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CANADA:

MEDICAL AND SURGICAL JOURNAL.

ORIGINAL COMMUNICATIONS.

The Science of Meteorology—Its Utility—The Necessary Instruments and How to Use Them. By Mr. Thomas D. King, Montreal.

It cannot have escaped the attention of those whose acquirements enable them to judge, and who have the opportunities of examining the state of Meteorological science in England and the United States, that in Canada, more particularly in the Province of Quebec, with respect to the simplest weather reports, the amount of rain fall and the multitude of causes by which the atmosphere is influenced either for the benefit or destruction of animal and vegetable life, we are almost in a state of ignorance.

That a city like Montreal, eminently distinguished for its commerce, for its manufactories, and for its philanthrophy, should be indifferent to the progress of inquiries which are so necessary; and that the medical faculty should be dependent upon the observations of persons whose reports are published at their own discretion, is a fact which is well deserving the attention of those who shall inquire into the causes that influence the scientific progress of the neighbouring States. In them are Observatories and Scientific Institutions founded and endowed by private citizens, and supplemented by grants from Congress, for the discovery of new truths, and for the diffusion of these among men. There is also a large staff of private observers, as well as those belonging to the U. S. Army Corps, in all many hundreds, who contribute to Meteorological Science, serving to place in a clear point of view, the connexion of climate with the natural productions of different parts of the earth.

That the state of knowledge in any country will exert a directive influence on the general system of instruction adopted in it, is a principle too obvious to require investigation. And it is equally certain that the tastes and pursuits of our manhood will bear on them the traces of the earlier impressions of our education. It is not therefore unreasonable to suppose that the neglect of

science, we may almost say, the utter neglect of science, in the Province of Quebec, may be attributed to the system of education we pursue.

Young men pass away from our Public Schools, Colleges, and Universities, ignorant almost of every branch of useful knowledge, more particularly of the application of science to Arts and Manufactures. Our system of education may attribute in some measure to the fact that amongst the wealthy and middle classes, scientific knowledge scarcely exists. Those who have chosen the profession of medicine, may have a slight knowledge of Chemistry, Zoology, Botany, Vegetable Physiology and Mineralogy, but they rarely possess a knowledge of those physical laws which brought forth a Dalton, a Davy, a Faraday—nevertheless, there is a knowledge which they ought to possess, viz.: The peculiarities of the atmosphere which affect the functions of organized bodies. It would be productive of useful results, if physicians of extensive practice, more particularly those attached to our Infirmaries and Hospitals, would make accurate meteorological registers, especially during the prevalence of any epidemic or contagious disorders; not that it must be considered that atmospheric peculiarities alone produce epidemic and other complaints, which must be regarded as having a compound origin, and as resulting from the operation of peculiar states of atmosphere on persons of particular states of constitution; otherwise all persons would be affected, which is contrary to experience. Of this there can be no doubt that the affect of atmospheric changes upon ordinary diseases requires more attention from medical men than it has hitherto received.

My object is not to write a treatise on meteorology; that task has been done by many able men —— those who have the leisure to go deeply into the subject and wish to become acquainted with scientific meteorology, will find that the following works exhaust the topic, viz.:—

Luke Howard, 'Climate of London.'
Daniell, 'Meteorological Essays.'
Kaemtz, 'Meteorology.'
Drew, 'Practical Meteorology.'
Glaisher's, 'Hygrometrical Tables.'
James, 'Instructions for Taking Meteorological Observations.'
Fitz-roy, 'Weather Book.'
Proceedings of the Meteorological Society.
Journal of the Scottish Meteorological Society.
Symons, 'British Rainfall' and 'Meteorological Magazine.'

Steinmetz, 'Manual of Weathercasts' and 'Sunshine and Showers.'

Smithsonian Institution Publications.

'Directions for Meteorological Observations and the Registry of Periodical Phenomena.'

'Tables, Meteorological and Physical,' prepared by Arnold Guyot, Professor of Geology and Physical Geography, College of New Jersey.

To the pages of some of these I am indebted chiefly for the few concluding remarks I shall deem necessary to make. The subject is an important one, and at the same time for all practical purposes very simple, it requires no overwhelming attention; the observer does not require to be well acquainted with mathematics or astronomy; he does not require like some ambitious of scientific distinction to have attached to his name a kind of comet, carrying with it a tail of letters, such as L.L.D., D.C.L., F.R.S., F.M.B.S., F.L.S., etc.; the observations demand no unrivalled accuracy, but mere ordinary care, such as would be required by a schoolboy in a common sum of vulgar fractions.

My object is not to satisfy the requisitions of Science, but to induce those who have not hitherto paid any attention to the subject to do so at once, and to form, if possible, in the Province of Quebec a Meteorological Society, for the purpose of collecting observations on the weather, the amount of rain-fall, and the registry of periodical phenomena, which can be published monthly in this journal.

To the readers of this journal it is not necessary to say that an acquaintance with the science of Meteorology, together with the observance of instrumental and natural signs of the changes and conditions of the atmosphere about us, enable the formation of a foreknowledge of the kind of weather, as of storms, excess of heat or cold, drought or rain. To seamen, fishermen, farmers, gardeners, builders, engineers, travellers, more than the generality of people, such foreknowledge is of great value, on account of their pursuits being greatly affected by changes in the weather. Indeed, the personal safety and comfort of everybody, in a greater or less degree, must be promoted by the ability to prognosticate the extremes of the weather.

It is now well known that variations in the intensity and duration of sunshine, the exposure to humidity, and the amount and frequency of rain and snow, have highly important influences upon the development and growth of crops. A farmer would, therefore, undoubtedly acquire increased experience and knowledge of the varied operations of his calling, if he were to register weather obser-

vations upon a simple but uniform plan, noting all the signs afforded by nature. The blights which affect vegetation, such as the mildew and smut of wheat; the fungus, which attacks the vine; the fly, which destroys the hop and the turnip, may all be dependent upon atmospheric conditions, which attentive observations may detect.

It will now be necessary to say a few words about

METEOROLOGICAL INSTRUMENTS, AND HOW TO USE THEM.

The instruments absolutely required for prognosticating the weather, are few in number, and such as need very little practice to secure accurate and useful information. Meteorological investigators must be cautioned against the so-called "cheap" instruments paraded in the shops, as utterly useless and likely to disgust them with the science. It is certain that no one need be without good, reliable instruments on account of the cost. The best instrument-makers in England seem all anxious to meet the views of those who wish to devote a portion of their time to the development of meteorology; and one of them, Mr. Pastorelli, of Piccadilly, London, has designed a complete set of instruments at a very moderate cost, the barometer having been examined by Mr. Glaisher, of the Greenwich Observatory, the well-known meteorological authority, and certified to read correctly to ·01 or ·02 with the standard, and the remainder of the instruments verified at the Observatory of Greenwich.

A set of the out-of-door instruments, fixed on a neat stand, would form an ornament to any lawn or grass plot near the house, and one of our daughters or sons might undertake the daily inspection of the instruments and keep the register of the weather. Fathers of families have thus the means of introducing into their homes a new feature of interest, and even of utility; for there would thus be in every family a reliable weather-prophet, whose timely advice might prevent exposure to many a drenching, and to the damage and health of garments. Excursions would not, if the Barometer and Hygrometer were consulted, be undertaken in the utter uncertainty as to the weather that is likely to attend them. Besides, it is no small satisfaction to be able to know when we are likely to need umbrellas, and when we may leave the encumbrance at home although the sky be overcast and cloudy. This degree of certainty is within the reach of all of us, with the aid of the requisite instruments.

In all public schools such a set of instruments should form part

of the daily study; and we have no doubt that our young ones would take to it as kindly as to any other pursuit likely to excite their natural curiosity.

I shale now proceed to notice succintly the various instruments required in the investigation of the weather.

THE BAROMETER.

This instrument indicates the changes in the weight, or rather the elasticity of the air; the more elastic the air, the finer the weather, and the higher the barometer. The elasticity of the air being diminished, the barometer falls proportionately to the disturbance causing bad weather.

In fixing the barometer, select a position commanding a good light, but not exposed to sunshine, and adjust the tube to a vertical position by means of a plumb-line. Before reading the instrument, tap it gently a few times, as the mercury is apt to adhere to the tube. In reading, let the eye be placed on the exact level of the mercurial column, so that the eye, the back and forepart of the index, and the top of the column be in the same horizontal plane.

In forming a judgment of forthcoming weather, the point at which the mercury stands should not be so much regarded as whether it is rising or falling; and much consideration should habitually be given to its movements during the previous two or three days. Different latitudes and elevations above the sea have their peculiar *par-line*, or average height of the barometric column.

The varying pressure or elasticity of the air, as shown by the barometer's rise and fall, must have some specific influence on the public health, the *fall* being attended with aggravation or production of diseases of an inflammatory or hæmorrhagic character, the rise producing or aggravating those of a plethoric character, such as pulmonary and cerebral apoplexy, congestive bronchitis, etc. On the other hand, increased atmospheric pressure exercises a sedative influence on the respiration and pulse, diminishing the frequency, but generally increasing the force of both. The lungs are more fully expanded, the blood is more completely oxygenated, and the nervous and digestive organs acquire increased vigour—as forcibly shown by the vigour of our "jolly tars," whose life is passed "on the ocean wave" or "the sea-level."

THE THERMOMETER.

The intelligent observation of the thermometer should always accompany that of the barometer.

The thermometer should be placed so as to be freely exposed to the surrounding air, and protected from the effects of reflected heat, radiation, and rain. The instruments should always be read when we read the barometer.

DRY BULB THERMOMETER.

This and all out-door thermometers should be read to tenths of degrees; it is very easy to estimate these parts of a degree. Always look square at a thermometer, or you will read it too high or too low; read it as quickly as practicable, and don't breathe upon it.

WET BULB THERMOMETER.

Muslin to be kept clean, changed every month or so. The water used should be either clean rain or distilled. Hard water deposits salts on the bulb and hardens the muslin. In frosty weather the bulb should be wetted with water at about 45 degrees, fifteen minutes before observing.

MAXIMUM THERMOMETER.

Whether this be constructed on the plan patented by Negretti or on that of Professor Phillips, it is to be used in a horizontal position; the reading of the end of the column furthest from the bulb is the maximum, and the instrument is reset by lowering the bulb end; sometimes they require a more or less smart shake, of course gentle means should be tried first.

MINIMUM THERMOMETER.

There is at present nothing better than Pastorelli's spirit thermometer for general use; the position of the end of the index furthest from the bulb is the reading to be entered, and the instrument is to be set by raising the bulb so that the index may fall to the end of the column.

The Thermometers should be constructed so as to be without errors, or to have errors less than 0·5 of a degree, which may be neglected for ordinary purposes, and applied when using the observations for scientific purposes.

HYGROMETER, OR DRY AND WET BULB THERMOMETER.

The bulb of the wet thermometer is covered with thin muslin round the neck of which is twisted a conducting thread of lamp-wick, common darning cotton, or floss silk; this passes into an adjacent vessel of water placed at such a distance as to allow a length of conducting thread of about three inches. The cup or glass should be placed on one side and a little beneath, so that the water within may not affect the reading of the dry bulb by its too near vicinity.

Use of the Instrument to the Sick Chamber.

The importance of this instrument to the requirements of a sick chamber are scarcely to be over-rated, and will be at once obvious to all who know that the comfort of the patient is dependent not so much on the temperature, as on the hygrometric condition of the air. In our long winters the air of the apartment when heated with stoves, is not unfrequently too dry, in which case the difference between the readings of the two thermometers will be great, and this condition will be manifest to the sufferer by the degree of inconvenience he will experience attributable to this cause. If the air be moist, the difference between the readings will be less in proportion to the degree of moisture; and if the air be saturated, the readings will be alike. *It would be well for the medical profession to enforce, as far as lay in its power, the use of this simple and effectual instrument, which at all times is valuable with reference to the record of external temperature, as well as hygrometric conditions of the air, and which in case of sickness gives indications so important to the comfort and convalescence of the patient.*

If the hygrometer shows increasing dampness by the difference of the readings becoming *smaller*, then *rain* may be expected; but if the hygrometer shows continuing or increasing dryness, by the reverse, then we may expect more wind, without rain.

The dryness or humidity of the air has the greatest influence on the development of diseases, and therefore this instrument should be the test of the climate of places to which invalids are sent for the recovery of health. In the open sea the air seems to be in a state of saturation, and the quantity of vapour is greatest on coasts, diminishing as we approach the interior.

The hygrometer should be in universal use in our changeable climate, not only during hay-making and the all important time of harvest, but also to do away with the many doubts about the weather from the mere appearances of the sky, causing the great inconvenience of carrying umbrellas, when not likely to be required.

RAIN GAUGE.

This instrument informs us of the quantity of rain that has fallen at any given time. There is a great variety of forms, but perhaps the best and the simplest is Howard's Rain Gauge.

The Rain Fall throughout Canada is very varied in its amount in different localities, depending upon the peculiar features of the country.

The following table shows the equivalent of rain in inches, its weight per acre, and bulk in gallons:—

Inches of rain	0·1	0·2	0·3	0·4	0·5	0·6	0·7	0·8	0·9	1 in.
Tons, per acre	10	20	30	40	50	61	71	81	91	101
Gallons, per acre	2262	4525	6787	9049	11312	13574	15836	18098	20361	22623

The following fact will give some idea of the quantity of rain that falls in showers, and the amount of human labour by hand irrigation that would be required for an equivalent. Suppose a flower-garden 22 yards square (a tenth of an acre,) how many cans of water are required to equal *half an inch* of rain—a very moderate amount for a thunder-shower?

If the can holds four gallons (i.e. 40lbs.) of water, it will require to be filled 282 times, or, to put it in weight, 5 tons of water would have to be supplied.

WIND DIRECTION.

Observers should not rely upon weathercocks for the direction of the wind. It is better to watch the way clouds are drifting; they are steadier in their course than vanes, flags, streamers, or even smoke, driven by the surface wind. Moreover, weathercocks are sometimes set incorrectly; either the variation of the compass has not been allowed for, or it has been applied the wrong way.

The meteorological instruments required for ordinary observations in the pursuit of weather wisdom are few:—Barometer, Hygrometer, Self Registering Thermometers, Rain Gauge.

A little practice will render the duty quite easy, and enable the observer ere long to judge for himself concerning coming weather. To doubt that science of weather is possible, would be to doubt that atmospheric disturbances are governed by fixed laws. But, indeed, a wonderful change has taken place in this respect of late years. Formerly most *savans* scoffed at the idea of predicting the weather; and Arago, the French astronomer, said that no scientific man, anxious for his reputation, would venture upon such a thing even for the space of a single day. But now it is just the reverse; those most acquainted with meteorology are the staunchest believers in the ultimate probability of "doing the thing" to the world's great satisfaction. Indeed, had one-half of the time and research devoted to sidereal astronomy been spent in observing and registering changes which any one may notice, but which no one has yet succeeded in predicting or interpreting, meteorology would not be still "in its infancy" after a birth thousands of years ago, nay, coeval with the first appearance of man upon earth, to observe "the signs which are in the firmament of the heavens."

Hospital Reports.

MEDICAL AND SURGICAL CASES OCCURRING IN THE PRACTICE OF THE MONTREAL GENERAL HOSPITAL.

Case of Acute Rheumatism, under the care of Dr. R. P. HOWARD. Reported by Mr. J. C. CAMERON.

J. B., æt 22, was admitted into the Montreal General Hospital, February 20th, 1872.

Previous History—Is a carter, drives at night a good deal, and is very liable to catch severe cold. Was admitted the fourth day of his illness. The pain took him first in the chest, pain was severe and in stitches. Then it went to both ankles and then up to the thighs and knees.

Present Condition—When admitted there was considerable effusion into both knees and ankles. The left knee and ankle pained the worst. No signs of cardiac irregularities whatever. Pulse 84; Resp. tranquil.

Treatment—Poultices to the knees and ankles. Blisters about two inches in width, round the legs about two or three inches above the knee and ankle joints, left on for six hours.

Internally—The following powders to be taken in effervescence every two hours, in order to render the secretions alkaline.

Potass. Bicarb. ʒiss.
Sodæ Carb. ʒss. } 1 powder.
Tartaric Acid ʒi.

Began to take these powders at 6 o'clock P.M., and after the third powder had been taken, the urine was found to be quite neutral.

February 21—At 11 A.M., the serum from the blisters was found to be distinctly alkaline. The saliva, however, was still distinctly acid. Pulse 90; Resp. tranquil. Pain has gone from left to right side. Complains also of a severe pain in the back when he raises himself up, but when lying quiet he does not feel it. It is an acute sharp pain, not a stitch. Powders to be given now only once every three hours.

22nd.—Urine quite alkaline. Seems much better. Pain chiefly in hips. Legs feel easier.

23rd.—Urine still quite alkaline. Pulse 72; skin cool; no profuse perspiration. Complains of very great tenderness in hips. Medicine was changed to half a powder every four hours. Locally hips painted with Tr. Iodine.

24th.—Pain chiefly in left side, less in left hip and in toes of left foot. Pulse 84. Still no cardiac complications. To-day medicine was changed. Add Tr. Cinchon. ʒi to each dose of previous medicine. Was removed to ward 16; 15 was kept too cold, and he was complaining of being very chilly. The poultices about the joints were discontinued to-day, and instead the joints were thickly cased in cotton wool and covered with oil-silk.

25th.—Pain now in the joints of arms, legs feel much better. Pulse 78; secretions alkaline. First signs of cardiac complications discovered to-day, a slight murmur heard at the base near the sternum. Emplastrum Lyttæ applied to the chest. Left on four hours and followed by poultices.

26th.—Great pain in neck and shoulder; heart murmur feebler than yesterday. Pulse 84. Constitutional symptoms very favourable, though local are not so much so.

27th.—Murmur very slight; still great pain in neck and shoulder, also in right leg. Treatment to be continued.

28th.—Great pain in left arm and right leg. Sleeps little if any at night. Murmur very slight. Pulse 84; skin moist. Ordered Pulv. Dov. grs. xv., at night.

29th.—Back very sore, pain returned to right knee. Pulse 90; Resp. a little hurried. Paint back and shoulders with Tr. Iodine Pulv. Dov. grs. x., to be repeated every four hours.

March 1st.—To-day for the first time a very profuse acid perspiration came on. No complications, arms very sore, got him a mattress, and renewed all his cotton batting and oil silk. Skin cool.

4th.—No change the last two days, profuse sweating continues without givlng any relief to the patient. His treatment was changed to-day to Quin. Sulph. ʒi., Potass. Bicarb. ʒv., Spts. Chlorof ʒiii., Aq. ad. ℥vi., a tablespoonful every four hours. Pulv Dov. to be omitted except at night.

6th.—Under the large doses of quinine, he has not any fever, heat of skin, noises in ears, dimness of eyes, acts as an antipyretic and reduces the heart's action. Yesterday and to-day there was no murmur at the base whatever.

7th.—Medicine reduced to half dose, *i.e.*, to half a tablepoonful three times a day. Skin is cool, temperature is better, pulse good, and was laughing to-day when the doctor came into the ward.

10th.—Has been gradually improving, a soreness and stiffness about some of his joints yet. Painted his arms with Tr. Iodine.

April 3rd.—His joints have troubled him a little. Past rheumatic pains wandering from joint to joint. The affected joints were painted with Tr. Iodine as soon as they became painful. He was discharged quite cured, after having been sick for the traditional six weeks.

Case of Acute Rheumatism with Delirium, under the care of J. M. DRAKE, M.D., Professor Clinical Medicine, McGill University. Reported by T. G. RODDICK, M.D., House Surgeon.

D. H., æt 33, carpenter, was admitted into the Montreal General Hospital, on the 15th March, 1869.

History—He came to this country owing to some pecuniary difficulties at home, which circumstance seemed to influence him considerably for the worse. Ever since his arrival here a little over a year ago, he has been accustomed to drink very freely, with the hope as he thought of drowning his cares. He would spend the greater part of every night in drinking, and has been known to get through a couple of bottles of whiskey at a sitting. It is not known whether he ever had Delirium Tremens, but he appeared to be often threatened with it. His temper was at times most violent, and he was constantly at variance with his companions. He would have occasional paroxysms of rage, and again would often cry at very trifling occurrences.

On admission, the joints chiefly affected were the knees and ankles, though he suffered the day previous from the elbows as well. The slightest pressure or weight over the diseased joints caused him to scream with pain. The heart was unaffected. He acknowledged to having been drinking pretty hard for some days previous to admission.

March 15th.—Perspiration very acid and profuse; pulse quickened to about 95; elbows, knees, and ankles chiefly, swollen and painful, though the wrists and shoulders were not free from pain. Ordered—

℞—Acid Nitromur dil. ʒvi.
Tinc Colombœ ℥i.
Aquæ ad ℥vi.
Sig—℥ss 4. q. h.

Also a Dover's powder at bed time, and the affected joints to be painted with Iodine, and covered with cotton wadding and oil silk. Given beef tea and corn starch.

19th—Very little change, is still quite helpless, secretions slightly less acid, but no marked improvement in any way. Pulse still high, bowels tend to be costive; Haust Niger; joints to be dressed as before.

20th—About the same; less pain in the elbows; hips and shoulders now attacked; perspires very profusely still, and complains of being very weak. Pulse however only about 90 and strong. The mixture to be discontinued and Potass. Bicarb ʒij. every two hours substituted; also blisters ordered in the neighbourhood of the affected joints.

22nd—Has experienced great benefit from the change of treatment. The urine has become nearly neutral in reaction, and the secretion of the skin much less acid. Feels no pain whatever and merely a little stiffness in the joints.

23rd—He is not nearly so well to-day. The pain has returned in the shoulders, wrists and knees, but not so severely as before. Blisters ordered over each. His appetite is very good, and the thirst is great. His pulse has never yet been over 105, but it is now much weaker than ever before.

21th—Slept well last night, having had a Dover's powder, and feels very much better to-day. A very slight bruit with the first sound distinguishable this morning, and heard with greatest intensity at the apex. The secretions are alkaline. Pulse quiet and about 95; has little or no pain in the joints.

26th.—Nose bled a good deal during the night. Murmur a little more distinct. No pain in the joints, but merely a stiffness. Ordered Pulv. Dover gr. x. nocte.

27th—Was quite delirious the greater part of last night, and is now far from being himself. Pulse very weak and frequent; presents a very wild staring appearance, and in fact is delirious at times. The patients in the same ward assert that yesterday afternoon some friends gave him fully two-thirds of a tumbler of a liquid that looked very like brandy, and that immediately after taking it he became very restless, and made several futile attempts to sleep, but would be suddenly wakened by a nervous twitch which seemed to convulse the whole frame. That he got brandy is more than likely, as a large quantity had been detected in his possession a few days previous. The delirium last night was of the furious variety, as he struggled fiercely with the attendants, and could with difficulty be kept in bed. His manner has been very despondent all day, and he seems convinced that nothing can save his life. He cries at the most trifling things and cannot be consoled. Leeches ordered over each temple.

10 o'clock P.M.—A very sudden change for the worse came on

about an hour ago. He is now breathing very heavily and with slight stertor. Face and lips pale; eyes half closed; great restlessness and subsultus with floccitatio. Pulse very weak and frequent (140), heat of skin intense being as high as 108. Is quite unconscious and cannot be aroused. Is ordered brandy and beef tea ad libitum, with cold to the head. It is with great difficulty he can be made to swallow anything.

Died at 12.30.

Autopsy—Brain natural, pacchionian bodies enlarged and firmly adherent. Pineal gland in form of a cyst. Slight congestion of membranes with very trifling effusion under the arachnoid and occasional white points.

Kidneys—Slightly congested.

Spleen—Very much softened and indeed of a pulpy consistence.

Heart—Four to five ounces of effused fluid in the pericardium. A ring of fibrine round one curtain of the mitral valves.

Lungs and Liver perfectly healthy.

Proceedings of Societies.

MEDICO-CHIRURGICAL SOCIETY OF MONTREAL.

MEETING HELD MAY, 4th, 1872.

The Society met at their rooms, the President HECTOR PELTIER, Esq., M. D., Edin:, in the chair. After preliminary business, J. M. DRAKE, M. D., read the following interesting paper on a

Case of Erratic Erysipelas.

On Saturday, 13 April, I was requested to see a gentleman aged 42, a bookkeeper who had been ill for about a week previously. I was informed that for some time past he had felt depressed and run down from overwork, and from neglecting to take his meals regularly and at proper hours. Returning from his office on last Monday evening, he felt a smarting pain in the left hip, and on examining the part he noticed a red patch some two or three inches in diameter. The part was tender to the touch and appeared raised above the surrounding skin. Next day, (Tuesday) he was weak, chilly, and out of sorts, but nevertheless managed to walk to his place of business and back again, (fully two miles)—On reaching home the left hip felt so painful, that he was unable to sit down or even bear to have it touched. He went to bed and

had hot salt applied which gave some relief. About this time he began to complain of slight nausea, though he did not actually vomit; he also experienced headache and confusion of thought. To relieve the headache snow was applied with benefit. On Wednesday 10th, no change occurred except that he complained of a new pain in the left elbow. His wife stated that she looked at the elbow, but saw nothing wrong about it. On Thursday he seemed much better, took a good breakfast and wished to get up, but in the afternoon he became again feverish and excited. He had a warm bath and some hot drink, perspired freely, and next morning (Friday) said he felt much better and again wished to rise. On Friday afternoon he became very despondent, sent to the office for some one to whom he gave some business instructions and expressed his conviction that he would shortly die. This is the history of Mr. A's condition up to Saturday the 13th, the day on which I first saw him. The greater part of what I have just repeated was told by himself except that relating to his hip which singularly enough he did not refer to at all, till his wife mentioned it. Mr A appeared somewhat excited in his manner of speaking but quite rational. I remarked a very tremulous condition of the muscles of his face and particularly of the tongue, when protrnded, there was also a slight tendency to wander from his subject amounting to occasional incoherency which led me to make special enquiries as to his previous habits.—He had always been a most exemplary and sober man, and never suffered from severe illness of any kind. His wife stated that she had previously noticed, that his mind wandered occasionally and mentioned certain expressions he had used several days before, and one or two instances of failure of memory, which at the time of their occurrence did not specially attract attention, but were now recalled. The tongue was moist but with a little patchy coating of white fur. Pulse 100 full, soft and regular. Pupils natural and active. The head was not painful, but an uneasy feeling of distress was complained of as he expressed it " he felt bothered." On the left hip, extending from the great trochanter half way down the thigh, was seen a large dull red patch oval in shape, and perfectly circumscribed. The portion of skin involved in the redness was thickened, infiltrated and distinctly raised about the surrounding healthy skin. A short distance below the large patch described, were one or two smaller ones of exactly similar description but separated by tracts of healthy skin. The skin did not pit on pressure, the subcutaneous cellular tissue was not œdematous, and the part affected was so excessively tender, that even a slight touch elicited loud complaints. The general surface and conjun-

tivæ of the eyes appeared of a sallow hue, which I was told was not natural. He had no profuse sweating and no diarrhœa. The bowels had not acted, since Thursday last, *i e* three days ago, and then only after a dose of magnesia. Of course I examined the hip joint carefully and I was satisfied the pain complained of was quite superficial. On Sunday and Monday, my friend's condition continued much the same, except that he became rather more restless and his mental condition was rather worse especially during the night. I was satisfied, the nervous and mental disorder were consequences of the local disease, and as my patient was not an aged or unhealthy man—the extent of the disease not great, the pulse good and nourishment taken readily and in large amount, there did not appear to be much cause for alarm. I may mention, that on Sunday, his mind appeared to dwell on subjects of a religious nature—he expressed very desponding views of the state of his soul's health, but on the next day, Monday, though his mind still took a religious turn, everything, was bright and hopeful. His friends now became so uneasy, that I was very glad to avail myself of the valuable assistance of my friend Dr. Howard, with whom I saw the case on Tuesday. Mr. A. was now decidedly delirious. His delirium being of a rather quiet cheerful character. He answered question rationally enough when spoken to sharply, but when left to himself became fidgetty and restless—picking with his fingers and moving his hands about constantly and blowing or whistling—he was very impatient of any thing like constraint or interruption. In fact, the case looked a good deal like delirium tremens. Dr. Howard pointed out to me a soft swelling in the left elbow joint, which I may here say disappeared entirely in a day or two, and was not noticed in any other joint. The skin over the left hip was desquamating at the upper part, and the redness, fading above, appeared to be extending somewhat lower down the thigh. Dr. Howard confirmed my view of the case and taking into account the comparatively trivial nature of the local affection and the strength of the patient gave a tolerably favourable prognosis. On Wednesday 17th the 9th day since he first complained, and the 4th of my attendance. The pulse was 102. Morning temperature 102¾. He had not slept well for several nights, but last night not at all. The delirium continued and was assuming a more violent, indead a maniacal character, so as to make actual restraint occasionally necessary. His urine was frequently passed in bed. Sp. G. 1030, solidified when treated with an equal bulk of Nitric Acid contained no albumen nor sugar. The quantity could not be ascertained. On Wednesday night he slept a good deal, after a draught of Pot-Bromid, Valerian and Hyoscyamus; but before the draught was

given, he was highly excited and had a slight epileptiform seizure. On Thursday, 10th day, T. 99½, Pulse 84, an eruption similar to the former, but smaller in extent now appeared in the middle of the lumbar region, and another patch over the right thigh in very much the same position as that occupied by the first patch on the left. The color of the parts first affected was nearly natural, and the skin desquamating. He vomited once about 5 o'clock this morning. The tongue was brown and somewhat dry. 11th day, Pulse 80, skin cool, appeared in a state of religious ecstasy and resolutely refused to take food. 12th day, Pulse 88, T. 99¾. On the afternoon of this day I saw him with Dr. G. W. Campbell in consultation, at the request of his friends. He now had all the appearance of a person suffering from acute mania. 13th day, condition not improved scarcely any sleep. A swelling was observed below Poupart's ligament in the left groin distinctly fluctuating and dull on percussion, the skin not reddened, Pulse 120. I may relate in few words what followed: the maniacal symptoms continued till the 20th day, when he fell into a state of coma vigil, which lasted till next day, when death occurred. Only three symptoms during the interval are of sufficient importance to deserve notice. One was the appearance of a fresh eruption of a similar character to the others on the right flank about 6 in. x 4 in., the former patches fading and desquamating. A second symptom was the occurrence of hæmorrhage from the bowel which I first noticed on the 19th day, but which the nurse informed me had existed in smaller quantity, for some days previously. There was a rather profuse hœmorrhage a short time before death took place. A third symptom was the formation of an abscess in the left groin, which first appeared on the 13th day and which abscess I opened on the 19th day, evacuating about 2 oz. of sanious pus. The *treatment*.—Iron and Quinine. Chlorat and Bromid Potash with Valerian and Hyoscyamus at night, and subsequently when the maniacal symptoms became so marked Tr. Cana. Ind. Iodide and Bromid Potash, Beeftea ad lib. brandy, eggs and milk. Towards the close I was obliged to administer the food per rectum. The bowels were occasionally cleared by simple enema. Shortly before death the right pupil was observed to be rather more dilated than the left, and comparatively insensitive. Monday 29. He died this morning about 10. Port mortem at 4 P. M. *Rigor mortis* moderate. A considerable bloody discharge has taken place from the anus. The situation of the erythematous patches are marked by livid discoloration. *Abdomen* examined.—Small intestine particularly the ileum appears much injected. Mesenteric glands enlarged. On opening the ileum, its inner surface for about 2 feet above the

ileo-cecal valve, was found to be coated with dark tarry colored blood. The coats of the ileum to the same extent were intensely injected, and a number of the solitary glands were swollen and prominent. Peyer's glands appeared distinctly thickened and swollen. *Liver*—venous congestion, otherwise healthy, gall bladder healthy. Heart healthy in all respects, left side empty, right side contained a moderate amount of blood. *Lungs*—Right lung adherent by recent effusion to costal pleura; structure of lung highly congested but otherwise healthy. *Left lung*—Venous congestion otherwise healthy. Spleen small and friable. *Kidneys*—both smaller than natural, tough and granular, the capsules tearing off with great difficulty. *Brain*—Dura mater healthy, venous sinuses engorged and a considerable amount of subarachnoid œdema, arachnoid transparent not thickened, perfectly normal in appearance. Superficial cerebral veins full. Brain substance healthy throughout, both as to consistence and vascularity.

The interest of this case appears to me, chiefly rests; 1st—Upon erratic character of the eruption; 2nd—On the great, unusual and apparently disproportionate severity of the nervous symptoms, as contrasted with the local manifestations of disease; 3rd—The evidence afforded of how completely the blood may become vitiated and poisoned by, or concurrently with, a comparatively trifling eruption of an erysipelatous nature. In this case the skin only was involved, not the cellular tissue at all. The latter was not even œdematous and delirium manifested itself on the 9th day, while as yet, the surface attacked could not have been greater than 6 in. x 4. It is true, we must take into account the granular and atrophied state of the kidneys, a condition which was absolutely well marked and which, notwithstanding the only examination of the urine I was able to make gave no indication of the presence of albumen or of a deficiency of urea, must yet have contributed largely to vitiate the blood. Death appears to have resulted; 1st—From interference with due nutrition of the nervous system, inducing wakefulness, and continued and exhausting movements; 2nd—A low form of enteritis; 3rd—Œdema of the arachnoid; 4th—Pleurisy; 5th—Exhaustion from unwillingness to take food. The inflamation of the pleura (evidently recent) and the enteritis I regard as metastatic. The occurrence of ichorrhæmia with defective secretion from the kidneys, would undoubtedly explain both.

The following passage occurs in Mr. Campbell de Morgan's article on erysipelas in Holmes' surgery, p. 258, vol. I. "We not unfrequently, see cases in which the nervous excitement, and restless wakefulness are greatly in exces of the general symptoms

of erysipelas, and tend to exhaust the patient, and further that this has been often observed in connexion with erratic forms of erysipelas, and furthermore that this erratic tendency is usually an indication of organic disease of the secreting organs or of broken down constitutions.

Dr. Howard, had seen the case in consultation with Dr. Drake, and concurred in the opinion, that it was an example of erysipelas, presenting unusual symptoms. It had been regarded by an observer as a form of mania, but the pyrexia, the localized patches of cutaneous inflammation, and the post mortem appearances contradicted that view. It wanted also the typical range of temperature, the eruptive and the characteristic alterations in the intestines of typhoid fever. The pathology of erysipelas is an interesting subject, and presents some topics worthy of investigation. For instance, is the disease as met with in surgical practice, traumatic erysipelas, identical with that occurring in medical practice—the so called idiopathic erysipelas? The latter almost invariably declares itself on the face and thence tries to extend over the scalp where it usually stops. The former manifests itself in an injured part, the site of some wound or raw surface—and spreads continually, like erysipelas of the face it is true, but has less tendency than it to stop at a determinate site. Idiopathic erysipelas would thus appear to have as special "an affinity" for the face and scalp as scarlatina has for the skin and fauces, while the tranumatic variety affects any part of the external surface. While attending the General Hospital last winter, a man with frost-bitten hands, not yet cicatrized, occupied a ward in which a patient lay with erysipelas of the face. The disease exhibited itself in the frost-bitten man, not on the hands about the raw surfaces, but on the face. Why did the disease thus manifest its preference for the face rather than for the hands? Usually, after operation and other local injuries, erysipelas seizes upon the injured part, it did not in this case. In the small pox Hospital, one of his patients was attacked with erysipelas of the face, why not on the hands or elsewhere? If his experience is not singular, it will have been observed he thinks that idiopathic erysipelas of the face is rarely, if ever communicated, and when it appears to be, it almost invariably shows itself on the face, and not elsewhere. These circumstances appear to Dr. Howard, to lend some probability to the idea that erysipelas of the face is a distinct febrile affection, not identical with that familiar in surgical practice as following operations and occurring in our crowded and otherwise unhealthy wards. During the winter just elapsed, there has been epidemic tendency, in this city to erysipelas and puerperal fever,

and many cases of phlebitis have occurred; can it be that there exists a correlation of morbific forces analogous to that which obtains amongst the physical forces—so that the same morbid force or influence in one develops eyrysipelas, in another pyæmia, in a third puerperal fever and in a fourth phlebitis. It seemed to him not improbable in the affections just mentioned, but less so in the case of the specific eruptive fevers, the poisons of which always appear to produce their like, measles reproducing measles and small pox, small pox.

MEETING HELD JULY 6TH, 1872.

The Society met in their rooms, the Vice-President, W. H. Hingston, M.D., in the chair. After preliminary business. Dr. Fenwick made the following remarks.

I had intended, Mr. President and Gentlemen, to bring before the Society this evening, a case of Fibro-Cystic Bronchocele which came under my charge recently, and in which I removed the entire half of the thyroid body. The patient is, however, still under observation, and as the case is incomplete, it is probably better to defer its description to a more fitting opportunity. I will however this evening substitute a case of Recurrent Fibroid Tumour, which presented itself at the Montreal General Hospital, and which was removed in March last. The tumour was of large size situated in the axilla, and extending from the outer border of the sternum to the posterior edge of the scapula, it reached upwards nearly to the under surface of the clavicle, and downwards to nearly on a level with the under edge of the left mamma. The mammary gland was perfectly unimplicated, the tumour itself although bound down beneath the great pectoral muscle, yet it was perfectly free, and could be moved about in all directions. It presented a nodular feel, was exceedingly firm and dense, and from pressure on the nerves in the vicinity was giving a great deal of pain, so much so that it was reacting on the patient's general health. She presented a pale, ex-sanguine careworn expression, and was desirous at all hazards to part with her troublesome companion. For the notes of this case taken prior to the operation I am indebted to Mr. J. C. Cameron, the present apothecary of our Hospital; these I subjoin:—

M. R., æt 25, admitted to Montreal General Hospital, February 26th, 1872, with an immense tumour situated under the axilla, and extending around below the inferior angle of the scapula.

Previous History—Is a married woman, has one child. Three

years ago she noticed a little hard lump under her arm, quite flat and causing no pain; she paid no attention to it whatever, this was in the winter time. The lump did not seem to grow much till April, 1869, when she weaned her baby, when it began to increase rapidly in size till June, when it remained nearly stationary for some time. It did not seem to change much till last summer, (1871,) when it began to grow very rapidly. At the end of August, she got a very bad cold, and an eruption came out all over her body, the skin peeled off, and the nails dropped off. While this peculiar irregularity was going on, the tumour got very much smaller and seemed to sink and shrivel up. But as soon as this severe cold and attack got better, the tumour began again to grow rapidly, and continued to do so till the time of entering hospital. She felt as if the tumour was getting so large that it was ready to burst out of the skin. She never experienced any pain in the tumour itself but when she walked or exerted herself, a pain seemed to dart through. The pain ran from the axilla to the elbow, this was only when she exercised however. When quiet she always kept a pillow under her arm, and was free from pain. The pain she described as sharp and darting, like a red hot iron passed quickly over her arm. The pain extended out through the shoulder and seemed to come out right under the shoulder-blade. She has not been healthy ever since this tumour began to grow, has gradually lost health and strength, got very weak, even after two months growing of the tumour, found that in attending to her ordinary household duties, as sweeping the floor, she had to sit down several times to rest. Towards the last it got so bad that she had no rest or quiet at all with it, not from any actual pain as long as she did not move, but from a feeling of suffocation and great dyspnœa. She was treated by several medical men. She came to the hospital to have it removed within a year from the time it first appeared, and the doctors decided to remove it, but her physician said that it would be as much as her life was worth to attempt such a thing, and that any doctor should be shot who advised such a step. This frightened her and she would not undergo the operation. This winter she consulted Dr. George Campbell, who advised its early removal. She cameinto the hospital fully prepared to submit to the operation, knowing what a great risk she incurred from the seriousness of the operation and the delicate state of her health.

For a report of the operation I am indebted to Dr. T. G. Roddick, our present House Surgeon; it is as follows:—

The patient having been seen by Dr. Fenwick at his own residence, he advised her to enter the hospital for the purpose of

having the tumour removed. A consultation of the medical staff of the hospital was convened, and it was decided to remove the tumour by operation. This was performed in the following manner on the 2nd March, 1872.

The patient was placed under the influence of chloroform, and Dr. Fenwick commenced his incision about the centre of the tumour, carrying it downwards and backwards toward the inferior angle of the scapula, having divided the skin and superficial fascia, the glossy capsule of the tumour was exposed; laying aside the knife, the operator proceeded with his fingers alone to enucleate the mass, which was rapidly done, and with scarcely any hæmorrhage. The original incision extended only through the skin, covering half the width of the tumour, but was found amply sufficient. After the tumour was removed, it was noticed that the subclavian vein was laid bare for about 2½ inches of its extent; two small vessels required ligature, the surface of the wound was cleansed thoroughly of all clots, and all oozing having ceased, the edges were brought together by five silver wire sutures. The line of incision was dressed with lint wet with carbolic acid lotion, a large compress was applied over the seat of the tumour, retained in position by a well applied roller, and the patient removed to bed. After the operation the patient was comparatively strong, but there remained for some hours an irritable condition of the stomach which was evidently due to the chloroform.

On the second day after the operation the wound was dressed, and everything was looking well, this state continued for the first week, the patient taking nourishment well, the pulse was firm and regular, and ranged between 70 and 80. The wound was discharging freely, necessitating frequent change of the dressings. The external wound had closed at its upper part, this prevented the free exit of pus which appeared to lodge beneath the pectoral muscles, and in consequence a drainage tube was inserted, and no further trouble in this respect ensued. On March 11th it was noticed that the patient did not look well, she complained of want of rest from a hacking cough throughout the night, and upon dressing the wound it was noticed to present an erysipelatous appearance, this extended down the arm, and on the third day appeared on the face. The muriated tincture of iron with small doses of Quinine were ordered, wine and beef tea, and locally a solution (warm) of Acet. Lead.

March 17th—Erysipelas disappearing, though the patient is very weak, pulse 115, wound almost healed, but the suppuration is still considerable. It was noticed that the hand and arm were very much swollen and œdmatous. The iron was omitted, but Quinine

in grain doses continued three times a day. The œdema of the hand and arm was evidently due to interrupted venous circulation, and a distinct hard nodule was felt in the region of the subclavian vein, immediately beneath the clavicle, this was looked upon as a thrombosis in the subclavian vein, most probably in the part of the vessel exposed during the operation.

From this time the patient gradually improved in general health, but about the middle of April it was noticed that there were several nodular enlargements situated in the region of the posterior triangle above the clavicle, and these increased steadily. She left the hospital on the 15th. Some two weeks subsequently the patient left for the country on a visit to her friends. At this time her general health had but slightly improved, and the swelling and œdema of the forearm and hand had increased. I subsequently learnt that my patient had died suddenly; of course being some distance from Montreal, there was no means of verifying my surmise by post-mortem examination, but I can alone account for the sudden death on the supposition that the venous clot had separated, and had been carried into the circulation, and thus produced the fatal result by blocking up in whole or in part, the pulmonary artery.

Reviews and Notices of Books.

Lectures on the Principles and Practice of Physic, delivered at King's College, London, by Sir THOMAS WATSON, Bart., M.D., F.R.S., Physician in Ordinary to the Queen; Hon. LL.D., Cambridge; Hon. D.C.L., Oxford, &c., &c.; in two volumes; from the fifth revised and enlarged English edition; edited with additions and numerous illustrations, by HENRY HARTSHORNE, A.M., M.D., Professor of Hygiene in the University of Pennsylvania, &c.; vol. i, pp. 880; vol. ii, pp. 992; 8vo. Philadelphia: Henry C. Lea, 1872. Montreal: Dawson Bros., Great St. James street.

The lectures of Dr. Watson on "The Principles and Practice of Physic" first made their appearance in the pages of the *Medical Gazette*. This was about the year 1839 or 40, and subsequently, at the earnest request of many warm friends and old pupils, the author was induced to publish them in book form in the year 1843. It has run through five editions, the one before the present was issued in 1858, so that fourteen years have elapsed since the

learned author supervised the bringing out of a new edition of his great work.

When it was announced that Sir Thomas Watson was engaged in revising the last edition of his lectures, there were those of his friends and admirers who feared that he was unequal to the task, and that an imperfect performance of it would bedim his reputation as an eloquent and erudite teacher and expounder of the truths of the science of medicine.

The present edition has lost none of that wonderful power of fixing the attention and seizing upon the mind of the reader, so that it must be admitted that the pen of the venerable author has lost none of its master's spirit of truthfulness and accuracy, which has peculiarly marked the former editions of these lectures.

Throughout the work it is apparent that the author has noted the progress of physiological research. The functions of the minute arteries in regulating the supply of blood to the various tissues and organs is recognized, and this accepted physiological doctrine is employed to explain a variety of pathological changes; for instance, the author shows that in death by apnœa the pulmonary capillaries are empty; clearly, the blood must have been arrested before arriving at the capillaries, this arrest being due to the contraction of the muscular walls of the minute pulmonary arteries, influenced by the vaso-motor nerves.

"It had been ascertained by various trustworthy observers that if the thorax of an animal, which has been suddenly strangled by a tight ligature placed upon its windpipe, be examined immediately after death, the lungs are always found empty of blood, while there is vast engorgement of the right heart, of the great veins, and of the pulmonary artery up to its minutest ramifications. Dr. Johnson proved, by experiments of his own, that this is so, whether the ligature be applied after or before a full inspiration, whether, that is, the lungs were, at the time, full or comparatively empty of air. These are the plain and unquestionable facts of the case. They show that some opposing power must have been called into play, more than equal to the propelling power of the right ventricle of the heart. Now, such a power—and it is the only conceivable one—actually exists at the very place where the venous current meets with its curb; and it consists in the firm contraction of those muscular fibres of the minute arteries, the function of which it is to regulate the blood supply in accordance with the varying requirements of the part. This function again is determined by those unsleeping sentinels, the (vaso-motor) nerves. Were it allowable, for the sake of illustration, to impersonate the vital forces concerned in this marvellous

adaptation, we might liken the process to the intelligent stopping of the traffic on an obstructed line of railway by a backward telegram."

The reader can readily see how this recognized function of the minute arteries sheds a light on the pathological conditions met with in many cases of diseased action. It accounts for the empty state of the capillaries and the congestion of the vessels in that terrible disease cholera, and in acute laryngitis; the obstruction to the entrance of air, and the imperfect æration of the blood, leads to contraction of the minute pulmonary arteries, inasmuch as the pulmonary capillaries are incapable of ærating their accustomed quantity of blood. This is followed by congestion of the larger pulmonary vessels, the right cavities of the heart, and the systemic venous system. Other changes follow with such rapidity as to lessen the chances of surgical relief by the operation of tracheotomy, unless it is performed early. On this head the author observes:

"When you have good evidence that a mechanical obstruction to the passage of the air exists in the larynx, and that the tubes *beyond the larynx* are pervious and free, there are two things which I would urge upon you. First, I would most earnestly advise you *not to wait too long* before you propose or perform tracheotomy; and, secondly, never to omit performing it *merely* because it may appear to be then *too late*. If, in the acute and limited disease, an artificial opening be made while the patient's strength is yet entire, and before his whole system is poisoned with venous blood, or his lungs are overwhelmed with sanguine congestion and serous effusion, it will almost surely save his life. But if the sinking of the vital power have gone beyond a certain point, tracheotomy will not, in that case, rescue him. It is bad and foolish practice to wait, and try other methods, and postpone the operation as *a last resource*, when the circulation is evidently loaded with unarterialized blood, and the air-tubes and cells are filling up. In my own case I should choose to be operated on early; the moment that I found early bleeding was not *telling* upon the local distress, and that any shade of duskiness became perceptible in the skin; just as I should choose to be operated on at once for strangulated hernia, after one fair attempt had been made by a skilful hand to return the bowel; without waiting till inflammation set in, or had been *caused* by the taxis. On the other hand, if you do not see your patient until his powers are nearly exhausted, do not abstain from the operation, even though you may feel convinced that it will be unsuccessful; for if it do not save life, it will disarm death of its agony. A patient will some-

times lie for hours, painfully laboring for breath in deep and strong catches, at considerable intervals from each other; being, in fact, just in the condition of a man with a cord round his neck, not pulled quite tight enough to suffocate him at once. Besides, it is not always easy to say whether the period of possible recovery *is* yet gone by."

The chapter on cholera appears to have received considerable addition; in this, Sir Thomas adopts the theory of Dr. George Johnson, as to the nature and pathology of cholera, and also is favourably impressed with his practical deductions, it does not appear that he speaks authoratively, as though his views were the effect of conviction, the result of actual trial. Indeed he remarks:—"When I last spoke on this subject in these Lectures, I stated that the few recoveries which I had witnessed, had all taken place under large and repeated doses of calomel, but that I could not venture to affirm that the calomel cured them. At present I am much disposed to believe that, by its cleansing action, the calomel may have helped the recovery; and after all that I have since seen, heard, read, and thought upon the matter, I must confess that, in the the event of my having again to deal with the disorder, I should feel bound to adopt, in its generality, the evacuant theory and practice; and avoid alcoholic stimulants and opiates." Now on this head we must say, that however plausible may appear the theory of Dr. Johnson, his method of treatment by evacuants has been unfortunately unsuccessful in the hands of many able physicians, and according to Mr. Sedgwick, Dr. Johnson himself lost sixty-two per cent. of cases treated in King's College Hospital, during the epidemic of 1866. This statement has to be received with caution, as to judge dispassionately of the value of the evacuant method of treatment, each case would require to be carefully investigated.

It does seem plausible, and to our own mind reasonable, the removal of offending poisonous matter which is presumably the cause of the disease. And we have heard that during the early epidemics of 1831, 1832, and 1834, many cases of cholera were arrested in Italy and Spain, by the administration of large doses of freshly expressed olive oil. This was related to us as a fact some years ago by an old friend who resided in Spain during that period: this was before the epidemic of 1853-54, and it made so great an impression on our mind at the time, that we determined to try the oil on the first opportunity. We did so once, and once only, but our patient did not retain it long in his stomach, and absolutely refused to take a second dose, he recovered, but we were not favourably impressed with the experiment: nor did we

attribute his recovery from the attack, to the use of the olive oil. Sir Thomas gives the rules laid down by Dr. Johnson for the treatment of choleraic diarrhœa, using that gentleman's own words: these will repay perusal, as they not only refer to the eliminative method of treatment, but also directions are given for the general management of cases. This lecture is greatly enhanced by the American Editor who gives the views and opinions, chiefly as to treatment, of the leading American Physicians. These as may be expected differ somewhat from those of the author, as Dr. George Johnson's theory has not been favourably received by the profession in the United States.

In referring to Bright's disease, mention is made of hypertrophy of the left ventricle of the heart, which is according to Dr. Bright so often met with in this affection, independent of valvular disease, or disease of the coats of the large arteries. Here again the same action of the muscular coat of the small arteries is described as the cause of this phenomenon, and to Dr. George Johnson is given the credit of having demonstrated the fact that in chronic Bright's disease "the muscular walls of the small arteries, not only of the kidneys, but also in most of all of the tissues of the body are greatly hypertrophied," . . . "and since the tonic contraction of the small arteries is known to oppose the passage of blood, the hypertrophy of the left ventricle is presumably due to the excessive resistance offered to the circulation, by the excessive contraction of the minute arteries."

In conclusion the author in his epilogue remarks that "working with many interruptions and the slowness of old age, there are a few things in the first of these volumes which would have been somewhat differently put, if they had not been already printed while I was preparing the second." These additions have been supplied by the American Editor, who has not only retained many able comments and additions of Dr. Condie, the American editor of the edition of 1858, but has in this edition added where deemed advisable many notes, chiefly referable to the different aspect of disease an this side of the Atlantic. In his preface Dr. Hratshorne states that "with reluctance it has been found necessary to differ from the author, in regard to his acceptance of the views of Dr. George Johnson," on the subject of cholera. Since the first appearance of these Lectures they have stood unrivalled for their clearness of definition, and the familar and lucid exposition of the Practice of Medicine. They have been with students the favourite text book, and we make no doubt that this present edition which is in no way inferior to those gone before, will fill the same place.

A Treatise on Diseases of the Bones. By Thomas M. Markoe, M.D., Professor of Surgery in the College of Physicians and Surgeons, Surgeon of the New York Hospital, Surgeon of Bellevue Hospital, Surgeon of the Roosevelt Hospital, Consulting Surgeon of the Mount Sinai Hospital, of the Strangers' Hospital, and of the Nursery and Child's Hospital, &c., &c. New York. D. Appleton & Co. 1872.

Of late years much attention has been bestowed upon the pathology and surgery of the bones, and our knowledge of these subjects has been very much advanced. The study of the morbid processes which take place in the complicated and marvellously-formed structures of a bone is peculiarly interesting, requiring as it does, special knowledge of the minute histology of the bony skeleton, as well as an appreciation of the peculiarities of the ways in which nature works in it for the purpose of counteracting disease when developed therein.

This book by Prof. Markoe, one of the ablest and deservedly most popular professors of New York, is a most welcome addition to the literature we possess in this branch of surgery. It is made up principally, as we are told in the preface, of the lectures which he has delivered during the last 12 years at the College of Physicians and Surgeons of New York city. It is divided into three parts, viz.: Diseases of Bone; Tumors of Bone; and Malignant Diseases of Bone. It does not claim to be a complete compendium of all that is known on the subjects of which it treats, for the author states that he has followed rather the leadings of his own studies and observations, dwelling most upon those branches where he has himself seen and studied most.

The range of experience of Prof. Markoe and his opportunities for observation, owing to his connection with several of the large metropolitan hospitals of his city, have been almost unsurpassed; and as in his own words, "the study of diseases of the bones had for him a life-long interest," the amount of original observation and research contained in his book is very remarkable. Every chapter is replete with most instructive relations of actual cases illustrative of the subjects discussed, which have come under the care of himself or his confreres. By this means, the interest of the reader is sustained throughout, and the lessons taught are most agreeably impressed upon his mind.

The views of the author on matters of pathology and treatment are always clearly defined and logical, and generally carry with them conviction of their correctness. The style is simple, forcible and clear. The book is one which it is a pleasure to read, and contains the combined knowledge of an advanced pathologist, scientist and practical surgeon.

PERISCOPIC DEPARTMENT.

Surgery.

CASE OF IMPALEMENT ON A BRUSH-HANDLE, WITH PERFORATION OF THE DIAPHRAGM.

By JONATHAN HUTCHINSON, F.R.C.S., Senior Surgeon to the London Hospital.

On the afternoon of Saturday, May 13th, 1871, I saw, in consultation with Dr. Brereton, of Old Ford, the subject of the following narrative:

Mrs. W., aged 27, had, on the morning of the same day, received a severe injury from a fall backwards on her own stairs. It was believed that she had put her foot on a bobbin which one of her children had left on one of the steps, and which caused her to fall suddenly and with great force backwards in a sitting posture. In her fall she felt something enter her body near the anus, and on recovering herself she found the lower part of the handle of an ordinary parlor hearth brush projecting close to the bowel. With great courage and resolution she extracted the whole of this without assistance, although she had, as she said, to change her hand twice on account of its length. Having extracted it she fell faint, and sat on the stair until her servant came and helped her up-stairs to bed. She did not faint away, and she told me afterwards that she had at the time no very severe pain, but only very considerable difficulty of breathing. Dr. Bereton saw her within half an hour of the occurrence. He found that her clothes had not been any way perforated by the brush-handle; there was a punctured wound close to her rectum, and no evidence of hæmorrhage going on. He estimated the quantity of blood which had been lost at about half a pint, for her clothes were in part saturated. The shaft of the broom was smeared with fæces almost up to the part where it had broken off, close to the broom-head. Thus it appeared certain that a length of at least sixteen inches had entered her body.

When I saw Mrs. W. in the afternoon, about eight hours after the accident, she was in bed, looking very pale, but not complaining of any great pain. She allowed me to examine her abdomen

pretty freely, and, although tender in parts, it was remarkably little so. I found her right chest quite tympanitic, and was obliged to infer that the diaphragam and lung had probably been wounded. Although perfectly conscious, and with a countenance but little expressive of anxiety, she had no pulse at the wrist. The laceration by which the broom had entered was on the left side of the bowel, and would admit two fingers. There was no bleeding whatever, and there did not appear to be much to be done in the way of treatment. Death took place in the following night, about twenty hours after the accident.

At the *post mortem* examination we found that the track taken had been first through the skin, and then into the rectum an inch or two above the anus, and thence through its anterior wall just behind the uterus, into the abdominal cavity, after traversing which the implement had passed through the gall-bladder and liver, through the diaphragm, and had entered the lung. The pleural cavity contained a considerable quantity of air with some blood and serous effusion. The peritoneum was everywhere greasy with recent lymph, and contained probably about a pint of clotted blood mixed with bile and small portions of fæcal matter.

I was puzzled at first to explain how it could have gained access to the body without damaging in the least the clothes. Dr. Brereton suggested, and probably correctly, that the brush was lying on the stairs with its handle pointing upwards, and that the woman's petticoats caught its tip and tilted it under them just before she sat down on it. As an illustration of a very unusual kind of accident, the case is of some interest. Nor is it wholly without medico-legal value as an instance of what it is possible for a fearfully wounded person to accomplish. This poor lady actually drew out of her body a weapon eighteen inches long, the point of which was in her lung, and which had to be extracted through her diaphragm, liver, gall-bladder, and the whole vertical length of the abdominal cavity. The amount of blood lost was much less than might have been expected, and the real cause of death appeared to be the shock of commencing peritonitis.—*British Medical Journal.*

A NOVEL TREATMENT OF HERNIA.

M. Demarquay has lately employed, with success, a novel method of treatment in a case of strangulated hernia which resisted the taxis, viz., the evacuation of the contents of the intestine. The patient was a young man, aged 22, who came under M. Demarquay's care with a greatly distended congenital

hernia. The taxis having been tried and proved unsuccessful, even with the aid of chloroform, M. Demarquay thrust a fine trocar into the centre of the swelling, and, by means of Potain's "aspirator," removed between four and five ounces of fluid, besides gas. After removing the trocar, and waiting a few minutes to see whether the intestines became refilled, he again carefully applied the taxis, and easily returned the intestines into the abdomen. Small doses of opium were afterwards given. No symptoms supervened, beyond orchitis, in consequence of the pressure to which the testicle had been subjected: the patient recovered perfectly, and was exhibited by M. Demarquay to the Academy of Medicine a fortnight after the operation. M. Demarquay proposes the emptying of the intestine in the manner described in the following classes of cases: 1st, in all congenital hernia, or in recent hernia which have become strangulated at the moment of their formation; 2nd, in old hernia that have been reducible up to a few days before strangulation, and in large umbilical hernia that have recently become strangulated. The operation must not be performed except at an early stage, before there is reason to believe that changes have taken place in the intestine, rendering it incapable of resuming its functions.—*British Med. Journal.*

Medicine.

ON THE TREATMENT OF SMALL-POX BY VACCINATION AND INJECTION OF LYMPH.

By ROBERT GRIEVE, M.D., Hampstead Hospital.

Mr. Furley, in the *Journal* of the 8th instant, while describing some instances of small-pox treated by vaccination and the injection of lymph, takes occasion to criticise the cases published in the *Journal*, in which vaccination in small-pox was tried at the Hampstead Hospital. There are points in his paper upon which I wish to make a few remarks. He differs from the opinion of Mr. Marson, and also that held by me, that the influence of vaccinia over variola when concurrent is *nil*, unless the former have been induced within the first five days of the period of incubation of the latter. I may state that my belief on this point is formed after observation of a very considerable number of cases of these diseases when co-existent. I have a difficulty in reconciling Mr. Furley's language on this point with what he has stated in another journal, where he says that he has found vaccination in small-pox in adults "almost inoperative." It is well known to all accus-

tomed to the treatment of small-pox, that vaccinated children very rarely, almost never, have that disease severely. Will Mr. Furley inform us upon how many unvaccinated children he has tried the cure by vaccination, and with what results? Mr. Furley asks: "Is it Dr. Grieve's experience for one-third of his cases to abort?" In vaccinated subjects it is my experience that three out of four abort—that is to say, run a highly modified course, and that this proportion is even much larger amongst those who have four or more good cicatrices of vaccination, as it is less in those imperfectly protected. In unvaccinated subjects, the disease very rarely indeed aborts; but of the six here, five were vaccinated, so that under ordinary circumstances three ought to have aborted. Although this has been my experience of small-pox, I do not agree with Mr. Furley that necessarily it is a peculiarly happy one, for I think it will be found to be the experience of many others. I may remind Mr. Furley that three out of six died, our general mortality is not fifty per cent., and, as he says, there are no cases without a lesson; what lesson does he draw from this? He falls into an evident error as to the period of the disease at which vaccination was tried; he says they were not vaccinated until the fifth and sixth days, evidently thinking it was at that stage of the eruption; while it was the second and third days of the eruption, or the fifth and sixth days of the disease. I saw nothing in the progress of these cases to cause me to alter the opinion that vaccination after the appearance of the small-pox rash is utterly useless. In order to give a full trial to the treatment, seven more cases were operated upon by the latest of Mr. Furley's methods—namely, the hypodermic injection of lymph in quantity. I take the opportunity of expressing the belief formed upon the results in these cases, that not only is its curative action absolutely nothing, but that in a certain number of instances most serious consequences have resulted from its use. Two only of those cases are as yet completed, both by death. One was from *variola hæmorrhagica* uninfluenced by the operation; the other had severe small-pox with bronchitis in the earlier stages; afterwards, erysipelatous inflammation of the arm operated upon set in, resulting in suppuration and sloughing of the cellular tissue. Diarrhœa came on, and convulsions shortly before his death. Another man has also had severe inflammation and suppuration of the arm, with serious constitutional symptoms; and in three others, abscesses either have formed or are forming in various parts of the body. These results are not such as to encourage me to continue the practice, but rather have determined me to discourage it by all means in my power.

I refrain from criticising Mr. Furley's cases, but I ask him to publish, not as he has done, a selected cure or two, but the history of every patient treated by him, with full particulars of their ages and condition as to primary vaccination. In the absence of such details it is impossible to form any reliable opinion as to the success or non-success of his plan of treatment. I am afraid this is but another instance in which a lucky succession of cases of variola curta has led to the belief that at last has been found the long looked for specific for small-pox.—*British Medical Journal.*

THE TREATMENT OF INERTIA OF THE UTERUS.

By Lawson Tait, F.R.C.S.Ed. & Eng., Surgeon to the Birmingham Lying-in Charity and to the Hospital for Women.

A sentence in Dr. Playfair's introductory lecture leads me to believe that a note on a very simple method of assisting labours which are tedious in the second stage, that I have recently adopted, may not be unacceptable. The method is far too simple for any expectations of mine to be fulfilled that I have been the first to use it, though I am perfectly certain that it is original in my own practice. As it was, however, actually based on Dr. Braxton Hick's method of external version, and suggested itself to me when I was performing that operation in a case of placental presentation, it may possibly prove to be, like Dr. Hicks's device, from its very simplicity, something new in obstetrics.

Dr. Playfair writes: "We have learnt, also, some valuable lessons from a careful examination of the abdomen externally, such as the possibility of aiding the force of feeble and ineffective pains by judiciously applied pressure to the uterus. In this plan, indeed, which is as yet little known in this country, I feel convinced we have a means of assisting the progress of a labour in which the delay is simply due to the want of sufficient uterine contraction, far safer both to the mother and the child, and far more effective than the administration of oxytoxic drugs, such as the ergot of rye, in which many place much confidence."

The fact that this is the only reference I have yet seen to the employment of external pressure in cases of inertia of the uterus, must be my apology for describing the method in which I employ it, and, first of all, the case in which it was suggested to me.

In August last, I was summoned hurriedly one morning to see a woman in labour and attended by a midwife. I found her cold, pulseless, and the bed and floor swimming with blood. It scarce needed an examination to know that the placenta was presenting. The os readily admitting my hand, and the uterus being perfectly

flaccid, I at once removed the placenta, and, by the combined version, easily brought down both feet. I could get no amount of manipulation to induce contraction of the uterus; and to wait for the action of ergot was to waste time. I therefore passed my left arm under the patient and my right arm over her, embraced the uterus between them in a direction parallel with the axis of the brim, interlocking my fingers and spreading them over as large a part of the fundus as possible. In this position, and by the external pressure, I imitated normal contractions, as one does with the forceps, and soon had the satisfaction of finding the child protruded as far as the shoulders; then, with the left hand on the fundus, and the right guiding the child, birth was soon completed. The child was almost dead, of course; but the mother made a good recovery.

Since this case, I have had on three occasions to adopt the method of external pressure in cases of inertia.

Mrs. K., confined on December 20th of her seventh child, had a large roomy pelvis; but though the passages were relaxed to the fullest and ergot administered twice, the uterus was absolutely passive. I placed her at once under chloroform, and commenced the intermittent pressure described above. In about ten minutes delivery was completed, and there was no *post partum* hæmorrhage.

In September, I was retained to attend Mrs. E., the mother of seven children. Her attendant informed me that nearly all her labours had to be assisted by the forceps on account of an inert state of the uterus, and that in the last two she had nearly lost her life from *post partum* hæmorrhage. A few days before her confinement, the house was entered during the night by burglars, and she awoke to see one of them removing her husband's watch from the toilet-table. She was, of course, much excited, and in the morning I was asked to see her. We feared very much that the fright would exercise an unfortunate influence, and so, indeed, it proved, for symptoms of labour came on immediately. We tried by opium and rest to delay it, and succeeded for a time. At last, however, it came on, and, as before, the second stage was characterised by inertia. The pains were sufficiently severe to require anæsthesia, but whether it was continued or not, they did nothing. Instead of resorting to the forceps, as I originally intended, I employed the external pressure, and very soon had the head on the perinæum. I then used the forceps to guide the head through the passages, still having the external pressure kept up. She recovered more rapidly and more completely than she had ever done, according to her own account, though she attributed it

to the chloroform. It is certain that she had no after-hæmorrhage.

The third case was in the person of a strongly built woman, in whose second labour the pains suddenly ceased without apparent cause. The head was nearly on the perinæum when I arrived to assist the midwife. I advised the external pressure instead of ergot, and we found it perfectly successful in re-establishing the pains, and by its help labour was completed.

I feel convinced from even this short experience, like Dr. Playfair, that the method of external pressure will soon and in most cases supersede all uterine stimulants, and that the use of these will now be confined to the *post partum* state. External pressure is of great help when, from accident or necessity, anæthesia has been pushed so as to interfere with the intensity of uterine action. I have little doubt that this communication will bring many others from obstetricians who have practised the same or some similar method of external pressure. My plea is that, so far as I know, it is not used in this country as it ought to be, and that ergot is far too largely consumed by parturient women, especially when under the care of the so called "trained midwives."

[Since correcting the proof of this note, I have seen a reference to a method of assisting the inert uterus by external pressure in Dr. Meadows' *Manual*, with allusion to the writings of Ritzen, Kristeller, and Playfair, but I have as yet had no opportunity of going further into the history of this method of treatment. It would seem to be not of older date than 1856.]—*British Medical Journal.*

A CASE OF PARAPLEGIA LASTING FIVE YEARS; ELECTRICAL ANÆSTHESIA.

QUESTION OF MALINGERING.

By W. Moxon, M.D., Assistant Physician to Guy's Hospital.

A lad aged 18, was admitted into Guy's Hospital (Astley Cooper ward,) under my care. He had been sent up from Northampton with the following history: He had fallen from a hay-loft nearly six years before admission, and in consequence of the fall was laid up with weakness of his lower extremities and of his back; he said that his water had been drawn off on account of his inability to pass it. The history which the lad gave was tolerably consistent. He said he had fallen from a height upon his back, and

that paralysis of the bladder and lower extremities was the result of the fall, all of which was very likely.

Whenever a paralytic case comes under care, one gets an advantage by inducing the person to put out all the effort he possibly can, urging and compelling him to do so. In this way one learns much of the nature of the case by the degree of willingness with which effort is put out, the freedom of the effort in the parts actually moved, as well as, of course, by the kind and degree of the imperfection in the usefulness of the paralysed part.

On making the boy get out of bed, he flopped on the floor, propping himself on his arms and resting on the side of his buttock, with his legs flexed at all the joints so as to be drawn up rather tightly. The legs were remarkably blue and cold, especially below the knees. The suspicious points about the lad's case were —first, the total paralysis he claimed to have; and, second, the defined line around his knees at and below which he declared the sensation to be lost. Under chloroform it was found that his legs, which he said it hurt him to straighten, would stretch to their length quite naturally; and when cautioned to be very careful, at the same time that he was forced to get upright—being held up in the air, in fact, by the arms,—his legs made very promising movements.

Testing the exact line limiting his anæsthesia in the way we employed led to still more doubt. We marked the professed line with ink, then made him shut his eyes, and tried his sensibility to touch above and below it. With his eyes shut he could not keep to his line as he had done most accurately when he was looking at it. It was remarkable, though, how near he kept to it.

The most interesting results were obtained from the electrical excitation of the paralysed parts. The lad was a miserable coward, and got into insufferable terror at the approach of the electrical battery. We did not calm his fears, but gave substance to them by applying the interrupted current so strong that I could scarcely bear it myself, which I endeavoured to do for the sake of appearances. He fairly bellowed when the poles were applied to his arm, the stimulated muscles of which contracted very actively, but I was much surprised to find that when this strong current was applied to his legs below the knees, he gave not the slightest sign of feeling in it, and said that he scarce felt it at all, while the muscles contracted so feebly that their reaction was often doubtful, and never more than very trifling. The same current applied in the same way to the legs of a man in the next bed, a courageous fellow who willingly underwent the experiment, made him hiss

inwards through his teeth, and no effort of will on his part could prevent the muscles from strongly contracting, though he made a very energetic face in the endeavour to resist contraction, whereas the boy's countenance was perfectly placid while the electricity was applied to his legs. The boy had been a fortnight in the hospital before I made this examination by electricity, and had already made considerable progress; first he had stood up holding on to the back of a chair, then pushed the chair before him, and at last lifted the heavy chair, supporting it instead of having it to support him. As all this mending had occurred in a fortnight, and especially as I could not but think that the power required to lift a heavy chair, in the awkward stooping posture the boy always assumed, was far greater than compatible with his claim to be paralysed, I had come to regard him as a shammer. These results of electrical examination, however, made me at the time doubt whether it could be all sham, and led me to expect that perhaps a check in the progress of the case might be anticipated. I therefore adopted a more active treatment than that hitherto used, which had consisted of camphor-water and driving behind the chair. The fresh means consisted in the use of silver, administered, not internally, but in the form of sixpences, and accompanied with promises of more. Under all these therapeutical means his progress was wonderful. He left go the chair back and got about on a broom-handle, then learnt to carry the broom. Five weeks after Christmas he ran a very good race with another boy in the hospital-park and won the shilling. He is now apprenticed to a tailor in the city of London, and described by his friends as doing well.

This issue of the case I suppose will be taken to show the boy's condition throughout was no other than deliberate deception. I can't help holding that opinion. Under these circumstances the state described in regard of electricity becomes of great interest.

Can we suppose that the prolonged disuse of the limbs had so brought down the sensitiveness of his legs and weakened their muscles that the usual painful contraction was partly not set up and partly not felt. It is difficult to suppose this, seeing that the power of the will found its ways into his legs so soon and thoroughly as the story shows. Nevertheless, I cannot suggest any more likely explanation of the difficulty, and we must remember that although recovery was quick it was gradual. I should, however, have said that in the latter few weeks the electrical current was used to the boy's legs; but the recovery was by that time complete. I ordered the electricity only for its moral effect; yet some may be disposed to think that that helped the cure.

But as my belief is that the lad was malingering, I think the chief interest of his case lies in its showing that want of absence of reaction to the electrical current does not prove a paralysis to be real; while the whole history shows the power over such cases which one may exercise by firm and persevering pressure upon the patient's will, keeping up a sufficient friendliness in the meantime.—*The Lancet.*

NOTES OF A FATAL CASE OF HYSTERIA.*

By Robert W. Foss, M.D., Stockton-on-Tees.

About 3 o'clock in the afternoon of October 11th, 1870, as I was passing his house, I was called in by B. to see his daughter, aged 19, who, he informed me, had been in convulsions all day. When I saw her she was perfectly conscious, throwing her arms and legs about, laughing and crying alternately, in fact, having hysterical convulsions. She complained of pain in the right side of her head, also of the *globus hystericus* rising up from her abdomen to her right chest, where it stopped. Her chest was normal both to percussion and auscultation. Pulse about 80, small. She also stated that she had had leucorrhœa, with much offensive discharge, for the last fourteen months, and since that time had had these hysterical attacks. She had been under medical care all this time, and was for some months a patient in an infirmary. Her father stated to me that all the medical men who had seen her said that she was simply suffering from hysteria with leucorrhœa, and that in time would be well again. I expressed a similar opinion, believing that it was a case more for moral than medical treatment. Within three hours of this she was dead, having expired in one of these paroxysms. Her father was anxious that the real cause of his daughter's death should be discovered, therefore Mr. A. H. F. Trotter and myself, assisted by Mr. Ruck, next day made a post-mortem examination of her body.

The right lung was normal, as was also the left, with the exception of some slight hypostatic congestion at the base. There was some frothy mucus in the bronchial tubes. There were no pleuritic adhesions. The heart was pale in colour, and rather flabby. There was a small clot of blood at the apex of the right ventricle; the other cavities were empty. The liver, which seemed rather larger than usual, on section, was normal, as were also the kidneys and suprarenal capsules. The contents of the cranium appeared perfectly natural. The base of the uterus was congested, and its

* Read at the Annual Meeting of the Northern Branch.

walls were thicker than usual. The mucous membrane lining the interior was covered with a thick glassy mucus like white of egg, which was also exuding from the os. The left ovary was about the usual size, and, on section, was found to present a honeycombed appearance, consisting of numerous little cavities filled with gelatinous matter, constituting what is called colloid tumour of the ovary. The right ovary was of the size of a large walnut, and, on section, consisted of one large parent cyst containing many smaller ones springing from its internal surface. There is nothing here to account for death taking place so suddenly as it happened in this case; and the only hypothesis we can offer is, looking at the state of the cavities of the heart, that it was death from syncope.

I would not have ventured to bring this case under your notice, had I not remembered a similar one in the clinical wards of the Royal Infirmary, Edinburgh, which was under the care of Dr. Douglas Maclagan, during the summer session of 1868, the subject of which was a strong well-developed woman between twenty and thirty years of age, who was admitted for hysteria, and who died suddenly in one of the paroxysms. At the post-mortem examination of the body subsequently made, every organ was found to be perfectly healthy, and the cause of her death, I presume, must therefore have been syncope. Whatever may be the pathology of hysteria, most medical men regard it as a disease curable, and not one in which an unfavourable termination is to be expected; therefore, besides any other value which this case may have, it teaches one thing, that death may take place during the hysterical paroxysms, and that when they exist there must be a certain amount of danger to life.—*British Medical Journal.*

EPILEPSY PROVOKED BY CONTUSION OF THE SCIATIC NERVE: CURE BY INCISION.

Dr. Garnier (*Union Médicale*) mentions that Brown-Séquard, in 1869, divided the sciatic nerve and the spinal cord in guinea-pigs, and that the simple irritation of the face or neck of the injured side could produce convulsions. M. Briand, 1869, showed that a wound of the hand will produce the same effects. It might be said that these were simple coincidences, and that onanism or venereal excesses had produced the epilepsy; but Dr. Billroth, of Vienna, relates another similar case, which is instructive. A young man at Pesth was struck on his left buttock by falling as he descended a flight of stairs. There was a soft tumour, the size of an egg, seated between the sacrum and ischiatic tuberosity. A

crack in the pelvis was diagnosed with contusion of the sciatic nerve. There was anæsthesia of the anterior of the thigh, and hyperæsthesia of the posterior part of the same; and muscular convulsions of the whole limb resulted, in spite of using leeches to the sacrum and blisters along the nerve. These convulsions extended throughout the whole body, in the form of diurnal or nocturnal attacks, and on the 24th of April a true epileptic attack took place in the evening. These then were repeated, although various medicaments were tried. Billroth found the leg bent on the thigh and the thigh on the pelvis. The foot could not touch the ground. A gentle pressure in the sciatic region seemed to reveal a swelling at the great tuberosity of the ischium, but whilst the sciatic nerve was being more minutely examined the patient was seized with convulsions and a regular epileptic seizure. The use of bromide of potassium was tried, but after six weeks of waiting the patient demanded to have an operation tried, and it was done on 26th June, 1869. An incision, eight inches long, was made along the sciatic nerve between the sciatic nerve and trochanter, which laid the nerve bare from the point where it leaves the pelvis up to the inferior sacral foramen. But the nerve was found to be quite normal in appearance. The patient had an attack of epilepsy on recovering from the chloroform sleep. The attacks were renewed at each dressing of the wound, but ceased in a year after the first accident. Dr. Garnier observes truly that if German surgery had only such audacious attempts to chronicle, it would be as well to leave it the monopoly of them. Would not cautery and moxas have been quite as useful without the danger that might arise from such "heroism?"—*The Doctor.*

MANIACAL ATTACKS IN THE BEGINNING OF TYPHOID FEVER.

The Editors of the *All. Wien, M. Zeit.*, 29th May, in speaking of the clinical cases of typhoid fever noticed in the wards of Skoda and Oppolzer, mention that the commencing symptoms of typhoid fever are so variable as often to cause the greatest difficulty in the diagnosis of this disease. Sometimes at the commencement there is no febrile reaction noticeable, but merely disturbances in the functions of the brain, so that the fever may greatly simulate an affection of the intellect. Such patients become quite confused in their capacity of thinking, speak suddenly and absurdly, become melancholy, and lose their memory, or have an attack of mania, with perhaps epileptiform seizures, when up to the moment of the disease coming on nothing remarkable was noticed, and the ap-

petite was present. In such cases we may very easily fall into the error of supposing that a disease of the brain is present. Such cases are by no means very rarely seen; and not a year passes at Vienna Hospital that some mistake of the kind is not made. It is only later on that the fever becomes revealed by heat, diarrhœa, and enlargement of the spleen with meteorism of the abdomen. We must suspend our judgment, then, in a case of mania when the patient has been perfectly healthy up to the time of the attack; and we may cherish the hope that the case may turn out to be one of typhoid fever.

In some cases of typhoid fever, too, the disease may simulate meningitis or encephalitis; but we must remember that in disease of the meninges, or brain, there is not solely disturbance of the activity of the intellect, but as a rule disturbance in the sensation and motion of the face and organs of special sense. In meningitis there are remarked disturbances in the functions of the brain, sometimes with the character of irritation and sometimes with depression or complete palsy; headache here attains, in acute cases, a high intensity, and the patients complain of this not only when conscious, but put the hand to the head when unconscious. In meningitis there exists sensitiveness to scents, photophobia, and grinding of the teeth, and occasionally strabismus.—*The Doctor.*

TUBERCULOSIS AND PYÆMIA.

In reference to the discussion on pyæmia at the Pathological Society, reported in our last, when Dr. Sanderson stated his belief that there was a close analogy between pyæmia and tuberculosis, but that the former was an acute affair, and the latter one more gradually produced, Dr. George Moore writes to the *Lancet* to say that three years ago Waldenburg, of Berlin, published a masterly work entitled, "Die Tuberculose, die Lungenschwindsucht und Scrofulose," in which (page 455) his views are expressed in words which admit of the following translation: "Miliary tuberculosis is a resorption disease; it arises from the taking up into the circulation of very finely divided corpuscular elements, and from the deposit of the same as formations of nodules in numerous scattered parts of various organs. Accordingly, tuberculosis is a general disease, and also a blood disease in a certain sense, but it is not a specific one. Of all diseases in the nosological system, it stands perhaps the nearest to pyæmia, which is likewise viewed as a non-specific resorption disease. Pyæmia also forms separate deposits in various organs; but they are larger than in tuberculosis, and of a purulent, inflammatory nature. In pyæmia the elements which get into the blood are more extensive, and therefore cause embolism, stasis, large abscesses, and gangrene; in addition, the absorbed particles have a putrid or infectious character, and so excite severe irritation. On the other hand, in tuberculosis the particles are very small and finely distributed, and appear not to be endowed with considerable irritating properties; for this reason they do not occasion well-marked or at least extensive inflammations, but only give rise to the formation of small miliary deposits."—*The Doctor.*

CANADA

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MONTREAL, AUGUST, 1872.

THE CANADIAN MEDICAL ASSOCIATION.

It will be seen by reference to our advertising columns that the Annual Meeting of the Canadian Medical Association, will take place in Montreal, on Wednesday, the 11th September next.

This is expected to be the most important meeting that the Association has ever held, inasmuch as it is hoped that a Medical Bill for the Dominion of Canada will be definitely adopted, embodying the principle of a central examining board.

We have on a former occasion drawn attention to this measure, and the great desire on the part of what we believe to be the majority of the profession throughout the Dominion for its adoption. In saying this, we are aware that there may be some objectionable features in the Bill already submitted, but it is very necessary, to attain our object, that united and preconcerted action should exist in our ranks. To effect this the profession should hold preliminary meetings, and appoint delegates with full powers to enunciate their views, and endeavour not by wordy argument or factious opposition, but by calm and temperate enunciation of those views to settle on some definite system of Medical Legislation. For this purpose it would be well to establish without delay branch associations, so that men could attend the meeting with some definite plan of action.

In the June No. of *L'Union Medicale du Canada*, the editor, Dr. Rottot, who is conservative in the most tortured meaning of the term, gives a review of the projected Bill. He is of opinion that in a country like ours, where there are different nationalities, each one jealous of preserving his language, his laws, and his religious belief, it will be difficult to frame a Bill that would be acceptable to all. Now this is a difficulty that is easily got over, if both parties are willing to calmly and dispassionately consider the subject. Religion should have nothing to do in the matter, as medical students are not generally

examined on the peculiarity of their religious belief, and we should suppose that colic is as painful whether a man be a Roman Catholic, or a Protestant, a Greek, or a Hebrew, and that the treatment would differ but slightly. This is a fallacious mode of argument, for what has the nationality, the religion, or the laws of a country to do with the science of disease and its prevention or cure. We have often regretted the narrow mindedness of those who carry the country from whence their forefathers emigrated it may be centuries ago, into every day life. Canadians (for we are all that now) ashamed of the land that gave us birth, must needs call ourselves English, Irish, Scotch or Frenchmen—but ignore in toto our native land.

Can anything be so supremely silly, it may be well for political tricksters and office seekers, to raise such a cry, it may do well for an election contest, as we all know what a small matter will lead the rabble, but for serious thinking intellectual members of a scientific profession, whose mission is almost as sacred as that of the priesthood, it is unaccountably ridiculous.

We regret that the whole tone of this article is to say the least of it narrow minded. In speaking of preliminary education, the editor cites the XXVth Clause of the Bill submitted, which provides for the recognition of a Degree in Arts from any University in Her Majesty's dominions, and that persons holding such degree in arts, shall be permitted to commence the study of medicine without having to submit to preliminary examination, and he says :—

" De sorte qu'un gradué quelconque, fut-il d'Afrique ou de la " Chine sera admis à l'étude de la médecine, simplement sur pré- " sentation de son diplôme, tandis que nos jeunes compatriotes, " après avoir reçu dans nos colléges une éducation, pour dire le " moins, aussi bonne que celle donnée dans les Universités " anglaises seront obligés de se soumettre à un examen avant " d'être admis à l'étude de la médecine. Ces Messieurs " paraissent vraiment avoir une petite opinion de nos maisons " d'éducation."

To this we simply remark, that students be they of French or English extraction are dealt with alike. If a young man presents himself for preliminary examination, and holds a degree in arts from Laval University, he would be at once admitted to the study of medicine, without further test; if, however, he comes with a certificate hailing from any of our public schools, not in verity a university degree in arts, he would be expected to submit to the required test by examination. Where is the hardship, or where is the injustice done to "*Nos maisons d'éducation.*"

By the 28th Clause the Council are empowered to refuse recognition to any school of medicine not in actual operation at the time of the passing of this act. This is by all parties looked upon as an excellent measure, and when we see the condition of medicine in those countries where the multiplication of schools has been the rule, how debased and miserable a trade it has become, trading in the very lives of their fellow men is the occupation of a large number of practitioners, it behoves us in Canada to take warning, and to prevent such a result if it be possible. Here again *notre nationalité* is at stake, and the editor of the *L'Union Medicale du Canada* observes:—

"Ce qui veut dire, si je comprends bien, que si, plus tard, dans "la Province de Québec on croyait nécessaire d'établir une nou- "velle école de médecine canadienne, il nous faudrait avoir recours "au bon plaisir du conseil général."

Here we will stay our pen, we have selected these portions of the argument of our confrere, to illustrate the fear of utter annihilation which has fallen upon him. Those Englishmen are evidently, in his opinion, not to be trusted. They are plotting his destruction, the destruction not alone of his language, but of his institutions and of his religion. Without hope of salvation themselves, they are bent on carrying him and his compatriots and all their surroundings to perdition.

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But as regards the Bill, we would earnestly advise our brethren east and west, to hold meetings, elect delegates, discuss the various clauses, and what occurs to any one to be cumbrous, or that would be improved by alteration let it be amended. We solicit, we ask for advice, but we do hope that at this meeting a definite policy will be adopted, as it is very desirable that the profession throughout the country should hold legal status, and be protected against charlatanism and quackery.

A CONJOINT EXAMINING BOARD.

By a recent exchange, we notice that the Irish Licensing Authorities have agreed to a Conjoint Examining Board. This much wished for measure has been arrived at after careful deliberation, by delegates from the several licensing bodies, who have been in Session at the College of Physicians for several weeks. The only Medical Authority which declined to co-operate is the Queen's University of Dublin. In Scotland the same movement is on foot, although it is feared that the proposals of the Scotch

Colleges will not be adopted by the Medical Council nor by the Government. It is however believed, that should the measure proposed come before the House of Commons, or pass into the hands of the Government, that the action of the principal licensing bodies in England and Ireland to carry out an honest measure of reform, will meet with approval, and ultimately become law.

THE LATE PROFESSOR FRASER, M.D.

With feelings of profound regret we chronicle the death of our late friend and colleague William Fraser, M.D., Professor of Institutes of Medicine McGill University. This sad event took place at his residence on the morning of Wednesday, the 24th of July, after a short but painful illness, and we cannot but feel that the University has lost a valued and learned teacher, and the profession a wise and judicious counsellor. Indeed when we look back at the career of the deceased, we must confess that he set an example of strict probity—industrious to a fault, he laboured on through failing health, always ready at the call of duty, and when the summons came, ready to yield up his soul to his God.

Wm. Fraser studied medicine in the city of Glasgow, Scotland, from whence he received the Licence of the Faculty of Physicians and Surgeons, about the year 1834, he subsequently emigrated to Canada, and determined to settle in Montreal. A vacancy occurring in the Montreal General Hospital, he received the appointment of Apothecary to that institution in August, 1834. At this early date the funds of the hospital being inadequate, the sole appointment made was that of apothecary, who performed the duties of House Surgeon. Although he had assumed those duties, he still pursued his studies, and graduated at McGill College, after an attendance of two Sessions, in 1836.

Shortly after graduating he entered private practice in this city. In 1845 the staff of Lecturers at McGill College was augmented, and Dr. Fraser was selected to fill the chair of Medical Jurisprudence. In 1847, a vacancy having occurred in the attending staff of the Montreal General Hospital, Dr. Fraser received the appointment. Again we notice a change which occurred in 1849. The chair of Institutes of Medicine became vacant that year, and Dr. Fraser was selected to fill the position. Since that date he has continued his connexion with the University, and has filled the chair with great ability.

Two years ago some of the members of the profession in Mont-

real resuscitated the Medico-Chirurgical Society, and we must remark in reference to our meetings, that Dr. Fraser was seldom absent, invariably when present he entered into debate on subjects which came before the Society, and his observations were listened to with interest and attention, for what he did say bore the stamp of authority and previous preparation. This was a most pleasing and instructive feature of our meetings, and one to which, in a great measnre, is due the success and interest taken in the society by the younger members of the profession. His remains were interred at Mount Royal Cemetery, on Saturday, the 27th ult., the funeral being attended by a large number of professional and other friends. His death has left a blank in our ranks which will not be easily filled up. Dr. Fraser was painstaking and very successful, both as a surgeon and physician, he was a constant student, and did not confine himself to works connected with his own profession, for his information was extended and various.

After the funeral, the profession met and passed a series of resolutions. These we subjoin, taken from the Montreal *Gazette*:—

THE LATE DR. FRASER.

At a large and influential meeting of the Medico-Chirurgical Society, of this city, specially convened on Saturday evening last, the following resolutions were unanimously passed:—

Moved by Dr. PELTIER, seconded by Dr. REDDY, and

Resolved—"That the members of the Medico-Chirurgical Society of Montreal, deeply regret the loss of their late friend and associate, William Fraser, whose high qualities as a professor, physician and citizen, justly endeared him to his colleagues, and fellow-citizens, and whose self-sacrifice and devotion to duty shed lustre on our Profession."

Moved by Dr. DAVID, seconded by Dr. F. W. CAMPBELL, and

Resolved—"That this Society desires to place upon record the interest in its meetings shown by their late associate, whose active assistance helped so much to render them interesting and instructive."

Moved by Dr. THOMPSON, seconded by Dr. DUGDALE, and

Resolved—"That this Society extends to the family of the deceased their heartfelt sympathy in the great bereavement which has fallen upon them."

Moved by Dr. FENWICK, seconded by Dr. GODFREY, and

Resolved—"That the Secretary of this Society be instructed to forward a copy of the foregoing resolutions to the family of our late member, and to the city papers."

THE LATE DR. J. B. BLANCHET.

This promising young man expired at his residence in the City of Quebec, on the 21st of July, 1872. Graduating at McGill University in the spring of 1863, he proceeded to England and pursued his studies at St. Bartholomew's Hospital, London, where he became dresser to the late Sir William Laurence, Bart.; in January, 1864, he became a Member of the Royal College of Surgeons of England, and the following April took out the License of the College of Physicians, London. After spending some months on the continent of Europe he returned to Canada, where he entered private practice in the City of Quebec.

At the second meeting of the Canadian Medical Association, held in Toronto, in 1869, Dr. Blanchet was elected hon. secretary for the Province of Quebec, to which position he was re-elected in 1870 and 1871. At the last triennial meeting of the College of Physicians and Surgeons, Dr. Blanchet was elected one of the Governors of the College to represent the City of Quebec, and at the last semi-annual meeting of the Governors of the College held in this city, Dr. Blanchet was present, but was at the time in ill-health. Those who knew him had no idea then that his life was in jeopardy.

In extending to the bereaved friends our heartfelt sympathy, we can only add our belief that from what we knew of the deceased, his amiable and gentlemanlike deportment, had he been longer spared, his career would have been full of brilliancy.

Medical News.

DISTRIBUTION OF PRIZES AT ST. THOMAS'S HOSPITAL.

On Thursday, June 27. his Grace the Lord Archbishop of Canterbury distributed prizes to those students of St. Thomas's Hospital who had succeeded in gaining the highest number of marks in their respective years at the competitive examinations during the past academical session. The Archbishop appeared gratified with the enthusiastic reception accorded to him. In his address his Grace acknowledged with emphatic earnestness his personal indebtedness to the medical profession for his restoration to health after a protracted and serious illness. The Archbishop then alluded to the various links which bind the clerical and

medical professions in their capacities as ministering to the sick and the suffering around us. The consolations of the gospel and the skilfully devised remedial measures should be judiciously interwoven and blended to the comfort, succour, and perhaps restoration of those in need of such divinely appointed help. The apostles, following in the footsteps of their Lord and Master, "went about doing good," and "healing all manner of diseases among the people."

The Archbishop reminded the company of a fact not by any means generally known, and one that most of those present were probably unaware of, to the effect that the power of conferring degrees upon those gentlemen, qualified to receive the same, had descended to his Grace from a remote antiquity. Previous to the Reformation this power was exercised by the Pope, but a statute was passed after the Reformation entitling the Archbishop of Canterbury to that precriptive right. A more recent Act of Parliament, however, deprives gentlemen thus qualified from making use of such titles to practise their Profession.

The Archbishop concluded his address by urging the ladies and gentlemen present to assist as far as they were able in promoting the social and moral welfare of the medical students. By far the larger majority of these young men, having left their quiet homes in the country, were deprived of parental care and supervision, and exposed to all the temptations and frivolities of a London life, at a time when, from their ignorance of the world and the pliancy of youth, they were least able to resist the subtle influences around them. With the view of providing some healthful recreation for the students away from all contaminating influences, the Archbishop has most liberally offered free access for the students to the grounds of Lambeth Palace, where there is ample room for cricket, football, and athletics.—*Medical Times and Gazette.*

MENTAL EFFECTS OF RHEUMATISM.

Dr. Faure says, in a recent French Journal, that a man who is subject to rheumatism will very often tell you, if you ask him—for he has no reason to refer what passes in his mind to the sensations in his arms or legs, or elsewhere in his muscular system—that he has moments of despondency without cause, of inquietude, of forlornness, inexplicable to himself. Then he is discouraged without cause, and sees everything in the shade; that which ought scarcely to be the object of a slight care, becomes the cause of a cruel torment; he is without force, his thoughts can be fixed on nothing, all intellectual work is impossible; if he wishes to solve

a problem, he soon experiences fatigue and heaviness of his head, which often turn into a violent headache; then his sensations are altered, his affections cease, he is indifferent to everything; that which has the most right or power over his mind, remembrances which are most dear or most painful, have no interest for him. His character has changed. He is conscious of his condition, and can for a few minutes rouse himself out of it. A crisis may follow, his head is congested, he feels quite giddy. Finally, all these symptoms disappear, and his mind recovers its tone and clearness. The attacks vary much with individual disposition.—*The Doctor.*

HEALTH OF FACTORY-WORKERS.

At a meeting of the Centenery Club, Pal lMall, on June 28th, Mr. Motteshead made a statement that, on account of the greater speed of the machinery used in factories, the results to the work-people were an over-strained nervous and physical condition, feverish excitement, and heart disease. To this assertion Mr. Hugh Mason gives an emphatic denial, declaring that, both from his own personal and practical experience in factories, the physical and mental condition of the work-people is greatly improved by the machinery used, and by the sanitary regulations enforced; and he challenges Mr. Motteshead to prove the statement made. We should be glad to hear the opinions of factory surgeons on this subject.—*The Doctor.*

ERYTHEMA NODOSUM.

Dr. H. S. Purdon, whose Quarterly Reports on Dermatology are known to the readers of *The Doctor*, contributes a paper on Erythema Nodosum, to the *Dublin Medical Journal* for June. He seems to have had frequent opportunities of observing this affection, and thinks it should be classed with hæmorrhages of the skin, not amongst the inflammatory group. The lower limbs although the usual seat of the eruption are not always so, the arms occasionally being attacked. The treatment recommended is iron and quinine, whilst locally shampooing the legs or part affected with hot sea water is to be recommended; a Daimetta flannel bandage worn during the day, as all erythematous legs are below the normal temperature. In obstinate cases the peroxide of hydrogen and tincture of steel are very useful, a teaspoonful of the former with ten to fifteen drops of the latter in a wine glassful of water twice daily.—*The Doctor.*