery.*—Dr. Canniffe.

1. Mention the products of inflammation; what are the characteristics of pus, its constituents, how formed, and what are the changes it may undergo in the process of elimination?

2. Give the classification of wounds, and state how you would recognize a bullet wound: what are the indications for treatment of gun-shot wounds, and what are the complications which may arise and which should be guarded against?

3. What are the surgical diseases which affect bones, and what is the difference between caries and necrosis, give causes of each disease and their proper treatment?

4. Give the difference between concussion and compression of the brain, and the diagnostic symptoms of each affection, and the treatment of each?

5. State the danger of penetrating wounds of the chest, how you would know whether the pleural cavity had been opened or the lungs wounded, and give the proper treatment in each kind of chest wound?

6. Give the causes, symptoms, pathology and different modes of treatment of a popliteal aneurism?

THURSDAY, April 3rd, 11:30 a.m. to 12:30 p.m.—*Practical Chemistry.*—Dr. Sangster.

1. Describe the purification of the different reagents required to test for arsenic?

2. How would you determine the presence, in urine, of bile, albumen, fat or chyle?

3. A metallic solution is not precipitated by HCL or H^2S in succession, but after addition of ammonia chloride and neutralization by NH^3 a precipitate is formed by adding ammonium sulphide; what metal may be present, and in each case what would be the colour of the precipitates?

4. How would you determine the presence of oxalic acid in an organic mixture?

5. How would you examine a urinary calculus and determine its composition?

THURSDAY, April 3rd, 2:30 to 4:30 p.m.—*Midwifery.*

1. What changes take place in the uterus during pregnancy?

2. Describe puerperal peritonitis, giving its common causes, symptoms and treatment?

3. How would you diagnose accidental from unavoidable hæmorrhage, and what treatment is recommended in cases of the latter?

4. Mention the several disorders of menstruation; give the varieties of amenorrhœa and the treatment of it?

5. Give the necessary steps to be taken to affect delivery in cases of arm presentation?

6. When are forceps necessary; under what precautions?

FRIDAY, April 4th, 11:30 a.m. to 12:30 p.m.—*Surgical Anatomy.*—Dr. Sullivan.

1. What muscles cause the deformity in fracture of the cervix femoris within the capsule?

2. What parts would you divide in cutting down on the subclavian artery in the third part of its course?

3. Give the relations of the thyroid gland and nerves and blood vessels supplying it?

4. What tissues are divided in resection of the shoulder joint, and what vessels and nerves are in close proximity to the incision?

5. Beginning externally, name the parts passing below Paipart's ligament and those passing under the posterior annular ligament of the wrist?

FRIDAY, April 4th, 2 to 3:30 p.m.—*Medical Jurisprudence.*—Dr. Campbell.

1. State the conditions under which alone dying declarations are admissable?

2. Wherein do the medical and medico-legal definitions of a wound differ?

3. Give the probable characteristics of medical, homicidal and accidental gunshot wounds?

3. By what circumstances would you say that drowning was the result of suicide, homicide or accident?

5. Describe the post-mortem appearances which are usual in death by lightning?

6. What medico-legal inferences may be drawn from corpora-lutea and their different appearances?

7. Define infanticide and give best means of establishing that the crime has been committed?

8. Describe the varieties of insanity?

9. Under what circumstances are doctors liable to damages in signing certificates of insanity?

10. How far does suicide render void a policy of life insurance?

SATURDAY, April 5th, 9 to 10 p.m.—*Surgical Pathology.*

1. Describe the ulcerating process in the solution of ulcerating parts?

2. Describe the two modes of development of fibro-cellular tissue for the repair of wounds?

3. Give the distinction of specific from common diseases?

4. Explain symetrical diseases. *In reference to the formative process what is proven by the phenomenon of symetrical diseases?*

5. Describe the reparative process in cases of fracture?

SATURDAY, April 5th, 11:30 a.m. to 12 m.—*Sanitary Science.*—Dr. Fulton.

1. What substances suspended in an impure supply of water are likely to produce outbreaks of diarrhœa and typhoid fever, and what on examination are the principal evidences of such injurious matter?

2. To what cause has the prevalence of goitre in certain localities been attributed?

3. Describe the extent to which the air is likely to be affected by the decomposition of bodies where intramural interments obtain, and state the evils to which a crowded population in the immediate vicinity of a cemetery would be liable?

4. What are regarded as the causes of hospital erysipelas, and what course should be adopted to limit its transmission?

5. Mention the various methods of removing sewage; indicate the best, and state the influence the construction of sewers has had on the death rate of towns?

6. State the action of water on lead-pipes commonly used in cities to supply water to houses, the amount of lead in solution deemed innocuous and the amount considered dangerous, and specify the best means to protect water and to ensure safety to consumers?

7. What prophylactic measures should be enjoined to protect from cholera, and when the disease does occur, what steps should be taken to lessen its spread?

MONDAY, April 7th.

The Oral Examinations will begin to-day at 2 p.m., and continue at the discretion of the Board till concluded.

The following gentlemen passed successfully the College Examinations:

Primary.—H. N. Beemer, N. Brewster, W. Brock, A. J. Campbell, K. H. Cameron, C. East, D. Fraser, D. B. Fraser, J. Golden, S. D. Hagle, W. T. Harris, L. D. Healy, L. J. Lennox, W. H. Lowry, C. S. Moore, N. W. Meldrum, A. McLaren, P. McLean, J. L. McDiarmid, G. Smith, and G. Shaw.

Final.—D. O. Alguire, M. I. Beeman, N. Brewster, O. C. Edwards, S. A. Ellison, C. East, E. A. Gaviller, J. Golden, S. D. Hagle, A. J. Johnson, F. W. Jackson, E. G. Kittson, H. Lang, H. T. Machell, C. S. Murray, N. W. Meldrum, A. Nichol, C. A. Paterson, J. A. Stevenson, A. H. Wright, and R. C. Young.

DR. COLLIN C. SEWELL.

At the regular fortnightly meeting of the Medico-Chirurgical Society, held on the 18th instant, the following resolutions were unanimously carried:

Moved by Dr. F. W. Campbell, seconded by Dr. G. E. Fenwick, "That this Society has learned with sincere regret the approaching departure from Montreal of their fellow-member, Dr. Colin C. Sewell. They desire to place upon record their estimation of his gentlemanly qualities and high professional abilities, and at the same time to express their sympathy with the cause which compels him to leave Montreal and the professional success that awaited him here."

Moved by Dr. Reddy, seconded by Dr. Roddick, "That Dr. Sewell be elected a Corresponding Member of this Society."

The Secretary was instructed to forward a copy of the above resolutions to Dr. Sewell.

The cause of this move on the part of our esteemed friend is, we regret to say, the continued and somewhat alarming indisposition of Mrs. Sewell. His intention is to join his family in England, and thence proceed to Australia by way of the Cape, in the hope that the protracted sea-voyage may do much towards his wife's restoration to health. With all our heart we wish Dr. and Mrs. Sewell all imaginable happiness and prosperity.

DIARRHŒA IN TEETHING.

In a clinical lecture "On the Primary Dentition of Children," by Francis Minot, M.D., Harvard (*Boston Medical and Surgical Journal*, January 2, 1873), in speaking of the diarrhœa complicating teething during hot weather, recommends the common chalk mixture, with the addition of one-fourth part of tincture of kino, which increases its astringency, and also keeps it from turning sour in hot weather. If the diarrhœa be not stopped by this mixture, one drop of laudanum may be added to a dose, but not oftener than three times a day, in children under two years old. Diarrhœa is most apt to attack children who are brought up on the bottle; hence, if the case be urgent and does not yield to treatment, a wet nurse should be procured if possible. When this cannot be done, he would strongly recommend the method of preparing the milk with arrow-root and gelatine, found in the treatise on "Diseases of Children," by Dr. Meigs and Pepper. Brandy is very useful to a teething child exhausted by diarrhœa, which should be given once in three or four hours, or oftener in urgent cases. The dose is ordinarly from five to twenty-five drops, given in milk; but if there be much prostration the physician need not fear to increase the amount.