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OBSERVATIONS ON THE NATURE AND TREATMENT OF VARIOUS DISEASES,

BY ROBERT L. MACDONNELL, M.D.,

*Licentiate of the King and Queen's College of Physicians, and of the Royal College of Surgeons, Ireland; Lecturer on the Institutes of Medicine, McGill College; Physician to the Montreal General Hospital; Consulting Physician, Montreal Eye Institution.*

No. 2.—ON THE USE OF THE MICROSCOPE IN THE PRACTICE OF MEDICINE.

For the last nine or ten years the Pathologists of Europe have been in the habit of using the microscope for the elucidation of many departments of Practical Medicine, but more especially for the examination of urinary diseases.

The researches of Prout and others, who examined this difficult subject with the assistance of chemistry, did much, no doubt, towards removing a great deal of the obscurity in which it was enveloped; but the physician in the active practice of his profession, although he could not shut his eyes to the great importance of chemistry, in renal diseases, had to neglect the minute study of these affections, inasmuch, as at every step his progress was arrested by the necessity for chemical analysis, and the great length of time which a careful examination of the urine required, when conducted in this manner. But now that the writings of Rayer, Bird, and Simon, have placed in the hands of the practitioner a speedy and simple method of analysing urinary deposits, no matter how small in quantity, by means of the microscope, no excuse can be offered for his remaining ignorant of this subject, except that, which with equal propriety, he might adduce for his want of acquaintance with other improvements in medicine, viz., indolence or indifference.

But I am not without hope, that the recital of the following cases, in illustration of the value of the microscope to the medical practitioner will be productive of good; and that some of my brethren, who may not as yet have turned their attention to this important matter, will be induced to commence its study, which, I can assure them, will be productive of more unalloyed pleasure than any other department of their profession is capable of affording.

For some years back I have been in the almost daily habit of using this instrument, in the investigation of diseases of the kidneys, urethra and bladder, and in those affections which, though situated in distant organs, produce sympathetic derangements of the renal functions.

On my arrival in this city, I made some of my friends acquainted with these investigations; amongst others, I may allude to Dr. Crawford, whose zeal for the science of his profession is well worthy of imitation. He soon saw the great assistance the instrument afforded in many difficult cases, and availed himself of his being in London to order out two excellent ones, which I believe he is constantly employing.

Indeed I could hardly adduce a case more conclusive of its utility than the following, which occurred in his practice.

CASE I.—A boy, aged about six or seven years, was brought to Dr. Crawford last autumn, by his mother, who stated that he laboured under various symptoms, which led Dr. C. to suspect the presence of a calculus in the bladder. He accordingly introduced a sound, but did not obtain any conclusive evidence of the presence of a stone. The boy laboured under the symptoms for some time longer, and in my presence the sound was again introduced, but neither the doctor nor myself could feel any calculus. I obtained a small quantity of the boy's urine, and examined it with the microscope, and although to the naked eye it appeared quite healthy, yet it exhibited a good number of pus globules, as well as a deposit of the triple phosphate in prismatic crystals.

As the boy had no symptoms of disease of the kidneys or ureters, and his age precluding the probability of these appearances being due to gonorrhœal irritation, the opinion we formed was, that the mucous membrane of the bladder was in a state of subacute inflammation. Soon after the employment of treatment which this diagnosis suggested, the symptoms became alleviated.

CASE II.—Last winter a gentleman, aged twenty-four, called upon me for advice, for what he termed a disease of the liver. He had been under the care of one physician for three years, and had lately consulted

a second—the former had given him large quantities of mercury for the supposed malady, and the latter following up the idea, had given him blue pill and taraxicum. Both had attributed all his symptoms to “Liver Disease.” On investigating the case I could not agree with him, that his headache, palpitations of the heart, loss of appetite, constipation, lassitude, apathy for former occupations and amusements, extreme nervousness and timidity, inability to take exercise or undergo the least fatigue, indifference to worldly prospects, (seeing that he had been only a month married) occasional dizziness of sight and impairment of memory, with almost constant insomnia, and a host of other minor symptoms were to be ascribed to chronic hepatitis. Accordingly I recommended him to leave at my house four or six ounces of the urine passed on the following morning.

Having examined it, I found it loaded with oxalate of lime crystals, and a copious admixture of dead and disorganized spermatozoa. I immediately obtained a clue to the diagnosis and treatment of his disease. The presence of spermatozoa clearly proved the existence of that form of spermatorrhœa, to which Lallemand has directed attention. In this variety, the discharge takes a retrograde route to the bladder, hardly any of it getting exit by the urethra; and such a condition of the genital organs is more frequently produced by onanism than natural indulgence. The oxalate of lime always indicates great debility and irritation of the system—general nervous exhaustion;\* and we know that to such a state it is that the unfortunate victim of this practice reduces himself.

I had no hesitation, then, *in the absence of symptoms more clearly connected with hepatic disease*, in associating all his sufferings with the above-mentioned vice.

Now, it is extremely unlikely, that I should so soon have been enabled to arrive at the origin of the disease, were it not for the light thrown upon the matter by the microscope; but having once detected spermatozoa in the urine, the inference to be deduced was, that the involuntary emissions were the result, either of excessive sexual indulgence or masturbation; and the confessions of the patient removed any further difficulty. During the whole time that he was treated for the supposed liver disease, he himself more than suspected that his physicians had not traced his ailments to the fountain-head; and he expressed his astonishment, that, during the whole time he was under their treatment, they had

never inquired into his mode of life or habits. Suffice it to say, that after some hesitation, he admitted having been inordinately addicted to the practice, and stated that for the last three years he had been subject to involuntary emissions three or four times each night: that the consequent exhaustion was so great, that for a length of time he was accustomed to go to bed at ten o'clock, and rising again at twelve o'clock, he passed the next three or four hours in walking about his chamber, or in reading, in order to allow the interval to be passed over without involuntary emissions. Latterly, he had become impotent, and being recently married, his wretched condition preyed severely on his mind.

The treatment pursued was ultimately attended with success, and he now enjoys good health.\*

I have selected the above example from amongst many others, in which I have diagnosed involuntary seminal discharges from the microscopical examination of the urine, a discovery first published by the celebrated Lallemand, who has contributed so much to our knowledge of the pathology of the genital and urinary apparatus.†

CASE III.—I was consulted in last March by a lady, in reference to the case of her son, a boy aged 8, of strumous habit, who from infancy had been subject to “wetting the bed” every night, no matter what precautions she adopted to prevent it. For the first three years this habit caused her no uneasiness, as she thought that as the child grew older, the habit would wear off; but at the expiration of this period, not finding any amendment taking place, she consulted her physician, who recommended a “whipping” to be administered every morning, a prescription which for some time she rigidly followed. Not deriving any benefit from this scientific treatment, she left the case to nature, until she brought him to me. Having made an examination of the urine, it was found to present the following characters—spec: grav: 1021 at temp: 65 deg. Fahr.; reddened litmus paper, was of a deep amber colour, depositing a yellowish sediment, which, on being examined microscopically, presented a copious collection of large-sized, lozenge-shaped crystals of lithic acid, without any admixture of epithelium, pus, or blood. In other respects the boy's

\* It would be foreign to my purpose to enter into the details of the treatment I employed in the above case, and which I have found most serviceable in similar ones. This I hope to do at a future period, when I intend devoting some time to the consideration of this subject.

† A friend sent me some urine not long ago, in which he thought he had detected spermatozoa. I had no hesitation, even before examining the specimen, in differing from him—First, because he described them as moving about; whereas, when in the urine, they are always dead, and generally disorganized. Secondly, because I knew that his microscope did not magnify sufficiently to exhibit the characteristic tail of the spermatozoon, which requires a power of at least 500<sup>o</sup> linear. The animalcules which he saw were a species of *Vibronis*, very frequently met with in decomposing urine.

\* Donné has asserted, that oxalate of lime is always a sure indication of spermatorrhœa, I have frequently detected it in the urine of females, which at once upsets his doctrine—It would be more correct to state that it is frequently associated with that disease.

health, though not bad, was far from being robust. In fact, he was what is usually understood by the term, a "delicate boy."

The treatment I pursued in this case, is that, which, under similar circumstances, I find to answer best, viz., a combination of diaphoretics, anti-spasmodics, alkalies, and nutritious diet. Accordingly, a powder of nitrate of potash was ordered to be taken at bed-time, and washed down by a draught containing camphor mixture, and tincture of opium; lime water to be taken during the day, and nutritious diet, consisting of a good proportion of *fresh* animal food.\*

Nitrate of potash acts in these cases most beneficially, not only in keeping the skin in a healthy state, but also by increasing the watery constituents of the urine, thereby diluting it, and rendering it less irritating to the bladder.\* The camphor and opium are serviceable in preventing spasmodic contraction of the bladder, and in subduing irritation.

The indications for alkalies are so manifest, that no explanation is required for their having been ordered. Of these I have derived most benefit from lime water taken with equal parts of milk, and used, not as a medicine, but as the ordinary drink of the patient. Most invalids become very fond of it, after the first three or four days.

It may appear unscientific to order animal food, in the lithic acid diathesis, seeing that we thus supply the system with nitrogenized elements, and consequently with materials for the formation of urea; yet the harm we do, is more than compensated for, by the benefit to the system generally; for though, in a chemical point of view, we ought to withhold azotised substances in the uric acid diathesis, yet pathology has shown that we must first relieve the debilitated and irritable state of the system, in such cases, before we can look for a *permanent* improvement in the renal secretion.

A perseverance in the above treatment was completely successful; on the third night of treatment, for the first time in his life, he avoided wetting the bed, and on the 2d of April, the urine was 1021 in spec.

\* I have remarked that many patients affected with the lithic acid diathesis, become extremely fond of salt provisions; and some boys will eat large quantities of table salt, unmixed with any other substance.

\* It is by no means uncommon to find that the excess of lithic acid, or lithate of ammonia in urine is more apparent than real, and depends upon an abnormal *deficiency* of the aqueous portion of the urine, in consequence of which the solution of these substances presents itself in a more concentrated form; the quantity of urea daily secreted not being in reality more abundant than in health. The converse of this should also be borne in mind, for where the watery portion is in excess, the urea compounds may be so diluted as to escape detection, as was the case for many years with respect to diabetes, although, as is now well known, the normal quantity of urea is daily eliminated even in this disease.

grav.; it reddened litmus paper slightly, and deposited triple phosphate in considerable quantity.\* Dr. Chas. Campbell was present at this analysis of the boy's urine. From this time forward, his general health greatly improved, and the power of retaining his urine continues unimpaired.

CASE IV.—A gentleman of great intellectual attainments consulted me, when practising in Dublin, under the following circumstances. He and a friend had gone on an excursion, during which they indulged in claret and champagne, wines to which they were unaccustomed. My patient soon became affected with great and frequent desire to make water, accompanied with pain over the region of the pubis; but these symptoms were not productive of much annoyance, nor did they excite much alarm, for it being hot weather, he also drank freely of cooling beverages, and attributed the frequent micturition to this cause. The symptoms not disappearing on his return to his ordinary mode of life, he was induced to consult me. I found him in rude health; every function performed with regularity; the urine voided in my presence appeared perfectly healthy; the slight trace of opacity produced by adding nitric acid was so trifling that I attached but little importance to it; it was also alkaline, and of high specific gravity. On examining it with the microscope, pus globules were discovered. I now ordered him to save for me, the urine passed next morning, and on examining it, I was really surprised at the quantity of pus globules it contained. As there was no evidence of disease of the kidneys, ureters, or urethra, I treated him for chronic cystitis, and with success. The microscope was of the greatest assistance in the diagnosis, but it was infinitely more useful in the latter stages of the disease, for I was induced by the evidence it afforded, to persevere in my treatment, long after the urine ceased to throw down a deposit perceptible to the naked eye; and I have no doubt that without its aid, I should have

\* I have frequently remarked the change from an exceedingly acid to an alkaline condition of the urine to take place so suddenly, that I could not attribute it altogether to the action of the medicine administered, and I have consequently considered that the phenomenon admitted of the following explanation:—We know that "if urine be secreted with so small a proportion of acid as barely to redden litmus paper, a deposit of triple phosphate often occurs a few hours after emission, a phenomenon depending partly on the influence of the mucous matter present, which, exciting a catalytic action like a ferment, induces the decomposition of urea, and the formation of carbonate of ammonia, which, by neutralizing the solvent acid, throws down the phosphates" (*see G. Bird, p. 105*). This change is favoured by the decrease of lithic acid diminishing the irritability of the bladder, and thus enabling it to retain the urine in its cavity for a longer period, so as to favour still further the continuation of the chemical process; for it is in cases accompanied by frequent desire to empty the bladder, or, if the patient be a child, with "wetting the bed," that we most commonly observe this sudden change take place.

left off the *remèdiés* long before the disease was completely eradicated.

**CASE V.**—Some months ago I was requested by Dr. George Campbell to allow him to examine with my microscope the urine of a young gentleman, who laboured under symptoms of stone, and in whose bladder Dr. C. had distinctly felt a small calculus some time previously.

It appeared that though the patient had voided the stone through the urethra, yet the symptoms of calculus still remained, and the urine continued to throw down a copious deposit, and retained its highly acid qualities. On placing a drop of it under the microscope, the sediment was found to be composed of immense lozenge-shaped crystals of lithic acid. Dr. C. informs me, that notwithstanding the employment of measures to correct the formation of uric acid, and to improve the general health, that the young gentleman still labours under many of the symptoms for which he was consulted; and from what I have heard of his case, I coincide with Dr. C. that it will be extremely difficult to prevent the formation of a stone. Though the employment of the microscope has not led to as satisfactory results in this case, as in the others, yet its extreme value in clearing up the diagnosis cannot be questioned. Indeed Dr. C. was himself so convinced of its importance in practice, that he immediately determined to procure one for his own use.

**CASE VI.**—A strong, healthy man, aged 30, who had been under the care of my colleague, Dr. Hall, in the Montreal General Hospital, for gonorrhœa, and was discharged cured of the complaint, came to me about a month after his dismissal from hospital, complaining of frequent desire to make water, and of pain and difficulty in doing so. As there was no discharge whatever from the urethra, I thought it advisable to pass a catheter, and not meeting with any obstruction, I collected the urine drawn off by it, and examined it at the moment. It was slightly acid, spec. grav. 1024, at temp. 72° Fahr., coagulated on addition of nitric acid, and yielded an abundant exhibition of pus globules on examination with the microscope. Having no symptoms referrible to disease of the kidneys, I treated him for cystitis, and with decided benefit at first, but as he had not a comfortable residence, and was obliged to walk a great distance to my house, in the late hot weather, I recommended him to enter the General Hospital under my care. Here I had frequent opportunities of directing the attention of the students to his case. The urine being again examined, exhibited not only a deposit of pus globules, but also of blood globules. Notwithstanding this unfavourable complication he was

discharged about five weeks after admission perfectly cured.

In this case I injected nitrate of silver solution into the bladder; the quantity of pus immediately diminished, and after the third injection completely disappeared. The microscope was of the greatest aid to me in every stage of this investigating case.

**CASE VII.**—Through the kindness of my friend and former preceptor, Dr. Hutton, Surgeon to the Richmond Hospital, Dublin, (whose grand discovery of the modern method of applying compression for the cure of aneurisms, places him in the highest rank amongst the Surgeons of Europe,) I was enabled to examine the urine of a little girl, from whom he had removed a mulberry calculus. Notwithstanding that the operation was most successful, the patient did not gain strength and flesh, in proportion to the expectations of her medical attendant. Having examined the urine, I found it still throwing down copious deposits of the oxalate of lime crystals, and a great quantity of epithelium. It was then quite clear, that though the calculus was removed, yet that the oxalate of lime diathesis was still present, and that until this peculiar state of the system was improved, no amendment of the general health could be expected. Attention to this circumstance soon substituted a lithic acid deposit for that of oxalate of lime, and this change was followed by the patient's restoration to health. Here the microscope not only led to an immediate change of treatment, but in all probability prevented the formation of a second mulberry calculus.

I could enumerate several other cases of urinary diseases, in which this instrument has afforded the greatest assistance in diagnosis; for I make use of it almost as frequently, as I do of the stethoscope, where that instrument can be employed; and I have no hesitation in stating, that it is equally important in practice, more demonstrative in the phenomena it discloses, and if possible, more agreeable in its study. It is not merely in the analysis of the urine that the microscope is of use to the practitioner, but likewise in the examination of all the other fluids poured out both in health and disease. It is more readily employed than chemical analysis; for at one glance, we can tell the constituents of the smallest quantity of a fluid. We all know, that we sometimes meet with diseased secretions, the true nature and composition of which, we should much wish to ascertain, and it not unfrequently happens, that those products occur in such small quantities, as to defy of an accurate chemical analysis being made. But this objection cannot be urged against the microscope, for a drop, nay, a quarter of a drop, is quite sufficient for our purpose.

The chemist having once made his experiment with a fluid, has done with it, he cannot repeat it, nor can he demonstrate the changes that have taken place in the same substances a second time. Not so with the microscopist; he can examine the same drop with powers varying from the lowest to the highest range, and with different intensities and varieties of light and shade.

It may be urged by those who have not kept pace with the progress of modern science, that the indications furnished by the microscope are fallacious; that much discrepancy exists as to the results of its use in the elucidation of physiology. But they merely speak of the state of that science when its doctrines were enforced on their attention; they do not express its present condition for we find men at work, in all parts of the civilized world, with instruments, constructed on sound principles, producing results, often exactly the same, though their labours have been carried on in ignorance, that others were toiling in the same field. Again, we see the London physiologist corroborating the doctrines promulgated at Berlin and Vienna, and *vice versa*. These facts are sufficient answers to those, who, too lazy, indifferent, or incapable, affect great reluctance in admitting the utility of the microscope in practice. It is true, that like the stethoscope, we shall have many pretenders to a knowledge of its powers—many who, without instruction or adequate study, will affect an intimate acquaintance with the details of its employment—many who will undertake to teach, before they have entered upon the proper track to learn—and no doubt, we shall have, as in the case of the stethoscope, those who, without study, without opportunity for learning, without even having examined a single substance microscopically, will strive to undervalue its revelations and ridicule its pretensions.

But we are not without evidence, that the same men, who cried down the stethoscope, (or neglected its study,) pretended to be shocked at the indelicacy of the *speculum vaginæ*—is it not natural to presume, that they will sneer at the microscope? It is not for such scoffers at science that I have made the present communication, but for that large class of practitioners throughout the country generally, whose desire for knowledge, and zeal in its acquirement, are exemplified, not only in the patronage they bestow on this Journal, but also in the support they have given it, by their numerous and valuable contributions.

In the preceding remarks, I do not lay the least claim to originality. My object has been, to encourage others to avail themselves of a means of diagnosis which I have found most valuable, and I thought this end would be best attained by introducing a few cases selected at random, illustrative of its utility.

The reader is not to conclude, that because I have not noted down the chemical analyses in the above cases, that I neglect or undervalue this aid in diagnosis—far from it. The gentlemen who attend my clinique at the Montreal Hospital, are well aware, that I attach a great deal of importance to this branch, and that I lose no opportunity of enforcing its practice upon their consideration; but I have not entered into these details on the present occasion, as my object has been, to introduce my readers to a more simple and exact method of analysis.

#### APOPLEXY FROM THE RUPTURE OF AN ANEURISM OF THE ARTERIA CEREBRI MEDIA.

By E. M. HODDER, C. M., Toronto.

*Proceedings of the Medico-Chirurgical Society of Toronto.*

Master H., æt. ten years, fair complexion, and highly nervous temperament, received a severe shock at about half-past eight o'clock, p. m., on the 4th November last, in consequence of a fire, which at the moment was supposed to be in the building in which his father had his offices. The child had always been observed to become highly nervous whenever the alarm of fire was given. He had a largely developed head, pale countenance, a somewhat delicate constitution, and generally a depraved appetite, preferring crude vegetables and unripe fruits, to more wholesome food.

In consequence of this, he suffered occasionally from derangement of the stomach and bowels, always attended with severe headache; but, an occasional emetic and purgatives relieved him in a day or two.

Three or four weeks prior to the present date, he had had an attack as above described, during which time he complained very much of his head, but for the last fortnight he had appeared in perfect health.

On the alarm of fire being given, he ran into the street, but returned immediately to the house and watched the progress of the flames from a bed-room window; in three or four minutes he gave a sudden and violent scream, complaining of acute pain in the head, behind the left eye; the pain continued some minutes (two or three) during which time he uttered frequent screams.

He was taken down stairs to the sofa by his mother, but finding himself uncomfortable there, he walked into the next room, and was assisted on to the bed. His mother ran out of the room for a glass of water, and upon her return found that he had fallen off the bed, and was completely insensible.

Drs. Rolph and Rankin were the first medical men who saw him; he was still insensible, the surface of the body cold, pulse very slow and thready, in fact, scarcely perceptible, as were also the carotids; the right pupil

was much dilated, the left contracted, his breathing spasmodic, with long intervals between each inspiration, the bronchi charged with mucus, producing a very loud râle, and threatening suffocation. A few drops of blood had flowed from his mouth when first attacked.

On my arrival, about half an hour from his seizure, his breathing had become more regular, the râle somewhat diminished, and the pulse, which was still very slow (forty-five), rather more perceptible, but in other respects he continued as above described.

He remained in this state until about ten p. m., the pulse at times a mere thread, at others somewhat fuller; the mucus now increased in quantity, the respiration becoming more laborious and spasmodic, the left pupil began to dilate, and bloody frothy mucus flowed in large quantities from the nose and mouth until about half-past ten p. m., when he expired.

Section Cadaveris fifteen hours after death.

The face and body generally were pale and exsanguine; but the ears and posterior part of the scalp were of a purple color. On dividing the scalp half an ounce of dark fluid blood flowed from the wound; the bones of the cranium also bled freely when cut with the saw.

On removing the calvarium, the dura mater was found highly congested, and between it and the tunica arachnoides on the left side, an extensive clot of extravasated blood was perceived extending from the middle of the anterior to the back part of the posterior lobes of the cerebrum, and reaching upwards to within an inch of the sagittal suture. On removing the brain from the skull, blood was found extensively extravasated between the pia mater and the substance of the brain, particularly around the circle of Willis, and more on the left than on the right side. The exact spot from which it had flowed could not be found until a very careful dissection of the arteries was made, commencing with the basilar.

At the termination of the internal carotid in the arteria communicans posterior, arteria cerebri anterior, and arteria cerebri media, a small clot was discovered which seemed to proceed from one of the above-named vessels, and upon a more minute examination, the arteria cerebri media was found dilated about a quarter of an inch from its origin to the size of a small garden pea, which dilatation was filled with a clot connected with the small external coagulum above mentioned, by means of an irregularly shaped opening in the dilated part of the artery, and from which it was evident the whole of the blood had flowed. The continuation of the arteria cerebri media in the fissure of Sylvius was

normal. The brain itself, although very large, was perfectly healthy, nor were there more vascular clots perceived on cutting it than usual. The lateral ventricles contained about 3ij., each of bloody serum. The plexus choroides in the left lat. ventricle was somewhat paler than that on the opposite side, a fact arising no doubt from the rupture of the arteria cerebri media, so near the origin of the artery of the plexus choroides.

*Chest.*—The lungs were somewhat congested, particularly their posterior portion, nor did they crepitate as much as in their healthy condition; on cutting into them, a very large quantity of frothy mucus, tinged with blood, flowed, and the trachea and bronchi were completely filled with the same. Each plural cavity contained about two ounces of clear serum.

The heart appeared to us as if the left ventricle had contracted very firmly on a hard clot, as it gave the idea of being completely solid, but upon opening it, its cavity was quite empty, but its walls thickened or hypertrophied to very nearly an inch. The other cavities and the valves were quite healthy. The thymus gland was very large for a boy of his age. The whole of the abdominal viscera were quite healthy—the bladder was half filled with urine.

Toronto, February, 1846.

#### CONTRIBUTIONS TO CLINICAL MEDICINE.

BY J. CRAWFORD, M. D.,

Lecturer on Clinical Medicine and Surgery, McGill College, and Physician to the Montreal General Hospital.

*Case, Erysipelas, Rheumatism, Jaundice, and Abortion, followed by Puerperal Fever and Death.*

Mary French, ætatis 19, a Canadian, unmarried, of spare figure, dark sallow complexion, and bilious temperament, was admitted into the Montreal General Hospital, (18th October, 1845) for an extensive erysipelatous eruption over the right arm, elbow and forearm, which she has had for six days. About two or three days previous to the appearance of the erysipelas, her right elbow and right knee were affected by rheumatic pains, which subsided on the appearance of the exanthem; and she has not had any pain since, unless what may be attributable to the erysipelas; she has also been affected by jaundice for about the same length of time. She had not any thing done for her complaints previously to her admission; at which time her right arm and forearm were considerably swelled, and covered by a bright erysipelatous eruption. The adnata of her eyes was very yellow, and her skin generally tinged of the same hue; her urine was also deeply coloured. The limb was stiff and painful, but nothing to compare with the pain she had suffered at first. She

had also smart febrile symptoms, her pulse 108, full, tongue foul, with nausea, hot dry skin, and thirst. She was ordered a purgative of jalap and calomel, and her arm was directed to be brushed over with the tincture of iodine. 20th. The limb is much less swollen, and the redness is paler, and has not extended any farther; there is, however, a good deal of anxiety of countenance, and indication of bodily suffering; her bowels are freely open by the purgative, and she has been taking calomel and Dover's Powder four times a day; she is also ordered the infusion of senna to keep up an action in her bowels. 25th. The erysipelas has gradually been subsiding since last report, and is now much better. A small tumor has made its appearance a few days ago, on the inner side of the right elbow, which feels as if there were a collection of matter formed; it is, however, decreasing, and appears as if it would be dispersed by the tincture of iodine, which has daily been applied to it. There is still considerable febrile disturbance, with flushing and anxiety of countenance, and profuse acid perspiration, particularly at night; and she complains since last night of rheumatic pain of her right knee, and of her left wrist, which are both slightly swelled; there is no abnormal sound from the heart. The icteric colour of the adnata and skin generally, is still very marked; she slept but little last night, from the pains; her bowels are free. She continues the calomel and Dover Powder, and the application of the tincture of iodine, and in addition is ordered an anodyne draught at night. 28th. The erysipelas nearly gone; the right elbow is affected by severe rheumatic pain, and is very powerless. The left wrist is much easier; there is a small soft tumor at the carpal extremity of the left radius, apparently containing matter. The right knee is still painful, pulse 132, febrile symptoms rather less. In addition to the medicines she was using, she was ordered also nitrate of potass ʒvi. in barley water lbij, to be taken during the twenty-four hours.

November 2d. She is reported better, the pains much easier, and the erysipelas gone; the jaundice much as formerly.

7th. The pain of the wrist, and tumor on the radius, both less; rather more pain of the right elbow and knee, the forearm mottled blue and yellow, as if the limb had been bruised; slept better; she continued her medicine; no mercurial effect from the calomel. From this time her complaints became considerably aggravated; her sleep was quite interrupted; she took a grain of opium every two hours, without any effect; her stomach became irritable, and she threw up bile; the nitre was discontinued, as it probably had disagreed

with the stomach; the infusion of senna was ordered, and the opium to be continued in grain doses every hour; poppy fomentations to the painful parts. From this she appeared to derive relief; she slept better, and she could bear to move the affected limbs. There was still occasional bilious vomiting; she took from 8 to 12 grains of opium in the 24 hours; her bowels were kept open by the infusion of senna; the calomel had been omitted for some days. 18th. She has been tolerably easy since last report; this morning it was stated that she had a miscarriage in the night, the foetus being about four months, of which condition we had no suspicion. There was now a good deal of febrile excitement, pulse 120 small; the rheumatic pains trifling. Next day there was abdominal pain, augmented by pressure, the febrile symptoms persisting. Ordered fomentations to the abdomen, by means of a bag of bran wrung out of hot water, and ol ricini ʒi, cum. tr. opii ʒi. These means afforded only very temporary relief, and she passed a restless night, and raved much; pulse 130 small, and not very hard; abdomen very tender. Ordered to be cupped on the abdomen, and to have a blister to the nape of the neck. These remedies produced very little effect. She became wayward and uncontrollable; her countenance and conduct indicated mental alienation; her pupils were dilated; pulse 144; tongue clean; her abdomen having been blistered on the previous day, it cannot be ascertained how far the internal pain is better. From this time she appeared to improve a little; her countenance more natural; she did not complain so much of her abdomen; lay on her side, and moved her limbs freely; she, however, was constantly desirous to leave her bed; pulse 144 hard, bowels free. Ordered Tr. digitalis M. viij., and antimon. tartar. gr. ʒ in aqua cinnam., ʒi. omni hora. On the 24th she is reported to have slept well during the night, and was much better, and more at her ease. She moved her limbs freely; her bowels, still tender on pressure, were freely open; the dejections dark and bilious; pulse 132, small and not so hard. Was ordered to repeat the blister, and to take calomel and opium four times a day. The following day she was much worse, and seemed very low; her pulse rapid, but still of tolerable volume; had passed a bad night, and seemed to complain of abdominal pain on pressure, but it could not be ascertained whether this was not owing to the effects of the blister. She was ordered to be again cupped on the abdomen. She died next day, after I had left Montreal for England. No *post mortem* inspection was made of the body.

REMARKS.—Although erysipelas is usually, if not uniformly, accompanied by a derangement of the biliary function, of which we have in most cases sufficient in-

dication, in the discoloration of the albuginea, and the state of the dejections, I have never seen so obstinate a case of jaundice associated with erysipelas, upon which a long perseverance in the use of mercurials and purgatives did not seem to produce any very decided effect. The association of erysipelas, and other exanthemata, with rheumatism, has been noticed by Dr. Todd, and some other modern writers, and of which I have met a few of these complications. Two other cases of erysipelas and rheumatism occurred in the hospital, about the time the above case was under treatment. The other eruptive diseases which I have seen associated with rheumatism were scarlatina, roseola, and erythema nodosum. Dr. Todd is of opinion that rheumatism, as well as these exanthemata, depend on some morbid alteration of the blood. His views appear to be favoured by some more recent investigations, and may probably eventually be generally adopted. This association (although, in some cases, it materially complicates and aggravates the case) does not interfere with the appropriate treatment of each. When, however, the three affections become combined, the case then becomes of a very serious nature; and when abortion and puerperal fever become superadded, the prognosis is extremely unfavourable.

There was a further peculiarity in this case, namely, the rare formation of matter, as a consequence of rheumatism; its absorption, I think, may fairly be attributed to the effects of the iodine. A question suggests itself, did the abortion arise from the rheumatism seizing on the uterus? I think we may fairly admit this to be the case, as no other satisfactory cause offers in explanation. She had not been taking any drastic medicine, nor was there any particular aggravation of her complaints at the time.

It is to be regretted that a *post mortem* inspection was not made, as much pathological information might be expected to result therefrom.

Montreal, Sept. 16, 1846.

## PRACTICE OF MEDICINE AND PATHOLOGY.

### ON SYPHILITIC INFLAMMATION OF THE EYE.

(Continued.)

By A. JACOB, M. D., F.R.C.S.I., Professor of Anatomy and Physiology in the Royal College of Surgeons, and one of the Surgeons of the City of Dublin Hospital.

In addition to, or in combination with mercury, the remedies and treatment already alluded to as resources in cases of simple uncomplicated inflammation of the eye must be employed in syphilitic iritis, or in certain cases must be substituted for mercury. Iritis will, it is well known, sometimes make its appearance while the system is under the influence of mercury administered for the cure of secondary symptoms of venereal, or it will become station-

ary and untractable while the mouth is still sore from mercury given for its cure. In such case the treatment to be adopted becomes a question of importance and often of difficulty. To bloodletting, local or general, and other means of depletion, we are frequently unable to resort, because they have either already been employed, or they are inadmissible in consequence of the debilitated state of the patient. We are therefore called upon to adopt some other plan or remedy, and to select from those usually employed in other complicated forms of inflammation that best suited to the particular circumstances of the patient. Mr. Hugh Carmichael points out such cases as examples of disease likely to be benefited by the spirit of turpentine, and it is obvious, that as it affords a fair prospect of advantage, it should have a fair trial; guarding, as far as possible, against nausea or strangury. Should this fail, or should it be ineligible, the iodide of potassium may be resorted to either alone or in combination with bark or sarsaparilla. Mr. Carmichael, in his lectures on Venereal Diseases, published in the *Medical Press*, bears the following testimony to the value of iodine in the treatment of the secondary forms of syphilis:—"For the cure of the different constitutional symptoms of this form of venereal, there is no remedy so much to be relied on, in conjunction with sarsaparilla, as iodine; which latter medicine, and its combinations, I consider as a remedy of the utmost value in the treatment of this as well as of the phagedenic form of venereal disease, which includes the most formidable and hitherto most unmanageable cases met with in practice. I began to use it very soon, in cases of venereal nodes, after Dr. Coindet of Geneva, had made known its utility for goitre; on the principle, that a medicine, capable of inducing the dispersion of a tumour so obstinate, might be equally efficacious in removing affections, however different, of a similar obstinacy in the bones, in cases where I had reason, from the accompanying symptoms, to dread the injurious effects of mercury; I therefore exhibited iodine or hydriodate of potash in this hospital many years since for secondary symptoms of these forms of venereal disease, with the most flattering success, long before there were any published accounts of its utility in venereal complaints. At present I believe it is used extensively, but without much discrimination or selection of symptoms. I began with giving iodine to the extent of a grain, with six or eight grains of the hydriodate, dissolved in a pint of distilled water, directing the patient to take a third of this quantity morning, noon, and night. At present the hydriodate of potash is usually preferred, and given to the extent of from fifteen to thirty grains, with a pint of decoction of sarsaparilla, during the day. I am not certain that the one mode has any advantage over the other; but in both ways as a remedy, iodine has exceeded, in the two forms of disease alluded to, my most sanguine expectations."

This evidence in favour of iodine in the treatment of secondary symptoms of venereal in general would justify our employing it in syphilitic inflammation of the eye even if experience had not proved its beneficial operation. Mr. Lawrence also bears testimony to its value. "In some cases (he observes) where mercury has disagreed, or where after a fair trial the affection of the eye has either not improved or got worse, I have lately employed with excellent effect the iodide of potassium, giving three or four grains in two or three ounces of the compound decoction of sarsaparilla three times a day. The beneficial operation of the change seems analogous to what we observe from the same succession of remedies in certain cases of venereal disease." I have myself used iodine freely and extensively in inflammations of the eye, and have frequently employed it in cases of syphilitic iritis in which mercury was not eligible. Although it cannot be relied on as a means of arresting inflammation or as an antidote to venereal disease, equal in power to mercury, it may I believe be looked

upon as possessed of these powers in a less degree; at least I can say that lingering inflammation appears to give way under its use more certainly and rapidly then when it is not employed, and I can positively state that I have treated formidable relapsing inflammations of the eye of scrofulous character, but originally syphilitic, with it successfully. It must not, however, be forgotten that inflammations of the eye, like all other inflammations, sooner or later subside, be the treatment what it may, or even without any treatment; and that syphilitic inflammation runs its course, and finally disappears also; too much importance should not, therefore, be attached to this or any other remedy, lest by relying on it exclusively, we neglect others. We have always to bear in mind that in treating inflammation of the eye we should, after failing to subdue the vascular action at the commencement, direct our attention to the prevention of those disorganizing processes of this condition of parts; and keeping this in view, I think that both from theory and experience iodine is entitled to confidence. I have generally given the iodide of potassium in the cases alluded to either alone or in decoction of sarsaparilla or bark, as the syphilitic symptoms or debility of the system may require the one in reference to the other; and I have given it to the extent of ten grains three times a day. I have also given the combination of iodine and iodide of potassium, as suggested by Mr. Carmichael, and I do not think that I can with safety state that the latter was less effectual than the former.

If turpentine or iodine be found ineffectual or inapplicable in the treatment of syphilitic inflammation of the eye not admitting of relief by mercury, the practitioner has to consider what other remedial resources are within his reach. He has indeed in some cases of inflammation of the eye, modified perhaps by the constitutional influence of syphilis, scrofula, rheumatism, and mercury, to encounter often the greatest difficulties which practice presents. Bleeding, local or even general, may, in certain cases, be still available, and may be followed by antimonial medicines and other antiphlogistic treatment; but this does not often happen, the state of the constitution more frequently requiring nutritious food and preparations of bark or other tonics. Sarsaparilla, colchicum, and guaicum, afford the best prospect of advantage where rheumatic constitutional disease exists, and the hydriodate of potash in decoction of bark, with some tincture of the same, promises best in scrofulous habits. In these cases where we may say mercury has gone astray, the disease remaining stationary, and the general health impaired, I generally discontinue all medical treatment for a time, and make such change as to diet, ventilation, and temperature, as can with safety be adopted. Practitioners are sometimes too anxious to push powerful remedies to the utmost without delay, apprehensive that the inflammation is causing rapid disorganization, but there is often no necessity for this hurry. The inflammation, we may say, at this period has spent its force and assumed a chronic form, requiring more a steady and continued plan of well considered treatment than any sudden change of a very decided nature. *Festina lente* is frequently the maxim to be inculcated, and in accordance with it, I generally find myself acting. In private practice, when I am permitted to have my own way, I am in the habit of commencing by getting rid of all those incumbrances which accumulate in a sick room, and making such arrangements as will secure the admission of light and fresh air; an object often difficult of accomplishment; such places being generally more like the crowded storerooms of furniture dealers than apartments provided for human beings. All medicine is then discontinued for a time, and nutritious digestible food substituted for slops and compositions offensive to the stomach and pernicious to the system. The patient, if in bed, is quietly dressed and placed in his chair, and if circumstances admit of it, in a day or two is removed to a sitting

room, and every arrangement made to restore him to the comforts of which as an invalid he was deprived. This being done, the remedies above enumerated may be again resorted to, and the most appropriate either resumed or administered for the first time. To those who rely on the abstraction of the blood from the system and suspension of the process of nutrition by denial of food in the treatment of inflammation during its entire progress, refraining from the use of the lancet and application of leeches, will obtain little favour; nevertheless it is an undoubted fact that inflammation is often rendered less destructive by preserving the natural powers of growth and respiration unimpaired. I may not go the length of Mr. Hewson, when he says, "the patient may be saved the inconveniences of bloodletting or blistering, as they do not afford the smallest benefit, nor will they allay a single distressing symptom; and the same may be said of purgatives; in which respects the venereal ophthalmia is singular, and differs from all other analogous affections," but I feel much inclined to give a qualified assent to this opinion of a trustworthy and practical man. Over and over again I have treated relapsing cases of inflammation of the eye successfully without abstracting a drop of blood, which in former attacks had been treated by profuse bleeding; and I am often obliged to administer mercury while I allow the patient his usual supply of animal food, and have even to accompany it by bark or quinine. Amongst the species or modifications of inflammations of the eye, an iritis from the use of mercury has been enumerated. There does not, however, appear to be any substantial grounds for the distinction. That such inflammation occurs after, or even during, the administration of mercury, cannot be denied, but that it is a consequence of it remains to be proved. There is nothing whatever in the appearance, progress, or result of inflammation of the eye following the use of mercury to justify us in assuming that it is of peculiar character; neither does the treatment require particular adaptation to any peculiar condition of the parts.

Syphilitic inflammation of the eye is sometimes, although rarely, met with in infants, and it may be assumed that its rare occurrence is to be attributed to the comparative infrequency of syphilitic disease at this time of life. The practitioner should therefore bear in mind the possibility of the existence of such disease when called upon to attend to infants suffering from diseases of the eye, or of its future appearance in those labouring under symptoms of syphilis, without any present appearance of iritis. This it is necessary to inculcate, because syphilitic inflammation of the eye sometimes takes place in infants, as in adults, unaccompanied by any other form of the disease; and is sometimes accompanied by such slight increase of vascularity or other appearance of disease that it may escape notice. In the early stages, redness of the sclerotic, discoloration of the iris, and irregularity of the pupil, are the appearances to be observed; and at a more advanced period, alteration in shape of the sclerotic and cornea, contraction of the pupil, and adhesion of its margin to an opaque lens. Sometimes a dilated and irregular pupil with a transparent lens is the consequence; but in either case, when the disease has escaped observation, or has been neglected or mismanaged, insensibility of the retina or amaurosis and consequent blindness remains. At this time of life little information as to the extent of the disease can be obtained from trial of the visual power of the organ. The baby will grasp at a watch or other bright object presented to it as long as any degree of sight remains, but slighter defects of vision can scarcely be detected. It is therefore necessary to make a very careful examination of the eye, and close inquiry as to the presence of other syphilitic disease, or of its previous existence. I see these cases oftener after the mischief has been done and the organ destroyed than during the commencement of the attack when it might be

saved; yet even at this period, the emaciation or defect of nutrition, arrested growth; and pallid dingy skin; proclaims the nature of the disease; and sometimes other forms of it, even now, may be detected. I was lately called on to see one of these cases, considered to be simple cataract, in a child of three years old. The pupil was contracted, and adherent to an opaque lens and capsule, and vision was irreparably destroyed. This occurred when the child was only a few months old, yet on examination I found the tongue studded with small irritable ulcers and clefts, and a soft condylomatous elevation at the anus, which speedily disappeared after the administration of some hydrargyrum cum creta. The treatment of syphilitic inflammation of the eye in infants does not differ from that prescribed for adults, except in degree. Mercury and the local application of extract of atropa belladonna during the existence of the inflammation, and tonics, alteratives, and generous diet, should the disease linger, constitute the principal resources. Of the preparations of mercury, the hydrargyrum cum creta appears the most appropriate and convenient, and in acute cases it may, with advantage, be combined, at first, with James' Powder, or other manageable antimonial. Sarsaparilla, iodine, and bark, can be resorted to as auxiliaries if necessary.

#### GENERAL ERETHISM PRODUCED BY INJURY OF THE MEMBRANA TYMPANI.

By JOSEPH B. COTTMAN, M. D., of Whitehaven, Md. (in a letter to Prof. Dunglison.)

March 28th, 1846.—Mrs. J., on the night of the 28th, while picking her car with a knitting needle, accidentally passed it in too far, so as to injure the membrana tympani; the effect of the injury was instantaneous; she seized hold of the nearest object to prevent her from falling from the chair, and called for assistance. With some difficulty she was carried to an adjoining room in a state of insensibility; being placed on a bed, she recovered her reason sufficiently in a little while to tell what had happened to her. *State at this time.*—Expression wild, pupils very much dilated, face flushed, the least motion of the head seemed to give the most excruciating pain; she would scream aloud; tetanic twitching of the muscles of the arm;—pulse strong, full and bounding; violent throbbing of the carotids. In the course of fifteen or twenty minutes, this state of things was succeeded by general syncope; her face would become blanched, her extremities cold, long and laboured respiration, with occasional sighing; this would continue for half an hour or more, before she could be aroused; when aroused, her conversation was incoherent, her face flushed, pupils preternaturally dilated, violent sick stomach, with occasional vomiting; rigors; extremities cold. This state of things continued alternately from 10 o'clock at night until 3 o'clock in the morning, when she fell asleep. Slept about three hours.

March 29th, 6 o'clock, A. M.—Still complained of pain in her head: the least motion aggravated it; said that her mind was very much confused, that she could not think; face flushed; pupils dilated; tetanic twitching of the muscles of the extremities; occasional flushes of heat and cold as she described it; pulse full, strong and corded; conversation at times incoherent, I tied up her arm, and took about a quart of blood with decided benefit; her pulse became natural; her mind clearer; talked more rationally; said that her head felt better, that she could hear a little in the injured ear. Up to this time she had not heard at all in that ear from the time of the accident. She felt so much better that she desired her female attendants to take her dress off; in attempting to do so she was placed in an upright position, this produced syncope, which continued for nearly an hour; during this time her breathing was stertorous and laboured; her extremities cold; occasional twitching of the muscles of the arm; pulse very slow and feeble; it was with the utmost difficulty that she could be aroused, and when aroused complained of being very chilly; violent sick stomach and a constant disposition to vomit. In the afternoon, two small blisters were applied behind the ears; these drew well, and produced a general amelioration of all her bad symptoms; she fell into a quiet sleep at night, and slept well until morning.

March 30th, 6 o'clock, A. M.—On awaking in the morning she had considerable fever; restless; thirst urgent; nausea with a disposition to vomit; about twelve o'clock the fever passed off, and she said she felt much better; could turn in bed without producing any unpleasant feeling about her head; mind clearer; talked more rational; expression better; thought she could hear better. In the afternoon she fell asleep, and slept till near night; at this time I left her; I saw her again about 9 o'clock, P. M.; at that time she was decidedly better than she had been; expression natural; talked rationally; says she is entirely free from pain.

March 31st, 6 o'clock, A. M.—Did not sleep well last night; return of fever, restlessness; thirst very urgent; craves ice; complains of a *roaring* in the injured ear like distant thunder; says that she sometimes loses her senses; cephalalgia very great, confined to the forehead; fever passed off about 10 o'clock, when she fell asleep; slept about an hour with decided benefit; says she always feels better after sleeping. In the afternoon I gave her eight grains of blue mass.

April 1st, 6 o'clock, A. M.—Slept well; fever very slight; a general improvement in her situation; slight *roaring* in the injured ear; blue mass has not operated; took half an ounce of calcined magnesia; this produced a gentle action on the bowels. From this time, she gradually convalesced without a return of any of her unpleasant symptoms, and is now perfectly restored.—*Medical Examiner.*

#### TREATMENT OF LEAD COLIC.

During the three years that I was with M. Gendrin, I saw a vast number of cases of lead colic; we had, indeed, nearly always two or three men thus affected in our wards, sent from the carbonate of lead manufactory at Clichy. All of these cases were treated with sulphuric acid, and I do not recollect having seen one in which the disease proved refractory to the treatment adopted,—a case or two of confirmed chronic paralysis excepted. The duration of the treatment, as far as I can collect from my notes, was about three days in slight cases, and six or seven in severe ones. The sulphuric acid was given, largely diluted with water (forty-four drops to a pint of water); two or three pints being administered in the twenty-four hours. The amount of pure strong acid taken in that time was, therefore, from one drachm and a half to two drachms. Sometimes the sulphuric lemonade, as it was familiarly called, was vomited as soon as ingested. Still when this was the case, the patient was made to persevere in its use, and the stomach soon became accustomed to the acid, and retained it. When it was retained, the abdominal pains generally began to diminish after the first, second or third day, the constipation soon giving way naturally, after they had become less intense. In all these instances, not a grain of any kind of medicine was given besides the sulphuric acid, nor was an enema used, the sulphuric acid being the only medicinal agent resorted to, if we except baths.

At the commencement of the treatment, a sulphur bath was given to the patient, the result of which was, that the sulphur, combining with the particles of lead that were on the skin, formed a black sulphuret. The amount of lead, which is thus discovered to encrust, as it were, the skin of those who have worked at preparations of lead, is nearly incredible. I have often seen men go into the sulphur bath quite white, and come out nearly as black as negroes. The lead lying on the skin having been thus made visible to the naked eye, the patients were supplied with a harsh brush and half a pound of soft soap, and made to scrub themselves daily in a warm bath, until all the black sulphuret had been brushed off. The sulphur bath was then repeated, the sulphuret of lead brought out, brushed off, and the process renewed, until it no longer rendered visible any trace of lead.

This precaution is indispensable with all who labor under saturnine disease, if we wish to ensure patients against relapse. While at the hospitals of La Pitié and Saint Louis, I have repeatedly had patients under my care with lead colic, who had been discharged as cured from other hospitals a few weeks previously. The sulphur bath, which exhibited a thick coating of lead on the skin, explained at once the cause of the relapse. Indeed, the presence of this coating of lead on the surface of the body is, no doubt, the principle cause of the relapses which are mentioned by authors as occurring so often in these diseases. The lead which thus lies on the surface is gradually absorbed, and, at last, poisoning having

again taken place, all the symptoms to which it gives rise are manifested. No patient who has suffered, and been treated for lead colic, can be considered safe unless he has gone through the ordeal of a sulphur bath, with a perfectly white skin. One of the great advantages of repeating the sulphur bath during the treatment is, that the patients, whom it is easy to convince of the importance of getting rid of the metallic poison, when they see it plainly on their bodies, rub with real good will.

The mode in which the acid acts in neutralizing the poisonous effects of the lead is easy to explain. It combines, no doubt, with the lead in the tissues, and forms with it an insoluble sulphate or sulphuret, which is consequently inert, and is gradually eliminated from the economy. This is the interpretation adopted by M. Gendrin, and it appears rational enough.—[Mr. Bennett in *London Lancet*.]

#### A CASE IN WHICH THERE WAS CONGENITAL DEFICIENCY OF THE LEFT KIDNEY, AND IN WHICH DEATH WAS CAUSED BY GRANULAR DEGENERATION OF THE EXISTING KIDNEY.

By GEORGE BUSK, Esq., F. R. C. S. E., and Surgeon to the Seaman's Hospital.

The subject of the case was a gentleman who died on the 6th of May, 1846, in his twenty-seventh year. He had enjoyed good health until within three years of his decease, when he became ailing, and looked ill and bloated, but was well enough to continue his pursuits, and to take tolerably active exercise up to last Christmas. In March he was affected with dropsy and albuminuria, with frequent epistaxis, and general disturbance of all the functions. The under side of the tongue and the inside of the cheeks and lips became gangrenous before death, the body exhaling a strong fetid urinous odour. The secretion of urine however, continued, to the amount of a pint and a half in the twenty-four hours, up to the day of his death. The left kidney and superior renal capsule were entirely wanting; the ureter on that side was very small, and was inserted in the usual place into the bladder, and terminated about six inches from that viscus in a cæcal extremity. The right kidney was corrugated, and very small; the capsule closely adherent; the form otherwise normal; the substance condensed, firm, waxy, and marked on a section with white puncta and striae. Microscopic examination showed no oil, but partial obliteration of the tubular and vascular structure, and in other parts a deposit in the tubuli uriniferi of an opaque urinated granular matter, soluble in acetic acid, and presumed to be of an albuminous nature.

The author remarks that the case presented an instance of complete deficiency of one kidney, without corresponding increase in size, or alteration of shape, of the existing one, which was apparently even below the natural size; and he observes that the diseased condition there present, and the consequent albuminuria, was not owing to the deposition of oily matter in the tubuli uriniferi, or substance of the gland, but to the pathological change analogous to that which produces cirrhosis in the liver, or, as it may be supposed, to an adhesive inflammation of the tubuli uriniferi, and, probably, to the venous capillaries of the gland—a condition, in his opinion, more common as the cause of chronic albuminuria, and the other symptoms produced by what is termed granular kidney, than that in which a superabundant quantity of oil is found in the tubuli uriniferi. And he stated his belief, that in all cases where there was an undue deposit of oil in the kidney, the liver would be found diseased; and that the secretion of oil by the kidney, as in other cases that of bile, takes place by the vicarious action of that gland supplying the defective power of the liver.—*Dublin Medical Press*.

#### ACCOUNT OF A TYPHOID FEVER, APPARENTLY ORIGINATING IN LOCAL MIASMA.

By ROBERT CHRISTISON, M. D., Professor of Materia Medica in the University of Edinburgh.

In the reports of the government commission appointed to investigate the causes of the unhealthiness of towns various important facts have been brought forward to illustrate the connexion of continued fever with emanations proceeding from organic mat-

ter in a state of decay. The witnesses may have assigned too wide and too exclusive an influence to such emanations in engendering and propagating fever. But they appear to have established, more clearly than was ever done before, the tendency of putrid effluvia to favour its spread and aggravate its malignity. And they have also gone far to prove, that in particular circumstances, not yet, however, ascertained with any accuracy, the same cause is capable singly of actually generating fever, even in the most malignant form.

Admitting the possibility that continued fever may originate simply in exposure to the effluvia of organic decay—and it appears difficult now to deny this doctrine—a number of deductions will result, which present important bearings on medical practice. One of the most obvious of these is, that continued fever may show itself with the characters of an endemic or epidemic in localities extremely circumscribed.

It is well known, that circumscribed epidemics do occasionally make their appearance;—that continued fever, in the typhoid form, and at times most malignant in type, has been observed to occur in very limited localities. On such occasions the impossibility of tracing the introduction of the disease to infection, the extreme narrowness of its range, and its virulence within the circle of its influence, have been peculiarities which distinguished it, in the eyes of all observers, from continued fever in the usual epidemic forms,—exciting at the same time much speculation as to its nature, giving rise to plausible, though unfounded, suspicions of poisoning, and leading in the end to no very satisfactory explanation of its origin. There can be no doubt, however, from recent experience, that events of this kind might have frequently admitted of an easy interpretation, had the observers of them been sufficiently aware of the liability of fever to arise from the insidious emanations of concealed organic matter in a state of decay.

These reflections have been suggested by a remarkable incident which lately excited a strong sensation in the neighbourhood where it happened, and which at the time went the round of the newspapers as a mysterious occurrence. Having been consulted on the occasion in two capacities, first, as physician simply, and afterwards medico-legally by the public authorities, I was led to inquire with some care into the details; which have since appeared to me so interesting, that, with the consent of the medical practitioner principally concerned, I have ventured to lay a statement of the leading facts before this society. The statement which follows is derived partly from my own observation and inquiries, when consulted respecting two of the cases, partly from a pre-cognition by the officers of the crown, which was subsequently put before me for my opinion, but chiefly from answers to queries since submitted by me, with a view to publication, to Mr. Macnab, surgeon, at Peebles, who originally attended all the cases, and who has investigated the particulars on the spot with great care and fidelity.

In a thinly-peopled rural district of Peeblesshire,—the locality will be particularly described hereafter,—Mrs. W. the wife of an extensive farmer there, was attacked on the 22nd of January last with rigors, general prostration of strength, and great disinclination for food; to which occasional vomiting was added five or six days afterwards. She was visited for the first time professionally on Friday, the 30th January, by Mr. Macnab; who found her in the following state, as I shall give it in his own words: "She complained of rigors, pains in the back and limbs, headache, a little intolerance of light, slight sore throat and dryness of the mouth, a painful sense of palpitation along the course of the descending aorta, nausea and desire to vomit, with occasional fits of vomiting, thirst, want of sleep, total loss of appetite, and great exhaustion. The pulse was 92 and feeble, the tongue covered with a very thick brownish-yellow fur, the back of the throat somewhat red, the vomited matter partly mucous, partly bilious, the bowels constipated, the evacuations dark and offensive, and the urine unusually yellow, as if bilious. The countenance had an anxious expression, and the eyes were suffused; but there was no appearance of petechial eruption either at this time or subsequently. The temperature of the body, and of the extremities more especially, was lower than natural. There was no pain in the epigastrium or in either hypochondriac region. Under the use of frequent laxatives and diaphoretics she gradually recovered. On the 9th of February she was able to take food with relish, and for some days had been without any tendency to vomiting, so that she was left as convalescent, but with instructions that assistance should immediately be procured if any unfavourable change presented itself." Having heard nothing farther of the case for four days,

Mr. Macnab went on the 13th to inquire for her; and, to his surprise, found her labouring under all the former symptoms in an aggravated degree. "The thirst was intense, the nausea and vomiting very troublesome, the pulse 100, small, feeble, and intermitting, the tongue covered with a very thick, dry, yellowish-brown coating, the bowels very constipated, the evacuations dark, bilious, and fetid, and the vessels of the conjunctivæ much injected. But there was still no pain in the abdomen, and no appearance of petechiæ anywhere; neither was there any wandering of the mind. The remedies which were formerly of service had now no effect; the more urgent symptoms went on steadily increasing; on the 16th towards evening articulation became indistinct, and her words for the first time incoherent; and at six o'clock of the same evening she expired. An inspection of the body was not allowed. It presented after death an emaciated appearance, and a peculiar yellowish colour, but no tumefaction." Mrs. W. was seventy years of age, but had long enjoyed excellent health.

The next case was that of her husband, Mr. W., also a hale old person of seventy. He was taken ill on the 25th January, within three days after his wife. His illness commenced in the same way. On the 30th Mr. Macnab found him labouring under symptoms precisely similar to those described above, and nearly the same in degree, except that he had not so much prostration of strength, being able to sit up at the fireside. The pulse was 92, and of moderate strength. Like his wife, also, he improved under the administration of laxatives and diaphoretics down to the 9th February, when the vomiting had ceased, the appetite was tolerable, and he felt himself able to leave his bed. After this, however, the same symptoms recurred; on the 13th Mr. Macnab found him greatly worse; remedies were no longer of any avail; and he died on the 18th, two days after Mrs. W.; his mental faculties continuing, as in her case, unimpaired till a few hours before dissolution. The body, after death, had a yellowish sallow appearance, and speedily began to decay.

The third case in point of order was that of Mr. G. W., the son of Mr. and Mrs. W., who was taken ill on the same day with his father. But it may be as well to take notice in the first instance of the fourth, because it was the only other that proved fatal. This was the case of a servant girl in the family.

The disease under which Mr. and Mrs. W. died presented the characters of ordinary typhoid fever, but with certain peculiarities; and it proved fatal, like many cases of ordinary fever, about the close of the third week. The servant, Isabella M., aged 20, was seized on the 26th January with rigors, vomiting, loss of appetite, and prostration of strength, exactly as her master and mistress before her. On the 30th Mr. Macnab found her affected, like them, with "pains in the extremities, slight sore throat, nausea, and frequent vomiting, palpitation of the heart, and a troublesome pulsation in the descending aorta, urgent thirst, total loss of appetite, complete want of sleep, and great debility. The pulse was 112, and small, the tongue covered with a very thick yellowish-brown fur, the temperature below the natural standard, with occasional rigors, the bowels constipated, and the evacuations dark and offensive." The symptoms therefore were precisely the same as in the previous cases. But their progress was very different. For no abatement was accomplished by treatment; her strength was quickly exhausted; and she died in the afternoon of the 1st February, within six days and a half after being first taken ill. In her instance death was preceded for twenty-four hours by some delirium and considerable stupor; but in no other case were these symptoms so well marked as to attract notice. The body after death presented the same yellowish sallow hue of the integuments, as in the cases of Mr. and Mrs. W.

These were all the fatal cases. In addition twelve other individuals were more or less severely attacked with similar symptoms to those detailed above; and three or four other persons were more slightly affected, whom, however, Mr. Macnab did not attend professionally, and concerning whom consequently he derived his information at second hand, and in a way not quite satisfactory to his mind. It is unnecessary to describe all these cases, as they presented a singular uniformity of characters. Two only may be added, the one as an example of the disease in its severe form when not fatal, the other to exemplify the mildest form.

Mr. G. W., son of Mr. and Mrs. W., aged about 27, "after being absent from home for about three weeks, returned with his sister from the Island of Skye on the 19th January, three days before his mother took ill. On the 25th, six days after his return,

he was seized with nausea, tendency to vomit, thirst, disinclination for food, considerable prostration of strength, and slight headache. He continued in this state, sometimes confined to bed, sometimes going about a little, until the 28th, when urgent business compelled him to proceed to Edinburgh, a distance of twenty-two miles. He went thither on horseback, feeling sick and uncomfortable on the way, and vomiting a little; but he was able to remain in town till the 30th, and afterwards to ride back to the farm, where Mr. Macnab saw him next day. He then felt better, but still complained of sickness, tendency to vomit, slight headache, sore throat, and little appetite for food. The pulse was 86, and of moderate strength, and the tongue was covered on every part but the mere edge with a very thick yellowish-brown fur. Subsequently he became worse. The vomiting gradually increased in frequency, and the vomited matter acquired a bilious appearance. The bowels were obstinately costive, and the evacuations dark and bilious. The urine seemed as if loaded with bile. The lining membrane of the throat was slightly red, and the vessels of the conjunctivæ were full of blood; but there was no appearance of petechial eruption on the skin. He continued much in the same condition till the 9th February, when he became considerably better, so that he could even take a little food with relish. But on the 13th he was much worse again. The vomiting had become urgent, the thirst extreme, and the desire for food altogether gone. The pulse was about 90, rather feeble, and the tongue loaded with a yellowish fur as before. He now also complained of severe pains in the limbs, especially below the knee-joints, down the front of the tibia, and also to a less degree in the arms and hands. He described this sensation as a painful uneasy numbness, causing incessant restlessness and change of posture; it was attended with coldness of the integuments to the sense of another person, and he derived no relief from the warm bath or hot fomentations. No change for the better having occurred in five days more, he was removed on the 18th to Edinburgh. He bore the journey well, and under the care of Dr. Begbie, began speedily to improve." On the 20th, I saw him in consultation with Dr. Begbie and Mr. Macnab, who came to town on purpose. The vomiting had ceased; but the pulse continued about 90 and rather weak, the tongue much loaded, though less so, the bowels difficult to move, and the desire for food still altogether wanting. The pains in the limbs were also distressing, and occasioned much restlessness and want of sleep. There was a good deal of languor; but he conversed without difficulty. The countenance and skin generally were pale, the eyes clear, and not injected, the expression not oppressed; and altogether the general physiognomy of the disease struck me at once as different from that which has long been familiar to me as characterizing the several forms of the infectious typhus of this city. Under the use of laxatives, calomel, diaphoretics, morphia at night, and tonics, the patient gradually threw off the more urgent symptoms, and was restored to a state of good general health. But the painful uneasiness of the limbs continued without material abatement. Even so lately as the 4th of May, more than three months after he was taken ill, Mr. Macnab wrote to me, that "the legs are somewhat swelled from the knees downwards; he complains of a sense of uneasy soreness in them, together with a numbness and want of the feeling of pain when the skin is pinched; he walks with very great difficulty; and altogether the affection seems to be of the nature of partial and incomplete palsy." [He continued in the same state on the 8th June.]

A short example of the slightest form of the disease will now conclude the narrative of cases. "Marion H., daughter of one of Mr. W.'s ploughmen, residing within two hundred yards of the farm-house, had been frequently in the house milking the cows and taking occasional charge of the two domestic servants while sick. On the 1st Feb. she was seized with nausea and desire to vomit, thirst, and the other early symptoms mentioned above. The pulse was 96, the tongue furred, the bowels constipated; but the thirst was not urgent, and the sore throat inconsiderable. Under the use of laxatives and diaphoretics she gradually recovered, and in ten days she was able to be out of doors. On the 4th of May she was in excellent health, and engaged in her usual occupation as a farm servant." Neither this patient, nor any other but Mr. G. W., and another girl, a house servant, suffered from pains of the extremities or incomplete paralysis.

The foregoing case will serve to illustrate the characters of this little epidemic, so far as the symptoms are concerned. I regret that no opportunity occurred for illustrating its pathology by as-

certaining the morbid appearances. Some important circumstances remain to be stated in regard to its appearance and propagation.

At the time it broke out in the farm-house, no disease of the kind was known in the neighbourhood. Mr. Macnab thinks he saw in his country rounds a few scattered cases somewhat similar to those of the W.'s and their servants; but none happened in the vicinity. There were fifteen people either residing in the house, or much in it during the day; and every one of these was taken so seriously ill as to be obliged to give up work, and to require medical assistance. Three or four others, who had been occasionally in the house, were also said to have sustained slight attacks; and two or three visitors, who were in the house after Mrs. W. took ill, remarked that they were sick and uneasy at stomach, and disinclined to take food. Of the fifteen frequenters of the house who were attacked, all were seized in rapid succession within fourteen days after the first case occurred. The first person taken ill was Mrs. W., on the 22nd January; Mr. W. and his son were both seized on the 25th; one of the domestic servants on the 26th; another domestic servant on the 28th; Miss W., the farmer's daughter, on the same day; and all the farm-servants in the course of the ensuing fortnight. On the 30th, nine days after Mrs. W. was attacked, Mr. Macnab found eleven persons ill. The case of Miss W. was somewhat remarkable in its circumstances. She had been for at least three months from home, residing on the Island of Skye; returned with her brother on the 19th January, three days before the first case of disease occurred, and in nine days was attacked with the same symptoms as the others, and suffered severely. I saw her as well as her brother, along with Dr. Begbie and Mr. Macnab, on the 20th February, when she was almost convalescent; and, as in the case of her brother, I was struck with the physiognomy of the disease as presenting something very different from that of ordinary infectious typhus at the same stage,—the countenance being pale, the eye lively, the expression natural, and by no means oppressed, the mind clear and alert, and the strength far from so prostrate as it is usually observed in early convalescence from our late epidemic typhus.

It appears that in the whole fifteen cases the symptoms in their nature and succession were generically the same, and with but few specific peculiarities in each; the only important specialties indeed being early death, with precursory coma, in the servant girl, Isabella M., and consecutive neuralgia with incomplete paraplegia in the instance of the younger Mr. W. and the servant girl alluded to. The leading symptoms were those of great gastro-intestinal derangement, nausea, vomiting, loathing of food, an excessively loaded tongue, and obstinate constipation; the accompanying fever was slight, and in its type adynamic; exhaustion of the nervous system, without any particular cerebral oppression, except in the single case of the servant girl, was the principal consecutive danger incurred; and in no instance was there detected any trace of the petechial eruption, which has been so general for some years past in the infectious typhus of this country.

The disease attacked most severely without exception those who resided night and day in the farm-house. Three out of six of this denomination of cases proved fatal; and the least severe case was that of the daughter of the family, who, until nine days before she took ill, had been from home for three months. On the other hand, the slightest forms of the disease, without exception, occurred among the farm servants; who, though much in the farm-house through the day, slept in their cottages, a few hundred yards off, and lay there after being taken ill.

Another remarkable fact is that the malady, which spared not a single individual who came fairly within its grasp in the farm-house, was nevertheless not communicated to any one else by those who were there attacked by it. If it spread simply by infection it must have been virulent almost beyond example for typhoid fever; since every person directly exposed was attacked. And yet no fewer than eight of the sick lay while ill in cottages inhabited by other members of their families, without a single case of propagation of the disease having been observed in these localities.

It is no wonder, then, that the pestilence appeared to the neighbourhood unaccountable. The general character of the symptoms, the great mortality, the narrow, well-defined bounds of its ravages, its unsparring sweep within this circle, the swiftness with which it embraced all within its grasp, its non-communication by the sick to those who had not been in the original locality, showed habits very different from those of our ordinary epidemic fevers.

Add to all these things the nature of the locality; and the mystery of the case appears at first even greater than before.

The farm-house is situated near the confluence of the Line and Tarth. Both streams flow through rather open valleys, here and there under the plough, and bounded by beautiful pastoral hills rising about a thousand feet above the cultivated fields. There is but little wood within a circle of a mile from the house. The country is in general drained and dry; but to the westward the fields on the north bank of the Tarth are extensively irrigated with fine river water. The house is placed on the north bank of the Line, near the junction of its tributary the Tarth; the elevation above the bank of the stream is considerable; the farm-steading is placed on rising ground behind the house; and behind that again there is about a third of a mile in breadth of waving cultivated land, bounded by one of the green grassy hills that cover a great part of the surface of Peeblesshire. Nowhere around is there a cooped-up population, among which infection may lurk unseen, to invade from time to time the neighbourhood. The population of the district is purely rural and very thinly scattered; there is scarce even a hamlet nearer than the small straggling village of Newlands on the Line, two miles to the northward; and the only town within easy reach is that of Peebles, about seven miles distant. A healthier locality could not well be chosen. Some may object to the vicinity of the irrigated meadows. But it is scarcely necessary to observe, that frequent experience has shown the harmlessness in Scotland of meadows irrigated with pure water; and besides, the nearest point of these meadows in the present instance is about half a mile from the farm-house.

The disease, then, appeared unaccountable in its rise. In the neighbourhood it was consequently regarded as mysterious; and naturally enough it was ere long ascribed to poison. No particular poison, however, was suspected; and fortunately no particular individual. But in such a conjuncture rumour must impute blame in some quarter. On this occasion it fell upon the medical attendant of the family, who was charged with misunderstanding the nature of the cases under his charge, with having been too slow to suspect their true cause, and having thus failed to detect the poison. In such circumstances medical men have sometimes allowed themselves to be carried away by the general voice, and grievous consequences have resulted. But Mr. Macnab had observed the whole circumstances with care, and weighed them with discernment; and he refused to countenance the public clamour.

Matters had been but a short time in this state, when I was consulted along with Dr. Begbie in the cases of Mr. G. W. and his sister, and was made acquainted with the particulars of the occurrence, though not in such detail, or so precisely, as they have been now stated to the society. The first idea that suggested itself was the probability of the malady being produced by the use of meat from diseased animals. But this view was at once set aside; for besides that persons who suffer from diseased meat are generally affected with diarrhoea, not with obstinate constipation, it was carefully ascertained that not a single case of natural death had occurred among the domestic animals of the farm for a long period before; and the farm supplied what meat was consumed by the inhabitants. In the next place poisoning with ordinary poisons seemed to be out of the question. None of the ordinary poisons had been used or seen about the farm for a long period; three of the parties who suffered had never taken any food or drink in the farm-house, although frequently within it in pursuit of their occupation; and besides, what poison is there which is known to be capable of causing such effects? Thirdly, a general endemic influence, or malaria, appeared equally inadmissible. Neither the irrigated meadows, nor any other general cause, could produce a malaria, which should fall with such virulence on a single house, but entirely spare all others in the valley. Fourthly, the want of resemblance to the habitudes of ordinary epidemic or infectious typhus, already adverted to, struck the attention as something very remarkable. The disease was a typhoid fever, but yet not the typhus with which all are familiar. The invariable violence of the gastric symptoms, by no means a usual circumstance in the typhus of Scotland; the nervous exhaustion, not incapacitating, however, from prolonged exertion and fatigue, without injury,—the absence of cerebral oppression except in a single instance,—the extreme swiftness of death in that instance,—the non-appearance of petechial eruption in any case,—the physiognomy of the disease, at least as seen by me in its middle and convalescent stage,—and lastly the seizure of every habitual frequenter of the house, with the non-communication of so virulent a disorder to any of their families living elsewhere,—these circum-

stances formed a crowd of distinctions which severed the epidemic from ordinary typhus as now and lately prevalent in Scotland. A local malaria was the only conceivable cause left for consideration. No source, however, of local malaria was known. But, having in my recollection the reports of the health of towns' commission, happening to be well acquainted with the locality, which I have described above from personal observation some years ago, and remembering that the farm-yard is placed on a rising slope behind the house, I suggested that the drains might be defective, and that inquiry should be made, whether the soil around, and possibly even under the house, had not become in consequence impregnated with decaying animal matter.

Meanwhile the rumour of poisoning gained ground, and at length reached the authorities of the county in a shape which rendered a legal investigation indispensable. The subject was then brought before me a second time on the 10th of March for my opinion on the recognition taken by the Procurator Fiscal,—with the facts somewhat more precisely stated, though not so as to affect the opinion previously formed,—and with the not unimportant addition, communicated to me by Mr. Macnab, that during the occupancy of a previous tenant the farm-steadings drains had been repeatedly choked up, so as to require being thoroughly cleared. It is unnecessary to reproduce here the report returned to the law officers of the county. Its substance may be anticipated in a great measure from what has been stated above. Feeling, however, the necessity of caution in circumstances so peculiar, I did not represent poisoning as altogether impossible. All slow and insidious poisons, with whose effects toxicologists are now acquainted, seemed entirely out of the question, except arsenic; and all that is accurately known of the effects of arsenic as a slow poison presents nothing precisely similar to the phenomena observed on this occasion. But the truth is, that the knowledge hitherto possessed of the action of arsenic on the human body, when insidiously introduced in continuous small doses, is either scanty or vague. I therefore limited myself to the opinion that the particulars of the incident did not correspond with anything yet known of the operation of slow poisons; that I could not altogether exclude the possibility of arsenic being concerned; but that this question might be at once settled by an examination of the body of the servant girl, in whom, by reason of the rapidity of the fatal event, arsenic, if really the cause, would be detected by analysing the liver.

This report had scarcely left my possession, when all farther inquiry was rendered unnecessary by information received the same day by Dr. Begbie in a letter from Mr. Macnab, stating, that he "had made a searching investigation into the state of the drains and sewers at the farm-house, and found them all closed up and obstructed with the accumulated filth proceeding from the necessaries and farm-yard. The effluvia," added he, "proceeding from these sources when I was there, though much of their contents had been removed, was very offensive, and was diffused in the atmosphere to a considerable distance around." I have been since favoured with a more precise account of the structure and condition of the drains. The farm-yard extends backward immediately from the house, without any interval. On each flank of the farm-yard, and outside the walls, there is a covered drain, which ends close to each side of the house. One of these side drains receives, besides the ordinary drainage of the farm-yard, the contents of three privies situated about fifteen yards from the house. A drain also extends transversely just behind the house; and various small drains join those already described. There is a small run of water through the flank drains, but always insufficient, and in the summer often dried up. The drains had never been cleared out or examined during Mr. W.'s occupancy of the farm, extending to a period of nearly three years. On the present occasion they were found all choked up with "an immense accumulation of animal matter," which infected the surrounding air to a considerable distance in the neighbourhood when the drains were cleared. It is scarcely possible but that the adjacent soil was impregnated with the pent-up pollution; but no inquiry was made as to this point; nor indeed would it have been easy to accomplish this satisfactorily. Enough perhaps has been already stated to bear out the opinion at which Dr. Begbie, Mr. Macnab, and I arrived on considering the whole circumstances of the case at an earlier period; but it is not unworthy of being added, that the farm-yard stuff had been allowed to accumulate to an unusual extent during a winter of unprecedented mild weather; and that a part of the accumulation had been heaped up very near the back wall of the house,

I apprehended, then, that the nature of this at first incomprehensible disease has in the end been satisfactorily explained. No one at least can entertain doubts on this head, who has perused with attention and impartiality the reports of the health of towns' commission.

A variety of questions, important alike in a scientific and practical point of view, might be suggested by reflecting on the narrative just submitted to the society. Among these the most fundamental are the two following:—First, was the disease, notwithstanding certain peculiarities in the symptoms, essentially the same with the ordinary epidemic typhus of the larger towns in Scotland?—and secondly, granting it arose from local miasma, as I believe it to have done, is the fever so engendered capable of propagating itself by communication from the sick to the healthy? But the present occasion is not a fit one for entering on the discussion of either of these questions; for the facts are not adequate to bear out a confident conclusion. Let me merely observe that on the one hand, any person conversant with the common typhus of towns must have seen something peculiar in this little epidemic; and on the other, that no instance did occur of its spreading in cottages at a distance, among those who did not frequent the farm-house, but who attended the sick at their own homes.

In conclusion, let it be observed, that, although this incident has been described with care, on account of its apparent rarity, it may be strongly suspected to be not so uncommon as a hasty consideration of the subject would indicate. Other farm-yards besides that of Mr. W. are placed disgustingly near the dwelling-house; and other farmers are reckless of the consequence of accumulation and bad drainage. Country practitioners are well aware that such localities present instances, apparently unaccountable, of erratic or even sometimes epidemic malignant fever. I have lately been informed of an instance, which happened in Stirlingshire, not long before this one in Peebleshire, of a farmer's family, four in number, having been entirely swept away in a very short time by a malignant typhus. An occurrence so startling and unusual might deserve an attentive investigation. But it happened at too distant a date to admit of being now inquired into with success. Meanwhile, if on similar occasions medical men in rural districts will keep in mind what has lately happened in Peebleshire, they will probably be able to show that the incident there is by no means unexampled.—*Dublin Medical Press.*

## MIDWIFERY.

### CONCEPTION OCCURRING AFTER INVERSION OF THE UTERUS.

Dewees says, at p. 512 of his System of Midwifery, that "we may justly entertain doubts" of the uterus having been reinstated after complete inversion. A very complete inversion of the womb is not, if it be early reposit, to be considered as obviating the liability of the patient to a subsequent conception. This I can clearly aver, upon the facts of the case published by me in the Phil. Pract. of Mid., 2d Edit., p. 356, where the case as seen by the late Dr. James, by Dr. G. Fox, and by myself, is given at large. In that case the inversion was produced by violent and most painful tractions at the cord by an ignorant midwife, who supposed, after she had drawn the womb entirely forth of the patient's body, that the huge mass consisted of some unnatural state of the placenta, which, in fact, was adherent to it. The midwife even after the womb was withdrawn and hanging between the thighs of the women, made violent efforts to pull it away from her, and only desisted in consequence of her screams, and the apparent approach of death.

"I reposit this womb, not by compressing the organ between my hands, as it is usually directed to be done, but by waiting until the contraction or after-pains had ceased, and then indenting the fundus with a finger, like the bottom of a bottle, and suddenly pushing the cone upwards to the os uteri, and so into the belly again." This patient was as nearly dead from hemorrhage as any woman I have seen recover from flooding. Upon the re-establishment of her health she bore children, and in two instances was delivered by my friend and colleague, Professor F. Bache. I mention these circumstances in order to show that the extremest degree of inversion—none could be more complete—is not necessarily the cause of lesions in the ovaries, tubes, and other organs connected with reproduction, so great as to deprive them ever afterwards of the

reproductive power. Dr. Meigs relates another case in which he and other medical men examined a woman who had been the subject of an inversion of the womb for two years. They all agreed that the case was one of inversion, and the attempts made by himself and them, to reposit the organ, were without success. Nevertheless, some four years after this, she became pregnant, and miscarried of an embryo of more than three months, under the care of Dr. Warrington, who received the embryo."—*Dr. Meigs.—(Lond. Med. Gazette.)*

#### TWINS.—UTERINE INERTIA WITH THE SECOND CHILD.

November 25th, 1844.—Nancy Cook, 15, Simpson's Buildings, Adelpi road, Salford, aged 39, was in labor of twins. The first child, which was a boy, and presented with the head, was born alive four hours and a half after the beginning of labor; it was small, as the mother was only at the seventh month of pregnancy. For an hour after its birth there were no labor-pains, but at the end of that time they came on, though they were extremely feeble and infrequent. I was sent for by the midwife of the Lying-in Hospital, who was in attendance, and saw her about four hours and a half after the birth of the first child. The woman was in a good state; the membranes of the second child were unruptured; the pains were so feeble as to have little or no effect on the amniotic sac, and there was an interval of from twenty minutes to half an hour between each pain. I considered it a good opportunity to ascertain the value of Dr. Radford's galvanic plan in renewing uterine action, so I made the necessary arrangements. In about an hour Dr. Radford and myself, in the presence of my friend, Mr. Nursaw, and my pupil, Mr. William Black, proceeded to apply the remedy. The effect was immediate; strong labor-pains coming on, and continuing whilst the galvanic circle was complete. The woman cried out that she had pain similar to what she supposed might be produced by "forks being thrust into her belly." On examining her vaginam, the membranes were found to be tense and protruding into the passage, and the os uteri was fully dilated. After the galvanic circle was broken, and the intervalic contraction thereby induced had gone off, it was remarkable to observe that so great a degree of tonic uterine action existed, that the amniotic bag could no longer collapse, but remained tense in the vagina, as it does at the height of a pain in normal labor. In the course of about half an hour the intervalic uterine action was so completely excited that we ceased to apply the galvanism; and during a pain, Dr. Radford ruptured the membranes, when the foot was found presenting. I now took charge of the case, and in about a quarter of an hour, with the assistance of slight traction, a very small female child was born alive. We applied a few slight galvanic shocks to its chest, as the respiration was feeble, with a very good effect. The placenta, which was single, came away in about twenty minutes, with less discharge than is usual in twin cases.

The mother recovered well and rapidly; but the second child which was extremely puny at birth, died of convulsions in four or five days.—*Lond. Med. Gaz.*

#### INDUCTION OF PREMATURE LABOR BY GALVANISM.

Jane Ward, aged 23, was pregnant of her second child. In a previous labor, owing to contraction of the outlet of the pelvis, I delivered her by means of the perforator and crotchet, in consultation with my colleague, Mr. Gollard. The diminution in the transverse diameter of the outlet of the pelvis being only about from half to three-quarters of an inch, I allowed her to go on to the eighth month. Dr. Radford, Mr. Stephens, and myself, had then a consultation upon her case, and it was agreed that I should endeavour to induce premature labor by means of a sponge tent introduced into the os uteri, and if this failed, by means of galvanism. Accordingly, in the presence of the above named gentlemen on the 28th of March, 1845, I introduced a sponge tent; but as it did not expand, owing to its being badly made, I withdrew it on the 31st, no effect having been produced.

On the 1st of April, 1845, in the presence of Dr. Radford, Messrs. Hunt, Stephens, Runcorn, and my pupil Mr. W. Black, I applied the galvanism for about twenty minutes, with occasional intermissions. The uterus hardened under the application, and she felt labor-pain, but this lasted only whilst the galvanic currents and shocks were given.

In about eight hours and a half after the use of this agent, the

membrane ruptured, little or no dilatation of the os uteri having occurred.

April 3d.—About forty-eight hours after the application of the galvanism, I made a vaginal examination, but there was no dilatation of the os uteri. On making an abdominal exploration, I discovered the head of the child at the fundus uteri. In about three hours after I saw her, labor came on, and the child presented with the breech. The case went on well so far as regards the action of the uterus, but the child was born dead after a labor of about nine hours' duration. Mrs. Mills, an experienced midwife, who had charge of the case, informed me that she examined the funis as it came within reach, but she could detect no pulsation in it. I examined the infant, and found the face purple from congestion, and the nates and scrotum much ecchymosed. The placenta came away in an hour after the birth of the child.

The woman suffered from a severe attack of menorrhagia about twelve days after the birth of the child, which yielded to ordinary treatment and the use of the plug. \* \* \*

Of course, after so few trials as have been made with galvanism in the practice of midwifery, it is very difficult to form an opinion as to its exact value, and the particular cases in which it is likely to supersede means that have been previously adopted. That it is a powerful remedy there can be no doubt in the minds of those who have seen it tried, and that the uterus will respond to its application, whilst the general system is completely prostrated, is equally certain. This latter circumstance is one of its peculiar merits, as I believe that there is no other means by which we excite uterine contraction that is not liable to fail when severe hemorrhage has weakened the vital powers. But the pain and disagreeable sensations produced by the galvanic shocks and currents when passed through the uterus are such as one would not wish to subject a patient to unnecessarily, and this is one of its disadvantages. For this reason I think that we are bound to try other means before having recourse to it, excepting such circumstances exist as render it hazardous to the mother to lose any time. Thus, supposing we have a case of uterine inertia, we should try frictions, pressure and cold to the abdomen, rupturing the membranes if justifiable, and even the ergot in most cases, before having recourse to galvanism. But if we should have uterine inertia, complicated with funis presentation, the funis pulsating well, and the passage in a favorable state, a case by no means uncommon, we should lose no time in applying galvanism, inasmuch as the only chance for the child consists in a rapid delivery, which, indeed, might still require the forceps for its accomplishment. I believe it to be a perfectly safe remedy, since I have never seen anything to lead me to suppose that either the mother or child has suffered from its use.

From the little I have seen my opinion is that it is a most valuable means in that class of cases for which Dr. Radford first recommended it, viz., uterine hemorrhage before, during, and after labor, in the latter months of pregnancy; and it must always be remembered that its application need not, in any way, lead us to neglect the ordinary methods of treating these cases, if there is any reason for giving them a previous trial. Of course from this statement must be excepted the old plan of delivering the child where great exhaustion of the mother is present, to supersede which practice, galvanism was specially brought forward.—*Thomas Dorrington, Esq.—(Lond. Med. Gaz.)*

#### ON FLOODINGS.

1. "Floodings rarely occur after natural delivery, to any extent if properly guarded against. 2. They happen most frequently after instrumental and manual deliveries, and after deliveries rendered precipitate by the violence of the expulsive action, in all of which cases they proceed from lacerations of the soft parts, sustained during the passage of the child. 3. Those which occur after labors rendered tedious by the abnormal size of the child, may proceed either from laceration or sloughing of the parts. Some rare cases are on record, in which the blood would seem to have escaped by gravity from the uterine vessels, owing to the mother having been raised into an erect posture while in a debilitated state.\* 4. Floodings which take place a few hours after delivery, are owing to wounded vessels which have acquired increased activity after the depression occasioned by the shock of delivery has gone off. 5. Those which take place some days after

\* How can this be, unless there are uterine vessels communicating with the placenta?

delivery are connected with sloughing of the parts, which may either have been injured in the act of delivery, or become tainted by the presence of a putrid portion of the placenta." The phenomena of floodings being thus shown to be identical with those of hemorrhages from wounded arteries, the same plan of treatment is clearly identical in both cases. Floodings, then, are to be treated by exposure to cool air, by cold applications to the parts, or, if need be, by cooling injections into the uterus and vagina; by elevated position of the pelvis, and moderate doses of opium. If arterial blood flow rapidly and continuously, an examination should be made, and if a wounded artery is detected, it should be secured by the usual surgical means.—*London Medical Gazette.*

### ON THE ACTION OF GALVANISM ON THE UTERUS, DURING LABOR.

By PROFESSOR SIMPSON.

The general results obtained from the employment of galvanism, in the eight cases which I have detailed, may be summarily stated as follows:

In one instance (Case 2,) the pains were more frequent in their recurrence, but shorter in their duration during the application of the galvanism. In five other cases (Cases 1, 3, 4, 6, and 7,) the employment of the galvanism neither increased the average frequency of the pains, nor their average duration. In one (Case 5) the pains ceased whilst the galvanism was applied, and returned upon its removal. In the instance which I have last detailed (Case 8,) the uterine action ceased while the galvanism was applied, and did not return upon the withdrawal of the galvanic action, nor for 24 hours subsequently. There was no reason whatever at the time to expect this as a probable occurrence, independently of the galvanism. But even admitting, for the sake of argument, that the cessation of the uterine action was not the result of the galvanic influence used, still the fact is amply sufficient to show that the galvanic current had not, at least, the power either of increasing the pains, or even of continuing and maintaining them when they offered to fail. It may be proper to add, that during the galvanic action, in none of the experiments did Dr. Barry or I find, in the intervals between the *clonic* uterine contractions or pains, any evidence whatever of unusual *tonic* contraction of the uterus, as shown either by any degree of hardness in the general uterine tumour, or by any degree of tension in the pressure of the bag of membranes, or the child's head against the cervix uteri.

It would be hasty and logically incorrect to deduce from the preceding observations, that under no modification, and under no manner of application does galvanism possess the power of directly exciting or increasing the contractile action of the uterus. Forms or methods of employing it may yet possibly be detected or devised affording a different result. But I believe I am justified in inferring from the preceding inquiry, that as employed at the present time, and in its present mode, it is not a means which can be in any degree relied upon for the purpose in question; and is so far practically and entirely useless as a stimulant to the parturient action of the uterus.—*Ed. Monthly Jour. Med. Science.*

## SURGERY.

### ON THE ECTROTIC OR ABORTIVE TREATMENT OF GONORRHŒA.

Remarks on its treatment by Nitrate of Silver. By Charles D. ARNOTT, M.R.C.S.E., Gorleston.

That gonorrhœa is frequently productive of annoyance, as well to the practitioner as the patient, is a general admission. Often obstinate of cure, the surgeon is baffled, and the patient wearied and disgusted. These remarks apply to the simple and uncomplicated form of the disease, any treatment of which, promising speed and efficiency in operation, and probable immunity from much severe suffering, demands attention.

Gonorrhœa is, doubtless, a true urethritis of a specific

nature, and by attentive observation may be traced through all the successive stages of the inflammatory process, with as complete precision as may the vaccine vesicle or any other well-marked illustration of this pathologica phenomenon. The poison, for a series of days, varying in different cases; appears to be inert; until at length a degree of vascular excitement supervenes. This comprises the period of incubation. With vascular excitement, or simple turbulence, in the case of secreting organs and surfaces, comes temporary exaltation of their normal function; [so in the urethra an inordinate amount of mucus is secreted during this stage of the process. The exciting cause, however, remaining unabated, the action advances; the vessels of the part become more congested, and there begins to be only simple exaltation of normal function, but perversion of it, and, last of all, succeeds true inflammation, with total arrest of all natural secretion, and the formation and excretion of true pus—the peculiar product of inflammation. The action having progressed thus far, gonorrhœa is fairly established.

Theoretically, we know that the action having attained the true inflammatory crisis, a speedy restoration to quiescence, or simple and complete resolution, cannot occur, either by nature's operation, or by artificial solicitation; whilst, on the other hand, within this point, the true inflammatory acme, we are enabled, in the majority of cases, to effect a speedy and satisfactory subsidence of the perverted vascular action. These facts intimately bear on the subject of this discussion—the ectrotic treatment of gonorrhœa.

Cases of simple inflammation, in its early stages, admit, for the most part, of complete subjugation by the continuous use of cold, which appears to exert a powerfully sedative or depressing effect on both the nervous and the vascular systems of the part to which it is applied. But in cases of specific inflammation—such, for example, as those produced by the application of a poison, cold seems to be often altogether inert; it seems to possess little or no power in arresting that zymotic process on which such inflammations seem in great part, to depend.

The nitrate of silver, I am disposed to believe, enjoys the double privilege of efficacy in both classes of cases. The endermoid application of this salt speedily subdues erythema occurring on any part of the surface, and simple cases of paronchia, where the inflammation is superficial, timely treated with it, appear to be completely under its control. The initiatory stages of chilblain are reduced by it more effectually than by any other mode of treatment, and it arrests many affections of a similar nature with equal certainty. Similar effects are observed to follow its employment in cases of a specific character, as the stings of gnats, bees, wasps, &c.; and the undoubted service it has rendered in the hands of Mr. Youatt, in the most severe form of poisoned wound we observe in this country—the bite of rabid animals—tends to prove, that in addition to its sedative quality, it has the power of effecting a decomposition or neutralization of the virus, or a complete arrest of the zymosis, by which the poison, in these cases, is multiplied in the system.

The employment of nitrate of silver in the early stages of gonorrhœa will, I also believe, prove highly serviceable, due regard being paid to the selection of cases in which trial of it is to be made. I have observed its operation on four occasions of distinct and undoubted clasp, upon all of which, the success attending its use was perfect. One of these was a first attack, open to objection on the ground of error in diagnosis, but so well marked in circumstantial evidence, as well as symptoms, as scarcely to be mistaken; two others were second attacks, thus less liable to fallacy; and the remaining one a fifth attack, in which (to use the expressive language of the patient himself, 'an old stager,' in allusion to the existing ardor urinæ) 'the red-hot fish'

hooks were come.' Nevertheless the complaint was as satisfactorily arrested in the last as in any of the previous cases, by the use of one injection only, although the patient admitted, that in no former attack had the disease lasted upon him less than three months, notwithstanding the most assiduous attention to all the directions of a skillful medical man.

The mode of employing the remedy is simple. An injection, composed of twelve grains of the salt to the ounce of water, is the proper strength to use. About a couple of drachms of this, by means of an ivory (or, for obvious chemical reasons, what is better, a glass) syringe, is to be thrown into the urethra, the penis being at the same time elevated and compressed at about two inches from the orifice, thus ensuing complete application of the solution to the urethral membrane within this range, and no further. The nozzle of the syringe being withdrawn, the orifice of the urethra is to be occluded, and the solution kept in contact with the mucous membrane for the space of not less than half a minute. No urine is to be passed for half an hour after the injection, and the penis is to be kept suspended. The immediate visible effect of the remedy is to form a coagulated film on the surface of the urethral lining, and this, undoubtedly, is a main agent in effecting the cure, by the protection it affords to the delicate and abnormally sensitive membrane during urinary evacuation. That it has this effect is evidenced by the great diminution of pain which the patient at once experiences during micturition. But as to its *modus operandi*, we have also to consider its sedative action in subduing crescent inflammation, and its probable quality in neutralizing specific virus, and arresting zymotic increase.

The observance of rest and antiphlogistic regimen would, in all probability, aid the therapeutic influence of this mode of treatment; its beneficial effect is, however, developed under an ordinary mode of life, when attended with no flagrant violation of conduct.

As a method of cure, it is in my opinion open but to one objection—namely, its limited adoption, owing to its applicability extending no further than the early stages of the disease, and these often exciting but little attention. Let it not, however, be disregarded on this account; for, undeniably, many cases of clap present themselves while within the power of the remedy; and for these let it be reserved and had recourse to as a means easy of application and effectual in operation; while those cases beyond its influence may, as heretofore, be set aside, to be dealt with after another more expedient mode.

Failing, however, in ectrosis, the case is in a position no more unfavourable than if its cure had not been attempted; the ulterior effects and complications of the disease are likely to be, in no degree, more imminent or grave. This is borne out by asking, what are the complications to be apprehended in severe cases of gonorrhœa? Phymosis and paraphymosis; excoriation of the glans, producing balanitis inflammation of the lymphatics; abscess in the penis—rare, sometimes, however, occurring in the vicinity of the lacuna maxima; perineal abscess, with probable retention of urine, formation of urinous abscess, or inflammation of the prostate, leading to the same results: or cystitis, orchitis, or—in protracted cases, what is of frequent occurrence—stricture. The first five of these are, comparatively speaking, of minor importance, and need not be taken into account, considering the improbability of the treatment detailed producing them; the latter-mentioned more serious matters, so far from being excited, are certainly frustrated by nitrate of silver; they being, for the most part, true examples of extension of inflammation by continuity, the arrest of the process while localised in the extremity of the urethra, (and which is always the case so long as the remedy is applicable,) if effected, must prevent such ulterior calamities as perineal abscess, prostatitis, or cystitis. Again, stricture,

when it supervenes, does so only in protracted cases of clap, and where such a grade of the inflammatory process is maintained as favours plastic exudation and organization. Prevention of the continuance of the gonorrhœa must therefore obviously tend to diminish the probability of the stricture's supervention.

Ectrosis being available only prior to the suppurative crisis, a gonorrhœa which has advanced thus far must be regarded as beyond its influence; and should the disease persist and progress after one, or at most two injections, any further persistence in the use of the remedy must be deemed unadvisable, and the case consigned to the ordinary tedious treatment.

#### REMARKS ON THE STATISTICS OF AMPUTATION.

By PAUL F. EVE, M.D., Professor of Surgery in the Medical College of Georgia.

In the 3d vol. of the first Series of this Journal, published in 1839, will be found the following remarks on the mortality after amputation, which I sent home while in Paris during that year:—"M. Velpeau, in preparing the second edition of his *Medicine Operatoire*, wrote to Dr. Mott, requesting him to give some idea of the success of American surgeons. This Dr. Mott soon furnished, but M. Velpeau, I learn from his chief interne, M. Perischaud, does not give credit to it. He says this is contradicted by the statistics of Dr. Norris, one of the surgeons of the Pennsylvania Hospital. I recollect being impressed with the great error which Dr. Norris's statement was calculated to produce, by those who take it as the basis of success of amputations in the United States. It no more conveys a correct history of American surgery on this, than it does on any other subject. No surgeon of our country will consent to its being a correct foundation of statistics in surgical practice. All it can pretend to, and all that Dr. Norris undoubtedly intended by it, was the practice of the Pennsylvania Hospital, and nothing more. I respect the surgeons of this charitable institution, but I am sure they will acknowledge that they erred, and that greatly, though on the side of mercy, in *delaying amputations during the period referred to by Dr. Norris*. Who, in reading these statistics, will admit them as correct as applied to the United States? And being the only ones yet published in our country, it is not astonishing that a man of M. Velpeau's industry and penetration should have noticed the contradiction to it in Dr. Mott's letter to him."

Soon after my return from Europe, I noticed in the *Medical Examiner*, of Philadelphia, then edited by Drs. Biddle, Clymer and Gerhard, some comments on the above quotation, which was re-published in their Journal. They commence by saying, "We regret we differ in many respects from the writer," but admit that patients in the Pennsylvania Hospital are liable to erysipelas and purulent absorption, and also to the unfavorable circumstances of "*the late period at which surgeons perform some of the amputations.*" Again, in the same Journal, May, 1840, they observe, "many of us were under the impression that these operations were extremely insignificant, so far as the mortality was concerned. One of the editors of the *Examiner* labored under this impression, and stated his convictions to some of his surgical friends in Paris; after his return to America, he found that the amputations at the Pennsylvania Hospital were often fatal; that is, during a portion of the period alluded to by Dr. Norris, as that of the greatest mortality after amputation, 1834-6."

As I have made no attack upon the correctness of the report of Dr. Norris, but simply stated my belief that it ought not to be taken as a just statistical basis for calculating success of amputations in the United States, no reply was

deemed necessary to the comments made upon my letter. Indeed, after the explanations given by the editors of the Examiner and quoted above, it is difficult to determine wherein we differ on this subject; and I have now merely referred to the matter, because by a recent report of Dr. Betton, of Germantown, published in one of the last Nos. of this Journal (the Medical Examiner), and by my own statistics of amputation, the position I have assumed is abundantly strengthened.

No one will pretend to deny that the mortality after amputation is far greater than it was supposed to be, previous to recent statistical investigations, or that it is not true, even of our own country; but what I maintain is that Dr. Norris's report of this operation as it occurred in the Pennsylvania Hospital from Jan. 1830 to Jan. 1838, is not a correct basis of the success of American surgeons. This report, it will be recollected, was published in 1838, in the August No. of the American Journal of the Medical Sciences; it was of course to it, and to it alone, that my letter written from Paris in 1839 alluded, and to it also M. Velpeau had reference, when he said it contradicted the assertions made to him by Dr. Mott. During these seven years (from 1830 to 1838), of 56 amputations performed in Pennsylvania, 21 died—or nearly one half of those operated upon. Who, I ask, is ready to admit that this is our mortality after this operation? Who will attempt to prove this to be a correct estimate of deaths after amputation in the United States?

Fortunately for me, Dr. Norris, two years subsequently, published another statistical account of these operations as performed in the same institution (Pennsylvania Hospital), during 1838 and 1839. In this second report, we learn that of 24 amputations, *only one died*. What a remarkable discrepancy, and how opposite to the first statement! By one table we are made to lose one in about every two that we amputate, and by the last only one in twenty-four. Was I not then justified in saying the impression produced by the first report was erroneous? Was I not right in supporting the assertion of Dr. Mott, that in America our amputations are generally successful? Would M. Velpeau, had he seen this second report of Dr. Norris, have stated to his hospital surgeon, I cannot credit Dr. Mott on this subject, though he is sustained "by Drs. Gibson, Warren, Paul Eve, and some physicians of Philadelphia."

Dr. Mott stated to M. Velpeau, "Our amputations at New York are rarely followed by death; I cannot recal to mind, at present, but four cases of amputation which have thus terminated."

Dr. Gibson also wrote to the same author, "the greater number of amputations that I have performed for diseases of the articulations, wounds from fire-arms, and complicated fractures, have been followed by complete success."

In Dr. Reese's last edition of Samuel Cooper's Surgical Dictionary, he states the fact that of 18 amputations performed in private practice by Dr. J. C. Warren, of Boston, he lost but one. Dr. R. also adds, that several surgeons of this country, many of them in extensive practice, have never lost a patient after amputation.

Dr. Thomas F. Betton, of Germantown, has just published his cases of amputation, amounting to 16, with the loss of only 1.

Dr. Norris himself admits the error of too great delay in performing the operation in the Pennsylvania Hospital: and by the statistical report of Dr. George Hayward, of the Massachusetts General Hospital, at the same period, we find the mortality was less than in the first-named institution. While these reports show the proportion of deaths up to 1840, to be after amputations about 1 in 4, yet in private practice it must be considerably less.

Life will always be endangered in an operation like that of amputation, but full and correct statistics, could they be arrived at, would no doubt exhibit the success of the opera-

tion in the United States, as good, if not better, than in any other country. By a glance at the following tables, a comparison may be made.

The 1st, represents the mortality after amputation in general.

The 2nd, that of the inferior extremity.

And the 3d, statistics of my own operations.

There is nothing peculiar in my mode of performing amputation. The triple circular operation is preferred for the thigh and arm, the single flap for the leg, and the double flap for the fore-arm. Animal ligatures (made of deer's tendons) are used, and adhesive plaster, oiled compress, or the compress wetted with cold water, and the roller bandage. Much importance is placed upon the proper application of the latter means, as a preventive to both hemorrhage and inflammation. With a bandage to a stump, secondary bleeding is never apprehended. Opiates, when pain continues, are administered.

No selection has been made in my cases.

TABLE I.—STATISTICS OF AMPUTATION IN GENERAL.

When Occurring or by whom Reported.	No. of Cases.		Deaths.
Faure, after the battle of Fontenoy, . . . . .	300		260 to 270
Edinburgh Royal Infirmary, . . . . .	69		19
Dr. Guyon, French African Army, 1837, . . . . .	63		17
At siege of Constantine, Africa, 1837, . . . . .	10		9
At Bildah, Africa, . . . . .	62		39
Guthrie, Toulouse and New Orleans, . . . . .	150		42
Dr. Norris, Pennsylvania Hospital, 1838, . . . . .	56		21
Do. do. do. 1840, . . . . .	24		1
Dr. Hayward, Massachusetts General Hospital, 1840, . . . . .	70		15
Mr. Benjamin Phillips, in all countries, . . . . .	640		150
Do. do. in Great Britain, . . . . .	308		76
Do. do. private cases in London, . . . . .	167		28
Guthrie, on the field of battle, . . . . .	291		a 24
Do. secondary in hospitals, . . . . .	551		265
Glasgow Infirmary, Dr. Lawrie, . . . . .	276		101
Northern Hospital, Liverpool, . . . . .	96		18
Gendrin, Paris, . . . . .	79		33
University College Hospital, London, . . . . .	66		10
Emery, after battle of Navarino, . . . . .	68		14
Dupuytren, . . . . .	59		15
Do. by Meniere at Hotel Dieu, . . . . .	24		17
Scotch Hospitals out of Edinburgh, 1844, . . . . .	60		14
Larrey and Roux, . . . . .	38		15
Roux in 1814, . . . . .	22		8
Dubois, . . . . .	28		3
Dr. J. C. Warren, Boston, (private,) . . . . .	18		1
Do. do. hospital, . . . . .	40		10
Dr. N. R. Smith, Baltimore, . . . . .	50		5
Dr. Betton, Germantown, . . . . .	16		1
Malgaigne, Paris, 5 years, ending 1841, . . . . .	b 852		332
Paul F. Eve, Augusta, . . . . .	51		none.

TABLE II.—STATISTICS OF AMPUTATIONS OF THE INFERIOR EXTREMITY.

Where Occurring or by whom Reported.	No. of Cases.		Deaths.	
	Thigh.	Leg.	Thigh.	Leg.
Markham, reporter—Dupuytren		26		21
Alex. King, reporter—Guthrie, Toulouse, . . . . .	78*		27*	
Alcock, Spain and Portugal, . . . . .	42		14*	
John Phillips Potter, 1841, . . . . .	22	26	4	4
Dr. F. N. Macleardy, 1841, London, . . . . .	202	56	55	11
Dr. Bullen, . . . . .	19	32	6	3
Dr. Lawrie, Glasgow, . . . . .	36	27	19	9
Dr. A. Trowbridge, State of New York, . . . . .	85		11	

Where Occurring or by whom Reported.	No. of Cases.		Deaths.	
	Thigh.	Leg.	Thigh.	Leg.
Dr. Lawrie, by Thos. Inman, Thomas Inman, France,	128	62	46	30
Dr. Norris, Pennsylvania Hos- pital, 1838,	107*		69*	
Do. do. do. 1840,	13	16	6	9
Dr. Hayward, Mass. Gen. Hos- pital, 1840,	15*		1*	
Edinburgh, 1844,	34	23	9	5
Velpeau, 1842,	18	20	13	2
In Paris, during 5 years, 1841,	6	4	4	2
Dupuytren, by Meniere, at Ho- tel Dieu,	201	192	126	105
Dr. Betton, Germantown, 1846,	11	3	9	3
Paul F. Eve, Augusta,	4	6	1	none.
	7	7	none.	none.

TABLE III.—STATISTICS OF AMPUTATION OF THE INFERIOR EXTREMITY OCCURRING IN THE PRACTICE OF THE WRITER.

THE LEG.

No.	Name.	Age.	Sex.	Cause of the Operation.	Result.
1	Soldier	40	Male.	Carries from ball through ankle-joint.	Speedy recovery
2 & 3	Len	14	Male.	Gangrene from frost-bite.	Both legs at same time—rode out on the eighth day.
4	Moses	30	Male.	Aneurism from injury.	Speedy recovery
5	Simon	35	Male.	Carries from injury.	Well in three weeks.
6	Daniel	27	Male.	Necrosis of Tibia from a burn.	Healed slowly, but entirely.
7*	Ned	22	Male.	Hypertrophy, &c.	Healed in about three weeks.

THE THIGH.

1	Sukey	35	Fem	Serofulous ulceration of leg.	Well in 5 weeks, & lived for 3 yrs.
2	Turknett's boy	15	Male.	Gangrene of leg from injury.	Well in a month.
3	Jonakin's man	35	Male.	Gangrene from injury.	Well in four or five weeks.
4	Bill	10	Male.	Necrosis of Tibia	Well in 2 weeks.
5	C. B.	21	Male.	Gangrene from injury to knee-joint.	Well in 3 weeks.
1	William	23	Male.	Do. do. do.	Well in 4 weeks. Healed in three weeks, but disease subsequently attacked the glandular system, and destroyed the patient, the stump remaining sound for two months.
7	Lewis	21	Male.	Malignant ulceration from old cicatrix of a burn.	

Total, 14 cases of successful amputation of the inferior extremities.

a Probably only those who died immediately after the operation.

b This includes all kinds of amputations, and the same remark applies to my own.

The figures thus marked \* in Table II. indicate simply the inferior extremity, without the distinction into thigh and leg.

\* This was partial of the foot, including the metatarsal of the great toe.

Southern Medical and Surgical Journal.

ON A LUMINOUS APPEARANCE OF THE HUMAN EYE, AND ITS APPLICATION TO THE DETECTION OF DISEASE OF THE RETINA.

By WM. CUMMING, Esq., late Surgeon to the London Hospital.

The author mentions the well-known luminous appearance of the eyes of cats, dogs, and other animals, the reflection from the eyes of albinos, &c.; and after quoting from the works of Müller, Beer, and Tyrrell, as to other cases in which reflections have been observed from the posterior part of the human eye, proceeds to say, that the object of the present paper is to show that the healthy human eye is equally, or nearly equally, as luminous as the eye of the cat, &c., when observed under favourable circumstances; and the application of the alteration or loss of this luminous apparatus to the detection of changes in the retina, and posterior part of the eye.

The author states, that the reflection may be seen in the following manner: Let the person whose eye is to be examined be placed at the distance of ten or twelve feet from a gas or other bright light; the rays of light must fall directly on his face, and all rays falling laterally on the head must be intercepted by screens placed half way between the light and the eye examined. If the reflection be bright it will be at once seen from any spot between the light and the screen.

The author having more particularly described the mode in which the observations brought forward in this paper were made, remarks—The luminous appearance varies from a dingy red to a bright silver or golden tint, in some cases of extreme lustre, equalling that of a well-ignited coal. It is more brilliant when seen at several feet distant. It was always seen when the eye was healthy and the pupil easily dilated. The reflection was seen in cases in which the lens had been removed by the operation of solution. Twenty cases were examined indiscriminately, vision being perfect in all, the age varying from a few months to sixty years. In sixteen cases the reflection was bright and very evident, in four faint, and seen with more difficulty, and in one it was not seen.

As to the cause of this reflection, it is attempted to be shown that the retina, although a perfectly transparent medium in the living eye, is still a reflecting body. The formation of images upon the retina, the reflection from the cornea and lens, and other transparent bodies, are cited as proofs of this. Other circumstances would increase the brilliancy of retinal reflection—viz., the concave shape of the retina itself, the position of the lens, the influence of the vascular anterior layer of the retina filled with red globules of blood.

The author remarks, that the establishment of the fact of a similar reflection from the healthy human eye to that from the eyes of other animals, appears important in two ways. First, as a physiological fact, it shows that too much influence has been ascribed to the tapetum, that of the retina being entirely overlooked. Secondly, in a pathological view, the existence of this appearance in the healthy eye having been recognized, its non-existence, or alteration, may enable us to detect changes in the condition of the retina and posterior part of the eye heretofore unknown, or satisfactorily to see those which we only suspected.—*Dublin Medical Press.*

CHEMISTRY.

Gargle to counteract certain effects of Secondary Syphilis.—Formula of M. Ricord. (Journ. de Chem. Med. Jan., 1846, p. 56).—

Decoction of Hemlock, - 3½ ounces.  
Corrosive sublimate, - from ½ to 1½ grains.  
—*Southern Journal of Medicine and Pharmacy, September.*

Tincture of Protiodide of Iron.—The tincture of protiodide of iron is made as follows—

Sulphate of iron, - - - - 12 grains.  
Iodide of potassium, - - - 23 “  
Alcohol at 85°, - - - - ½ oz.

Triturate the two salts in the dry state together, add the alcohol and filter. Keep the solution in bottles, completely filled. A little excess of iodide of potassium gives more stability to the preparation.—*Ibid.*

THE  
**British American Journal.**

MONTREAL, OCTOBER 1, 1846.

THE ADJOURNED CONVENTION OF MEDICAL DELEGATES.

The attempt to organise, by the Medical Societies of the Province, a Provincial Medical Association, through a meeting of their delegates in this city, last year, will, doubtless, be fresh in the memory of our readers, as well as the means by which that attempt was frustrated. After having, in a most peculiar and summary way, dispensed with the co-operation of the delegates of the societies which had summoned that meeting, the others, representatives of district meetings of the profession, resolved themselves into a convention, different from that which was originally contemplated, and, having transacted certain business, "adjourned *sine die*." Further proceedings of this convention will be found below:—

An adjourned convention of the medical delegates of the districts of Quebec, Three Rivers, and Montreal, was summoned for, and held on Saturday, the 5th instant, at Quebec, by order of the President.

The object of the convention was to take into consideration the last year's proceedings, and to prepare a report to be submitted hereafter to their constituents.

The meeting was held at the Hotel Dieu, and the delegates present were, Dr. Morrin, Dr. Painchaud, Dr. Fremont, and Dr. Sewell, Quebec; Dr. Kimber, Chambly; Dr. Valois, Pte. Claire; Dr. Arnoldi, Jun., Montreal.

The chair was taken at ten o'clock, a.m., and the secretary, after reading a letter from Dr. Nelson, explaining the cause of his absence, read the minutes of the last year's proceedings, and pointed out the failure of the proposed Medical Bill during the last session of Parliament. He then proposed as a substitute for the Medical Bill that the convention should submit for the consideration of their constituents a project for incorporating the medical profession of Canada East into a College of Physicians and Surgeons, and a project to that effect was accordingly read, and after its minute discussion, clause by clause, it was moved by Dr. Sewell, and seconded by Dr. Fremont, That the project as proposed be adopted by this convention.—Carried.

2. Moved by Dr. Painchaud, seconded by Dr. Valois, That the proceedings of this day's convention be submitted to a general meeting of the members of the medical profession of Canada East, and that the said meeting be summoned by the secretary, to be held at Three Rivers, on Wednesday, the 14th day of October next.—Carried.

3. Moved by Dr. Kimber, seconded by Dr. Arnoldi, Jr., That a sufficient number of copies of the proposed project be printed and circulated, with the least possible delay, among the practitioners of Canada East.—Carried.

The president then having left the chair, Dr. Painchaud was named in his stead, and a vote of thanks was carried for the able and impartial conduct displayed by Dr. Morrin, and his great urbanity during the whole proceedings of the day.

A vote of thanks was also passed for the report which had been submitted to the convention by the Secretary, and the able manner in which he had discharged all the duties of his office.

JOSEPH MORRIN, *President.*

FRS. C. T. ARNOLDI, *Secretary.*

Montreal, Sept. 7, 1846.

PROPOSAL FOR A COLLEGE OF PHYSICIANS AND SURGEONS FOR CANADA EAST.

It will be seen by a reference to the minutes of the meeting of the Medical Delegates, held on the 5th inst. at Quebec, published above, that a project has been entertained for incorporating the Medical Profession of Canada East into a College of Physicians and Surgeons, and that a measure, having that object in view, was accordingly read, and having undergone a "*minute discussion, clause by clause*," was finally adopted by the convention. The project thus calmly discussed, comes before the Profession for its approval, deliberately sanctioned by those members of the convention present at the meeting. It may be, therefore, assumed to be an exposition of the views of that Convention in this matter, as the expression of their deliberate judgment, to be finally ratified by a general meeting of the Profession, which has been summoned for that purpose at Three Rivers, on the 14th of this month.

Waiving, on the present occasion, all consideration of the question, whether delegates specially appointed for a meeting on the 25th of August, 1845, in the city of Montreal, have the right of constituting themselves a permanent representative body by adjournments of their meetings, in this instance, over an interval of thirteen months, we pass at once to a consideration of the project, which, under their auspices, has within these last ten days, been submitted to the Profession for consideration; and we claim the right of uttering our sentiments on this subject, as well from the circumstance of our being members of the Profession, running every risk of being disfranchised by the scheme, as conductors of the only Journal existent in this Province, which can be supposed to claim the privilege of advocating directly the interests of the Profession in general. Let it not be supposed that we are writing against the principle of the measure; far from it. We see in the establishment of such an institution, endowed with powers to direct and regulate the interests of the Profession, much to be desired. We will advocate any and every scheme, which will tend to ameliorate the Profession: but to benefit that Profession generally, it should be tainted by no party views: to meet with general support it must be broad, liberal and comprehensive; should present nothing of an exclusive character in it; should proscribe none, and should not derogate from honors possessed by any. In all these respects, essentials to a favourable consideration of such a measure, this scheme is most lamentably wanting. With all due deference to the gentlemen who have proposed the project as conveyed in the circular, we consider the scheme an insult to the graduates of British

Universities, and to the Fellows, Members and Licentiatees of the British Colleges of Surgeons practising in this Province. We are not surprised at the proposal. We consider the present exposition of the views of the delegates in perfect keeping with their tactics at the Convention last year in this city; determined that French Canadian interests should then prevail, the same spirit manifests itself again in their more late proceeding. Composed, as the Profession is in this part of the Province, mainly of French Canadian members, the power would become lodged in the majority, for it is by no means likely that the British graduates would submit to the degradation of an examination for membership, and having thus obtained power to legislate in *all* matters affecting the Profession, and among the rest "education," it would not be long before the medical schools, which do, or may hereafter exist, would obtain every wish that they have been coveting in a more quiet and easy way, than by a direct appeal to the Legislature.

Every corporation must have a beginning, and it is a matter of little consequence, who or what they are, who are in the outset to constitute that corporation; but the restriction, in the first place, to those whose licenses are of 20 years date, is the first drawing of a line of distinction which is carried out even more invidiously afterwards. We ask, and with reason, why is this line of demarcation drawn? What is there in those, whose licenses are of more recent date, which should deprive them of this privilege, if it be one, and unfit them for a share in the governance of such an institution, and a voice in the formation of its bye-laws. We will here take the opportunity of contrasting this illiberal procedure, with the present proceedings of the Profession of Canada West, on the same subject; and we give insertion to the 3rd clause of a Bill which it is their intention to propose to the Legislature at its next session for its sanction, and which we have lately received.

3. "It is desirable that the following licensed practitioners \_\_\_\_\_ be incorporated as the College of Physicians and Surgeons of Upper Canada, and that all Practitioners already duly licensed according to the existing laws of this Province, who may be willing and desirous of joining, shall likewise be members of the said college." But the reasons of this restriction will presently appear.

The scheme further declares, that the college shall consist of fellows and members; that the fellows shall constitute the governing body of the college, or the corporation, and that in the first place this corporation shall consist only of those who have been licensed for 20 years, and have become parties to the petition to the Legislature, based on the proposed scheme. The scheme further propounds the mode by which the num-

ber of the fellows, or the corporation, shall be increased; and this is to be done by *election*. Of all the objectionable features in the scheme, we consider this one to be the most so, as every one will admit, who reflects upon it. It is a sure and certain mode of enabling the few to tyrannize over the many; it is a certain method of ensuring for the governing body of the college, a set of persons, whose opinions on medical matters shall not be inimical to those of the electors; and a certain and irresponsible method of tacitly excluding all of an opposite description whose presence might be troublesome. We hesitate not to affirm, that the distinguishing feature of the corporation, as at present proposed, (if carried out), will be *French Canadian*, to whose opinions on medical matters, the transactions of the last two or three years bear ample testimony, and the treatment which the British party has received *once* at their hands, affords strong grounds for believing, that, when opportunity offers, it will be repeated, not by any overt act, as took place last year, but by the silent and equally certain excluding power inherent in the ballot box. Who is there among the Profession, whose sense of justice and liberality is not lost, who will calmly sanction such a scheme? Who is there that does not see in the proposal to which we have adverted, a system by which the interests of the Profession will be controlled by a few parties, to whose caprice the Profession generally must submit.

But the honour of the fellowship is to be restricted. No one is to presume to aspire to it, unless he is a Provincial licentiate of seven years; such a one is required to petition the corporation, and to submit to and pass an examination. A Provincial licentiate, of fifteen years standing, however, is *eligible for election without examination*. Here again is the second invidious line of distinction drawn, and we can divine no reason for it, except in the first case, the contemplated self exclusion of a very large number of licentiatees, the most of whom are graduates, and who, we are certain, would not submit to the degradation of an examination before those, who, although older, may yet not be wiser than themselves, and who, perchance, may have never entered the walls of a university, or heard a lecture delivered. This might be deemed a negative way of getting rid of persons whose presence might not be acceptable: while there is, as we have already remarked, a positive way of managing the second class, by a convenient recourse to the ballot box. But the enormity of the proposed scheme, will be rendered abundantly apparent, by an exemplification of its mode of operation. A gentleman, an M. D. of the University of London, and a Fellow of the Royal College of Physicians, Lon-

don, has decided upon making this city the future scene of his Professional career; and having undergone the formality of obtaining his Provincial License, has comfortably located himself in this city. This gentleman has to wait for seven years before he is entitled to a fellowship, and even then to obtain it, has to submit to an examination, before persons, not one in ten of whom could, in all probability, have undergone the scrutinizing examination which characterizes the boards whose honours he has already obtained. But this is a favourable case; suppose that he has been a graduate of a British University, and a fellow of a Royal College of Physicians or Surgeons, for twenty five years, that he has practised his Profession in Great Britain for this period of time, and finally concludes upon spending the remainder of his days in this country in the exercise of professional duty: this person is disqualified from the fellowship, until after having been a Provincial licentiate for seven years, and even then, to obtain it, has to submit to the degradation of an examination before men, the most of whom are his juniors in years and professional standing.

But, if the second clause of the "statement," which has thus furnished material for criticism, be found to be imbued with a spirit of the grossest injustice to a large body of practitioners in the Province, not less so is the sixth clause. It is therein proposed that "any person presenting a degree legally obtained from any university, or a diploma from any college or faculty of physicians or Surgeons in Her Majesty's dominions; and any person possessed of a license to practice in either section of the Province of Canada, provided he shall satisfy the corporation that he has obtained the said degree, diploma, or license, *in conformity with the curriculum hereafter prescribed*, shall be eligible for membership *without further examination*;" or conversely, if to obtain his degree, diploma or license, he has not followed in his studies the curriculum, enjoined in the 9th clause, he *must undergo an examination*. We now observe that there is not in the British dominions, a university or a college, which prescribes to candidates for its honours or diplomas, a curriculum similar to that contained in the ninth clause, the consequence of which is, that every graduate and surgeon must submit to examination, before being deemed worthy of membership, or license to practice in this country, although the possession of the degree or the diploma is accepted in Great Britain, as evidence, on the part of the holder, of competency to practice in the departments, of which they respectively make mention. This caps the climax—it is the finishing off—the masterstroke of the whole scheme.

Having thus, it may be roughly, removed the veil, the

plan becomes developed in all its deformity. It is simply and plainly this, an attempt to erect into a college of Physicians and Surgeons, *the Licentiates of the Medical Boards of the Province*, and to give them a precedence over the graduates and surgeons of the British Universities and colleges.

We must, however, observe that there are some good points in the proposed measure; but the amount of good, compared with the evil results which would flow from it, is so infinitesimally small, that it will behoove the Profession to adopt some other method by which its affairs may be managed, in such a manner that the greatest good may be derived, with the least possible injury to any particular interests. We trust that at the meeting summoned for the 14th, a sufficiency of good sense will be found to stamp disapprobation on the scheme which has been proposed to the Profession, and which we have thus at some length critically examined.

*Quackery in Montreal.*—Our duty, as conductors of a Medical Journal, calls upon us to notice a specimen of charlatanism which has been perpetrated lately in this city; and we do it for the purpose as well of exposing it, as to protect the community from a glaring imposition. It may be perfectly true, that persons of the description we are hinting at, if left alone and unnoticed, speedily sink into that oblivion, from which their presumption may have temporarily elevated them; and although this is a natural result of that want of sustaining skill, which is attempted to be compensated for by unblushing effrontery, it must not be forgotten, that the community, upon which they are practising, is, in the meanwhile, suffering in their best interests. We would wish to observe that we are not writing unadvisedly on the subject; for, while there is ample evidence in the advertisement, which has been figuring for the last month in several of the city papers, to condemn Dr. F. A. Cadwell (if a Doctor at all, a most unworthy one) as a charlatan, we yet hesitated in stigmatising him as such, without some more solid foundation on which to base our observations. We subjoin the advertisement:—

“OPERATIONS ON THE EYE AND EAR.  
DOCTOR F. A. CADWELL,  
OCULIST AND AURIST,

*Principal Operator at the American Eye and Ear Institute  
of New York,*

Begs leave to inform the Citizens of Montreal and vicinity, that he will pass a few weeks in the city, during which time he will devote his attention to such cases of Disease of the EYE and EAR as may be offered for treatment.

It is to be hoped that all persons having any derangement of either Sight or Hearing, will immediately avail themselves of the present opportunity of obtaining the desired relief. Such have been the wonderful improvements in this branch of the Profession of late, that no one should de-

pair of obtaining more or less relief even in the worst forms of disease.

I therefore invite all persons indiscriminately, who may be in the least afflicted with either of the above named diseases, to seek an early interview, in behalf of their Sight or Hearing, and satisfy their minds in regard to the prospects of obtaining ultimate relief; and any reasonable service such as an Examination or an Opinion, will at all times be cheerfully tendered, unaccompanied by expense to the applicant. Persons desirous of being waited upon at their own residence will be obliged by sending their address to the Subscriber; and those requiring Surgical Operations, are recommended to make as early application as possible, time in such cases being of the utmost consequence. Dr. Cadwell may be consulted Professionally through the day at his Office, No. 99, Craig Street, corner of St George, in the house occupied by Mr. Thornton, where may be seen letters and references from gentlemen of the highest respectability, both of this city and of the United States.

N.B.—Strabismus or Squinting, cured in less than one minute, by a very slight and easy operation.

Also,—Artificial Eyes inserted, made to move and rotate with the sound and healthy Eye, of which it will be an exact resemblance.

August 13."

Those who have now read Dr. F. A. Cadwell's titles will take it for granted, that there is such an institution as the "American Eye and Ear Institute of New York," and that Dr. F. A. Cadwell was the "principal operator" at the same. The employment of titles of this description, *when actually possessed*, is perfectly legitimate, and not to be found fault with. While they are in reality testimonials of merit, on the part of the possessors of them, they are also, as far as the public is concerned, passports to their favourable consideration. They naturally engender confidence, because it is presumable that the fortunate possessors must have secured the honourable confidence of those who granted them, of whose esteem they are undoubted tokens. We have now to apprise the public, and we do this on authority, that there is no such institution as the "American Eye and Ear Institute of New York," and that Dr. F. A. Cadwell could consequently not have been "principal operator" at it. The man who can, to serve his own mercenary ends, conveniently manufacture a title; who can forge, and therefore prostitute, the honourable distinctions of that profession, the integrity of which he is solemnly sworn to uphold and preserve (providing that he is "a graduate in medicine"), to subserve his own selfish views, of whatever nature they may be, has placed himself beyond its pale, and merits an exposure commensurate with the impudent cheat which he has practised.

We have it in our power to say more of Dr. F. A. Cadwell, but we forbear; we desire to let him, as well as all others of his class, know, that this community shall not be allowed to suffer at such hands if we can prevent it. Putting aside all notice of the style in which the advertisement is drawn up, a style which breathes the very essence of charlatanism, and in which no re-

spectable practitioner would indulge, we are content simply to disrobe him of his borrowed plumage, and to allow his pretensions to public confidence to be estimated by the impudent imposition which he has practised, and which we have thus exposed. In doing this we think we have done enough. We warn the public, in the first place, because the organs on which the "operations" and "advice" are proposed are too important to be trifled with; and we warn Dr. F. A. Cadwell, in the second place, of the legal consequences to which he is subjecting himself, and to make the best use of his time in changing his "local habitation," which, together with a recommendation to pursue his professional career in a more legitimate and honourable manner, is the most friendly advice which we could give him, and the following of which he will have no cause to repent.

*The following ought to have been inserted immediately after our remarks on the College of Physicians and Surgeons, C. E., but was, by mistake, omitted:—*

#### IT IS PROPOSED

That a petition be presented to the Legislature, at its ensuing session, signed by all the members of the Medical Profession, resident in Canada East, whose Provincial Licenses bear date at least twenty years, and who may feel disposed to become parties to it; based upon the inadequacy of the existing laws to regulate the Practice of Medicine, Surgery, and Midwifery, in this section of the Province; to establish a certain and fixed course of study previously to obtaining license to practice these branches; and to regulate druggists and others vending or distributing medicines by retail. It shall pray for the repeal of all the existing acts or portions of acts referring to these subjects; and it shall further pray for an Act of Incorporation, by which the persons, whose names are appended to the said petition, shall be embodied and incorporated into a College, to be styled 'The College of Physicians and Surgeons of Canada East,' and that the said persons constitute the original Corporation of the said College.

That the Corporation of the said College be instituted with all the usual powers and privileges granted to other corporate bodies, in regard to holding landed and other property, making by-laws, having a common seal, &c. &c.

That power be granted to the Corporation to legislate in all matters affecting the Medical Profession, whether in reference to education, practice, the protection of its members from inroads of unlicensed practitioners, the regulation of the practice of midwifery, the supervision of druggists' establishments, and the protection of the public health, in regard to Medical Police and Hygiène.

*The Views of the Petitioners and the manner of carrying them out are contained in the following statement:—*

The College shall consist of Fellows and Members—only the former to constitute the Governing body of the College.

The Corporation shall, at stated times, elect into their body such and so many of the members of the College as shall conform to their by-laws; those holding licenses of not less than fifteen years being eligible for election, with

out examination; those holding licenses of not less than seven years, yet under fifteen, being required to petition the Corporation, with a view to be admitted into that body; and they will be required to submit to and pass an examination, to be prescribed in the by-laws.

There shall be two half yearly meetings of the Corporation, viz: on the second Tuesday of May and October, in the cities of Quebec and Montreal, alternately, to receive reports of the proceedings of the College for the half year expired; to arrange for the ensuing; to examine Candidates applying for license to practise, and consequently for membership, and to attend to the general business of the College.

At the May meeting, only the Corporation shall elect its own officers; receive application of members for fellowship, and modify or alter by-laws as circumstances may require.

The officers to be annually elected at the May meeting, shall consist of one President, (to be chosen alternately from among the Fellows resident in the cities of Quebec and Montreal,) and for each city, a Vice-President, a Secretary, and a Treasurer.

Any person presenting a degree legally obtained from any University, or a Diploma from any College or Faculty of Physicians or Surgeons in Her Majesty's dominions; and any person possessed of a license to practice in either section of the Province of Canada, provided he shall satisfy the Corporation that he has obtained the said degree, diploma, or license, in conformity with the curriculum hereafter prescribed, shall be eligible for membership without further examination.

The Entrance Fee of every Fellow shall be \_\_\_\_\_; that of every Member shall be \_\_\_\_\_, independently of the license fee, which shall be \_\_\_\_\_, and an annual subscription of \_\_\_\_\_; or a commuted sum of \_\_\_\_\_, to be paid to the Treasurers, for the establishment and maintenance of Libraries,—free access to, and the advantages derivable from which, will be common to all members.

Every person purposing to commence the study of Medicine or Pharmacy, shall be required to register his name, age, place of birth, and the name of the Practitioner or Druggist with whom he purposes to study, in a book to be kept by the Secretary of the College, in the District in which he resides; he will also be required to undergo an examination, as to his general and classical acquirements. From and after the year 1850, he must also prove himself to be generally conversant with the English and French languages.

The period of study to be accomplished by every Student of Medicine, before he can become a Candidate for license, shall not be less than four uninterrupted years, under a duly qualified practitioner, or practitioners; and during that time he shall be required to have attended the following lectures and hospital practice, namely:—two courses of Anatomy and Physiology, Chemistry and Pharmacy, Theory and Practice of Medicine, Principles and Practice of Surgery, Materia Medica, Institutes of Medicine, and Midwifery and Diseases of Women and Children; each course consisting of at least one hundred lectures of one hour's duration, (an examination, per week, of the same length of time considered equivalent to a lecture,) delivered in an University, College or Incorporated School of Medicine; also, two courses of Practical Anatomy, each of six month's duration; also, one course of Chemical Medicine and Chemical Surgery, each of six month's duration; Medical Jurisprudence and Botany, if obtainable; also the Medical and Surgical Practice of a Hospital, containing at least fifty beds, and attended by at least two Medical Officers, during a period of one year, or two periods of six months each.

\* We presume this is a misprint. It ought to be read, *Clinical or Chemical*.

The period of apprenticeship for a Druggist's Clerk, shall be not less than four uninterrupted years, during which time, he shall be required to have attended at least two courses of lectures on Chemistry and Pharmacy; two on Materia Medica, and one on Botany, if obtainable, as above.

Females may practice as Midwives, in this section of the Province; but after the expiration of one year from the passing of this Act, no woman shall be permitted to practice for gain or profit, who shall not have obtained a license from this College, either by examination, or based upon a certificate granted to her by two Fellows or Members of this Corporation, practising in the district in which she resides.

Any person practising Medicine, Surgery or Midwifery, without being duly licensed so to do, and any person vending or compounding drugs to be distributed, by him, without license in this section of the Province, shall be subject to prosecution by and at the instance of the College, under certain stipulations.

Committees shall be annually appointed for the Districts of Montreal, Three Rivers and Quebec, to act in the capacity of Health Officers.

There shall be a Committee appointed annually, for each District, whose duty it shall be twice in every year, or at any other time, when from information, they have good grounds for so doing, to visit and inspect the quality of all or any portion of the stock, and the weights and measures, used in any shop purporting to be either entirely or partially devoted to the sale of Drugs.

*Dictionary of Dental Science.*—We have received from Dr. Harris, of Baltimore, a printed circular, propounding several inquiries, for the purpose of eliciting information on various subjects connected with Dentistry, to be embodied in a Dictionary of Dental Science, which he is preparing for the press. The collecting of materials for a work of the kind is a laborious duty; and as the originator's intention is to render it as complete as possible in its various parts, without which its utility as a work of reference and study would be nullified, we have decided on making the subject as extensively known as possible in this colony, by publishing in this Journal the inquiries themselves, that the profession may be generally cognizant of them, and perchance assist in furnishing the information sought for. A work of the kind is evidently much required, and we anxiously anticipate its *debut*.—

*First.* Have you knowledge of any deceased Dentist or Dentists, whose contributions to Dental literature, superior skill, or remarkable character, entitle him or them to biographical notice in such a work as the one proposed? If so, the undersigned would be glad to have names and such items of history as your judgment may select. If your information concerning them will enable you to do so, state when and where they were born; the character of their early pursuits, extent of their education, with whom they studied and served their professional apprenticeship, when they commenced practice; their skill in the several branches of the Dental Art, the improvements they made either in theory or practice, or in Dental instruments; their contributions to the literature of Dental Science, the place or places where they practised; their standing in society, and when and where they died, with the disease which caused their deaths.

*Second.* Have you invented any Dental instrument or appliance of any kind which upon full trial you consider valuable to the profession? If so, please describe it.

*Third.* Have you improved any instrument previously known? If so, please transmit a description of it.

*Fourth.* Have you performed any remarkable or extraordinary operation upon the mouth? If so, describe it, pointing out any particulars which entitle you to the award of originality in conception, or superior dexterity in operating. Do not confine your answer to operations on the teeth, but include the whole buccal cavity.

*Fifth.* Do you know of any such operation performed by any other than yourself, not yet reported?

*Sixth.* Have you met with any remarkable cases of disease or deformity of the organs in question? If so, describe them, with mode of treatment adopted, and any other information with regard to them.

*Seventh.* Have you remarked serious results from the use of unscientific preparations, awkward operations? &c. &c.

*Eighth.* Have you made observations which you think valuable upon the causes of Dental disease, and their prevention? If so, please transmit them in such form as you may think proper.

*Ninth.* What are the names and addresses of the best dentists in your vicinity?

It would be very desirable, if you could do so conveniently, to accompany any description, which you may have the kindness to furnish, of any newly invented instrument or appliance, or of any improvement on any previously in use, with an accurate drawing.

By answering the above queries or any of them, you will confer a favor upon the undersigned, and may render valuable service to science.

Very respectfully, &c. &c.  
CHAPIN A. HARRIS.

*Apothecaries' Shops.*—Since the issue of our last number the Medical Hall has been opened in Great St. James Street, and in the splendid manner in which it is fitted up, may challenge comparison with any shop in this Province—we were going to say on this continent. Montreal has become noted for the splendour of its shops; but we think the Apothecaries' shops bear off the palm. If the Medical Hall has a rival, it is to be found in the shop of S. J. Lyman & Co. (lately Mr. Macdonald's). We think this shop unequalled for chasteness of design, and the strictness with which it has been carried out. It is not so large as the Medical Hall, nor are its fittings so gorgeous. Mr. Savage's, and the Old Medical Hall in Notre Dame Street, are also beautiful shops, although probably less attractive, which is due rather to their situations, than to any want or deficiency in intention. We hope that, however emulous in beauty their shops may be, the worthy proprietors will always maintain, as they have hitherto done, the high character they have severally borne for the genuineness of their medicines—a matter of vital interest to the profession at large.

*Notice to Subscribers.*—We take the opportunity of reminding our subscribers of the terms of subscription to the Journal. A very large sum is due the Journal, causing a very considerable inconvenience to the publisher. We hope our friends will pay attention to this hint. The amounts due by each are mere trifles, but the gross amount forms a considerable sum, the deprivation of which becomes a serious matter.

TO CORRESPONDENTS.

Mr. Justice M<sup>c</sup>Cord's valuable paper "On the Statistics of Crime in the District of Montreal" will appear in the November number.

The letter of "S. W." on the Proposal of the Delegates at the late Medical Convention is under consideration. We must have the author's name, however. He will find the matter discussed in this number; and, if necessary, we may corroborate our position by the arguments of our friend.

We acknowledge receipt of two letters from Dr. Grasset. The last accompanying the rough draft of a Bill to create a College of Physicians in Upper Canada. When the details of the measure are finally agreed to, we shall be happy to insert it. Will Dr. Grasset inform us of this when it takes place:

BOOKS &c. RECEIVED.

- Seventh Annual Announcement, Baltimore College of Dental Surgery, 1846.
- Dublin Medical Press, August 5, 12, 19, 26, September 2d.
- Provincial Medical and Surgical Journal, August 5, 26.
- Boston Medical and Surgical Journal, Nos. 4, 5, 6, 7.
- Summary of the Transactions of the College of Physicians of Philadelphia, August, 1846.
- The American Journal of Science and Arts, September.
- The Medical News and Library, Philadelphia, September.
- The Medical Examiner, September.
- Southern Medical and Surgical Journal, September.
- The Western Globe, September 4, London, C. W.
- Wiley and Putnam's News Letter, September.
- A Review of Homœopathy, Allopathy, and Young Physic, by L. M. Lawson, M. D., Professor of General and Pathological Anatomy and Physiology in Transylvania University, Lexington, Ky., 1846.
- The Northern Journal of Medicine, March, April, and May, 1846, Edinburgh.
- The American Journal of Insanity, July.
- The Southern Journal of Medicine and Pharmacy, September.
- The New York Medical and Surgical Reporter, 24.
- Dublin Quarterly Journal of Medical Science,—New Series, vol. 1.
- The Western Lancet, September.
- The New York Journal of Medicine and the Collateral Sciences, September.
- The New Orleans Medical and Surgical Journal, September.
- Annual Circular of the Massachusetts Medical College, with a History of the Medical Department of Harvard University, &c., Boston, 1846.
- Report of G. S. DeRotterdam, Esq, Chemical Assistant to the Geological Survey of the Province, Montreal, 1846.
- Buffalo Medical Journal, September.

REPORT OF THE MONTREAL GENERAL HOSPITAL FOR JULY AND AUGUST, 1846.

		Dr. HALL, } Attending Physicians.		Dr. BRUNEAU, }	
Remained,	120	Discharged cured,	349		
Admitted,	373	Irregular,	1		
		Died,	16		
Total treated,	493	Remaining,	127		
		Total,	493		
IN-DOOR PATIENTS.		OUT-DOOR PATIENTS.			
Belonging to Montreal,	159	Belonging to Montreal,	244		
Immigrants,	192	Immigrants,	57		
Seamen,	22	Seamen,	2		
Total,	373	Total,	303		
Males,	203	Males,	157		
Females,	170	Females,	146		
Total,	373	Total,	303		

DISEASES AND ACCIDENTS.

Abscessus, . . . . .	2	Impetigo Scabida, . . . . .	1
Ambustio, . . . . .	2	Leucorrhœa, . . . . .	1
Amemorrhœa, . . . . .	9	Morbus Brightii, . . . . .	1
Amputatio, . . . . .	1	"    Cordis, . . . . .	2
Ascites, . . . . .	2	"    Coxæ, . . . . .	4
Bronchitis, . . . . .	10	Neuralgia, . . . . .	1
Bubo, . . . . .	3	Œdema, . . . . .	3
Caries, . . . . .	2	Ophthalmia, . . . . .	2
Cataract, . . . . .	2	Orchitis, . . . . .	2
Catarrhus Chronicus, . . . . .	1	Papillary Syphilide, . . . . .	1
Cholera (sporadic), . . . . .	5	Paralysis, . . . . .	1
Choroiditis, . . . . .	1	Parapelegia, . . . . .	1
Concussio, . . . . .	1	Paronychia, . . . . .	1
Conjunctivitis, . . . . .	4	Periostitis, . . . . .	1
Constipatio, . . . . .	2	Phagadena, . . . . .	1
Contusio, . . . . .	9	Phthisis, . . . . .	3
Cynanche, . . . . .	1	"    Laryngea, . . . . .	1
Cystitis, . . . . .	1	Pleurodynia, . . . . .	2
Delirium Tremens, . . . . .	4	Pneumonia, . . . . .	2
Diabetes Mellitus, . . . . .	1	Porrigi, . . . . .	1
Diarrhœa, . . . . .	16	"    Furfurans, . . . . .	1
Dyspepsia, . . . . .	2	Psora, . . . . .	4
Dysenteria, . . . . .	2	Psoriasis, . . . . .	1
Eczema, . . . . .	2	Relaxation of Uterus, . . . . .	1
Erisipelas, . . . . .	4	Rheumatismus, . . . . .	15
Febris Com. Cont., . . . . .	173	Rubeola, . . . . .	2
"    Typhus, . . . . .	7	Rupia, . . . . .	1
"    Intermittens, . . . . .	1	Scirrhus, . . . . .	1
Fractura, . . . . .	1	Scrofula, . . . . .	1
Furunculus, . . . . .	1	Stomatitis, . . . . .	1
Gastrodynia, . . . . .	1	Synovitis, . . . . .	1
Gonorrhœa, . . . . .	1	Syphilis, . . . . .	12
Hæmatemesis, . . . . .	1	Strictura, . . . . .	1
Hemorrhœis, . . . . .	2	Tumor, . . . . .	1
Hemiplegia, . . . . .	2	Ulcus, . . . . .	14
Hepatitis, . . . . .	1	Vulnus, . . . . .	2
Icterus, . . . . .	2		

Total, 373

ALEXANDER LONG, M.D., House Surgeon.

MONTHLY RETURN OF SICK IN THE MARINE AND EMIGRANT HOSPITAL, QUEBEC, FROM THE 1st TO THE 31st JULY, 1846, INCLUSIVE.

Jos. PAINCHAUD, Esq., M.D., Physician.  
JAMES DOUGLAS, Esq., Surgeon.

Remained, . . . . .	158
Since admitted, . . . . .	220
	<hr/> 220
Total treated, . . . . .	378
Of these discharged, . . . . .	268
Died, . . . . .	9
Remaining, . . . . .	101
	<hr/> 378

DISEASES AND INJURIES.

Febris, . . . . .	45	Strictura Urethræ, . . . . .	1
Scarlatina, . . . . .	1	Hernia, . . . . .	2
Rubeola, . . . . .	9	Fractura, . . . . .	17
Variola, . . . . .	5	Abscessus, . . . . .	2
Pneumonia, . . . . .	4	Ulcus, . . . . .	3
Phthisis, . . . . .	1	Vulnus, . . . . .	4
Bronchitis, . . . . .	3	Contusio, . . . . .	5
Catarrhus, . . . . .	4	Injury of Spine, . . . . .	1
Rheumatismus, . . . . .	12	Subluxatio, . . . . .	4
Hepatitis, . . . . .	1	Gelatio, . . . . .	2
Dysenteria, . . . . .	3	Paronychia, . . . . .	4
Diarrhœa, . . . . .	29	Necrosis, . . . . .	1
Enteritis, . . . . .	2	Carcinoma, . . . . .	1
Cholera Sporadica, . . . . .	9	Erysipelas, . . . . .	2
Dyspepsia, . . . . .	3	Phlegmon, . . . . .	3
Hydrogæ, . . . . .	2	Cataract, . . . . .	1
Paralysis, . . . . .	1	Polypus, . . . . .	1

Epilepsia, . . . . .	1	Parturitio, . . . . .	4
Mania, . . . . .	1	Morbi Alieni, . . . . .	12
Delirium Tremens, . . . . .	1		
Orchitis, . . . . .	3	Total, . . . . .	220
Syphilis, . . . . .	11		

JOHN SMITH, Acting House Surgeon.

FIRST SEMI-ANNUAL REPORT OF THE TORONTO GENERAL DISPENSARY, FROM 1st JANUARY TO THE 30th JUNE, 1846.

Dr. HAMILTON, } Dr. RANKIN, } Dr. HODDER, } Dr. GRASETT, }	Medical Officers.
Admitted, . . . . .	449
Discharged cured, . . . . .	306
Do. relieved, . . . . .	66
Do. for non-attendance, . . . . .	34
Died, . . . . .	10
Remaining, . . . . .	33
Total, . . . . .	<hr/> 449

DISEASES AND INJURIES.

Abscessus, . . . . .	2	Hemiplegia, . . . . .	2
Ambustio, . . . . .	4	Hepatitis C., . . . . .	4
Anasarosis, . . . . .	1	Hysteria, . . . . .	4
Anasarca, . . . . .	2	Hæmorrhagia Uteri, . . . . .	1
Amemorrhœa, . . . . .	7	Influenza, . . . . .	1
Apoplexia, . . . . .	1	Lumbrici, . . . . .	1
Aptha, . . . . .	1	Leucorrhœa, . . . . .	2
Arthritis, . . . . .	3	Laryngitis, . . . . .	1
Abortio, . . . . .	3	Morbus Cordis, . . . . .	3
Bronchitis Acut., . . . . .	6	Meningitis, . . . . .	1
Do. Chron., . . . . .	4	Morbus, . . . . .	1
Conjunctivitis, . . . . .	1	Mammæ Inflam., . . . . .	1
Contusio, . . . . .	6	Menorrhagia, . . . . .	3
Cardialgia, . . . . .	1	Necrosis, . . . . .	1
Colica Biliosa, . . . . .	3	Œdema, . . . . .	1
Catarrhus, . . . . .	42	Odontalgia, . . . . .	12
Do. Pulmon., . . . . .	2	Otitis, . . . . .	1
Cephalalgia, . . . . .	1	Ophthalmia, . . . . .	11
Cynanche Parot., . . . . .	1	Obstipatio, . . . . .	27
Colica Infant., . . . . .	2	Obstructio Œsophagi, . . . . .	1
Dysenteria, . . . . .	4	Parturitio, . . . . .	1
Dyscœcæ, . . . . .	2	Paralysis, . . . . .	4
Debilitas, . . . . .	4	Psoas Abscess., . . . . .	1
Do. Senect., . . . . .	3	Pneumonia, . . . . .	5
Dyspepsia, . . . . .	23	Porrigi, . . . . .	7
Diarrhœa, . . . . .	16	Pleuritis, . . . . .	1
Dentitio, . . . . .	6	Phthisis, . . . . .	9
Excoriatio, . . . . .	1	Phlegmon, . . . . .	1
Epilepsia, . . . . .	1	Prolapsus Uteri, . . . . .	1
Enteritis Chron., . . . . .	1	Pyrosis, . . . . .	2
Erythema, . . . . .	1	Rheumatismus, . . . . .	1
Entropium, . . . . .	1	Rubeola Sequela, . . . . .	4
Febris Intermit., . . . . .	30	Syphilis, . . . . .	3
Do. Gastricus, . . . . .	1	Scirrhus, . . . . .	1
Do. Infantum, . . . . .	6	Surditas, . . . . .	2
Do. Com. Cont., . . . . .	7	Scrofula, . . . . .	1
Fractura, . . . . .	1	Tabes Mesenterica, . . . . .	2
Gastro Enteritis, . . . . .	2	Tussis Asthmatic., . . . . .	1
Gelatio, . . . . .	2	Tinea, . . . . .	9
Gonorrhœa, . . . . .	3	Ulcus, . . . . .	12
Gastrodynia, . . . . .	1	Vermes, . . . . .	3
Hemorrhœis, . . . . .	1	Vulnus, . . . . .	1
Herpes Circinatus, . . . . .	4	Veneficium, . . . . .	1
Hæmoptysis, . . . . .	2		
Hernia, . . . . .	2		
Hydrops Saccatus, . . . . .	1		

Several children admitted in the last stage of disease are included in the column "Died."

**BILL OF MORTALITY for the CITY of MONTREAL, for the month ending August 31, 1846.**

DISEASES	Male.	Female.	Total.	Under 1.	1 & under 3		3 — 5	5 — 10	10 — 15	15 — 25	25 — 35	35 — 45	45 — 55	55 — 75	75 upwards
					Under 1.	1 & under 3									
EPIDEMIC OR INFECTIOUS.....	Measles,.....	3	2	5	1	1	1	.	1	.	1	.	.	.	.
	Scarlatina,.....	1	.	1	1	1	.	.	.	.	.	.	.	.	.
	Small Pox,.....	1	2	3	1	1	.	1	.	.	.	.	.	.	.
	Hooping Cough,.....	1	2	3	1	1	.	.	.	.	.	.	.	.	.
DISEASES OF BRAIN AND NERVOUS SYSTEM,.....	Fever,.....	17	14	31	7	6	4	2	2	4	1	1	3	1	
	Hydrocephalus,.....	1	0	1	1	.	.	.	.	.	.	.	.	.	
	Paralysis,.....	.	1	1	.	.	.	.	.	.	.	.	.	.	
	Convulsions,.....	2	3	5	4	1	.	.	.	.	.	.	.	1	
DISEASES OF RESPIRATORY ORGANS,...	Dentition,.....	13	7	20	6	14	.	.	.	.	.	.	.	.	
	Consumption,.....	35	30	65	24	10	.	.	3	8	5	4	7	4	
DISEASES OF ABDOMINAL VISCERA,...	Croup,.....	1	.	1	.	1	.	.	.	.	.	.	.	.	
	Diarrhea,.....	13	7	20	6	14	.	.	.	.	.	.	.	.	
	Dropsy,.....	1	1	2	.	.	.	.	.	.	1	.	.	.	
	Cholera (Sporadic).....	1	.	1	.	.	.	.	.	.	1	.	.	1	
	Jaundice,.....	1	.	1	1	.	.	.	.	.	.	.	.	.	
	Still-born,.....	6	1	7	7	.	.	.	.	.	.	.	.	.	
	Inflammation,.....	8	4	12	5	.	2	1	.	1	1	1	2	.	
OTHER CAUSES AND DISEASES, AND DISEASES NOT SPECIALLY DESIGNATED,.....	Suicide,.....	1	.	1	.	.	.	.	.	.	.	.	.	.	
	Drowned,.....	3	1	4	.	.	.	.	2	.	2	.	.	.	
	Unknown,.....	6	1	7	2	.	.	.	.	1	1	1	2	1	
	Sudden Death,.....	1	2	3	.	.	.	.	1	1	1	.	.	.	
	Debility,.....	2	2	4	.	.	.	.	.	.	.	.	.	.	
	Accidental,.....	1	1	2	1	.	.	.	.	.	.	.	1	.	
	Abscess Lumbar,.....	.	1	1	.	.	.	.	.	.	.	.	1	.	
<b>Total,.....</b>	<b>119</b>	<b>82</b>	<b>202</b>	<b>68</b>	<b>50</b>	<b>7</b>	<b>4</b>	<b>9</b>	<b>15</b>	<b>15</b>	<b>11</b>	<b>12</b>	<b>6</b>	<b>4</b>	

**MONTHLY METEOROLOGICAL REGISTER AT MONTREAL FOR AUGUST 1846.**

DATE.	THERMOMETER.				BAROMETER.				WINDS.			WEATHER.		
	7 A.M.	3 P.M.	10 P.M.	Mean.	7 A.M.	3 P.M.	10 P.M.	Mean	7 A.M.	Noon.	6 P.M.	7 A.M.	3 P.M.	1 P. M.
1,	+63	+85	+68	+74.	30.00	30.01	30.03	30.01	N. W.	N. W.	N. W.	Fair	Fair	Fair
2,	" 65	" 86	" 74	" 75.5	30.10	30.10	30.11	30.10	N. W.	N. W.	N. W.	Fair	Fair	Fair
3,	" 68	" 90	" 73	" 79.	30.18	30.11	30.02	30.10	N. W.	N. W.	N. W.	Fair	Fair	Fair
4,	" 74	" 93	" 76	" 83.5	29.96	29.83	29.85	29.88	W.	W.	W.	Fair	Fair	Fair
5,	" 76	" 94	" 78	" 85.	29.86	29.83	29.86	29.85	W.	W.	W.	Fair	Fair	Fair
6,	" 73	" 87	" 71	" 84.	29.93	29.95	30.06	29.98	W. by N.	W. by N.	W. by N.	Fair	Fair	Fair
7,	" 68	" 89	" 75	" 78.5	30.14	30.01	30.07	30.07	N W by W	S. W.	S. W.	Fair	Fair	Fair
8,	" 74	" 84	" 73	" 79.	30.07	29.95	29.95	29.99	S. W.	S. W.	S. W.	Fair	Fair	Fair
9,	" 70	" 86	" 74	" 78.	29.94	29.88	29.83	29.88	S. W.	S. W.	S. W.	Fair	Fair	Fair
10,	" 74	" 81	" 61	" 77.5	29.82	29.87	29.95	29.88	N. W.	N W by W	N W by W	Foggy	Fair	Foggy
11,	" 58	" 80	" 63	" 69.	30.05	30.07	29.97	30.03	N. N. W.	W. N. W.	N. by W.	Fair	Fair	Fair
12,	" 62	" 93	" 75	" 77.5	29.94	29.83	29.70	29.83	W.	W.	W.	Fair	Fair	Fair
13,	" 68	" 95	" 73	" 81.5	29.76	29.82	29.94	29.84	W.	W.	W.	Rain	Fair	Fair
14,	" 69	" 93	" 75	" 81.	29.88	29.84	29.84	29.85	W.	W.	W.	Fair	Fair	Fair
15,	" 78	" 92	" 71	" 85.	29.99	29.78	29.72	29.83	W.	W.	W.	Fair	Fair	Fair
16,	" 74	" 88	" 73	" 81.	29.65	29.68	29.73	29.69	W.	W.	W.	Fair	Fair	Fair
17,	" 73	" 81	" 57	" 77.	29.70	29.72	29.93	29.78	W. by N.	W.	W. by N.	Fair	Th&rn	Rain
18,	" 55	" 81	" 58	" 68.	30.02	30.07	30.13	30.07	N. W.	N. W.	N. W.	Fair	Fair	Fair
19,	" 54	" 80	" 60	" 67.	30.26	30.29	30.15	30.23	N. W.	N. W.	N W by W	Fair	Fair	Fair
20,	" 63	" 72	" 64	" 67.5	30.13	30.02	29.98	30.04	W. N. W.	S. W.	S. W.	Fair	Fair	Cloudy
21,	" 68	" 85	" 68	" 76.5	29.94	29.92	29.93	29.93	S. W.	S. W.	S. W.	Fair	Fair	Fair
22,	" 70	" 86	" 67	" 78.	29.88	29.83	29.83	29.85	N. W.	N. W.	W.	Fair	Fair	Fair
23,	" 64	" 79	" 60	" 71.5	29.84	29.81	30.00	29.88	W. by N.	W.	N. W.	Rain	Fair	Fair
24,	" 55	" 82	" 62	" 68.5	30.15	30.18	30.16	30.16	N. W.	W. by S.	W. by S.	Fair	Fair	Fair
25,	" 54	" 89	" 63	" 71.5	30.19	30.17	30.15	30.17	W. S. W.	W. S. W.	W. S. W.	Fair	Fair	Fair
26,	" 65	" 88	" 68	" 76.5	30.16	30.05	30.05	30.09	S. W.	S. W.	S. W.	Fair	Fair	Fair
27,	" 67	" 90	" 73	" 78.5	30.09	30.07	30.15	30.10	S. W.	S. W.	S. W.	Fair	Fair	Fair
28,	" 66	" 89	" 72	" 77.5	30.20	30.14	30.08	30.14	S W by S.	S. S. W.	S. S. W.	Fair	Fair	Fair
29,	" 73	" 91	" 76	" 82.	30.07	29.48	29.93	29.99	W. by N.	W. by N.	W. by N.	Rain	Fair	Fair
30,	" 67	" 83	" 74	" 75.	29.92	29.88	29.89	29.90	W.	W.	W.	Rain	Fair	Fair
31,	" 63	" 90	" 75	" 76.5	29.95	29.88	29.88	29.90	W.	W.	W.	Fair	Fair	Fair

THERM. { Max. Temp., +95° on the 13th.  
 { Min. " +54° " 19th.  
 Mean of the Month, +69°.

BAROMETER, { Maximum, 30.23 Inches on the 19th,  
 { Minimum, 29.65 " " 16th,  
 Mean of Month, 29.68 Inches.

MONTHLY METEOROLOGICAL REGISTER AT H. M. MAGNETICAL OBSERVATORY, TORONTO, CANADA  
 Latitude 43° 39' 4. N. Longitude 79° 21' 5. W. Elevation above Lake Ontario, 108 Feet.

Day.	Barometer at Temp. of 32°.			Temperature of the Air.			Tension of Vapour.			Humidity of the Air.			Wind.			Rain inch on surf.	WEATHER.	
	7 A.M.	3 P.M.	10 P.M.	7 A.M.	3 P.M.	10 P.M.	7 A.M.	3 P.M.	10 P.M.	7 A.M.	3 P.M.	10 P.M.	7 A.M.	3 P.M.	10 P.M.			
1,	29.682	29.670	29.709	67.4°	77.4°	66.0°	68.32	442.512	.403	.451	.68	.56	.65	N. by W.	S.	Calm.	Mostly clear. A few detached clouds.	
2,	29.785	29.748	29.784	73.8	78.4	63.2	70.57	546.512	.429	.510	.67	.54	.76	N. by N.	S. E.	Calm.	Unclear. Hazy. Fine.	
3,	29.803	29.739	29.784	66.0	81.8	63.2	75.71	526.752	.439	.510	.88	.52	.76	N. E. by N.	S. S. W.	Calm.	Mostly clear. A few detached clouds.	
4,	29.783	29.628	29.629	70.8	85.0	72.8	75.71	526.752	.659	.649	.72	.61	.84	S. S. W.	S. S. W.	Calm.	Unclear. but hazy all day.	
5,	29.646	29.547	29.586	74.0	86.2	80.4	78.67	647.751	.642	.660	.80	.61	.64	Calm.	S. S. W.	Calm.	Hazy, and occasionally dry. Air close.	
6,	29.657	29.667	29.723	68.4	86.2	81.8	73.36	497.626	.447	.531	.74	.60	.75	Calm.	S. by W.	Calm.	Mostly clear. Light clouds passing.	
7,	29.793	29.750	29.736	68.4	81.4	66.6	73.10	504.631	.511	.573	.72	.60	.85	Calm.	Calm.	Calm.	Overcast. Light clouds and haze all day. Raining fr. 9 to 11 am. Thunder, lightning & rain from 6 pm to midnight.	
8,	29.683	29.616	29.585	68.4	74.0	68.2	68.97	527.620	.635	.594	.87	.76	.95	Calm.	E. by S.	E.	Densely overcast. Slight rain am.	
9,	29.539	29.503	29.506	71.6	71.0	62.2	65.41	673.673	.366	.441	.87	.58	.62	N. by W.	N. W.	N. W.	Mostly clear. Clear intervals.	
10,	29.533	29.503	29.588	67.7	78.6	62.2	67.56	572.550	.456	.442	.60	.63	.92	Calm.	S. E.	Calm.	Mostly clear. A few detached clouds pm.	
11,	29.714	29.664	29.609	61.2	73.7	59.4	64.27	316.506	.526	.572	.90	.60	.72	Calm.	S. by W.	Calm.	A few passes. clds. Aur. fr. 10 & 11 pm.	
12,	29.619	29.503	29.481	63.0	81.4	70.8	72.67	505.622	.526	.572	.69	.77	.69	S. W.	S. by E.	Calm.	Th, lightning & rain pm. Gen. clouded.	
13,	29.503	29.477	29.505	72.0	77.0	69.8	73.45	662.697	.481	.595	.87	.77	.69	S. W.	S. by E.	Calm.	Chd. Aur. fr. 10 to 3 am, & 9 pm to midnight.	
14,	29.534	29.486	29.479	66.8	78.3	64.0	69.99	476.606	.486	.530	.74	.64	.84	Calm.	S.	S. E.	Unclear till 6 pm. A few detached clouds till midnight. Lightning 6 to 11 pm.	
15,	29.464	29.367	29.339	66.8	82.6	72.0	72.08	529.632	.658	.591	.83	.58	.86	Calm.	S.	S. E.	Thunder, lightning & rain most of day.	
16,	29.335	29.238	29.238	68.3	67.2	68.3	63.3	618.618	.373	.405	.94	.94	.71	S. W.	Calm.	Calm.	Thunder, lightning & rain most of day.	
17,	29.419	29.486	29.583	64.2	72.8	59.4	63.67	498.402	.380	.405	.85	.52	.74	N. by W.	N. by W.	N. N. W.	Mostly clear. Occas. passing clouds.	
18,	29.743	29.757	29.777	62.0	65.6	53.5	67.44	305.436	.373	.368	.76	.71	.80	Calm.	S. E. by S.	Calm.	Overcast all day.	
19,	29.811	29.763	29.715	62.0	65.6	61.8	63.62	398.452	.494	.448	.74	.67	.92	E. S. E.	E.	Calm.	Den. cld. Ring fr 8 am to 11 1/2 am	
20,	29.634	29.583	29.603	62.3	68.0	62.6	63.82	522.558	.536	.554	.96	.84	.96	Calm.	Calm.	Calm.	Mostly cld. Misty am. A little fr 7 pm	
21,	29.576	29.595	29.565	62.9	74.4	67.2	68.04	538.645	.585	.585	.87	.79	.92	Calm.	S. E. by S.	Calm.	Densely cld. Very slight rain 9 am.	
22,	29.570	29.521	29.511	65.4	71.7	62.9	65.37	532.619	.522	.515	.69	.42	.91	Calm.	S. E. by S.	Calm.	Mostly clear.	
23,	29.543	29.555	29.555	71.7	77.7	62.9	65.37	532.619	.372	.388	.69	.42	.89	Calm.	N.	Calm.	Mostly clear. Passing clouds.	
24,	29.800	29.799	29.785	60.6	69.5	54.5	60.79	492.458	.372	.388	.87	.65	.89	Calm.	S. E. by E.	Calm.	Clear. Fine. Aur. High 9 pm to midnight	
25,	29.787	29.745	29.787	61.6	73.7	63.8	65.72	430.552	.518	.503	.81	.68	.90	N. N. E.	E. S. E.	E. N. E.	Mostly clear. Fine. Aur. fr 9 to 11 pm.	
26,	29.723	29.740	29.685	65.4	74.2	61.3	66.25	462.447	.488	.488	.83	.56	.84	Calm.	E. S. E.	N. E.	Clear to 8 am. Rem. part, clouded.	
27,	29.727	29.731	29.746	65.8	74.2	65.4	68.16	538.693	.565	.542	.89	.73	.80	Calm.	E. S. E.	Calm.	Part. clouded. Hail round sun at noon.	
28,	29.776	29.713	29.697	64.8	76.0	65.4	68.16	538.693	.565	.542	.89	.73	.80	Calm.	E. S. E.	Calm.	Thunder, light, & rain am. Aur. fr 10 to 11 pm	
29,	29.695	29.662	29.606	66.2	67.0	62.7	67.32	582.582	.534	.589	.93	.91	.96	Calm.	N. W.	Calm.	Misty cld. Thunderstorm round to 3 pm	
30,	29.619	29.582	29.582	71.5	78.6	69.6	60.2	682.682	.593	.627	.89	.80	.72	Calm.	S. S. W.	Calm.	Den. cld. A few clouds round hor.	
31,	29.641	29.577	29.586	66.8	81.4	69.6	71.87	570.676	.593	.627	.89	.80	.72	S. W.	S. S. W.	Calm.	Den. cld. to 3 pm Cl & uncl 4 pm to mid	
Mean	29.6641	29.6339	29.6382	65.51	75.93	64.93	68.41	503.582	.502	.528	.81	.67	.84				1.770	

**Barometer at Temp. of 32°.**  
 Highest Barometer, 29.811 at 10 a.m. on 24th.  
 Highest Temperature, 86° 4 on 6th, p.m.  
 Lowest do, 49° 5 on 18th, a.m.  
 Mean Daily Range, - 17° 73

**Temperature of the Air.**  
 Range 36.9  
 Mean force, 0.17 lbs; Max. force, 2.6 lbs, on 1st August, at 10 a.m.  
 Under the head of Tension of Vapour, is given the elastic force of the aqueous vapour in each observation, in decimals of an inch of Mercury, or the proportion of the barometric pressure due to its presence.

**Humidity of the Air.**  
 Under the head of Humidity of the Air, is given the proportion the aqueous vapour bears to the saturated vapour of the same temperature, saturation being represented by 100.

**Wind.**  
 Under the head of Wind, is given the direction of the wind, in full names, at each observation, in decimals of an inch of Mercury, or the proportion of the barometric pressure due to its presence.

**Rain.**  
 Under the head of Rain or Snow, is given the quantity of rain or snow received during each 24 hours, in inches at 9 a.m.  
 The Observations entered in the column for 7 a.m., on Sundays, are actually taken at 9 a.m. The two Observations taken on Sundays are not included in any of the means.

Temperature for August.		Rain.		Wind.	
Max.	Min.	No. Days.	Inches.	No. Winds.	Calms.
82.45	47.7°	12	2.905	165	19.
84.8	45.7	9	6.170	139	13
81.8	43.9	6	37.9	282	12
83.1	44.0	4	4.850	282	16
86.8	43.5	17	4.33	282	19
84.8	43.3	9	1.720	268	17
86.4	41.5	10	1.720	268	17
84.5	49.5	10	1.720	268	17
86.4	49.5	10	1.720	268	17