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The Canada Medical Record.

VOL. XXII. MONTREAL, MAY, 1894. No. 8.

CONTENTS.

Original Communications.

CASE OF FUNCTIONAL MONOPLEGIA (BRACHIAL).

BY

D. CAMPBELL MEYERS, M.D., M.R.C.S. Eng., L.R.C.P. Lond.

The history taken from my case-book is the following:—

Maud B., æt. 17, unmarried, bookbinder's apprentice. Family history—father strong and healthy, mother nervous, and at times she has been very melancholy, feeling despondent about the future. At one time she would weep easily, and she now has attacks of laughter which she finds difficult to control. She had fits when a child, in which she would fall in the street. She also had St. Vitus' dance. She is the mother of nine children, all of whom are healthy except patient. Dr. Baines tells me one of these children is very small for his age, but is bright intellectually. No consumption; no insanity, but one maternal aunt childish.

Previous history.—Patient has never been strong, and always complained much of her back. She had measles eleven years ago; no fits of any kind. Menstruation began at 14½, and continued regularly till present illness.

Present illness began about seven months ago, when left shoulder got weak, and this weakness gradually extended down left arm. Patient says it came on suddenly. She went to a friend's house to tea, and while at tea she had a severe pain in the left shoulder, and she found she could only move it with pain. There was no swelling or discoloration about the shoulder. There is no history of any accident, and patient has had no worry, trouble or fright to bring it on. After remaining at home a few days the pain ceased, and she returned to work, but this she was obliged to give up in a few days owing to weakness of the left arm. Since this time she has been unable to use her arm. Her mother says she is of a very excitable nature.

Examination, Nov. 4th, 1893, showed an anæmic but well-developed girl, without any muscular atrophy. She has marked paresis of whole left upper limb. She can move it in various directions but without much force. Dynamometer gives left hand 0, right 35. Sensibility to pain is entirely absent over lower part of left hand. It

extends upwards on the back of the hand to about one inch above knuckles, and on the front it corresponds to lowest fold running across the palm. The entire hand below this is absolutely anæsthetic, including the last joint of the thumb. There is no hæmorrhage from the prick of a pin. The sensibility on the upper part of the hand and the remainder of the limb is quite normal, and the sense of location good. Triceps reflex is not obtainable. Wrist reflex present but not exaggerated. She is wholly unable to state the position of the fingers of left hand, eyes being closed. She says they are flexed when extended, and vice versa. With the eyes closed she can imitate a movement given to her left arm only approximately with her right, and in placing her left fore-finger on the end of her nose or in bringing the two forefingers together she exhibits a certain amount of inco-ordination. Left leg and foot normal as to muscular sense as well as to the sense of touch, pain and location. She says left ankle is a little weak, and that it turns over occasionally when she walks. Muscular force good, but perhaps a little less than in right leg. Knee-jerks normal. Other limbs and face unaffected in any way. Eye discs normal. No noticeable contraction of field of vision. Central vision good, and she recognizes colors well. Internal organs healthy. No headache of late, formerly she had some in frontal region. Tongue protruded straight, pulse 84 and regular. Paralysis is flaccid, and no rigidity in any part of the limb. Mother says that the paralysis has been much the same as at present for last four months. Dr. Baines, who kindly sent me the case, tells me that he passed a current of 150 milliamperes momentarily through the hand, without evoking the least sign of sensation. Nov. 7th, Dynamometer. Left hand 10 lbs., right 44. Muscular movements performed with greater force than last day. The sensibility of the hand is much improved. She can now feel pin prick on the palmar surface of hand and fingers but not on the back. The joints of these fingers can be twisted without causing any pain, but wrist, elbow and shoulder joints are more or less sensitive. Sense of weight is defective in left hand, normal in right. The muscular sense is somewhat improved. Hearing, taste and smell good. Pharyngeal reflex present. No trophic disturbances in skin of hand. No hysterogenous zones. I applied static electricity.

Nov. 8th. Dynam. Left hand, eyes closed, 5 lbs.; with the eyes open, 11 lbs. Right hand 36 lbs. Voltaic electricity shows no reaction of degeneration in the muscles, and the induced current acts normally. She says she can now feel the electric current in the hand.

In regard to diagnosis, since the disease is evidently an affection of the nervous system, its seat must therefore be in the peripheral nerves, in the spinal cord or in the brain. If in peripheral nerves we must look to a lesion of brachial plexus to explain it. The absence of atrophy, the normal electrical reactions, the absence of trophic trouble and the peculiar distribution of the anæsthesia, which is entirely different to that due to a lesion of the brachial plexus, render this suggestion untenable. If it were a lesion of the cord we must suppose it strictly limited to the anterior cornu, since no other parts of the body are distinctly implicated. An inflammation of the grey matter here, however, would certainly have led in this time to a marked atrophy of the muscles and reaction of degeneration, both of which are absent. A disturbance of sensibility and the loss of muscular sense, together with the absence of a febrile onset, quite excludes the possility of the anterior horn in the cervical region being the seat of the trouble.

We now have the internal capsule and cortex of the brain left, an affection of the medulla, pores or cerebal peduncle not requiring notice from the peculiar distribution of the symptoms. If we suppose a sudden organic lesion either in the internal capsule or the grey substance, we would naturally expect some apoplectic symptoms which are entirely wanting in the case before us. An organic lesion of the internal capsule producing a pure brachial monoplegia is a fact almost unknown. It would be necessary besides to suppose the lesion to be limited strictly to the anterior part of the posterior limb, and in this case there would be no disturbance of sensibility.

There now remains the grey substance or the subjacent part of the cerebrum ovale to be considered. A lesion here sufficiently severe and strictly limited to the middle

third of the ascending frontal and ascending parietal convolutions would undoubtedly have, as a consequence, a brachial monoplegia, but such a monoplegia in a pure form, without any implication of the face, tongue or leg at any time is almost as rare as a lesion producing the same effect in the internal capsule. Besides, such a lesion must be followed by secondary degeneration, which would be marked clinically by a certain degree of contraction in the affected arm, and also by an exaggeration of the tendon reflexes, both of which are absent in this case. Further, if we suppose the lesion limited to the middle third of the Rolandic area alone, how are we to account for the *marked* sensory disturbances here met with?

A consideration of these facts, together with the history that for the past four months the patient's condition has remained *in statuo quo*, and also in view of the fact that her condition has suddenly improved (within the past three days) both in regard to the diminished extent of the sensibility and the increased force of the grasp, shows, I think, that the case is one of a functional nature, cerebral in its origin.

We at once come to the question, should we not use the term hysterical rather than the more extended one of functional monoplegia? In regard to this question the researches of the late Prof. Charcot in hypnotism are extremely interesting. In hysterical subjects he produced by hypnotism a complete paralysis limited to the arm, with loss of cutaneous and deep sensibility. He went even further and produced paralysis and sensory loss in the limb, segment by segment, the remaining portion of the arm being unaffected. In other words, he produced by suggestion a condition precisely like that met with in certain cases of brachial monoplegia, which he has reported, from which he assumed that *all* these cases were hysterical paralysis. But does it follow from this that the same results might not be obtained from persons subjected to hypnotism which were not hysterical? I believe so, and the absence of other hysterical symptoms in this case, such as a peculiar mental condition, hysterogenous zones, attacks of any kind, and the limited extent of the deranged sensibility, together with the absence of any marked affection of the special senses or derangement of the pharyngeal reflex, lead me to think the case one of a functional rather than of hysterical paralysis.

In regard to the location of the trouble, Charcot in some similar cases which he has published placed it in the middle third of the Rolandic area, with some encroachment on the adjoining parietal lobule. Bastian, who, as you know, does not consider the Rolandic area as being purely motor in its functions, but rather a kinæsthetic centre (that is, a centre for sense of movement impressions), would, I think, explain the paresis and loss of muscular sense by a lesion of the Rolandic area, but the disturbance of the other forms of sensibility he would explain by a coexisting lesion of some of the sensory fibres in the posterior part of the internal capsule.

Of the pathogenesis, vaso-motor derangement or lowered nutrition seem to me the two most probable causes. Although, according to Foster, vaso-motor nerves have not been demonstrated in the arteries of the brain, this negative evidence, he says, is not to be too much relied on. That a vaso-motor spasm in the brain should exist continuously for months seems strange, but is it any more so than that the same spasm should exist for an equal length of time in the region of the body affected by anæsthesia, as can be demonstrated by the absence of hæmorrhage following slight wounds of these parts? Moreover, the sudden disappearance of long continued symptoms, which sometimes occur as the result of a strong emotion or a convulsive attack, would certainly seem to indicate that no serious nutritive lesion had taken place.

This case presents some interesting points (1) as to the cause, a pain in the shoulder leading to its paralysis and soon that of entire limb. That an injury to the shoulder will produce these symptoms is well known, or, further, a mere slap on the shoulder of a person who was hypnotized will also produce it. With these facts in view, would we be justified in supposing that a sudden pain in the shoulder coming on without obvious cause might so react on the brain of a predisposed person as to produce a similar paralysis? This case would seem to indicate it.

(2) The affection of the muscular sense

throughout the whole paralyzed part (although most intense where the anæsthesia was present) would certainly bear out Bastian's assertion in regard to the kinæsthetic centre, rather than the theory that the Rolandic area is purely motor in its function. (3) The distribution of the anæsthesia is remarkable, and is just the converse to one of Charcot's cases, in which the anæsthesia extended down the arm to almost exactly the point where the loss of sensibility begins in this case, the fingers and part of the hand remaining in his case unaffected. (4) The difference in the pressure on the dynamometer with the eyes open and closed is also remarkable, an additional motor power evidently being derived from the visual impulse.

The prognosis is, I think, favorable, and a complete recovery is to be hoped for.

In regard to treatment, I may say I have applied static electricity, and she is continuing at present the tonic given her by Dr. Baines. I may add that I believe much good will be derived from methodical exercise, and that moral treatment will also be of essential benefit.

The patient, when presented at the Clinical Society this evening, Nov. 8, 1893, had entirely recovered from her sensory symptoms. The anæsthesia had disappeared, and the muscular sense so improved that she could imitate movements given to left arm very closely with the right. The muscular force had improved, but was not yet normal. I may also add that the prick of a pin in the previously anæsthetic area was followed by a slight hæmorrhage

TORONTO, 199 Simcoe St.

P.S. The patient recovered completely within one month after last note.

THE GALVANO-CAUTERY CURRENT OBTAINED FROM THE ALTERNATING CURRENT IN THE STREET.

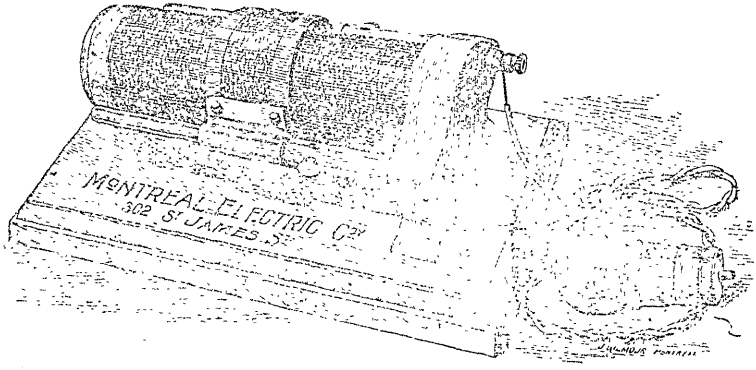
BY A. LAPTHORN SMITH, B.A., M.D., M.R.C.S. England, Vice-President of the American Electro-Therapeutic Association, Gynæcologist to the Montreal Dispensary, Surgeon to the Woman's Hospital, Montreal, Canada.

So recently as ten years ago electricity was still in the experimental stage,—if indeed it may not be said to be so still, for every day we are finding new uses for it and new methods of handling and controlling it. But at the present day at least it has become a commercial commodity, and can be purchased in almost every city for about three-quarters of a cent per ampere hour. On the other hand, the galvano-cautery wire is one of the handiest and most convenient instruments for a great variety of work in gynæcology, as it is in laryngology and dermatology. For certain delicate little operations, such as the removal of vascular growths from the female urethra, or the removal of portions of the cancerous uterus, or, in fact, any operation where we wish to cut without causing hemorrhage, it is simply invaluable. Paquelin's thermo-cautery is not to be compared with it, for the galvano-cautery wire can be applied and carefully adjusted while cold, and then by the touch of a spring it becomes red or white hot as long as desired, and it can be allowed to cool before being removed. Moreover, the heat can be regulated to any shade from straw color to cherry red or pure white, which is not so easily done with any other form of cautery. The great objection to the galvano-cautery has been so far that it has required a very expensive and cumbersome battery to be carried around with it in order to obtain the supply of current. These batterries had to have a very high potential or electro-motive force as well as a large amperage, necessitating the employment of a strong acid and violent chemical action on the zinc. The latter metal became rapidly polarized or covered with bubbles of hydrogen, so that it was necessary to have a bellows constantly working to keep the liquid in motion in order to wash these bubbles off, otherwise the chemical action would stop and the flow of the current would cease. The cleaning and renewal of this battery was a dirty and expensive business, and though improvements were constantly being made in its manufacture, it was always dirty, heavy, and constantly getting out of order, owing to corrosion of the connections. The advent of the storage battery was gladly welcomed, for although it weighed 40 lbs., and was therefore much lighter than the acid battery, required no bellows

for stirring up the liquid, held enough current to run the cautery for any ordinary operation, and could be recharged by means of half a dozen or a dozen gravity cells such as are used in the telegraph office. But even with the storage battery, there was the trouble of keeping the gravity cells in order, for they are eating themselves up continuously night and day, whether they are being used or not, and the repairing of them is dirty and expensive work. Still, by keeping the gravity cells in the cellar, and having them repaired and cleaned by the local electrician or telegraph operator, and by keeping the portable storage battery in the office always fully charged, the inconveniences were reduced to a minimum, the high first cost, about fifty dollars, being the strongest objection to it. During a recent visit to New York, such a storage battery outfit was seen in the office of Dr. Skene, the celebrated gynæcologist of Brooklyn, who stated that it gave great satisfaction and was in constant use for the treatment of urethral caruncles.

Before incurring the expense of this installation the writer consulted Mr. Shaw, of the Montreal Electrical Works, 302 St. James street, Montreal, in order to see whether it was not possible to utilize the ordinary street current for the purpose. It seemed to the writer that if it would heat up a carbon wire to a white heat in a vacuum, it would just as easily heat up a platinum loop in the air. Mr. Shaw at once undertook to construct such an instrument, and in a few days the apparatus, as shown in the accompanying cut, was placed in the writer's hands, at a cost of twenty dollars. In this instrument, which only weighs a couple of pounds, the ordinary house current of fifty-two volts is passed through a very long coil of rather fine wire and then goes back to the main. Owing to the resistance or holding back power of this long wire, a considerable quantity of electricity is stored up in the wire. If another long wire were coiled around this first one, having no connection with it, but on the contrary separated from it by a considerable space, this second coil would be charged with electricity of the same voltage, by reason of the induction—a quality which is unpleasantly noticed in the telephone wire when it passes near an electric light wire. By making the secondary coil of much shorter and coarser wire, the nature of the induced current is converted to one of much less voltage but of much greater amperage or quantity. This secondary coil is made to slide over the primary one so as to become more or less charged; by this means the quantity of current and the degree of heat in the cautery loop can be most delicately regulated to suit the various circumstances. There is no danger whatever either to the operator or to the patient, because the highly dangerous street current of one thousand volts is required by law to be reduced to the perfectly harmless and safe fifty-two volt current before it is allowed to be brought into the house. Or, more properly speaking, the one thousand volt current does not come into the house at all, a small portion of it only being abstracted by the iron boxes seen on the poles, and called converters, and which 52 volt current is in turn brought down to 2 to 6 volts by the transformer under notice.

This galvano-cautery is put in operation in the following manner: An electric light lamp is unscrewed from a socket and the wire from the coil attached by a similar



piece to that on the lamp. The current now circulates in the long coil without producing any visible effect. The secondary coil is then passed over it; the secondary coil is now charged with a current of great amperage, such as is given off by an acid battery. Still, there is no visible sign of it. The two cords from the cautery instrument are connected with the ends of this secondary coil, the connecting spring is pressed down, and the platinum wire at once becomes white hot, because it is such a bad conductor that the electricity rushing through it at such enormous speed causes sufficient friction to make it hot. As stated at the beginning, the house current costs only three-quarters of a cent per ampere hour; and as this instrument uses about four amperes in its primary coil, it only costs three cents an hour. However, as we never require to have the loop heated for more than a few seconds at a time, the cost of running it is practically nil,—the first cost being really the only one. In ordering an instrument, it is only necessary to inform the manufacturer of the voltage of the current in your house, and to send him the loop or loops which you are going to use; he can thus adjust the length of wire to give every shade of current that may be required. In Montreal, most of the physicians' offices are supplied with the alternating current from the Royal Electric Company, and this is the current used by the writer, and a similar current is also supplied at Quebec, Hamilton, Peterboro, Brockville, Sherbrooke and many other towns where this instrument can be equally well applied if the manufacturer is informed of the voltage. In any case the writer would advise the physician to purchase his platinum knives and loops first, and send them to the manufacturer, or else have the latter procure the cautery for him, so that they may be thoroughly tested together before leaving the factory. Dr. Byrne of Brooklyn, recently president of the American Gynæcological Society, has obtained a world-wide reputation for his skill in removing the cancerous uterus with the galvano-cautery, his statistics being fully equal to those of the best operators with the knife; and it is probable that in many other departments of surgery, the scope of the galvano-cautery will be greatly enlarged when it becomes generally known that the mechanical difficulties have been entirely removed by means of this ingenious little instrument. In a still later improvement just out, another secondary coil is slipped over the other end of the primary coil, for the purpose of heating a small lamp for illuminating the cavity in which the cautery loop is being used. These lamps can also be supplied in various candle power and voltages. The only towns in which this transformer cannot be employed are those supplied with direct or continuous current.

Society Proceedings.

AMERICAN MEDICAL ASSOCIATION.

The American Medical Association will meet in San Francisco, June 5th, 1894.

The Transcontinental railroads have made favorable rates, viz., $65.50 for round trip from all Missouri river points, which is one and one-twelfth fare.

The Southern Pacific Company's rates from Portland, Ogden, and El Paso are one fare.

All tickets sold at these points carry five coupons of admittance to the Mid-winter Fair.

The roads beyond Missouri river points are still charging about one and a half fares.

Cannot our brethren east of the Rocky Mountains yet induce the Central Traffic Association and Trunk Lines to equalize these rates? Several agents, in response to our circulars asking for a single fare, replied favorably, but stated it required united action of the several Associations.

An extensive itinerary for those who come from the Northern and Middle States is published in the Journal of the Association. In the April number of the *Occidental Medical Times* Dr. Parkinson has published an extensive itinerary of excursions and entertainments in this State for Members and their families during and after the meeting. Those who come from the Southern States will probably come over the Santa Fe and Sunset route. It will be well for them to come early, and do the Southern part of the State on the way up, and then depart via the Ogden or Shasta route. This will afford the greatest possible opportunity to note the varied resources of the Pacific Coast and the variety of scenery and climates within our borders. The Colorado Desert through which the road passes is 312 feet below the sea level, with a dry, hot atmosphere.

Going out over the Denver and Rio Grande, one reaches an altitude of 10,500 feet; while

on the Shasta route the road passes Castle Crag Tavern, winding around the base of Mount Shasta, whose summit is 14,144 feet high, and clad in eternal snows.

Colton and Riverside, the first important points reached on the Sunset route, are already far-famed for their delicious fruits and extensive orange groves which line the streets and highways for many miles.

Drs. M. F. Price and K. D. Shugart of the local committee on reception will take delight in showing them to visitors.

From here to San Diego and Coronado it is only four hours ride. They are located upon the bay in the extreme southwestern part of the State, only four miles from the Mexican border. This is now a fashionable all-the-year-round resort with one of the largest and best equipped hotels in the world, its main dining room having a capacity for a thousand guests.

Facilities for bathing and boating in the sheltered waters of the bay are unexcelled.

Drs. C. M. Fenn, W. A. Edwards and C. C. Valle of the local committee will extend every courtesy to visiting members.

Los Angeles, the chief city in the South, too well known to need any description here, is only five hours distant on the way north. Here Drs. H. Bert Ellis, H. S. Orme, Walter Lindley, Jos. Kurtz, J. P. Widney and W. L. Wills of the committee on reception will be delighted to show visitors the city and its suburbs, Pasadena, Santa Monica and other points of interest.

Santa Barbara, another charming resort by the sea, famous for its adjacent olive groves, in which it rivals Palestine, is only three hours ride from Los Angeles. Here Drs. S. B. P. Knox, J. M. McNulty and R. J. Hall of the local committee will do the honors of the occasion.

Leaving Santa Barbara by rail, the next point of interest will be Bakersfield, where an extensive system of irrigation has transformed a desert into a veritable garden of Eden.

Then comes Fresno, the largest and most successful vineyard district in the State, where Drs. Chester, Rowell and A. J. Pedlar of the local committee will pay every attention to visitors.

It is only seven hours ride from here to San Francisco, where the members of the reception committee will meet the visitors and escort them to their respective hotels. Those who come in over the northern routes, via Mount Shasta, Castle Crags Tavern, Soda Springs, Chico, and the State Capitol at Sacramento, may desire to depart by the Santa Fe or Sunset routes.

R. H. PLUMMER,

Chairman.

SAN FRANCISCO, April 25, 1894.

ELEVENTH INTERNATIONAL MEDICAL CONGRESS.

We are sorry to learn from letters received from physicans from America and England who have attended the Congress that it was sadly mismanaged. In order to obtain a hearing at all, the American physicians had to organize a committee, but even then they were unable to obtain any information about anything. The programmes were unreliable, there being several editions and each one different. The secretary of the American section describes its meeting simply as chaos added to confusion. Among those present we notice the names of Dr. A. A. Brown, F. Shepherd and F. Cornu of Montreal, and Drs. Aniley, Tobin and Kitchen of Halifax. It is stated that the maps were full of gross errors, and that Italians, who were stationed around in profusion to give information, would tell nothing without a "tip," and even then they knew very little. This was a great contrast to the ninth Congress held in Washington and the tenth held in Berlin, at both of which the arrangements were nearly perfect. We are sorry to see that the place fixed upon for the next meeting is Russia, as we fear very few will trust their lives in that barbarous country. Vienna or even Montreal would be a much more acceptable and more accessible place.

MONTREAL MEDICO-CHIRURGICAL SOCIETY.

Stated Meeting, December 1st, 1893.

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

Insular Sclerosis.—Dr. JAMES STEWART exhibited a boy and a girl, the subjects of insular sclerosis.

Discussion—Dr. SMITH asked if there was any family history of syphilis, which might explain both the sclerosis and optic atrophy.

Dr. BELL asked if the disease usually occurred in families.

Dr. STEWART, in reply, said that there was no history of syphilis obtainable. Syphilis, as far as we know, has no connection with insular sclerosis. White atrophy of the optic nerve is simply a wasting of the axis cylinder and not like atrophy following inflammation. Only two instances are recorded where two brothers were affected with insular sclerosis.

Ureter vs. Appendix.—Dr. SMITH exhibited the patient from whom he had removed last spring what was thought at the time to be the ureter, but which proved to be the appendix vermiformis. The patient was in perfect health, whatever had or had not been removed.

Reform in Coroner Law.—Dr. GIRDWOOD presented the report of the special committee appointed to consider this subject. The com-

mittee considered that the present moment was not an opportune one for bringing the matter before the notice of the Provincial Government.

After some discussion it was decided that the committee be requested to prepare a report, and present it at the following meeting of the Society.

Fibro-Cystic Tumor of the Uterus.—Dr. SMITH exhibited the specimen. In October, 1893, amputation had been done at the level of the internal os. There had been a local peritonitis some months ago. The operation presented no difficulties. The abdomen was not flushed out after operation, contrary to his usual practice. Two days after the operation acute septicæmia developed, and the patient died the following day. An autopsy showed great distention of the stomach and intestines, and Dr. Smith himself subsequently had a severe septic inflammation beginning in the hair follicles of the back of the hand, although no abrasion could be seen. The lesson of the case was always to flush out the abdomen after operation.

Dr. SHEPHERD said that few surgeons flush out the abdomen now-a-days, and he did not himself consider it necessary.

Rupture of the kidney.—Dr. WYATT JOHNSTON showed two specimens of ruptured kidney. One was in a case where an old woman was found dead. There were a few bruises about the head and arms, but no serious external signs of violence. A verdict of manslaughter had been rendered, but the grand jury found a No Bill. It was supposed that the injury was due to the deceased having been maltreated by her son. In the second case the rupture was caused by a beam falling across the loins of the deceased. A diagnosis of ruptured kidney was made during life by Dr Sutherland, as an area of dullness extended to the umbilicus from the right flank, and the urine contained blood. In this case the injured organ was very large, the other kidney being so small that it was not discovered at the autopsy, although the ureter could be traced for some inches from the bladder.

Operation for Gall Stones.—Dr. SHEPHERD showed a phial containing over 500 gall stones which he had removed three days before from a woman aged 50. She had suffered for many years, and recently had shown signs of peritonitis. An exploratory incision showed a tense gall bladder, which on puncture contained sour pus and was packed with gall stones, which were removed with a dinner spoon, after protecting the surrounding tissues by packing them with sponges. As the gall bladder could not be brought to the opening, the omentum was stitched to it so as to form a channel for the bile, of which much was passed.

Case of Epilepsy.—Dr. E. P. WILLIAMS read a report of this case which occurred in a young man 21 years of age. Father and mother gouty, brothers and sisters healthy. When 2 years old had a convulsive seizure followed by transient left hemiplegia. Following this, slight convulsive seizures occurred about once a week, preceded and followed by mental dullness. At 8 years was for a number of days unable to eat or swallow. At 10 years the attacks were preceded by an aura-like epigastric fullness, and he would fall down. At 18 years the frequency of the fits increased to one or two every third or fourth day. Grasping his wrists would sometimes stop an attack. Nitrite of amyl or ammonia inhalations sometimes had the same result. Bromide treatment was continued from the 10th to the 21st year. In Feb., 1893, he had a moderately severe attack of typhoid, during which and until March 15, one week after the fever subsided, no fits occurred. (No bromide was taken during the fever.) During convalescence he had mild fits, at first frequent, afterwards at long intervals, until August, when the fits reappeared, first severe and infrequent, afterwards milder, and at the rate of 20 per month. The general health and mental condition remain good.

Discussion.—Dr. MILLS said that the so-called motor area would soon be regarded as a reflex or sensori-motor area. The fact that the fits could be arrested by seizing the wrist was in favor of this view.

Dr. F. W. CAMPBELL said opinions varied as to what constituted large doses of bromide. He knew a man who had been taking drachm doses three times daily for 25 years with benefit. He thought nitro-glycerine might be of service.

Dr. WILLIAMS, in reply, said that nitro-glycerine had been tried for some years in this case, but had no apparent effect.

College of Physicians and Surgeons, Quebec.—Dr. J. H. B ALLAN complained that it was impossible to get a statement of account or a receipt from the College, and that about a year ago the accounts had been sent out in an offensive manner upon post cards.

Dr. F. W. CAMPBELL thought that the irregularities were due to the action of the former secretary.

Stated Meeting, 15th December, 1893.

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

Dr. A. G. A. Ricard was elected an ordinary member of the Society.

Tabes without absence of Knee-jerk.—Dr. FINLEY exhibited a man who had suffered for some years from attacks of vomiting, with extreme pain in epigastrium. He also had severe pains in lower extremities, usually alternating from one side to the other, and pains over forehead and trunk, described as "just like lightning." There was diminution of sexual

power. No ataxia, but slight muscular weakness. The knee reflexes were exaggerated on both sides. The pupils were slightly uneven, and showed Argyle Robertson reaction. There was no mental disturbance.

Dr. JAS. BELL thought that the cord area involved could not be that usually affected. Was it right to speak of the disease as ataxia where none existed? A patient who came to him recently, under the impression that he was suffering from stone in the bladder, presented all the symptoms of tabes.

DR. FINLEY in reply said the disease was probably in the pre-ataxic stage. The Argyle Robertson pupils and lightning pains made it difficult to arrive at any other diagnosis. There was no history of syphilis obtainable.

Congenital Polypoid growth of Conjunctiva.—Drs. BULLER and ADAMI. The specimen was taken from the ocular conjunctiva of the left eyeball in a child 3 months old, and had existed since birth. These growths occur either as low white circular swellings invading the corneal margin, or as an irregular mass, springing from the sclerotic between the cornea and the outer canthus. The present growth apparently was of the latter, or scleral, variety. Its attachment to the eyeball was by means of a thick expansion extending slightly into the cornea. The growth was removed with as little disturbance as possible of the surrounding tissue. When the patient was removed a few days later, the eye had a satisfactory appearance. The specimen showed under the microscope a well formed epithelium, with corium and subcutaneous tissue. This tissue was loose in the centre and showed a cystic space. The epithelium showed spiral and coiled glands, resembling sweat glands, rather than those of conjunctiva. The subcutaneous tissue showed well formed vessels, with fibrous tissue and what appeared to be degenerated muscle fibres. It corresponded therefore rather with the tissues of the outer surface of the eyelid than the conjunctiva, but was of too simple a nature to be classed as a true dermoid.

Discussion.—DR. PROUDFOOT said tumors of this kind were commonly attached to the margin of the cornea. Recently in a case treated for some time by the family physician for conjunctivitis he had found a polypus lying beneath the eyelid. Polypi sometimes followed injury in operation of the conjunctiva.

Small pedunculated polyp from the left tonsil.—Drs. BIRKETT and ADAMI. The tumor was taken from a child 4 months old, and was exhibited owing to the rarity of tonsillar tumors. It was about the size of a pea, and consisted microscopically of a superficial layer of flattened epithelium with subepithelial connective tissue, beneath which were a series of glandular alveoli, separated by fibrous septa. The gland tissue is that of typical mucous glands, and shows no adenomatous over-growth. No excretory ducts were made out. This class of tumor had been frequently described in the soft palate. Growths of the tonsil of any kind were rare, lymphoid fibrous, myomatous, myxomatous or fatty being the usual forms. Epithelioma was more frequent than sarcoma. The present growth was benign.

Mixed Carcinoma and Sarcoma of the Peritoneum.—Dr. ADAMI showed the specimen from a man who died of peritonitis. At the autopsy an enormously enlarged omentum was found. The mesentery was also involved, but the intestinal tube seemed unaffected except that the coils were matted from inflammation. The diaphragm was thickened and infiltrated with new growth, which had extended to the pleural surface, and set up a severe pleurisy. The pleural cavities contained 9 pints of yellow fluid. Pericardium and lungs free. Death was apparently due to pressure on the heart. Microscopical examination showed the growth to be sarcomatous for the most part, but in places there were definite fibrous alveoli, containing solid masses of epithelial cells—in other words, typical scirrhus cancer. There was therefore a combination of cancer and sarcoma. The man was not emaciated, and had almost no disturbance of health up to the time of the acute peritonitis and pleurisy, which caused his death.

Dr. JAS. BELL gave the following history.—On 12th Oct., 1893, the man was suddenly taken at night with severe abdominal pain. One week later he was admitted to the General Hospital, and a diagnosis of acute peritonitis made. Some evidence of an abdominal growth caused his transfer to the surgical ward, where an exploratory abdominal incision was made; but, as the case was unsuitable for operation, the wound was closed. The patient died the next day. Dr. Bell thought the sarcomatous-looking tissue referred to might possibly be an early embryonic stage of the fibrous tissue of the cancer's stroma.

Dr. ADAMI in reply said that conditions of carcinoma sarcomatodes were described by pathologists, when the stroma was sarcomatous and the alveolar contents epithelial. In the present case there was no primary growth in any organ where epithelium would normally exist.

Dr. FINLEY said there was a history of a small growth having been thrice removed from the inside of the nose in the present case.

Dr. JAS. BELL.—That point had been investigated in hospital, but it appeared that the nose was only touched with caustic.

Double Hydronephrosis.—Dr. C. F. MARTIN exhibited the kidneys and bladder of a man who entered hospital with symptoms of chronic renal disease, and died two months later with uræmic coma. There was moderate double

hydronephrosis and dilatation of the ureters. The cause of the hydronephrosis appeared to be a mass of inflammatory fibrous tissue external to the bladder, in the region of the trigone, near the point of entrance of the ureters. This was most marked on the left side. There were also numerous constrictions in the course of the ureters. The left testicle had been removed, and there was a large sinus in the left ischio-rectal fossa.

Dr. JOHNSTON thought the ingenious explanation offered by Dr. Martin to be correct.

Dr. ADAMI said that the statistics of hydronephrosis showed that many cases were recorded when the cause was not explained. Had the dissection made by Dr. Martin in this case been more frequently practised, perhaps there would not be so many mysterious cases on record.

Oxalate of Lime Calculi from the Kidneys.—Dr. JAS. BELL showed some large stellate prickly crystals, apparently oxalate of lime, removed from a cyst in the kidney of a patient who had no renal symptoms whatever.

Semi-lunar Cartilage.—Dr. JAS. BELL also exhibited a portion of an inner semi-lunar cartilage removed from the knee of a man who had sprained his knee when jumping from a carriage. The joint was locked for a time, but afterward became normal, until a severe exertion once more displaced the cartilage, and the joint was replaced with difficulty. A few days later, while demonstrating how the accident occurred, the joint again became fixed and could not be reduced. The cartilage was therefore removed. It was evident at the operation that it would be impossible to keep the joint in place. Cases have been recorded where the joints have been permanently and satisfactorily reduced after being out for some years.

Enucleation of Thyroid Tumor.—Dr. JAS. BELL showed a small fibro-cystic tumor removed from the thyroid, and emphasized the advantages of enucleation as contrasted with extirpation of the thyroid.

Reform of the Coroner Law.—DR. ADAMI read the report of the committee upon this subject as follows:

Your Committee, appointed to consider the present system of conducting inquests and the modifications, if any, which may wisely be introduced in the present law relating to inquests, beg to present to the Society the following report:—

The enquiry into and determination of the cause of the death of any individual or individuals, where such death has occurred under circumstances that are out of the common, is a matter that does not come under the cognizance of the Dominion authorities, save and except when the inquest leads to a finding of death by criminal act or criminal neglect. Hence (with the exception that whenever such a charge is brought, the depositions taken by the coroner must be transmitted to a magistrate or justice of the peace, and the coroner must issue a warrant against the person or persons charged, etc.), the coroner's procedure is a matter outside the Dominion Statutes, and it is in the power of the Legislature of the Province of Quebec to freely modify the existing law. Your Committee desire to draw attention to this fact at the outset, for, this being so, the task of introducing certain urgent modifications, or, indeed, of completely altering the procedure, becomes an easy one, granted that the members of the Provincial Legislature become assured of the need for change.

The present Provincial laws respecting enquiries into the mode and cause of death are based essentially upon the old English Common Law. The enquiries are placed in the control of coroners appointed by the Provincial Government, a coroner for each judicial district. The coroner need not be a member of either the legal or the medical profession, although in the great majority of cases he belongs to one or the other.

Upon receiving notice of a death following upon any act of violence, or of death attended by suspicious circumstances, it is his duty to make a preliminary enquiry.

If, with or without medical aid, he comes to the conclusion that the cause of death is to be made out without the assumption of there having been either criminal act or criminal neglect, he can order the interment of the body. If, on the other hand, he is led to suspect that death has been due to violent or unfair means, or culpable or negligent conduct of others, under circumstances calling for investigation by a coroner's inquest, then, having made a sworn deposition to this effect before a magistrate, he is empowered to hold an inquest. What these "circumstances" are which call for investigation is not defined in our Statutes, they being left to the coroner to determine. Having made the deposition, he now can summon a jury and hold a coroner's court. He is empowered to call before him such witnesses as in his opinion can throw light upon the cause of death.

The jury must view the body of the deceased, and, if the majority of the jury desire it, the coroner is directed to instruct that an autopsy be performed to throw some light upon the cause of death. Having heard all the evidence, the coroner sums up, and leaves it to the jury to bring in a verdict, and, when this has been delivered, the coroner gives an order for the interment of the body.

The coroner is paid six dollars for every inquest, and if any inquest occupies more than two days, three dollars for every succeeding day. The practitioner of medicine making an

external examination of the body receives five dollars, making an autopsy he receives ten dollars. There are further fixed charges for the constable who summons the jury and the witnesses, for chemical analyses, for hire of room to be used for the inquest, and for guarding the the body.

This, put as succinctly as possible, is the present coroner's law for the Province of Quebec.

Several objections have been brought against this method of investigating suspicious deaths; and despite the fact that the law as now administered is much amended, and differs in many respects from the law of a few years back, the objections still retain their force. Your Committee would point out what it considers to be the most serious disadvantages of the present mode of procedure.

1. *The Cost.*—Taking the returns for Montreal alone, as shown by Dr. Wyatt Johnston, the cost per inquest—that is to say, per case—is decidedly greater than in London, New York or Massachusetts. The rate would seem to be $22.00 in Montreal, $15.00 in London, $16.90 Boston, $12.80 in Massachusetts generally, $10.00 in New York; and this notwithstanding the fact that autopsies, the most expensive individual item in the investigation of suspicious deaths, from three to four times as frequent in the other cities as they are in Montreal. Here, in Montreal, it costs more to maintain a dead body in the care of the coroner than it does to maintain an ordinary live individual with healthy appetite at a first-class hotel for the same period. Some of the items permitted by law in the coroner's accounts ought to be lessened or removed altogether, others ought to pass into general police accounts. But the fact remains that the system is as expensive as its results are unsatisfactory, and that the chief source of expense is the legal investigation of cases which do not call for legal investigation at all, owing to the fact of death not having been due to violence. The exclusion of cases not calling for inquest by means of a preliminary medical examination seems to be the most rational means of reducing the expenses.

2. *Payment by Fees.*—Your Committee is of opinion that, as a matter of principle, the payment of the coroner according to the number of inquests held by him is most unsatisfactory, and is inimical to the proper carrying out of enquiries into the cause of death.

Your Committee find that of the cases of death calling for a coroner's investigation occurring in the various large towns, from 50 per cent. to 75 per cent. can upon preliminary investigation be found to be due to natural causes. That is to say, the more careful the preliminary investigation made by the coroner, and the more conscientious and expert he shows himself in the performance of his duties, the fewer the inquests he finds it necessary to hold, and the less his income if he be paid so much per inquest. While if it so happens that his enquiries lead him to suspect the frequent occurrence of any one form of crime at any period, as, for example, child murder, and so to hold an increased number of inquests upon certain classes of cases, immediately he lays himself open to the charge of seeking to increase his income. This ought not to be. In the cities, at least, the coroners ought to receive fixed salaries.

3. *The Jury.*—Under the present system, the jury in Montreal, with rare exceptions, certainly cannot be said to be a capable and representative assembly of citizens. Men engaged actively in any form of business prefer to employ any subterfuge rather than sit for what may be many hours in a morbid atmosphere, for no return whatsoever save discomfort and loss of time. The consequence is that too often the jury is composed of a heterogeneous collection of incapables, gathered from the highways and bye-ways and bar-rooms of the neighborhood. The verdict of such incapables is, time after time, at variance with the evidence presented.

4. *Viewing the Body.*—The custom of viewing the body is as old as the coroner system. It arose at a time when violent deaths were as many as doctors were few, and when population was everywhere so sparse that the jury had an important part to play in determining by external examination that death was due to violence, and, again, in identifying the corpse. Now-a-days, in a large town, it is highly probable that not one of the jury will have known the deceased, and the determination of the cause of death may more safely be left to medical men. In any case, it is easy to obtain identification by means other than the irruption of a strange, unseemly rabble into the house of mourning. The general feeling throughout the community is that this intrusion into the circle of bereaved relatives in the very depth of their trouble, permitted by the present law, ought to be prevented, and your Committee urges strongly that it is as unnecessary as it is unbecoming. It has been superseded in many States by a system of sworn affidavit of the fact of death and the identity of the body, and this course should be followed here.

5. *Suicide.*—The existing law does not demand inquest in cases of *felo de se*. This your Committee, on the whole, is inclined to consider a disadvantage. The general opinion of the community is strongly opposed to suicide, and were it to be recognized that this mode of death necessarily involved a public investigation, there is little doubt that the unpleasant publicity of the subsequent proceedings would act as a deterrent in not a few cases. As a matter of fact, suicide is on the increase in those States where this deterrent does not exist or has of late years been removed.

6. *Medical Evidence.*—A study of the ver-

dicts brought by the coroner's juries shows clearly that the decision of points of medical evidence is a matter that should not be left to non-medical persons. Statements utterly at variance with the cause of death assigned have been time after time accepted blindly by coroner and jury. The appreciation of medical facts, and the opinions to be formed from these facts, come properly within the domain of the medical expert. It cannot be expected that the legal coroner and the jury should without fail form correct opinions upon delicate medical problems.

Another point with regard to medical evidence may here be brought forward. The practitioner who is called to testify as a physician differs from the other witnesses, from the fact that he is called in his professional capacity. The value of his evidence lies in this, that he has studied the condition of deceased prior to death, and his evidence must depend for its value upon the importance of these earlier professional studies in throwing light upon the cause of death. To this extent, therefore, his evidence is expert evidence, and as such it ought to receive a recompense. But under the the present system no fee whatsoever is allowed save for external or internal examination of the body of the deceased. The medical practitioner is wrongly treated as an ordinary witness.

Your Committee strongly approves of the plan adopted in many of the United States, of admitting a written medical deposition of fact or opinion as evidenced at inquests in cases where the personal attendance of a medical witness is not considered necessary by the coroner.

7. *The Performance of Autopsies.*—In all the large class of cases now investigated before juries where sudden death occurs without the slighest external lesion, an autopsy is advisable. Nevertheless, with an exception to be presently noted, no autopsy can be performed unless it be demanded by the majority of the jury. That is to say, the jury has to express itself willing to waste an hour or more in the middle of its proceedings, so that a competent medical man may be called, who shall make an examination into the state of the viscera. As a consequence, the jury, in the first place, shows the greatest unwillingness to allow the performance of autopsies, and will rather return a wholly unreliable verdict. In the second place, the medical man performing the post-mortem is at a great disadvantage, for he is expected to keep the jury waiting as little as possible, and his examination, instead of being deliberate and careful, is hasty and liable to be imperfect. Your Committee feel assured that were the coroner allowed full power himself to order an autopsy in all doubtful cases, a very large proportion of cases would be discovered in which there would be no necessity for holding an inquest and summoning a jury. Thereby a very large expenditure would be prevented, and at the same time the cause of death would be satisfactorily established. The exception referred to above is that by the present law the coroner is permitted to order an autopsy if he makes an affidavit that he holds the autopsy to be necessary. Unfortunately, coroners do not seem to have taken advantage of this permission, but prefer to shelter themselves by leaving the matter wholly in the hands of the jury.

A great source of difficulty in connection with the performance of medico-legal autopsies is the absence of any suitable morgue in Montreal, and some measures should be taken without delay to remedy this defect, which also hampers medico-legal investigation in many other ways.

8. *Preliminary Investigations.*—In all cases of suspicious death, the first question to be settled is what has been the immediate cause of death. In all cases, therefore, the first point to be investigated is purely medical. It is true that frequently the question is one that can be answered by any individual endowed with common sense, as, for instance, when a corpse is discovered upon the railroad track minus its head, though even in such cases serious mistakes have occurred through the bodies of murdered persons being so placed as to give an impression of accidental death. But if the question in certain simple cases can be answered by a layman as well as by a professional man, there is a very large number of cases, and these often the most important from a medico-legal aspect, where a correct determination can only be reached by a well qualified medical man, and where it is all important that a correct answer be gained at the outset, not only for the benefit of the relations of the deceased (that they be sheltered from the least breath of unnecessary suspicion), but also for the benefit of the Provincial Exchequer, that the Province be not saddled with the cost of an inquest leading to no result. When more than 50 per cent. of all deaths which coroners are called upon to investigate are found to be from natural causes, it is evident that the majority of deaths now investigated require no legal investigation whatsoever, while, on the other hand, as indicated above, all such deaths demand an initial investigation by a medical man.

9. *Criminal Cases.*—Under the existing law, when his jury brings in a charge of murder or manslaughter, or of being accessory to murder before the fact, against any person or persons, the coroner must issue a warrant against such person or persons, and send him or them before a magistrate or justice if this has not already been done. He must at the same time transmit the depositions taken before him in the matter.

To all intents and purposes, the trial before the magistrate proceeds as though no previous inquiry had been held. The coroner's depositions are not employed as evidence. In fact,

the magistrate treats the case as though he were proceeding under an ordinary warrant.

If the magistrate confirms the charge, the case is sent up to the Grand Jury, and here again all the witnesses are once more summoned and the evidence is repeated, and the Grand Jury finding a true bill, the case goes before the Petit Jury, and again the evidence is repeated.

It appears to your Committee that this procedure is singularly cumbrous, and that, besides harassing the witnesses, it allows an unduly large number of loop-holes of escape for those really guilty, upon some legal technicality or faulty observance of legal procedure. Your Committee, considering that the problem of how this procedure may be simplified is a purely legal one, does not offer any suggestions on the matter.

Taking all these disadvantages into consideration, and being especially impressed by the fact that the earliest stages in the investigation of suspicious death must of necessity be of a medical nature, and by the further fact that where the legal proceedings of the coroner lead to a definite charge against an individual or individuals, those legal proceedings are practically passed over unnoticed by the higher courts, your Committee have come to the conclusion that a drastic change in the mode of investigation of suspicious deaths is advisable in this Province.

There are two questions which naturally suggest themselves prominently in connection with questions of coroner's reform. The first is, Should the coroner be a physician or a lawyer? and the second, Should the office of coroner be abolished?

With regard to the qualifications necessary for coroners, your Committee does not think it necessary to dwell upon the relative advantages of having medical or legal coroners, although this is a subject of dispute which has now been fruitlessly discussed for more than a century, and will in all likelihood continue to be so as long as the coroner system lasts. We wish simply to state the fact of the existence of diversity of opinion on this matter. That there should be any question as to whether a physician or a lawyer would make the best coroner, implies that in either case there must be serious disadvantages. The point at issue here is the same as the question: Can a shoemaker make watches better than a watchmaker can make shoes?

In London, a settlement of the question has been attempted by selecting as far as possible coroners who have obtained both legal and medical qualifications. This plan of expecting the coroner to be a Jack-of-all-trades has not much to recommend it; and the fact that in London, in addition to the doubly qualified coroner, there are the deputy coroners, who are obliged by law to be barristers, and all the medical expert work is done by outside medical men, shows that matters are not in any way simplified even by having the coroners who are at once both lawyers and physicians.

The only rational plan, and one whose advantages appear never to have been questioned, is that adopted on the Continent, as well as in those States which now are under the medical examiners' system, of separating as far as possible the medical and legal side of the investigation and entrusting these to physicians and lawyers respectively. Your Committee is just as firmly convinced that all legal questions should be left wholly to lawyers, as that all medical ones should be entrusted to medical men.

The Abolition of the Office of Coroner.—Your Committee finds that in those States where this has been done, the previous difficulties seem to have been promptly and permanently removed, and it does not appear to have been necessary in any instance to revive the office. The office of coroner was created in England while that country was in a lawless state, and when police regulations and courts of justice were almost non-existent. Since the development of the judicial and police system, the coroner's office has gradually come to fill the important function of fifth wheel to the car of justice. It has been retained through that conservative spirit which retains the cumbrous system of pounds, shillings and pence for the national currency. Many of the United States are still in that primitive and lawless condition, which makes the office of coroner a useful one. In the more highly civilized States the old coroner system is rapidly disappearing, and it is practically obsolete in five, viz.: Massachusetts, Rhode Island, Connecticut, New Jersey and New Hampshire.

As to whether the office of coroner should be abolished in our own Province, we have no hesitation in stating, as medical men, that, from a medical point of view, the office is simply an absurdity, which constantly interferes with the proper employment of medical science for judicial ends, and that it could be abolished to-morrow with marked benefit to the medical side of criminal cases.

The fact that the appointment of competent medical experts as consultants to the coroner's court of Montreal during the last year has neither prevented nor greatly diminished the number of those palpably absurd and unsatisfactory verdicts, which have made this court a public laughing-stock in past years, shows that something must be radically wrong with the system, which must be remedied, even if this necessitates abolishing the office.

On the other hand, we do not feel, as medical men, competent to decide as to the possible effects which would be produced by this change from a judicial point of view. If the office of coroner were abolished, the legal duties would

have to be provided for in some way, the details of which can only be decided by persons thoroughly conversant with the workings of our criminal law. Furthermore, the abolition of the office of coroner does not appear to your Committee to be absolutely necessary in order to secure the necessary medical reforms. All that is really necessary is to do away with the medical functions and responsibilities of the coroner and to make the office a purely judicial one, only dealing with those cases where there are definite grounds to suspect death from violence or negligence, and these grounds are either strengthened or not removed by the examination of a medical expert.

We would therefore recommend:—

1. That salaried medical examiners be appointed to investigate all deaths occurring under circumstances calling for medico-legal investigation under any Act, and that these officers be given authority to make such medical examination of the body as may be necessary to determine whether death was due to violence or not;

2. That in every case the medical examiners report the result of their examination to the coroner or other judicial officer charged with investigating the legal side of such cases, who, in case of violent death, shall make such investigations and take such measures as are necessary for the proper administration of the law.

If necessary, we are prepared to draft an amendment to the law which would secure the proper carrying out of this system.

(Signed,) G. P. GIRDWOOD.
J. GEORGE ADAMI.
E. P. LACHAPELLE.
JAMES BELL.

At the regular meeting of the Society held on Friday, Dec. 15th, 1893, this report was unanimously adopted, and it was resolved that a copy of the report be sent to the Attorney-General and to each of the medical members of the Legislative Assembly and Council of the Province of Quebec.

Dr. BELL thought the Committee had acted wisely in not undertaking to pronounce upon the legal side of the question. Upon motion of Dr. Girdwood it was unanimously resolved that the report be adopted and that copies be sent to the Attorney General and the medical members of the Legislative Assembly and Council at Quebec.

Blood supply of vermiform appendix.---Dr. BELL showed for Dr. Shepherd a preparation showing that the arterial supply of the appendix was due to a single artery which did not anastomose with any neighboring vessels, hence the readiness with which sloughing is produce in the appendix.

Stated Meeting, 29th December, 1893.

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

Drs. S. F. Wilson and G. H. Raymond were elected members of the Society.

Death Certification.--The Secretary stated that, in reply to Dr. Laberge's inquiry regarding the amendment of the city charter in the matter of death certification, the following resolution, framed by the council and adopted unanimously by the Society, had been communicated to Dr. Laberge, medical health officer of Montreal:—

Resolved—1. That clause 17, title 15 of the charter of the city of Montreal be so amended that all certificates of death must be given by the attending physician, the city health officer, or the coroner's physician;

2. That all such certificates of death be registered with the city health officer, at the City Hall, within twenty-four hours of the death of the person;

3. That no body be buried or received for burial by the superintendents of cemeteries without a permit from the city health officer;

4. That such penalties be enforced as to ensure the carrying out of this law.

Specimens of diseased Uterine Appendages.—Dr. MARTIN exhibited the following specimens of Drs. Alloway and Adami:—

Ovarian Tumor Simulating a Parovarian Cyst.—K. D., aged 30, married, was operated on by Dr. Alloway at the Montreal General Hospital on 16th August, 1893, for the removal of a thin-walled cyst, situated in the left broad ligament, and apparently monolocular. The tumor was removed, together with the left ovary and broad ligament. The appendages on the right side being found diseased, were also removed and ventrofixation performed. Recovery was good. Examination of the specimens by Dr. Adami showed that the tumor, though apparently monolocular, really contained several small accessory cysts. The left ovary was enlarged and the ovarian tissue was directly continuous with that of the main cyst, which was, therefore, evidently ovarian in origin. The right ovary was enlarged and showed numerous dilated graafian follicles forming small cysts, all situated near the surface, and containing in most cases grumous blood-stained fluid. Both tubes were thickened, the right being dilated and containing inspissated purulent fluid. The case was of interest as showing a general tendency to cystic formation of the ovaries.

Hæmatoma of Left Fallopian Tube.—W. E., aged 34, married, had borne five children, and during the last eighteen months had aborted five times. Since the last abortion there had been a continuous bloody discharge from the vagina. The patient was extremely anæmic, and was too weak to walk. When examined, in

the Montreal G neral Hospital, there was severe pain in the hypogastric and inguinal regions. A soft movable mass, the size of a fœtal head at the 6th month, was felt behind the uterus and to the left. The uterus was anteverted. On 6th September, 1893, the abdomen was opened in the middle line and a small elastic tumor attached to the left broad-ligament found, which proved to be full of blood and clot. The left tube and ovary were ligated and removed with the tumor. Recovery was good. On examination by Dr. Adami, the tumor proved to be a hæmatoma of the Fallopian tube. The external surface of the sac was roughened, inflamed and covered with organized lymph. The inner surface of the sac and contents were carefully examined for fœtal or placental structures, but with negative results. The hæmatoma was evidently of chronic growth, and appeared to have developed as a consequence of chronic inflammation and ulceration of the tube.

Dr. ALLOWAY, commenting on the cases, said: It was interesting to know that a cyst of the ovary could become so completely separated from that organ and so simulate a parovarian cyst. In the case of hæmatoma the tube was distended to the size of his wrist, and was ruptured in removal It so resembled a tubal pregnancy that he was surprised to find no evidence of a fœtus, but now believed the bleeding due simply to rupture of the blood vessels during tubal inflammation. There was a history of miscarriage six weeks before the operation.

Double Pyosalpynx with Intestinal Fistula.—Dr. ALLOWAY also related a case where the appendages were removed from a woman suffering from severe vaginitis and pelvic peritonitis. Blood and pus had passed by the bowel. Both tubes were greatly dilated, the left being fully two inches in diameter and filled with pus which escaped into the peritoneum during the operation. The pus was not fœtid, and no bad results followed this accident. The right tube was thickened into a dense rigid cord, passing round the coils of intestine. Both tubes were extensively adherent to the intestine and the entire pelvic contents matted together. Between the fimbriated extremity of the right tube and the bowel was a fistulous opening of the diameter of a five cent piece, which was closed by the Lembert-Czerny method. Another opening was discovered in the bowel where the knuckle of the tube had become adherent. The uterus and omentum were utilized in closing this. The extensive hæmorrhage was arrested by pressure. The pelvis was not washed out. There was no rise of temperature for the first week, when there was a slight rise lasting for some days and accompanied by tympanitis. At the present date, nine weeks after operation, she appeared on the road of recovery. Nothing more than a local peritonitis appeared to have followed the operation, although some fæcal matter must have escaped into the peritoneal cavity. A glass, and later a rubber, drainage tube was used. At first some pus, but no fæces, passed through these. Starvation diet with rectal injection to relieve tympanitis were employed. Pyoctanin and peroxide of hydrogen were used as antiseptics.

Discussion.—In answer to Dr. Gordon Campbell: There was no evidence of fæces passed per vaginam. To Dr. Armstrong: The omentum was simply brought down, not sutured.

Cholecystotomy.—Dr. ARMSTRONG exhibited a large solitary gall stone removed in September, 1893, from a woman aged 42. Ten years ago she had her first attack of severe pain, with jaundice, in Harrogate Hospital, England, when an operation was suggested but declined. Since then she had attacks of biliary colic with jaundice about every six months until the last two years, since when they occurred monthly, lasting two weeks at a time. Pain severe in hypogastrium and right hypochondrium, requiring morphia. The gall bladder contained some pus, its walls were strong and readily sutured, and it was long enough to reach the abdominal wall. On palpation no stone could be felt in the common or cystic ducts. Recovery uneventful, the only unfavorable point being the persistence of the sinus, although there was satisfactory evidence of sufficient bile in the stools. If the loss of bile proved injurious to health, the only operation feasible would be that of establishing a communication between the gall bladder and the small intestine, as has been done in one case by McBurney.

In answer to Dr. Lafleur: She had no febrile attack while in hospital, but said herself that some of the previous attacks made her feverish.

Dr. F. W. CAMPBELL wondered at the excessive pain in this case. Pain usually arose from small stones passing along the duct, and in his opinion comparatively small stones gave him the most pain. It was comforting to think that if serious symptoms of obstruction arose, surgeons could now afford permanent relief by operation.

Dr. LOCKHART recalled an operation he had witnessed on a woman of about 50, when only two stones were found, one of which had two facets, having possibly been turned end for end. The other stones had three facets.

Dr. JAS. BELL thought the contraction of the gall bladder upon a large stone would easily account for the pain. With renal calculi very large stones often caused no pain, while intense agony was produced by very small ones. In one case a large gall stone was passed by the bowel, which must have ulcerated through from the gall bladder.

Dr. ARMSTRONG asked if Dr. Campbell's first attack was more painful than subsequent ones.

Dr. CAMPBELL replied that such was not the case. He thought the pain, as a rule, was only produced when the stones entered the ducts.

Cases of Infection in Pneumonia.—Dr. GORDON CAMPBELL communicated three cases of infective pneumonia in a family as follows:—

My object in presenting this report to the Society is not because there is anything of special interest in the three cases of pneumonia in themselves, but from the apparent dependence of two upon the third for their origin.

Briefly, the history of the three is as follows:—

Case I.—On Sunday, 19th November, Mrs. D., aged 30, was seized with a severe rigor followed by high fever and sharp pains in the right side. I saw her on the 22nd, two days after the onset, and made out the usual signs of pneumonic consolidation of the base of the right lung, and over the dull area well marked pleuritic friction sounds. Temperature 104°, P. 130, R. 36, and a small amount of rusty expectoration. The pyrexia lasted ten days, falling to normal in the course of 48 hours, the termination being accompanied by a profuse diarrhœa. The whole lung ultimately became involved in the pneumonic process, and the resolution is not yet complete 4 weeks after the fall of the temperature.

Case II.—Solomon D., the six year old son of No. 1, was seized with a slight chill on the afternoon of 21st Nov. just 48 hours after his mother. I saw him the following day, and found the early physical signs of pneumonia in the left base. Temp 103.80.. P. 150, R. 40. Here also in two days the whole lung was involved, but the general condition remained good throughout, although the respirations for 24 hours were 64 per minute. The fever lasted 7 days, coming down to normal the morning of the 29th. Resolution was prompt and complete.

Case III.—Charley D., aged 4, a brother of the last, was seized with the early symptoms on the evening of the 24th, 5 days after his mother and 3 after his brother. This boy had been under my care with bronchitis from the 4th to the 9th of the same month (November). On making my first visit to the above two cases on the 22nd, he was crying with pain in the head and neck, and I examined his chest and found evidence of a general bronchitis, with a temp. of 100°, R. 28; the two following days he was improved, but, as before mentioned, on the evening of the 24th he became rapidly worse, and by the 26th I made out all the usual physical signs of lobar pneumonia, extending from the base of the right lung to an inch above the nipple in front. The fever here was not so high as in the other two cases, and fell to normal on the fifth day, remaining down one week, then an evening rise was noticed, and he developed an empyæmia, which has been treated in the surgical wards of the General Hospital.

In the first case the cause was considered to be a very rapid fall in temperature, accompanied by a very high wind, to which the patient had been exposed while insufficiently clad. The second case occurred two days later, and he had been in good health up to the time of the onset, and consequently exposed to the same aerial conditions as his mother. It is to the third case, however, that the most interest attaches, for he had not been outside the house door for three weeks previously, and on my visit I had examined his lungs, and found nothing but a rekindling of the general bronchitis, for which I had already been treating him, and it was not until two days later that the pneumonia developed. The whole family sleep in one room, the youngest boy in the same bed with his mother, and consequently there was every facility for infection, provided such is possible, and I think in this particular instance we are forced to the conclusion that Case No. III was contracted from the other two, and in all probability No. II from No. I.

That pneumonia is due to a specific microorganism is now generally admitted, but cases which can be definitely shown to depend directly upon others are not numerous enough to allow one to neglect putting them on record.

Dr. F. W. CAMPBELL stated that when the theory of the infective nature of pneumonia was first brought out 10 years ago, he found that he and the late Dr. Howard were treating between them seven cases where the disease appeared to have been transmitted by direct infection.

Dr. MORROW had recently had a fatal case of pneumonia in an old man, who was being nursed by his sister. At his second visit the sister was noticed to be breathing fast. She became very ill, and died suddenly a few hours later.

Dr. JAS. BELL had reported a case to this Society ten years ago. A hospital orderly lived in a small upper tenement on Mignonne street, with his wife and wife's brother. The latter came home one day with a very severe pneumonia. Two or three days later the orderly was stricken with pneumonia, and within a few days the wife also took sick with the same disease. The two men died and the woman recovered.

Dr. GORDON CAMPBELL said that what specially interested him was the fact that the youngest child was in the house all the time for three weeks before taken ill, and was, therefore, not exposed to the same condition as the mother.

Danger of Hypodermic Injection of Morphia.

—Dr. F. W. CAMPBELL related the case of an old lady, his own patient, subject to attacks of pleurodynia, for which he was in the habit of prescribing minute doses of opium. In his absence she was seized with severe pain, and a neighboring practitioner who was called in gave her a hypodermic injection of morphia. She went to sleep so profoundly that her friends were alarmed. Next day she was found to be suffering from complete paralysis of the bronchial tubes, and the phlegm went on accumulating until she died shortly afterwards. The relief of pain was not the only object to be considered when suddenly called to see a case. A hypodermic needle may be a two-edged sword, especially when used on the aged.

Dr. W. F. HAMILTON asked whether the patient was suffering from the old attack of pleurodynia or from pneumonia? How much opium was used in the hypodermic injection? and what cause was assigned in the death certificate?

Dr. CAMPBELL did not remember what cause was stated in the death certificate, but thought it had been certified as grippe. She was not suffering from pneumonia the day previous. He did not know the quantity of opium. The patient largely regained consciousness before she died.

Stated Meeting, 12th January, 1894.

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

Transient Swelling of the Right Arm.—Dr. JAMES BELL showed the patient, a woman 22 years old, who suffered constantly from a painless swelling of the right arm, extending from just above the elbow to the finger tips, accompanied by slight muscular stiffness of the forearm. There was nothing abnormal in the circulation or innervation of the part. The swelling was first noticed six months ago, and diminished when the arm was kept at rest for a few days, but came on again when she began to use it. An exploratory incision on middle third of radius outer border, made two months ago, revealed nothing unusual. He was unable to make a diagnosis.

Dr. ARMSTRONG had seen the case, and was unable to throw any light on its causation.

Dr. SHEPHERD thought the condition hysterical and due to mechanical obstruction, surreptitiously produced, to the venous circulation.

Dr. WESLEY MILLS thought Dr. Shepherd's explanation possible, and had noticed in talking with the patient that she was very ready to adopt and repeat symptoms suggested to her. Engorgement of the capillaries could, however, also be produced through nervous influence. In nervous persons, according to Dr. West, transient tumors sometimes suddenly appear in the region of the axillary artery. The present case might possibly be of nervous origin.

Dr. GURD had treated the patient for some time on iron without benefit.

Dr. JAMES BELL thought the obstruction must be mechanical, whether produced voluntarily or by something along the course of the veins.

Ruptured Tubal Pregnancy and Appendicitis.—Dr. ARMSTRONG exhibited a ruptured Fallopian tube with ovary attached. Lying at the bottom of a sort of sac, at the point of rupture, was a small object which appeared to be the fœtus. The patient, a married woman aged 34, was the mother of seven children. In August, 1893, she had what appeared to be a mild attack of appendicitis. She made a good recovery after ten days in bed, and remained well till 28th Nov, 1893, when she was suddenly seized with severe abdominal pain and slight diarrhœa, and when seen one hour later was in an extreme condition of shock. On removal to hospital her condition was so much improved that the contemplated operation was not performed, and she was able to return home in ten days. On 5th Jan., 1894, she was suddenly seized with intense abdominal pain, vomiting and slight diarrhœa, followed by collapse, and was operated on to-day (Jan. 12th). Ruptured tubal pregnancy was suspected in spite of the history of appendicitis in August. The abdomen was found, on opening, to be full of blood. The right tube, which was surrounded by clots and debris, was at once ligated and removed. On Dr. Bell's suggestion, the appendix was removed and examined. It was enlarged, and, on opening, a blood clot was found in its centre. The diagnosis was made specially obscure by the fact that the menstruation had not been disturbed, except for a pause of a week after the commencement of the October period. The flow was then resumed, and went on to its normal term of 4 or 5 days. Although the pathology of ruptured tubal pregnancy has been known since 1814, it is only 11 years since Tait performed his first operation, since which time he has operated on 33, saving all but one, his first case. This fatal result Tait attributed to his neglecting to tie the bleeding tube before cleaning out the abdomen. Intra-peritoneal hæmatocele is specially dangerous, as the blood does not clot, but goes on escaping unless relieved by the surgeon. Extra-peritoneal cases were much less dangerous. Dr. Armstrong thought the abdomen should be opened in every case of collapse following severe abdominal pain.

Dr. GURD referred to a case of his, where Dr. Gardner had operated. The pain was intense. The clot resembled black currant jelly. The case recovered.

Dr. ENGLAND mentioned a case seen with Dr. Armstrong, when the presence of blood in

the abdomen had been diagnosed from the dull note in the dependent part of the abdomen. The perforation was situated near the uterus. Recovery was good.

Dr. LAFLEUR had seen a case at the Johns Hopkins Hospital where the presence of blood was revealed by aspiration. Upon operation, the case proved to be a ruptured tubal pregnancy complicated with chronic ulcerated appendicitis.

Dr. GORDON CAMPBELL had seen Dr. Armstrong's case one hour and a half after the commencement of the first attack. The pain was pretty high up, a little to the right of the umbilicus. There was no dullness or tumor.

Dr. WESLEY MILLS—Intra-venous injection appears to be indicated when collapse is severe.

Dr. ARMSTRONG, in reply, said that in his experience dullness and tumor were only met with in extra-peritoneal cases; when the primary rupture is intra-peritoneal, the blood is diffused between the coils of intestine.

Intra-Capsular Fracture of the Femur in a Paralyzed Limb.—Dr. JAMES BELL exhibited the specimen, and related the history of a man 68 years old, who had been the subject of infantile paralysis. The fracture occurred in the paralyzed limb. After eight weeks' treatment by extension with the long splint he was about to be discharged, as there was no hope of restoration of function in the originally useless limb. He contracted a pneumonia, and died nine weeks after the accident. The bone did not show the slightest attempt at repair. In a normal state of nutrition considerable attempt at union would be expected after nine weeks immobilization. Absence of union in this case was doubtless due to the paralysis. Dr. Bell thought that even in very old patients sufficient union to ensure a serviceable limb is to be hoped for, and disapproved of the advice given in text-books to make no attempt at treatment if very old. In one case of his a lady, aged 94, recovered sufficiently to walk about after nine or ten months.

Dr. ARMSTRONG referred to a case in his practice, when a lady 92 years old got sufficiently well to walk about, though no treatment at all was attempted. He asked if Dr. Bell had ever seen bony union in these cases.

Dr. SHEPHERD thought that the cases which got well were those where impaction was present. It is in cases where manipulation for purposes of diagnosis is employed that the patients never get well, as the impaction is thus broken up. Manipulation should never be used in such cases.

Dr. F. W. HAMILTON had been present at the autopsy on Dr. Bell's case. There was a purulent arthritis of the joint.

Dr. BELL fully agreed with Dr. Shepherd's remarks. He had not seen many specimens of bony union in old persons.

Dr. MCGANNON did not see how a diagnosis could be made without manipulation. He had resorted to it in the case of a woman of 58, and after treatment of a plaster of Paris bandage had secured good union.

Dr. GORDON CAMPBELL referred to Treves sign of a lax condition of the fascia lata on the affected side, as being of great value in the diagnosis of intra-capsular fracture.

Dr. SHEPHERD thought that a diagnosis could be made by observing the relation of the trochanter to Nelaton's or Bryant's test lines. He would rather make an error in diagnosis than run the risk of crippling the patient for life.

Copper Nugget in the Form of a Skull-Cap.—Dr. JAMES GUERIN showed this specimen, found in the Calumet Mines, 4,200 feet below the surface. It was stated that near it were found two other pieces of copper, one having the outline of a foot, the other that of a tibia, according to the description of a medical man. The resemblance to a skull was very striking; but if it was a skull, how did it get there, and why was it converted into copper?

Dr. GIRDWOOD thought the specimen merely a piece of copper ore.

Case of Belladonna Poisoning.—Dr. Elder was summoned on 23rd Dec., 1893, to see a woman aged 45, who was stated to have suddenly fallen in a fainting fit while at breakfast. She was lying down. The face was suffused. There was intense throbbing of the vessels of the neck. The pupils were so dilated that scarcely any iris could be seen. Belladonna poisoning was at once suspected, especially as a liniment of equal parts of extract belladonna and glycerine was being prescribed for another member of the family. It transpired that by mistake a dessert spoonful of this had been taken. A few moments later she said that her eyes "felt as if dropping out." She soon became unconscious. Her stomach, which was nearly empty, was thoroughly evacuated with the stomach pump and washed out with four quarts of water. Afterwards half a grain of morphia was given hypodermically, which promptly contracted the pupils. The pulse was at first 160 and breathing rapid, afterwards the pulse became slower but weaker, and breathing deeper and stertorous. Hypodermics of brandy and ether were employed as stimulants. At times respiration almost stopped, but would revive upon pressing the epigastrium. At 3 p.m., at suggestion of Dr. Blackader, $\frac{1}{30}$ gr. nitrate of strychnine was given. At 6 p.m. she had recovered consciousness and was able to pass her urine. After this her recovery was rapid. On the following day, while breathing near her husband's eyes, he declared that he suddenly became blind. His pupils were certainly dilated, possibly from absorption of the drug exhaled by the patient's lungs. One of the hypodermic punctures produced a slough.

Dr. BLACKADER thought the recovery due to the prompt treatment and the nature of the mixture. The presence of so much glycerine would delay absorption. There was not an exact antagonism between opium and belladonna, and the use of either as an antidote for the other should be made very cautiously for fear of an overdose, as both opium and belladonna in large doses acted as cardiac and respiratory depressants. Dr. Wood thinks that the consecutive use of several drugs having the same action is preferable to a single physiological antidote. He did not advise the use of pilocarpine in the present case, as it would not stimulate the respiratory centre. We have no drug which will exactly cover the symptoms of another drug.

Dr. DECOW mentioned a case of poisoning by cedar oil, where the symptoms were weak pulse, unconsciousness, rigidity of the muscles of the jaw, and epileptiform convulsions. The stomach was emptied, and hypodermics of ether and brandy given. One case of this form of poisoning has been recorded.

Dr. F. W. HAMILTON related a case of belladonna poisoning when a dose of belladonna liniment was given by a nurse. An emetic of mustard produced prompt emesis. Two hours later the only symptoms remaining were slight dilatation of the pupils and dryness of the throat.

Dr. PROUDFOOT referred to a case of belladonna poisoning from application of atropine to the conjunctiva. Personally he once by mistake took an overdose of belladonna and bromide mixture while suffering from whooping cough. Blindness, giddiness and faintness came on, but passed off in three hours without treatment.

Dr. GIRDWOOD asked Dr. Elder if there was suppression of urine.

Dr. WESLEY MILLS reported some mild cases of atropine poisoning which had recovered without treatment. In one chronic case polyuria was noticed. In the dog's heart, atropine prevents vagus inhibition, and pilocarpine restores that function. Further experiments upon the antagonism of the two drugs were needed.

Dr. GORDON CAMPBELL had seen a case of poisoning in a child from application of atropine to the conjunctiva.

Dr. ELDER, in reply.—The quantity of urine was not measured. There was no suppression. The symptoms may have been modified by the morphine given. There was no rash on the skin and no delusions. Until the physiological action of atropine was experimentally worked out, the treatment of such cases must remain experimental.

Stated Meeting, January 26th, 1894.

DR. JAMES BELL, PRESIDENT, IN THE CHAIR.

Suture of Tendons of the Hand.—Dr. BELL exhibited a man on whom he had operated four weeks previously. The patient had fallen through a plate glass window and cut the tissues of the palm and wrist severely, the superficial and deep flexor tendons as well as the ulnar vessels and nerves being severed. Owing to an interruption, the divided ulnar nerve was overlooked at the time. The wound was therefore re-opened next day and the nerve sutured, perfect sensation in the fifth and inner side of the ring finger being obtained. Sufficient movement was now present in the hand to show that the action of the tendons was fully established. In repairing the injury, the superficial and deep tendons had been sutured separately, but Dr. Bell believed the result would have been just as good had the cut ends simply been united *en masse*.

Fictitious Urticaria.—Dr. GORDON CAMPBELL showed a man in whom he had detected this condition accidentally while examining the chest. The slightest scratch brought out distinctly raised reddish wheals within less than five minutes. This was demonstrated before the Society. The condition was most marked in the skin of the back, but was also present over the chest, abdomen and limbs. Dr. Campbell stated that the rareness of this condition was probably largely owing to the fact that, as in the present case, the patients were not inconvenienced by it, and therefore not aware that they suffered from it, and it was only discovered by accident.

Dr. FOLEY considered the disease one of the commonest skin affections.

Dr. ORR asked if the patient had shown evidences of being subject to the ordinary mettle rash.

Dr. CAMPBELL replied that the man was not aware that he ever had any skin disease at all.

Induction Coil for Utilizing the Ordinary Electric Light Current for the Thermo-Cautery.—Dr. LAPTHORN SMITH exhibited an apparatus invented by Mr. Shaw and manufactured by the Montreal Electric Company.

The instrument can be connected with the socket of any incandescent lamp by simply screwing in a plug. The current can be regulated with ease, and arranged so as to heat the platinum knives or loops to any degree required. There was no possibility of dangerous electric shock being given. The apparatus was very cheap, costing only $20.00, the current costing 1½ cents per hour. The apparatus had been employed with satisfactory results for the last two years by several Montreal physicians, but not being aware of this, Dr. Smith had nearly invested in a much more expensive apparatus made in New York, and

so wished to save other members incurring a useless expense.

Dr. SHEPHERD read a paper upon "The Curative Effect of Exploratory Laparotomy," which is as follows:

It has been known for years that in certain cases the mere performance of abdominal incision has some remarkable effects on growths and other conditions of the abdomen. This has been widely recognized especially in cases of tuberculosis of the peritoneum. In 1889, Mr. Lawson Tait (*Edinburgh Medical Jour.*) drew attention to the fact that certain diseases of the abdomen seem to yield to surgical treatment applied to them by accident, and that he had more than once seen tumors, often of large size, disappear after a mere exploratory incision. These cases he reported at the time, but his statements were not believed. The cases in which he had seen tumors disappear in this way were chiefly in connection with the liver, spleen and head of the pancreas. From the number of cases of this kind observed by him, Mr. Tait is satisfied that the disappearance is not a mere coincidence, but that the opening of the petitoneal cavity has a direct influence in setting up the process of absorption of the tumor. Everyone knows that after the smallest wound of the peritoneum, an intense thirst is set up, which lasts for some days, and that this thirst is not set up after opening any other serous cavity, or in wounds of the abdomen where there is no injury of the peritoneum. Mr. Tait relates a number of remarkable cases in this paper. One case particularly deserves mention. A lady, æt. 54, had an abdominal section performed for supposed gall stones or possibly cancer of the liver. The liver was found covered with large, hard nodules, one of which closely imitated the lump which had led to the diagnosis of distended gall bladder. The case had so much the appearance of malignant disease, that no hopes were given of her recovery. Contrary to expectation, however, the patient completely recovered, and was alive and well several years after. A number of other cases are also given. In no less than three out of four cases of greatly enlarged spleen, tumor disappeared without more being done than opening the abdomen and examining the growth, and in one case of tumor of head of pancreas, with great emaciation, exploratory incision resulted in entire disappearance of the tumor in five or six weeks, and complete restoration to former health. In the case of supposed cancerous nodules of the liver, the evidence would have been much stronger had Mr. Tait excised a portion for microscopic examination. It is hard to believe that there was malignancy in any of the cases, but the fact remains that the gross clinical appearances were those of malignancy, and that the observers were skilled in recognizing the normal appearance of the organs. It is possible that some of the lesions may have been due to syphilis. In 1891, Dr. J. White, of Philadelphia, published in the *Annals of Surgery* an interesting and exhaustive paper on the "Curative Effects of Operation *per se*," and came to the conclusion that epilepsy, certain abdominal tumors, peritoneal effusions, and also tubercle were benefited by these operations, and though one of the possible factors was anæsthesia, also psychical influence, relief of tension and reflex action may enter into the therapeutics of these cases. He does not think accident or coincidence explains them.

Pierre Delbet (*Bull. de la Société Alchémique de Paris*, Oct. and Nov., 1892) reports the case of a child, æt. 2½ years, whose health had been failing for some months. On examination, a large, smooth, firm tumor was found on the right side of the abdomen extending from the costal cartilages to the iliac fossa. The diagnosis of sarcoma or carcinoma of liver was made. An exploratory operation was performed, and the tumor was found to be an enlarged right lobe of the liver, pale in color, with violaceous marblings. Enlarged glands were found in the hepatic omentum. Punctures were made, but revealed nothing. The result was immediate and surprising; in three days the child regained appetite and cheerfulness, the liver rapidly decreased in size and returned to normal in two months. The character of the enlarged liver was revealed later, when syphilitic gummata appeared on forehead and scalp.

Dr. Wm. White in the elaborate article in the *Annals of Surgery*, referred to above, cites many cases where exploratory abdominal incision relieved symptoms of pain, vomiting, etc., and also some cases of tumor, which shrank away after operation, although at the time the operator considered them malignant and gave a hopeless prognosis.

Prof. Von Mosetig, of Vienna, in 1888, showed a case where he had performed exploratory laparotomy some time before for a tumor which filled the whole pelvis; it was quite fixed, and removal was not attempted, so the wound was closed. To his surprise, when examined, 14 days later, he found the tumor had shrunk to half its former size, and it continued to diminish, so that when shown to the Imperial Society of Physicians at Vienna, it was no larger than a man's fist. He thought the disappearance might be due to the intense hyperæmia observed during the operation; in the same way sometimes sarcomata may disappear under the influence of severe erysipelas. Cases also occur where, for a time, in malignant cases great improvement takes places as the result of exploration, but these cases always relapse and the patient soon succumbs.

In this connection I shall now relate a case of which I had personal experience. It is as follows:

In October, 1891, I was consulted by Mrs. B., a nurse, æt. 28, spare in habit and of a sanguine temperament, for a tumor she had recently felt in the neighborhood of the umbilicus. She had always been healthy, had been married, and was the mother of one child æt. 8 years. Never had any miscarriage and no history of syphilis. No tuberculosis in family, never had any jaundice, nor had she ever had anything like severe colic. For some time has not been feeling well and not up to her work; has frequent elevations of temperature and occasional sweats; her appetite good, and there are no symptoms pointing to any affection of the stomach, no vomiting or dyspeptic symptoms.

Notes of Examination.—On examining her in the recumbent position, a tumor the size of an orange is felt to the right and a little above the umbilicus. This tumor is smooth, very tender to the touch and moves with the respirations. It can be pushed to the left side, under left costal cartilage, and to the right apparently under the edge of the liver. In fact, the tumor is very freely movable. Occasionally the tumor is very painful, and it is always tender to the touch. I did not examine her again until Dec. 20th, as she had in the meantime gone about her nursing duties in the hospital, but these she soon found too much for her, and she was compelled to take to her bed. Her temperature was carefully registered and she was closely observed. Her temperature was always 101° at night and 100° in the morning. Every other day she had a severe sweat. She said she felt more comfortable up than in bed, for then she had her corsets on, and these when tightly laced kept the movable tumor in its place. On examining her waist, a well marked line of constriction was seen to pass immediately above the tumor when it was in its normal position. It was thought that the tumor was caused by a lacing lobe of the liver, with probably an enlarged gall bladder beneath. Not getting any better, and being anxious to have something done, she consented to an exploratory incision.

Operation, Dec. 23rd, 1891.—An incision was made in the median line above the umbilicus, and the left lobe of the liver was immediately come down upon. On examination, a portion of this lobe was seen to be quite abnormal in appearance and very definitely marked off from the healthy part by a distinct line. This abnormal portion of the liver commenced at the great fissure where the round ligament entered, and extended upwards to a furrow, corresponding to a lacing furrow, and to the left it reached to the edge of the left lobe, where the lateral ligament leaves the liver. This portion was thick, somewhat puckered on its surface as if from cicatricial contraction. It was of a deeper color than the rest of the liver. A needle entered into the cicatricial part with difficulty, but in other parts no resistance was offered to the entrance of the needle. On holding the lobe between the finger and thumb, well marked nodules, like masses of new growths, were felt. Adherent to this part of the liver were some portions of omentum. On removing these, the liver bled freely, and hæmorrhage could only be stopped by application of the cautery; indeed, this abnormal portion differed from the ordinary cirrhotic lacing lobe in that it was exceedingly vascular. There was some intention of removing this diseased portion of the liver, but it was decided not to do so, because the pedicle was so broad and the parts were so vascular, so the wound was closed.

The patient after operation had some pain for 24 hours and distension, but went on to an uneventful recovery. After the exploratory incision she had no more tenderness, and after the first day no more pain. Her sweating ceased and her temperature became absolutely normal. On examining her a few weeks after operation the tumor could still be felt, but it was immovable. She soon returned to her work and complained no more,—in fact, she was perfectly cured, and when last heard from, some short time ago, she was in perfect health and able to perform all her duties as superintendent of a hospital. The tumor disappeared within a year of the operation—or at least could not be felt.

Thinking the case might be of specific origin, I put her on potassium iodide for some time, which may have had something to do with the disappearance of the tumor.

(*To be Continued.*)

Progress of Science.

A MECHANICAL DEVICE FOR ILLUSTRATING THE MOVEMENTS OF THE LUNG IN PENETRATING WOUNDS OF THE CHEST.

Dr. Andrew H. Smith, of New York City, showed before the American Climatological Association an apparatus which consists of two bellows, operated by a handle common to both, representing the thoracic cavities, and each containing an elastic bag representing the lung. The top of each bellows is of glass. A slot on each side, covered by a slide, represents a wound of dimensions variable at pleasure. Tubes representing the bronchi and trachea connect the two bags. With the slot of one side wide open and the bag on that side disconnected from its fellow, it is seen that the

movements of the bellows are without effect upon the bag. But when the connection is re-established, it is evident that the bag receives air from its fellow when the handle is depressed, and that it collapses when the handle is lifted, its movements being exactly the reverse of those of the bag on the other side. When the device representing the glottis is partly closed, this reverse movement is very marked.—*International Medical Magazine*, February, 1894.

CONSERVATIVE TREATMENT OF PYOSALPINX.

Kollock (*International Medical Magazine*, February, 1894) calls atttention to the changes made in the treatment of pyosalpinx within the last year or two, and mentions cases treated by the conservative method which have been reported by Polk, Pryor, Krug, Bodt and Dudley.

He claims that by this method the tube and ovary of the non-affected side and also the diseased tube may often be saved. He says further, "My experience, while limited compared to that of others mentioned, has been sufficient to convince me that the conservative system of practice is bringing us to that period when the mutilations of women, once supposed to be necessary, should cease. This, we think, will be accomplished; as we also believe that abdominal surgery, in the hands of such men as Sanger, Porro, Kelley, Price, and others, will put an end to the barbarous and murderous practice of resorting to craniotomy and embryotomy on the living fœtus."

He then reports four cases of pyosalpinx, three of which were entirely relieved without resorting to cœliotomy.

TUBERCULOUS PLEURISY.

J. H. Musser contributes notes on six cases of tuberculous pleurisy. Some of the different modes of onset are given: 1. By a series of acute attacks; 2. Acute bilateral pleurisy with effusion; 3. It may develop insidiously, or secondary to genital tuberculosis. He distinguishes tuberculous pleurisy from pulmonary tuberculosis by the amount of pleuro-pulmonic invasion, by the age, absence of extreme hectic and extreme emaciation, by the character of the sputum and absence of bacilli, by the unproductive cough, extreme chest pain, and chest deformity.

The writer considers that "It is always cheering to make out tuberculous pleurisy when in the midst of much pulmonary tuberculosis. First, the probability of a cure is very much greater than in other forms of tuberculosis. Second, a partial cure can be promised in many cases. Then the progress is slow, and hence the duration of life much greater than in pulmonary tuberculosis. The symptoms of the terminal stage are, however, more distressing. The dyspnœa, the breast pang and chest constriction, the internal suggestions of dragging or pulling, as upon organs, are agonizing to witness. The harassing cough is most weakening to the patient. Tuberculous peritonitis, of sluggish type, adds to the severity of the terminal symptoms."—*International Medical Magazine*, February, 1894.

RESTRICTING AND PREVENTING THE SPREAD OF TUBERCULOSIS.

Dr. Hermann M. Biggs summarizes his report to the New York Board of Health on Tuberculosis as follows:

1. Tuberculosis is a contagious disease, and is distinctly preventable.

2. It is acquired by direct transmission of the tubercle bacilli from the sick to the well, usually by means of the dried and pulverized sputum floating as dust in the air.

3. It can be largely prevented by simple and easily applied measures of cleanliness and disinfection.

The Sanitary Committee recommended that the Board adopt the following resolutions:

Resolved, That this Board urge upon the hospital authorities of the city of New York the importance of separation, so far as possible, in the hospitals of this city of persons suffering from pulmonary tuberculosis from those affected with other diseases, and urge that proper wards be set apart for the exclusive treatment of this disease; and be it further:

Resolved, That the Commissioners of Charities and Correction be recommended to take such steps as will enable them to have and control a hospital to be known as "The Consumptive Hospital," to be used for the exclusive treatment of this disease, and that as far as practicable all inmates of the institutions under their care suffering from tuberculosis be transferred to this hospital.

This movement of the Board of Health of New York City is a splendid step in the right direction. It is a crying shame and a disgrace to this age of medicine, believing as doctors do in the contagiousness of tuberculosis, allowing cases of bronchitis, pneumonia, typhoid fever, and all other so-called medical cases to be treated in the same ward as the tuberculous patients. If a separate hospital cannot be supplied, at least separate wards should be used by tuberculous subjects. A small hospital located on one of the knobs to the south of Louisville would be a great place for tuberculous patients. Out-door occupation allied with pure air would go far to aid any plan of treatment put into practice for their benefit.

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MONTREAL, MAY, 1894.

THE UNIVERSAL LANGUAGE OF THE FUTURE.

The necessity of having one language that would pass current among scientific or learned people all over the globe was discussed at a recent meeting at the New York Academy of Medicine, when one gentleman read a paper on the advantage of Greek as a universal language. While we cannot agree with him on either of the dead languages Greek or Latin, we are heartily in favor of either French or English, as, practically speaking these two languages are in daily use throughout the world. English of course is already an almost universal language, it being the language of North America, the British Isles, Australia, New Zealand and a large portion of India. All that would be required to make it entirely universal would be for the government of each country to exact that English be taught in the public schools, in addition to the mother tongue: thus in Russia, English and Russian; in Germany, English and German; in France, English and French; in Italy, English and Italian, and so on. We could thus meet as scientists of any profession and have a common language, familiar to all. English is not only the most used language in the world, but it is the language of commerce, and thus is understood wherever the ships of Great Britain or America trade. It is the language which could be made universal with the least expenditure of effort, very different from the acquirement of Latin or Greek, which would be a herculean task. The necessity for some such arrangement was very forcibly demonstrated at the recent Congress in Rome, where we see by our exchanges that only papers read in Italian received a hearing. We presume the same thing will happen in Russia, so that these International Congresses will degenerate into national ones, and thus the principal object, namely, the interchange of medical thought, will be completely lost sight of. Instead of having four official languages, we trust that the next Congress wll only have two, namely, English and French.

BOOK NOTICES.

LECTURES ON AUTO-INTOXICATION IN DISEASE, OR SELF-POISONING OF THE INDIVIDUAL. By Ch. Bouchard, Professor of Pathology and Therapeutics, Member of the Academy of Medicine, and Physician to the Hospitals, Paris. Translated, with a Preface, by Thomas Oliver, M.A., M.D., F.R.C.P., Professor of Physiology, University of Durham; Physician to the Royal Infirmary, Newcastle-upon-Tyne; and Examiner in Physiology, Conjoint Board of England. In one octavo volume; 302 pages. Extra cloth, $1.75 net. Philadelphia: The F. A. Davis Co., publishers 1914 and 1916 Cherry Street.

Death frequently carries off in a few hours or days individuals who are in the prime of life and in apparent good health, and at whose post-mortem the most careful examination fails to reveal alterations of structure such as can explain the fatal stroke. Epidemics, not of a specific character, but traceable to poisoned water or food, have unexpectedly appeared in certain neighborhoods; or members of a marriage party have died without much warning, death being attributed, and very properly, to some article of diet partaken of at the wedding-feast. These are the cases that have aroused public opinion and awakened professional interest in a subject toward the elucidation of which the pathological chemist has vied with the bacteriologist.

Bouchard, in his "Auto-Intoxication," clearly indicates to us that man is constantly standing, as it were, on the brink of a precipice; he is continually on the threshold of disease. Every moment of his life he runs the risk of being overpowered by poisons generated within his system. Self-poisoning is only prevented by the activity of his excretory organs, chiefly the kidney, and by the watchfulness of the liver, which acts the part of a sentinel to the materials brought to it by the portal vein from the alimentary canal. Disease is not something

altogether apart from the individual. The patient and his disease are too often found living under identical conditions.

A very interesting chapter is the one on auto-intoxication as a cause of mental diseases. We have more than once called attention in our editorial column to the relation of constipation to slight forms of mental disease. Altogether the book is rich in explaining the causes of disease and the antiseptic treatment of them.

THE JOHNS HOPKINS HOSPITAL REPORTS. Vol. III., Nos. 7, 8, 9. Report in Gynæcology, II. Baltimore: The Johns Hopkins Press, 1894.

These reports, contributed in the main by Howard Kelly, admirably illustrated, and with tabulations which show how minor a detail is expense in the publications of Johns Hopkins Hospital, are deserving of high praise, as showing the clinical methods of a keen, skillful expert, and as illustrating his ingenuity in combating complications and new conditions as they arise in the course of his practice. The readers of current literature are already familiar with the value of these papers, as they have appeared elsewhere.

Kelly describes his method of measuring the conjugata vera by external direct method, and, by comparison with internal measurements, shows that there is not a difference sufficiently great to be of any practical importance. The illustrations show the method at a glance.

The possible errors in diagnosis from deviations of the rectum and sigmoid flexure associated with constipation are pointed out. It is shown that such abnormal position is especially prone to be associated with fæcal stasis. A number of cases are illustrated, showing how readily the tumor incident to this condition may be mistaken for diseased conditions of the parametrium, tubes, or ovary. This article is extensively illustrated.

Forty-five cases of operation for the suspension of retroflexed uterus are reported, all recovering. The author states that there are two distinct classes of patients in which the operation is applicable,—first, in young nullipara suffering from pelvic pressure, backache and dysmenorrhœa, in whom the retroflexion has existed for a number of years; second, in multipara in whom the retroflexion is acquired. Not only was there recovery, but in nearly all cases very great improvement in general condition.

Mary Sherwood contributes a paper upon "Potassium Permanganate and Oxalic Acid as Germicides against the Pyogenic Cocci," showing that permanganate alone in saturated solution will not destroy the staphylococcus pyogenes aureus. With oxalic acid at a temperature of 40° to 45° C., sterilization of infected threads by an exposure of one minute to its action is accomplished.

Staveley reports a number of complications occurring in cases of abdominal section through the presence of intestinal worms. Six cases are recorded, one resulting fatally. In all, reflex disturbances were most marked.

Under the head "Gynæcological Operations not involving Cœliotomy," eight hundred and thirty-eight operations were performed on six hundred and thirty-one patients. There is an elaborate tabulation of these cases.

One of the most ingenious contributions is an article upon the employment of an artificial retroposition of the uterus in covering extensive denuded areas about the pelvic floor. Six cases are cited.

Murray writes a useful article upon "Photography applied to Surgery."

Russell presents the result of his work in urinalysis in gynæcology.

Robb insists upon the importance of employing anæsthesia in the diagnosis of intra-pelvic conditions, and proves his points by an analysis of some two hundred and forty cases.

Kelly describes his method of direct pressure for the resuscitation of persons from chloroform asphyxia. This seems to offer no advantages over methods already practised, and does not absolutely provide for the patulousness of the respiratory tract in so far as the mouth and nose are concerned.

One hundred cases of ovariotomy performed in women over seventy years of age are tabulated; twelve cases died. Of the three patients over eighty, all recovered. There is a tabulation of abdominal operations performed at the Gynæcological Department from March, 1890, to December, 1892. The operator calls attention to the fact that at first drainage was frequently used, but towards the last has been almost completely abandoned, the glass tube being given up altogether in favor of gauze. Over five hundred cases are recorded.

A record of deaths occurring in the Gynæcological Department is appended,—first, deaths without operation; next, deaths following gynæcological operation.

These reports are most valuable, not only because of their direct teaching, but because they illustrate how the immense material of a large hospital can be best utilized for the general education of the profession.

PAMPHLETS RECEIVED.

A SUPPLEMENTARY PAPER UPON SUPRA-VAGINAL HYSTERECTOMY, by the new method, with report of additional cases. By B. F. Baer, M.D., Professor of Gynæcology in the Philadelphia Polyclinic and College for Graduates of Medicine, etc. Reprinted from Transactions of the American Gynæcological Society, Vol. XVIII., 1893.