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UPPER CANADA JOURNAL

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ORIGINAL COMMUNICATIONS.

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ART. XXIX.—*Anomalies met with in the Dissecting Room of Trinity College, during the Session 1850-51.* By N. BETHUNE, M.D.

Most of the following anomalies occurred in one subject, a man of middle age, who died suddenly in January.

*Muscular System.*—The *pronator radii teres* presented a remarkably abnormal origin from the lower fourth of the ridge running to the inner condyle, thus completely obliterating the space at the bend of the elbow. There was an anomalous division of the vessels at this part presently to be noticed. In the same subject was found a supplementary muscle in the posterior tibial region. It arose as a distinct muscle from the lower part of the tibia, and passing beneath the internal malleolus, below the other tendons occupying this position, and separated from that of the *flexor pollicis* by a distinct synovial membrane, was inserted into the os calcis. Thus, in place of three, there were four tendons between the heel and the inner ankle, the supplementary tendon being nearest the calcis.

*Vascular System.*—In one of the subjects brought in at an early period of the session, the *external jugular vein* took a remarkable course. In place of crossing over the *sterno-cleido-mastoid* muscle, it edged along its anterior border, and approaching the corresponding vessel of the opposite side, communicated with it by a thick short trunk midway between the cricoid cartilage and the top of the sternum, and then suddenly changed its course outwards, and passing beneath the sternal attachment of the *sterno-mastoid*, emp-

tied into the subclavian near its usual point of junction. This case would certainly have presented great difficulties in the operation of tracheotomy, inasmuch as, irrespective of the large communicating branch between them, the vessels were unusually large and were little more than the eighth of an inch apart at the point of junction by the cross trunk.

In another subject, the *external jugular vein*, after taking its usual course to the outer edge of the *sterno-mastoid* proceeded outwards and crossing superficially to the clavicle emptied into the *axillary*, by perforating the costo-coracoid membrane in common with the cephalic vein. This vessel crossed the clavicle over its most vulnerable spot, and would, without doubt, have suffered laceration in an ordinary fracture of the bone.

The next most striking anomaly, was that of the *radial* and *ulnar* arteries, the latter especially. The ulnar normally occupies a deep position in the upper third of the bone, being there covered by a thick layer of muscles; in the case before us, however, the division of the brachial occurred opposite the insertion of the *coraco-brachialis* into the humerus, and the *ulnar* artery proceeded over the layer of muscles arising from the inner condyle, covered only by ordinary integument and the aponeurosis of the arm. The course was first along the median line, to above the middle of the fore-arm; it then curved gradually towards its inner edge, and reached its normal position on the annular ligament, to which spot the ulnar nerve was unaccompanied by any vessel. The space at the bend of the elbow was in this case completely obliterated by the high origin of the pronator teres, as already noticed. The radial artery supplied the interosseous vessel.

The following vessels were noticed, as differing from the usual mode of origin and in size; viz.: the *inferior mesenteric* and *right renal*. The former of these sprung immediately below the *superior mesenteric*. The *right renal* was remarked as the last vessel given off by the aorta, about an inch above its bifurcation.

Nothing unusual was noticed with respect to the nervous system.

ART. XXX.—*A Case of Popliteal Aneurism cured by Ligature of the Femoral Artery.* By FRANCIS CLARKE MEWBURN, Surgeon, Drummondville, C. W.

RICHARD CLOSE, stone-mason, aged 30, of spare habit, and apparently not very robust constitution, applied in February last for advice for a lameness of the right leg, and a swelling in the ham of the same. Has been working at the building of the stone towers of the Queenston Suspension Bridge, during the winter, and living near Brock's Monument on the Mountain, would be exposed to

much exertion in passing and re-passing, in heavy snows, frosts and thaws, on the rugged paths; "not conscious of any accident which caused the lameness, it came on by degrees like; has rubbed all sorts of stuff upon the parts, which might do some good"! On examination of the limb, an aneurism of the popliteal artery was immediately detected, and the operation for tying the artery in the thigh recommended at once, the tumor being of considerable size and increasing. After a few days consideration, this was agreed to. We were assisted by our old friend Dr. Forbes, R.N., and two gentlemen from the other side, (Dr. Eady, of Lewiston, U. S., being detained elsewhere.) with Mr. James Thorburn, student, who kindly attended to the case afterwards, in assisting to keep up the temperature of the limb, &c. The patient was placed on a table, and the limb in proper situ. the sartorius muscle was easily traced; a good incision, of sufficient length to give ample room to the operator, was made in the upper third of the thigh; the artery laid bare, and most carefully dissected from the vein and nerve, *in as small a space as possible to pass the aneurism needle and ligature under*, the sartorius being held back by an assistant, with another curved needle; on tightening the ligature, *not too tight, pulsation of the tumor ceased at once*; the wound was then brought together, and retained by sutures, &c., and the patient removed to a bed on the floor, with his feet to a good warm fire on the hearth, and the limb wrapped in folds of warm flannel. Chloroform having been promised, that he might sleep through the affair, in blissful ignorance of pain, was applied, but the gallant fellow, an Irishman, declared, "*it was smothering him entirely, it was!*" was thrown aside, he bearing the operation manfully. It should be stated, that previous to the commencement, a very careful exploration was made of the chest by the stethoscope, as also of the abdomen, by the hand, to ascertain if there were indications of aneurism in these parts; the writer having been present at an operation of the same disease, performed by the late Sir Astley Cooper, *forty years ago*, in the theatre of St. Thomas' Hospital, London, when on the first incision being made, the man became suddenly faint, and *in a moment was dead!* A post mortem examination next day shewed a rupture of an aneurism of the arch of the aorta, *not previously ascertained*, and which gave way on the first touch of the knife! a lesson never forgot in after life! Union of the wound, to its whole extent nearly, soon took place, and in thirty days the ligature came away. The tumor rapidly decreased in size from the first day, is now entirely removed, and the patient able to resume his employment.

In the *Medical Times* of June last, is a review of a work by a Dublin surgeon, advocating the advantages of compressing the femoral artery, for the cure of popliteal aneurism, over the incision and ligature. This plan may answer very well in an hospital, where "means and appliances" are at hand, and no expense to the

surgeon; but in private practice, particularly in this province, it would be difficult and inconvenient: however, to those who dread the knife, compression offers perhaps a more pleasant alternative, and no doubt will be preferred.

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ART. XXXI.—*On the importance and value of Arithmetic as applied to Medicine.* By HENRY MELVILLE, M. D. Continued from No. 4, p. 147.

ON resuming the consideration of this interesting subject, I purpose reviewing the arguments adduced in favour of the numerical system, in a similar manner to that in which I stated those which are generally brought forward in opposition to it, in the first part of my communication. In doing this, I shall pursue the plan adopted by me in the first instance, and make use of my authorities en masse, without reference to any individual statement or opinion, unless it should appear to require particular comment.

To meet the objection based on the doctrine of probabilities, it is asserted that even on subjects which are usually brought within the operation of this law, the supposed similarity of events does not always exist, nor does the difference or variation observable in them admit of that strict numerical estimation upon which their value as data should depend, in the construction of the theory. This argument is thus ingeniously illustrated. In throwing a die, and computing the probability of certain results, it is supposed that its six faces are perfectly and exactly equal in linear extent, and evenness of superficies; a supposition which can rarely, if ever, be correct, but is most frequently erroneous. Yet notwithstanding these defects of the materials, and the error of the hypothesis founded on their supposed exactitude, we shall find that the person who, from previous investigation of results, knew that in throwing two dice, deuce-ace was a far more likely cast than double sixes, would have an immense advantage in his play over another who was entirely ignorant of this fact, for the great superiority of the probability would almost always counterbalance the inequality of the dice. It is therefore very possible, that a beginner unskilled in this doctrine of chances, might suppose each of these throws to be equally probable. The same error obtains with respect to medical facts and would appear to arise from the circumstance that in reasoning on a stated occurrence, the entire weight is given to the vague and general impressions produced on the mind by certain peculiarities or characteristics of disease, rather than in computing the events in a large number of cases. This mistake has been made by some very distinguished physicians, who appear to have been completely deceived in many instances. It was stated by Corvisart that dilatation with thinning of the walls of the heart was common,

yet it is remarkable, that in the work in which this statement appears, only *one* case of this description is given. The same observation has been made by others also, yet in forty-five cases of diseases of the heart observed by M. Louis at La Charité, during eight years, no instance of this condition was observed. Lannec made a similar general statement with reference to ulcerations of the trachea, which he asserted to be very common in phthisis, but rare in those who were not the subjects of tubercle. The statistical records of this disease, as compiled by M. Louis, shew the reverse to be more correct. Examples might easily be multiplied, but I consider these sufficient for the purpose of illustration. The truth is, that the more glaring such errors are, and the more important and startling the phenomena included, the more clearly do they convince us of the entirely uselessness of mere approximative results.

The question of the individuality of disease, is not the least important or interesting point which arises in the discussion, yet few I presume will be prepared to maintain the impossibility of nosological classification. If indeed every case of disease differed essentially in its characteristics from all others, the science of medicine would in reality be, but the momentary observation of divers and ever-varying phenomena, and the *practice of physic* founded on the scientific theorems established by analogical reasoning would be *altogether useless*. Fortunately for our science, the study of ages and the labours of learned investigators have succeeded in establishing the fact, that in diseases there are certain well-defined characteristics peculiar to the several forms, which enable and justify us in arranging them into separate groups; not only can we classify the diseases according to the general features which they present, but we can recognize in each, one or more distinctive peculiarities which invariably denote the existence of one form of disease. It is scarcely necessary perhaps that I should refer to the ease with which malignant, fatal, or remediable disease can be detected, when without the ken of naked vision, by the microscope, through whose aid we can distinguish the cancer cell, the altered blood globule, or the crystalline deposit whose character is more completely established by chemical science. Nor are the advantages of this mode of numerical investigation confined to the mere arrangement and classification of disease, the improvement of diagnosis, and the correction of prognosis, but it materially assists in enabling us to treat disease by certain general rules, in spite of the minute differences to be discovered in individual cases. Examples of this will readily suggest themselves to the mind of my reader; I will instance nevertheless the effects of quinine in ague, colchicum in gout, and sulphur in itch. The remarkable power exercised by these remedies over the diseases enumerated, in which they certainly attain nearly all the requirements of specifics, is

displayed in cases which differ very materially from each other. It is undeniable that in these diseases, instances will occur in which, from some peculiar complications either constitutional or pathological, these remedies would not only be inadmissible and useless, but even positively injurious: as in the case of colchicum in gout, it would be most improper to administer this drug when there existed a highly inflamed or congested condition of the alimentary canal. But such exceptions rather tend to show the extreme danger of treating disease empirically, and the necessity which exists for using the greatest discrimination and judgment in the investigation of disease, and the formation of our diagnosis, and cannot be fairly used to display any fallacy in the numerical method.

That the system is open to abuse and error, like every other plan of human arrangement, cannot rationally be disputed; but those who zealously and judiciously prosecute this mode of investigation, however startling and comprehensive the results which they obtain may be, are not justified in confining themselves to general rules. The exceptions become the object of careful study and examination, and form the groundwork of separate problems, to be worked out with the necessary elements and by sound reasoning and great reflection. Nor is it by limiting attention to the mere combination of units, by numerical expression simply, that the great and fundamental principles of the science can be eliminated; the whole mind must be given energetically to the details of facts; not alone to note the number of cases occurring of one generic form of disease, in a certain locality, and the casualties or results following its prevalence; but every circumstance must be strictly considered, which is calculated to afford information not only on the pathogenesis, progress, duration and termination of epidemic, endemic and sporadic diseases, but also on the influences which have been observed to govern their treatment. In such an investigation, the principal points to be regarded are climate, constitution, natural, as well as depending upon hereditary taint, habits, complication of diseases, and peculiar idiosyncrasies. So wide a field of observation necessarily calls for a sub-division of labour for its proper cultivation, and hence we find the tendency manifested by physicians to adopt one particular disease for study and remark.

It must be admitted, that in conducting the calculations connected with this department of medical science, many mistakes occur from a variety of causes, but principally from omitting some of the elements of the problem. In order to render these remarks as complete as I can, I propose in the next part of my communication to consider briefly the *sources of error or fallacy* in the numerical method; previous to giving some of the most prominent conclusions which have been arrived at by its aid.

ART. XXXII.—*Cases of Angeleucitis or Barbados Leg, with remarks on the probable Pathology of that Disease.* By JAMES BOVELL, M.D.

WM. CHASE, æt. 53, a black native laborer, admitted into hospital 23rd June, 1847, having a chronic ulcer on right leg, which is also affected with elephantiasis; the ulcer is about the size of a dollar, has hard white raised edges, and red firm granulations in centre—both feet are deformed; the metatarsus being articulated on the tarsus at an angle of about 25°. He was ordered middle diet and a weak nitric acid lotion for the ulcer. On the 11th July he was reported by the nurse as having been unwell for the last two days, and on questioning him it was found that from his great dislike to take medicine he concealed his illness which he said was of little consequence as he was long used to “the fever and ague.” It was quite evident that he was very ill indeed, he had no sleep at any period of the night, but moaned continually. Is now, at eight o’clock, a.m., lying on his back, with the bed clothes and blankets wrapt closely round the throat, shivering with ague; has vomited twice a quantity of yellow bile; has intense headache, eyes heavy, watery, and the conjunctiva minutely injected. Mouth dry and clammy, pulse small hard 100; prays that his foot may not be touched, as the pain in the whole limb is excruciating; he took a cup of hot tea at ten o’clock; he was drenched in perspiration which did not seem at all to diminish the heat of skin which was excessively great, and the pulse had become hard, full bounding and 120. On examining the limb, the whole foot, leg and thigh were swollen, hot, painful, and exquisitely tender; indeed the weight of the bed clothes could not be borne at all. The ulcer has a glazed shining appearance; a hard tight string or cord is felt running along the inner side of the thigh, following the course of the femoral vessels and terminates in the inguinal glands which are considerably enlarged, hard and tender; there is no tenderness of the abdomen, or any feeling of uneasiness in it; no pain or pressure of the stomach; complains much of thirst; tongue parched and dry; headache very great, and if he attempts to move his head, nausea is excited.

Ordered to have tepid fomentations to head.

R Mist. Camphor. ℥ iv.  
 Vin. Antim. Tart. ℥ iii.  
 Liq. Ammon. Acct. ℥ ss.  
 Tæ. Hyoscyum. ℥ iij. ft. mist.

A table spoonful every fourth hour.

12th. Has had no sleep, but talked to himself the whole night. The second dose of the medicine seemed to sicken him, and he



vomited shortly after a quantity of green slimy bile, which gave some relief to his head, as he does not now complain of much headache; experienced much comfort also from the tepid application. He says that his bowels feel not exactly sore or painful, but that he can with his hand tell where they lie. On pressing him along the course indicated, namely the colon, pain is not produced. He has had since yesterday evening, three loose evacuations; tongue slimy and coated white; body hot, extremities cold, pulse 102, wiry; conjunctiva yellow; heart's action tolerably strong; both sounds seem to maintain their relative proportions; no nausea at present. The ulcer still presents the shining appearance, and is quite dry.

R Hydr. submur. gr. iij.  
Pulv. Doveri. gr. v. ft. P.

One every sixth hour.

Fomentation with Lotio Plumbi over the leg.

13th. Much worse; no sleep at all, but constant muttering delirium; cannot be prevailed upon to take either his medicine or arrow-root, pushes away a glass of wine handed to him, and which he had repeatedly asked for. Has not passed water. On introducing the catheter, about one pint of pale urine, free from the urinous smell, was drawn off; it did not coagulate by heat; bowels soft and comfortable to the feel; eyes suffused and conjunctiva yellow. Tongue dry and thickly coated with a brown fur; teeth covered with sordes. Pupils of the eyes dilated and not contracting on being turned to light.

A blister to nape and back of head.

To have wine if he can be made to take it.

Arrow root injections with wine.

Eight o'clock, evening.—No sleep; constant muttering; when roused answers questions, but soon again appears to be unconscious of our presence; bladder again full; passed the catheter with some little delay in consequence of spasm, and drew off about half-a-pint of pale urine. Pulse 120, small and weak; has just been forced to take a draught of decot. senega. carb. ammon.; has only taken one oz. of wine; has had an arrow-root injection and retained it for some time.

14th. No sleep; temperature of the body below the natural heat; pulse 136; has taken three doses of the Senega and ammonia, and two glasses of wine in arrow root. Still lies in the same stupid state, but on attempting to move the leg he moans piteously. The ulcer is still dry, notwithstanding the application of carrot poultice, and the whole leg tight and shining; but it is remarkable that the increase of size of the limb is by no means so great as is usually the case, and in the calf of the leg, the hard

cordy feel is perceived. Bowels moved three times, the evacuations being passed in the bed; urine passed without the use of catheter. Pupils much dilated; teeth and lips covered with sordes; body generally cold, except the affected leg which is warm; refuses to take any thing but cold water. The blister has risen well and discharged freely.

Eight o'clock evening.—Is sinking fast; died at 10 o'clock.

*Post mortem eight hours after death.* The body was quite fresh, and free from decomposition. On opening the chest, no trace of disease was discoverable. The stomach was empty and contracted on itself; there were no appearances of recent disease; the liver of natural size; the gall-bladder was filled with green thick bile; the intestines were healthy; the peritoneum dry; the vena cava and veins of the abdomen were full of blood, and exhibited no traces of disease. The thoracic duct in its whole extent was healthy. A longitudinal incision was made through the integuments of the thigh, from poupart's ligament to the knee, and from thence to the extremity of the toes. The skin being reflected back, several of the superficial vessels were divided, many of which gave out pus of a good yellow straw-colour; some of the pus points were in the substance of the skin. The veins of the limb were full, and of a healthy blue colour. The inguinal glands, which were enlarged to the size of a goose egg, consisted of two large lobes and four smaller ones, and on their surface shewed ramified lines of a yellow colour, from the middle and larger lobe, and accompanied by several veins; a large lymphatic vessel proceeded along the inner part of the thigh towards the condyle of the femur; this vessel was filled with pus; another large lymphatic vessel entered the border of the inferior lobe of the gland, also filled with pus; into this one we succeeded in throwing some quick-silver, but the vessel having dilated into a pouch soon after entering the gland, the mercury ruptured the coats, and escaped beneath the envelope; the deep-seated lymphatics were in the same state. In no one instance did the veins exhibit any appearances of disease, and the arteries certainly seemed equally free from morbid appearances. There was evidence of previous attacks of glandular disease, but there was very little recently effused fluid in the cellular tissue.

REMARKS.—As a great deal of misconception exists as to the real nature of the disease, it becomes a matter of importance to place on record a description of the morbid appearances discoverable in the acute stage of so formidable a malady, especially since some very distinguished pathologists have been content to draw conclusions in reference to its pathology from dissections of very chronic cases. I shall endeavour to give a brief history of the symptoms and detail the post mortem appearances found in the bodies of these persons who died of the disease affecting the parts within the abdomen.

The patient without any premonitory indisposition is seized suddenly with a disposition to faint, and severe ague followed by flushing of the face, hot, dry, skin, headache (frequently of very intense character,) quick full pulse, nausea and vomiting, after which a profuse sweat breaks out, attended with some relief of the general symptoms. *Locally*, the glands of the groin enlarge to the size of a hens egg, are hot and painful to the touch, and proceeding from them down the thigh, and following the course of the femoral vessels is a red line of inflammation, having a tense cord like feel; the slightest motion of the limb gives great torture, and the patient complains of a gnawing burning pain in the entire limb. The leg quickly swells, sometimes to double its natural size, when there is generally some cessation of the pain and the limb can be moved without any annoyance. In a first attack, if absolute rest be maintained some time after the acute stage has passed over the swelling gradually disappears and the leg bears no trace of mischief, but unfortunately like the gouty habit, the sufferer from glandular disease cannot calculate on the continuance of health for a day, and *after each attack* the limb becomes more and more enlarged until it presents that unsightly appearance under which it is known in Europe, and all over the world as "Barbados Leg." "The tropical bucnemia" observes Mason Good, "like the puerperal, is occasioned by an effusion of coagulable lymph into the cellular membrane under the skin of the part affected, in consequence of inflammation of the lymphatics of the lower limb, and especially of the inguinal glands, the cause of which is at present quite unknown." The commentary which Mr. Samuel Cooper makes on this passages is very infelicitous, he says, "The doctrine that the disease essentially consists in an inflammation of lymphatic vessels and glands, may be said now *to be on the decline*. In fact, we commonly see these organs inflamed, both in warm and cold climates, without any consequences resembling bucnemia Topica, Dr. Graves notices various circumstances amounting very nearly to a complete refutation of the opinion. Thus he particularly adverts to a passage in Dr. Hillary's work, from which it appears that the disease sometimes attacks the arms, scalp, ears, back of the neck and loins, &c. Enormous chronic growths of the integuments and cellular membrane sometimes affect the arm, penis and scrotum; even in this country the disease closely resembling the Barbados leg, and examples of which had been seen by Mr. Chevalier. It is obvious, as Dr. Greaves has remarked, that in such parts the swelling would have arisen merely from glandular inflammation; and as from various facts which he has brought forward, it is proved that inflammation of the skin and subjacent cellular tissue is in itself capable of producing a swelling in all other respects similar to

Barbados leg, he is inclined to think that a more accurate investigation would have induced Dr. Good to modify the opinion he has delivered on the same subject."

*To be continued.*

ART. XXXIII.—*Amaurosis, attended with an inability to distinguish colour.* By S. J. STRATFORD, M.R.C.S.Eng.

THE following case may perhaps be considered worthy of insertion in the *Journal*, and possibly prove interesting to numerous individuals, who are acquainted with the subject of it.

Paul Bishop, aged forty-five, a native of Lower Canada, has lived in Toronto since the year 1824; is by trade a blacksmith; was very prosperous in business until the year 1849, when from a reverse of fortune he fell into habits of intemperance, which he carried to great excess. From being a master workman, he was reduced to a day labourer, and about a year ago was working at Mr. Armstrong's foundry in this city. He was drinking freely, and working hard until a very late hour. He got his feet wet going home through the snow on a Friday night. On Saturday morning, his wife went to his bed and called him, asking if he did not intend to get up to-day; he complained that she was calling him before daylight: she told him it was quite light, and eight o'clock, which greatly amazed him, and to confirm the truth of her assertion, the wife brought him a lighted candle. To show that she was correct, she placed his fingers on the candle, and he gradually moved them upwards until they came to the flame, and when he felt this burn him, he was convinced that he was blind. The blindness that he experienced was like the darkness of night, in which he could indistinctly observe some of the objects around him, but not tell their shape or nature. He was led up to Dr. King, who treated him for some time, and gradually much of his sight was restored to him; indeed when he left Dr. King, he could see nearly as well as he does at the present time. He applied to Dr. Cadwell, but did not get any further relief, and this gentleman advised him to apply to me. His habits of intoxication were carried to such an extent, that he got *Delirium Tremens*, and was treated by Dr. Morrison, about six months since. After he recovered from this disease, he promised to reform his habits, and declares that he has not drank spirituous liquors since that period.

At the present time he complains of an indistinctness of vision, is very near-sighted, is not able to comprehend persons or things at a short distance, but when he looks close, can distinguish the most minute objects. He has nictation? of the eyelids, and some degree of intolerance of light, especially when the sun shines brightly: then the wooden pavement is so disagreeable to him, that

he prefers walking in the middle of the road. When he works at the blacksmith's forge, the sparks dazzle his eyes, and he complains that he sees the fire long after he has ceased to look at it, and his eyes are always worse after he has been at work, or after he has been drinking spirits or coffee. He often complains of pain and fulness in the head and temples, says that he can hear a beating in his head, and fancies that he can see it in his eyes. At present he can distinguish the most minute object, but cannot tell the colour of most of them. He could see very minute lines or dots in a book, but could not distinguish the colour of a red flower presented to him. Two objects, a piece of red sealing-wax, and a green dozzle (used in drawing), were shown to him in such a manner that he could not know them from their shape. He declared the green colour to be black, and the red drab or grey. On showing him a painting of a red flower, he called it yellow; but did he know the object from its shape, or if he had been previously told the colour, he apparently knew it again from recollection. On being shown the solar spectrum, he could readily distinguish the blue and the green, and seemed to understand the yellow, but could not name any of the other tints, when red he called it yellow, grey, or buff, according to the circumstances. After he had been looking at any colour for a short time, it seemed to distress his eyes, and gave him a dazzling sensation, which was especially marked when he was called to look at a red object. He cannot see so well with the right as with the left eye, in consequence of an accident which happened to him a long while ago. He also complained of great burning in his feet; at the centre of the heel, he says he feels a great pain, that suddenly starts up the legs, and travels up the spine, until it influences the head, when it causes great pain and sickness of stomach, until he can go to sleep, when he gets better. He often awakes during the night with this epileptic aura, and it is especially worse after drinking, while it has greatly lessened since he has discontinued the abuse of spirituous liquors. I recommended him a seton in the nape of the neck, and a course of alterative medicines, with strict attention to his diet. I tried him with the glass used by near-sighted persons, but he did not find any benefit from it, but the slightest convex lens of a weak-sighted person, greatly improved his vision, and enabled him to see at a considerable distance.

Many congenital cases of this description of disease are on record, in which the inability to distinguish colour has been traced as occurring in several successive generations, but very few cases have been noted, in which the want of true perception of colour has been dependent upon idiopathic disease. In the case above described, and in a vast majority of those recorded, the patients could bear the influence and understand the impression made by the blue rays of the solar spectrum, but as these tended towards the red, they

found more or less difficulty in distinguishing the true tint, and of bearing their impression upon the retina. The dissected solar ray, consisting of blue, green, yellow, orange and red, possess a greater or less power of refraction, according to the above order in the spectrum, and each seem to influence the retina in intensity agreeable to this refractive power. The power of absorbing all the rays of light except those on which the colour of an object depends, is universal through nature; so their reflection to the eye of the observer is admitted to be the cause of individual colour in the different objects around us, and the influence these impress upon our senses, are more or less agreeable, according to their position in the spectrum. The deep blue sky, and the universal green of the vegetable world, impress our senses with pleasurable emotions, give a relief to the eye and a soothing influence to the mind, which cannot be produced by the less refrangible tints of the spectrum; if these were more generally described, they would often prove a source of irritation to the eye, and an annoyance to the mind. This irritating characteristic of the red ray, appears to me to be the cause that this patient could not bear its dazzling influence, or comprehend the colour. The disease on which this peculiar characteristic is dependent, was evidently in the retina, and I suspect depends upon a certain amount of hyperæmia in the vascular structure of that tunic, and that this vascular or temporary hyperæmia is especially excited by the more irritating red ray, while the blue ray possessing that character in a much less degree, does not call forth the deleterious influence, but in a ratio subordinate to its position in the spectrum. When this plethora is excited, the distended vessels prevent the influence of the rays of light from infringing on the nervous matter of the retina, but as the irritating cause is removed, the vascular plethora again rapidly subsides, and I apprehend that the supposed colour of each object will be more or less approximated to the truth, according to the intensity of the vascular disturbance. That such was particularly the case in this instance, is also borne out by the pain, irritation and dazzling sensation produced by the sparks at the blacksmith's forge, likewise by the evident irritability of the whole organ, which was scarcely able to bear the sun light at mid-day, as shown by the constant winking, and a desire to cover the eyes; while the clouded sun or evening light did not produce the same inconvenience.

In the first onset of this disease, the plethoric condition of the vascular structure of the retina was augmented in all probability to positive congestion, causing the amaurotic influence so graphically described by the poor man, and convinces me that this complaint was, from the commencement, dependent upon this condition, rather than upon disease of the nervous matter of the retina, and that the inability to distinguish individual colours was caused\* by

a certain improvement in the tone of those vessels, whereby a more normal circulation was occasionally deranged by a transitory excitement of the vascular apparatus. That the eye was fully able to distinguish the most minute objects, was perfectly evident, and a demonstration that the nervous matter of the retina was only influenced more or less positively by the vascular hyperæmia. Even at the worst stage, the power of distinguishing form was not totally lost, and in the latter stages was perfectly regained, while colour could not be truly appreciated.

This case would appear to stand prominently forward, as illustrating the advantages of a knowledge of minute anatomy to the surgeon; and forcibly points out the danger of quackery in ophthalmic diseases, while it also demonstrates that the distinction of the retina into several tissues is founded upon fact, and that each of them may be more or less individually submitted to the influence of disease.

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### Reviews.

“*Examination of the Sap of the Sugar Maple Tree, the Acer Saccharinum of Linnæus, with an account of the preparation of the Sugar.* By GEORGE D. GIBB, M.D., Lecturer on the Institutes of Medicine, St. Lawrence School of Medicine, Montreal; Honorary Member Addisonian Literary Society of Montreal; Corresponding Member Literary and Historical Society of Quebec, &c. &c.”

It is certainly quite refreshing to meet, amidst the “stern realities” of purely professional reading, an occasional dash at something apart from the ordinary routine of professional topics; to see the mind which in its earlier training for the more severe studies, had also acquired a decided taste for, if such a phrase so applied be admissible, some of the collateral sciences, a knowledge of which is considered absolutely indispensable to a perfectly educated physician. Such recreation, for such it undoubtedly is both to the zealous student of scientific medicine, and to those who benefit by his labour and learn to enjoy its fruits, braces the mind and renovates its vigour, as change of climate and scene affect the corporeal strength and constitutional tone. By it the intellect becomes refined and expanded, a desire for knowledge is engendered, and we are taught to love science for its own beauty and to respect it for the power which its acquisition confers.

We rejoice therefore to see one among ourselves leaving the ordinary beaten track, and cultivating an acquaintance with nature and the appliances of art, in a field within our daily observation—among the productions peculiar to our country. Such is the course adopted by the author of the paper now under review, and

he has been happy in the choice of his subject; maple sugar being an article of extensive consumption and domestic manufacture, which if properly encouraged might probably become a commercial staple of considerable importance, affords ample scope for investigation. Comparatively little, however, is yet known either of the extent to which its manufacture can be carried or its intrinsic value; and certainly little or no effort has hitherto been made to improve the process by which it is procured, or to bring its claims under general notice and consideration. To Dr. Gibb, therefore, the public owes some gratitude, for the attempt now made to effect these desirable objects. He has brought to bear on his subject a mind fully imbued with its interest and importance, and displays in the mode of his investigation an amount of chemical knowledge and scientific research highly gratifying to perceive in one who, we presume, like most practitioners in this country must, for the greater portion of his time, be employed in the more active and practical discharge of his professional duties. We confess, however, our disappointment under these circumstances that he does not give a more complete analysis of the sap, with which he appears to have experimented frequently and successfully, and not satisfied himself with the generalised statement that "the residue obtained by evaporation was almost entirely pure sugar, and contained traces of Chlorides, phosphates and sulphates." What were the bases of these salts, and what their relative quantities and proportions? A strictly scientific analysis should be quantitative and qualitative, and the results should be stated with numerical precision. However, as he has promised a continuation of his remarks, we may yet hope to see this hiatus supplied. We solicit also a somewhat more extended notice of the botanical characters of the *best* trees; their habits and localities; and some information on the interesting phenomena of the time and mode of budding and foliation and the influences which these processes exert over the characters of the sap. A more minute description of their topographical distribution and the best mode of propagation would also be desirable.

Had our author confined himself to these and other legitimate points of his subject, we could cheerfully have laid our pen down without writing a single word more, but we should forfeit our character for candid criticism, if we passed over without remark the invidious comparison he institutes between Maple and Muscovado or Cane sugar. It is well to endeavour to establish a fact—the excellence of maple sugar to wit—by logical deductions from correct premises properly stated; but it is unscientific, if not something more inexcusable, to attempt to raise a character for a particular thing, person or event upon the defects real or apparent of another. And it becomes most ridiculous to do this on erroneous grounds, and with a want of proper knowledge of the subject of comparison.



We do not suppose that our author meant to imply, that as a commercial or fiscal staple, Maple is to be compared to Cane Sugar, and therefore we leave the question of the comparative productiveness of the two plants alone, and proceed to consider the question of the relative saccharine properties of the *sap* and *juice*. We find it stated in general terms "that a bucket full of sap is estimated to yield over a half pound of sugar;" Mr. Campbell states that the sap from an old tree that has been tapped eighteen or twenty years, will yield upwards of a pound a bucket;" and in an explanatory note we are told that "an ordinary bucket contains two and a half to three gallons." It would occupy more space than we can well afford, to give in detail the several tables which have been founded on this point, by the investigation of many writers; nor indeed have we at hand the most recent work which has been written on the subject for reference; but we can speak from observation when we say, that a ton of sugar has frequently been made from 800 gallons of cane juice, and that 1500 gallons is the common average quantity required. The comparison founded upon these general statements then may be made to represent the relative yielding qualities of the sap and juice thus:—

SAP, 3 galls. to 1 lb. = 6000 galls. to 1 ton weight.

JUICE, 1500 galls. to 1 ton weight = 5¼ lbs. to 3 galls.

But the most amusing portion of our author's remarks, and which admits of some question, is that in which he describes the experiments performed with the view to ascertain the relative purity of the two sugars. He tells us, (page 4,)

"Some *brown Muscovado sugar* was placed at the bottom of a wine-glass, which was then filled with water, and allowed to stand 24 hours without disturbance; a scum formed on the surface.

"Some *Maple Sugar* a year old, was produced and treated in the same way; no scum formed on the surface.

Now it is worthy of observation, with respect to these statements, *first*—that the *age* of the maple sugar is given, and not that of the *Muscovado*, which might have been, for ought we know to the contrary, twenty years old. *Secondly*, it is not stated whether the vessels were covered or not, a point of some importance, as the superior saccharine quality may easily account for the presence of the insects which we are told were discernable in the scum of the *Muscovado*.

"The fluid and scum of the *Muscovado* were examined under the microscope, when large numbers of dead *acari* or *sugar insects* were found, many fragments of their bodies, numerous ova and young *acari*, and sporules of the sugar fungus in vast abundance; a few fragments of the sugar cane were present, showing the cells of the parenchyma, and a very few of the woody fibres.

"The fluid of the *Maple Sugar* was examined, and *nothing whatever* was discovered worthy of observation.

*Thirdly.* The experiment was not complete, the comparison was not a fair one. inasmuch as it was made between "Maple Sugar," without reference to quality, and "*Brown Muscovado*," which, as appears from Dr. Gibbs' admission, in the following words, is of inferior quality ;

"All the *brown* Muscovado sugars contain this noxious insect, but the *colourless* Muscovados, are quite free from it."

We leave the subject of the "*Acari*"? or *Sugar Insects*, for future remark, thinking as we do that Dr. Gibb is mistaken both with reference to the insect itself, and also as to its source when found in the scum.

A few words more will suffice to shew that the Doctor has written with a prejudice strongly in favour of his Maple product.

"Independently of the presence of the sugar insect, Maple sugar is not in any way inferior to cane sugar, but is infinitely superior in many respects. It is prepared at a time of the year when neither insects nor the pollen of plants exist to vitiate it, as is the case with common cane sugar. Its taste is superior to that of cane sugar." *Chacun à son gout!* "It possesses a delicious flavour when well-made, and it sweetens equally as well. It can be eaten in a pure state for a considerable time without any unpleasant consequence, which is the reverse with cane sugar, undoubtedly one of the sources of worms in the body."

Credat Judæus! Has the Doctor ever resided in a cane-sugar growing country and witnessed the effect produced upon the population during the Crop season? We trow not. The white and sound teeth, proverbial in the race employed in its cultivation and manufacture, the plump figures and sleek, healthy-looking skins, which are at that time observable, is matter of common remark ; nor do we believe that entozoa are more common among the inhabitants of those countries, who during nearly six months of the year live almost entirely on the cane and its products, than we have found them in Canada.

We have already extended these remarks much beyond our prescribed limits, and must therefore close this article, but not without repeating our hope that Dr. Gibb will make this interesting tree the subject of more extended observation and enquiry.

*A Comparative View of the Climate of Upper Canada, considered in its influence upon Agriculture.* By HENRY YOULE HIND, Lecturer in Chemistry and Natural Philosophy at the Provincial Normal School, pp. 38. Toronto ; Brewer and McPhail, 1851.

In this interesting and timely publication, Mr. Hind has addressed himself to the task of proving by facts and figures, a truth which we are happy to believe is gradually fixing itself pretty firmly in the public mind of this Colony, and which, we may hope, will not long remain a doubtful one to that of the mother country. The

truth, namely, that Upper Canada has been blessed by nature with advantages of geographical position and of climate, which leave her little cause to envy any other part of this continent. That with a soil of unsurpassed fertility, she is surrounded with those physical influences which are best adapted to bring its fruits to perfection, and that whether we look eastward or westward we find a less favorable concurrence of all the circumstances upon which the welfare of an agricultural population depends.

“ Such is the patriot’s boast, where’er we roam,  
His first, best country ever is at home.”

Long may it be so! Not every patriot, however, has so good grounds for his preference as we are furnished with in this pamphlet. Indeed, the author expressly disclaims the weakness of being actuated by any such motive—we must therefore endeavour to convey in a short compass an idea of his actual proofs.

The true relations of organized beings to inanimate nature—the true relations of life and development, whether animal or vegetable, to those physical circumstances which we can weigh, gauge, or measure by our instruments, form a branch of science which is yet in its infancy, and to which, meteorology in its ordinary sense is but the introduction; nevertheless, common sense tells the most unlettered farmer that such relations do exist. That to every cultivated grain or plant there is a time and season, when heat and cold, moisture or dryness, sunshine or shower, are in their turn the influences required by its constitution, and best fitted to forward its progress to maturity. By the relative proportions in which these circumstances occur, are mainly governed those diversities of production which characterize different regions of the globe, and the better we are acquainted with them, the better knowledge shall we have of the productive capabilities of every region. In the pamphlet before us, which is prepared with great care, and condenses into a small compass the results of very extensive observations, the author endeavours to show that the climate of Western Canada differs from that of those of the United States, which lie north of the forty-first parallel in the following important particulars:—

“ 1st. In mildness, as exhibited by comparatively high winter and low summer temperatures, and in the absence of great extremes of temperature.

“ 2nd. In adaptation to the growth of certain cereal and forage crops.

“ 3rd. In the uniformity of the distribution of rain over the agricultural months.

“ 4th. In the humidity of the atmosphere, which, although considerably less than that of a truly maritime climate, is greater than that of localities situated at a distance from the Lakes.

“ 5th. In comparative immunity from spring frosts and summer droughts.

“ 6th. In a very favourable distribution of clear and cloudy days, for the purposes of agriculture; and in the distribution of rain over many days.

“ 7th. In its salubrity.

It differs again, favourably, from that of Great Britain and Ireland, in the following particulars:—

“ 1st. In high summer means of temperature.

“ 2nd. In its comparative dryness.

“ 3rd. In the serenity of the sky.”

Each of these assertions is proved by tabular statements, embodying the results of observations at a great number of stations. The author refers, however, chiefly to those admirably complete tables constructed at H. M. Observatory at Toronto, and also at Muscatine in Iowa, a place situated on the Mississippi, in lat.  $41^{\circ} 30'$  or thereabouts; and we have been much struck with the clear and admirable manner in which he selects the data necessary for establishing one point after another. The general results of the comparison are extremely various and interesting, particularly as regards the winter temperature. But our limits will not permit the insertion of more than the following table, the object of which is to show the greater mildness and uniformity of the climate of Toronto than that of places in corresponding latitudes on either side. Fort Preble, on the Atlantic coast, lat.  $43^{\circ} 38'$  deg., and Fort Armstrong, Ill. lat.  $41^{\circ}$  deg.  $28'$  min. being selected for the comparison. :—

	Lat. $43^{\circ} 38'$ deg. Fort Preble, East of the Lakes.	Lat. $43^{\circ} 39'$ deg. Toronto, On the Lakes.	Lat. $41^{\circ} 28'$ deg. Fort Armstrong, West of Lakes.
January .....	21.82	24.67	23.78
February .....	24.94	24.14	26.28
March .....	33.41	30.83	37.47
April .....	45.44	42.17	51.26
May .....	54.49	51.84	63.83
June .....	64.29	61.42	73.59
July .....	69.71	66.54	77.92
August .....	67.19	65.76	76.21
September .....	59.00	57.11	63.67
October .....	49.28	44.50	54.58
November ..	38.45	36.57	39.82
December .....	31.32	27.18	30.53
Mean.....	46.67	44.39	51.64

Fort Armstrong is more than two degrees south of Toronto, and yet, as Mr. Hind remarks, the mean temperature of January is nearly a degree lower than at Toronto, while the mean temperature of the hottest month is upwards of eleven degrees higher than at the last-named place, situated on the Lakes. Fort Preble, to the East, in the same latitude as Toronto, has a mean temperature for January nearly three degrees lower than Toronto, and for July upwards of three degrees higher.

Mr. Hind traces the peculiarity of the climate of Western Canada to the ameliorating influence of the great lakes; and this part of his work, is the best and most complete illustration of that theory with which we are acquainted; it is, as far as it goes, an

example of meteorological science, as distinguished from the mere work of an observer, which cannot but add to his deserved reputation, and which we heartily commend for imitation to the keeper of meteorological registers. We have called it a timely publication. In the last session but one of the Provincial Parliament, a clause was introduced into a bill for the regulation of Grammar Schools in Upper Canada (by the Hon. Mr. Hincks,) which provided that for the future certain meteorological observations should be made at all of them upon a systematic plan, as is now done in the States of New York, Massachusetts, Ohio, and we believe some others. The value and importance of the materials thus accumulated in the course of a few years, not only in respect to agriculture, but to vital or medical statistics, and many industrial interests, can hardly be exaggerated; but the arrangement has been arrested by the failure of that bill to pass into law. The work of Mr. Hind, furnishes additional proofs if such are needed, both of the value of such records and of the field that is still open to investigation, and looking forward to the resumption of the design, we regard this pamphlet as peculiarly well-timed and deserving of attention.

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TORONTO, SEPTEMBER 15, 1851.

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#### THE FATE OF THE BILL.

THE public newspapers will have prepared our readers for the fact which we now announce, that "The Bill" has not passed. After having been permitted to remain for a long period of time on the orders of the day, it was finally brought under discussion in committee the night previous to the morning of the prerogation, by a hard struggle on the part of its supporters, amid a scene which we abstain from describing or characterising. It was ordered to be engrossed, and read a third time the following day. Amid the rush of work to be accomplished on that morning, every measure in a similar state of forwardness was squeezed through, with the one solitary exception. Nearly every body of men who sought for corporate rights from the Liberal Legislature have obtained them, except those whose welfare is so intimately associated with the personal interests of all classes of the community, and with the general well being of society. We approach the consideration of this subject with feelings of much disappointment, mingled with no small share of painful regret, for our convictions lead us to the belief that this failure to obtain what is so earnestly required by the large majority of the profession, has been brought about as much by the successful intrigue of enemies within the camp, as by

the openly avowed hostility of a few who differed on minor points from the measure itself, and the want of proper management on the part of the gentleman who had charge of it.

It is however bootless to utter vain regrets. This is the third unsuccessful effort which has been made to incorporate the Medical Profession of Upper Canada, to place it upon the same footing it holds in the Lower Province. It is unhesitatingly acknowledged on all sides, that such a measure would do much to raise the standard of the Profession, to secure the confidence of the public, and to establish the degree of civilization of the country; and yet when the opportunity offers for accomplishing so desirable an object, the Parliamentary representatives of those holding this opinion as unhesitatingly throw obstacles in the way of its fulfilment. We simply ask those who agree with us in the views we have expressed while the fate of this Bill was pending, whether they will throw away their votes at the ensuing election. As it appears that personal influence, exerted through the exercise of the elective franchise, is the only means open to us to secure our just rights—our acknowledged privileges, let every one who earnestly desires the prosperity of that profession by the prosecution of which he seeks to obtain position, fame, wealth, nay the very means of subsistence for himself and his household, consider well before he makes choice of a candidate. It may be very well for those not so deeply affected by this question as we are, to sneer at a declaration of this kind, and to say that we are a small portion of the people, whose interests must merge into the general progress of the country, and cannot be individualized for our benefit. But we do not find this to be the case with other equally small and certainly less important integrant parts of the community. Look at the list of Acts passed during the session of the Parliament just concluded, and the reverse will be found to obtain. Moreover, we know that we are living in a free country under an enlightened system of government, *if properly carried out*; and we find that the fundamental principle of that Government is, that the rights of individuals must be sustained and protected—one of the chief beauties of the constitution to be, that individuals, either separately or collectively, may seek for statutory privileges to enable them to carry out successfully the proper working of enterprise in their several vocations; provided those privileges do not militate against the integrity of the Government and the prosperity of the people. When we feel that the privileges sought for by us are those best calculated to ensure the common weal, we ought not to shrink from performing the great duty we owe to ourselves and to the country, and seek by every legitimate means in our power, to secure the return to Parliament of those men only who will see that justice is dealt to all with a fair and impartial hand.

We do not believe that we are the “insignificant portion of the

people" which we have been called in the legislative halls—we do not believe that we possess no influence; on the contrary, we feel convinced, that we have only to throw the weight of the influence we can exercise, founded upon our education and the peculiar nature of the relationship existing between us and the community, into the scale, and we should be able to turn the tide of any election. Much as we dislike the unsatisfying nature of general politics, and keenly alive as we are to the injury which generally ensues to the members of our Profession who dabble in them, we counsel every one now to be busy on behalf of himself and the interests of his family. Having made up your minds as to the man who most accords with your sentiments on general matters, and who on the subject of our corporate rights thinks and will act correctly, identify yourselves with his success, and leave no stone unturned to secure his election. One struggle more must be made, and that early in the next session. In the mean time we shall use our endeavours unceasingly, to obtain a common professional opinion and by the concerted labour of all, to mature a measure calculated to promote the ends in view.

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THE "BRITISH AMERICAN MEDICAL AND PHYSICAL JOURNAL."

It has now become almost a stereotyped expression of disagreement with Shakspeare's "What's in a name?" to say, that there really is something in a specific loconymic—some virtue apart from the other characteristics which a man, a horse, an ass, or a book possess, derivable from the place of their habitation, nativity or manufacture. We have been petulantly reminded by our cotemporary in *Montreal*, that we were guilty of a breach of editorial courtesy in not giving him his proper title in our last number. We are quite ready to make the "*am ule honnabls*," by stating that it was an accidental oversight, a careless forgetfulness, anything that our brother chip may require us to say, short of its being an intentional slight. We would not willingly injure the wasp which is now buzzing so pertinaciously about our ears, in spite of the annoyance it creates in this melting weather.

We thank our brother for his information respecting the Medical Literature of Lower Canada. We regret to find that of three Journals, one should have fallen a victim to such dire misfortune as "inanition." Of the other two, no statement is given as to the cause of their death, but simply a record of the fact. The survivor of these seems now to be labouring under incipient symptoms of premature decay—symptoms of a melancholy character—whose chief peculiarity is a spirit of frowardness, generally considered pathognomonic of cerebral disturbance or approaching dissolution. "We desire to be called by no other name than that which *properly* (having submitted to *LEGAL baptism*) belongs to us;

and if the U. C. Journal considers that it comports not with its interests to do so, we would feel obliged if it would not allude to us at all." This little passage puts us in mind of the nursery anecdote of the pet of the family, who rejoicing in the name of SARAH, was always exceedingly indignant at being called "SALLY" by her brothers and sisters. Admitting that we had intentionally (which we entirely disclaim) designated our contemporary the "Lower Canadian Journal," we maintain that we should by such a course have identified him with the great body of his professional brethren in that section of the Province, for whose interests he has certainly manfully and successfully contended; and we must express our surprise at finding so experienced a journalist exhibiting such puerile feeling at a circumstance, which on reflection he must see is not calculated to injure either the character or usefulness of his publication.

More we might say in reference to matters connected with the interests of both Journals, which we have always considered as intimately connected; but in obedience to the request contained in the latter part of the above quotation, we shall refrain.

We copy from the "Woodstock British American" the following full report of an inquest recently held in that neighbourhood, because the circumstances connected with the case under investigation possess peculiar interest for our professional readers, and are creating much sensation throughout the community.

An inquest was held at Stephenson's hotel, in East Oxford, on Tuesday last, before Dr. Patterson, Coroner, on view of the body of Asa Davis, a person who had been employed as foreman in the Eastwood Steam Saw-Mill, and who came to his death in consequence of a puncture, received from a nail, in the sole of his foot. Mr. Davis did not die immediately after having trod upon the fatal nail; and owing to this circumstance, an inquest would have been rendered altogether unnecessary, had not reports been freely circulated to the effect that the deceased received improper treatment from Dr. Turquand, who, as will be seen from the subjoined testimony, was only called upon to visit the deceased when all hope of saving his life had vanished. Dr. Turquand stated that, in order to vindicate his professional character from the foul aspersions which had been cast upon it, he was compelled to call for an investigation of the matter, but that he disclaimed any intention of injuring Mr. Scott, or of prosecuting the matter further than was absolutely necessary for self-defence.

The deceased was attended, from the time that he met with the accident, up to Dr. Turquand's first visit, by Mr. Scott of Burford, who, although not a licensed practitioner, appears to have enjoyed the confidence of the people in his neighbourhood for many years, and whose errors of judgment, or mal-practice, seem to have been invariably smoothed over with the soothing apology that "he had done as well as he could."

Mrs. A. Lusted sworn: Saw deceased on Saturday last, being the first time since the accident; heard that he had not previously enjoyed good health; his



mother told her so; heard that he had been spitting blood, and that he was rather delicate for four years; never heard deceased say so himself.

Nathan Davis sworn: Is brother to the deceased, who was thirty-three years old, or thereabouts, when he died; heard that he had been occasionally spitting blood before the accident; had no cough, and performed his work at the mill for the last year without complaining of illness.

Mr. Scott sworn: Is not a medical licentiate; does not know when the accident occurred to the deceased; he had been in a delicate state of health this summer; does not know anything of the time he began to attend him, but could find out by his books; treated him according to the best of his knowledge and belief. (Here the witness declined to answer any further questions, and said that the Coroner might commit him to gaol if he pleased. By a little coaxing, however, he resumed) Repeated his former answers; complained of the ill-will of the regular physicians towards him, and the language they had used respecting his practice; could not describe the state in which he first found the deceased; his memory did not serve him; thinks deceased was labouring under nervous excitement; would not swear that it was so; thinks he appeared to be rather low; felt his pulse; does not know the number of beats in a minute; it was quick and low; did not appear to be compressed, and was not wiry; skin cool and moist; face not flushed. Deceased had not constant pain in the wounded foot; there was very little swelling; he was a little thirsty, and rather sick at the stomach; thinks he administered a portion of calomel and rhubarb, and afterwards a saline mixture; applied a cooling lotion to the foot; does not know positively, but thinks it was poulticed the next day. Second visit—thinks the patient was better; pain still continued; applied a poultice, as the lotion did not seem to have answered the purpose; cannot recollect his treatment of deceased during that day. When the fever rose he bled him; after some days bled him again, but not so freely as at first, because he saw, when the vein was opened, that it was going to be injurious; deceased was in bed when he was bled; does not know whether he was lying on his back or side at the time; thinks he was propped up with pillows; is not sure; sometimes applied poultices mixed with opium, poppy heads, &c. &c.; sometimes put the foot into warm water; last time he saw deceased, the foot seemed much worse, but there was no erysipelas in it; pulse was very strong; pain was not worse; sometimes for twelve hours it was easy; generally during the day, and was worse during the night; gave deceased antimonial preparations from the first, to cool his skin and reduce the fever. Gave him a little hyoseyamus; cannot tell how often; sometimes gave him a little Dover's powder in Calomel; a few grains; cannot state the number of times. The leg swelled some after a few days, but not much above the ankle; there was no appearance of gangrene; the foot was as white as a chicken, only there was a small red spot on the leg.—Did not incise the wound; the nail did not go through the foot. Witness had no objection to have other medical gentlemen called; was willing to give the patient up at any time. The only application he used to the foot was the cold lotions and the poultices. Deceased appeared to be better after being first bled; does not recollect what position he was in when bled a second time.

Mr. Schofield: This witness was a jurymen, and there seemed to be a determination on the part of his colleagues not to allow him to give evidence. Mr. Scott also repeatedly said, "I protest against such a proceeding," and the reason he assigned was, that Mr. Schofield had been too much in the house of

deceased. The Coroner, however, overruled all objections, discharged Mr. Schofield from the jury, there being a sufficient number of jurors without him, and afterwards received his testimony.

Dr. Turquand sworn: Is a licentiate to practice physic, surgery, and midwifery; was called upon to visit Asa Davis in a professional capacity on the 7th instant; was told by the inmates of deceased's house that he had been suffering from the wound in his foot for eight or nine days; heard also that Mr. Scott had been in attendance from the time the accident had occurred up to that period, but that he would not meet witness there. Deceased told witness that he was seized with very severe pain a few minutes after the accident, and that it had been incessant from that time until witness saw him; was informed that deceased had been bled twice, and had two severe doses of aperient medicine, said to be calomel and jalap; he had also been kept on very low diet; that he had had a mixture which witness supposed, from the symptoms present, had been antimony. Deceased was purged incessantly, perspired freely and had constant sickness at the stomach; he then had a small quick, thready pulse, and his features expressed much suffering; in fact he was groaning all the time of witness' visit. On examining the foot of deceased, witness found it much swollen and distended with serum; the wound made by the nail, in the bottom of the foot was closed, or very nearly so; the adjacent parts were more protuberant than the rest of the sole. Deceased told witness that he had cold chills on the previous night; witness thought it very probable that matter had formed under the dense fascia of the foot, and opened it freely in consequence to the bone. Nothing followed the incision but dark grumous blood, of the consistence of anchovy sauce; made three incisions over the dorsum of the foot, with a view of allowing the infiltrated serum to escape; placed the foot in hot water, and ordered it to be fomented frequently; to be kept elevated above the hips, and warm poultices to be applied. Administered fifty drops of laudanum, to be followed by ten drops more every two hours, until sleep should be produced: requested attendants to give wine freely to deceased, also beef tea, and occasionally brandy in lieu of the wine, for the purpose of supporting the patient. Called next day and found deceased in a very low state; the foot was much less swollen; had had a little sleep, the first since the accident; examined the foot again; ordered and sent calomel and opium pills in the morning, which arrested the violent purging, which until then had been going on. Witness then diluted the wound with a piece of linen, which he ordered to be removed if the patient complained of pain; same treatment continued. Next day found deceased sinking fast; cold clammy sweat, gangrene, or what is commonly termed mortification evidently commenced in the foot. Cut into the mortified parts, which deceased hardly felt; ordered brandy and quinine in addition to former treatment; effervescing poultice with tea grounds to the foot; left in hopes that nature would raise a line of demarcation between the dead and living parts; intended, as soon as this occurred, to amputate. The patient, however, gradually sunk, and on Sunday, found the mortification extending, and him in a dying state; went immediately for Dr. Watt, who saw him with me in the evening, and examined the wound; Mr. Davis died on the following morning.

Mr. Scott, recalled: Could not say how deceased passed his nights; thinks he slept a little, not much; gave him the Hyoscyamus to produce sleep; was there on the morning of the day that Dr. Turquand was called in; deceased was worse then; examined the wound that morning; it had discharged a little.

Thinks the pills he gave deceased were composed of hyoseyamus, is not sure; deceased was to take one every four hours. (In answer to a question from Dr. Turquand, respecting the usual quantity of hyoseyamus comprised in a dose, the witness stated that it was from two to five grains of the extract, and that it might be given in doses of from five to ten or fifteen grains); could not keep deceased's bowels open; gave him the mixture in the bottle; cannot tell what were its proportions. It was a camphor mixture, and Epsom salts in a quart of water. Thinks there was one ounce of tincture of hyoseyamus, does not know of what strength, and from two or three grains of camphor in the bottle; deceased was to take two or three spoonful every four hours; gave him also calomel pills. Did not object to Dr. Turquand, Dr. Watt, or any other regular medical practitioner being called in, but said the two former would not meet him there.

Freeman B. Schofield sworn:—Was in the house with deceased very often during his illness; in fact several times every day. Deceased appeared to be in great pain from the first; passed his nights restlessly; said he felt very miserable; slept on the third day after the accident, about twenty minutes; about the last of Mr. Scott's attendance, deceased was very much purged; Mr. Scott always appeared to think he would get well; witness was present when Dr. Turquand first visited deceased; he appeared sorry that Mr. Scott had left; he only wanted another medical man to advise with Mr. Scott; witness had heard that Mr. Scott would not meet with Drs. Turquand or Watt; was present when deceased was bled; thinks he was bolstered up on both occasions.

T. J. Cottle sworn:—Heard the evidence of Mr. Scott and Dr. Turquand; is a member of the College of Surgeons; saw Davis on Saturday last; found him very much prostrated; pulse thready; hardly perceptible; tongue thickly coated; thought him sinking. Examined the foot; thought there were slight symptoms of gangrene. (Witness then described the treatment necessary for punctured wounds, which was directly opposed to that pursued by Mr. Scott in the case of the deceased); said to Mr. Fauquier that deceased was in a very dangerous state; would not have bled deceased; the wound in the foot should have been dilated. With the amount of irritation which has been described, he would have thought it necessary to dilate the wound to the bottom; is of opinion that there was bad practice at first; that the sins of omission on the part of Dr. Scott were greater than those of commission. The wound ought to have been laid open; the patient ought decidedly to have had anodynes regularly; would have preferred opium to Hyoseyamus; the incisions made in the foot by Dr. Turquand were absolutely necessary. Thinks that deceased came to his death by constitutional irritability caused by the wound.

Mr. T. H. Watt, sworn—Is a member of the Royal College of Surgeons, London; has heard the whole evidence; there must have been great inflammation to warrant general bleeding; the bleeding should have been local, i. e., in the region of the wound; as it was, the bleeding was bad practice; it might have produced more irritation; if the wound was irritable, general bleeding was highly injurious; the wound should have been dilated as soon as the nervous irritation appeared; had probed the wound and found it open to the bone; the antimonial and cold lotion administered and applied by Mr. Scott, were wrong when the skin and pulse were in such a state as he has described them; if Mr. Scott has stated his treatment correctly, it was decidedly wrong; the cold lotion evidently produced the irritation; the wound should have been soothed as much as possible; Dr. Turquand did everything he could under the circumstances.

Mr. P. G. McKenzie, sworn : Has heard the statements of the other medical men present ; Dr. Turquand's treatment was most proper for a punctured wound ; witness is a licentiate ; does not consider Mr. Scott's treatment proper ; would certainly have dilated the wound on the second day, or as soon as symptoms of irritable fever appeared.

The testimony was then closed, and Dr. Turquand read an extract from Gibson's Surgery, on the treatment of punctured wounds, which perfectly agreed with that described by the medical men present. We should observe that the work in question is an indisputable authority in all such cases. The coroner then summed up the evidence, and the jury retired for a short time, when they brought in the following verdict, "We do agree that the deceased, Asa Davis, came to his death for want of proper medical aid."

(Signed)

JOHN PHELAN, *Foreman.*

And so, because Mr. Scott has "enjoyed the confidence of the people in his neighbourhood for many years," probably from the want of good professional advice, and because "he had done as well as he could," a human life is to be sacrificed at the shrine of ignorance and cupidity. Alas poor Asa Davis! to thee the pain and suffering, ease and comfort, thou didst endure while on earth are now alike. The cold hand of death hath swept over thy wounded foot and tortured frame ; but if from the shadow of that mysterious and impenetrable veil which separates the living from the dead, thou hast been permitted to witness the effort made to unfold the secret of the severance of thy spirit and body—thou wilt also surely recognize the remorseful pang of conscience with which he who "did as well as he could" must have heard the verdict of his countrymen, that he had suffered a fellow-creature to depart from life through ignorance and omission.

We congratulate Dr. Patterson upon the able and impartial manner in which he conducted the inquest. We congratulate Dr. Turquand upon the satisfactory manner in which he has been able to clear his professional reputation from unjust aspersions and envious slander. We congratulate the jury on their intelligent and manly verdict,—and Mr. Scott may congratulate himself upon the forbearance and clemency of those, who might if they pleased, and whose strict duty it undoubtedly would be, to prosecute this matter by further judicial investigation.

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PUBLICATIONS RECEIVED.

*The history of the Epidemic Cholera as it appeared at Chatham, Rochester, and Stroud, in 1849,* by THOMAS STRATTON, M.D., *Edin., Surgeon, R. N.*

*The Northern Lucet, Plattsburgh, for August and Sept., 1851.*

*The Dublin Medical Press, three numbers.*



# SELECTED MATTER.

## MEDICINE.

### ABSTRACT OF A PAPER ON THE VARIATIONS OF THE SULPHATES AND PHOSPHATES EXCRETED IN ACUTE CHOREA, DELIRIUM TREMENS, AND INFLAMMATION OF THE BRAIN.

*By H. Beuce Jones, M.D.*

Having determined the variations of the sulphates in the states of health when different diets, amount of exercise, and medicines were taken, the variations of the sulphates in disease were examined. At the same time the total amount of alkaline and earthly phosphates was determined, partly in order to see whether the amount of sulphates and of phosphates bore any relation to one another; and partly to test the conclusions which were drawn in the author's previous paper on the Variations of the Phosphates in Diseases. The cases were thus classified:—

1st. Acute and chronic diseases, in which the muscular structures were chiefly affected, as chorea.

2nd. Functional diseases of the brain, as delirium tremens.

3rd. Acute inflammatory diseases of the nervous structures, as inflammatory of the brain.

4th. Chronic diseases of the nervous structures.

5th. Acute diseases, in which neither the nervous nor the muscular structures were chiefly affected.

6th. Chronic diseases, in which neither the muscular nor the nervous structures were chiefly affected.

The three last classes gave only negative results.

In illustration of the first class, three cases of most intense chorea are detailed; the urine was examined frequently from the third to the eleventh day. The phosphates were found to be diminished. The sulphates were present in very great excess. The urine was found to be so loaded with urea, that nitrate of urea crystallized out before the urine was concentrated. The specific gravity of the urine was as high as 1036 in one case, 1035 in another, and in the third, 1031.

In illustration of the second class, three cases of delirium tremens are given. The urine was examined from the fifth to the fourteenth day of disease. The phosphates were not found to be so remarkably diminished as in the cases reported in the previous paper. The sulphates were found to be exceedingly increased. The amount of urea was so great, that nitric acid caused an instantaneous crystallization. The specific gravity also was in one case, 1041; in another, 1037; and in the third, 1027. In other words, there was the most remarkable correspondence between the state of the urine in acute chorea and in delirium tremens.

In illustration of the third class, four cases of acute inflammation of the brain are given. The urine was examined from the fourth to the twenty-sixth

day. Though the inflammation in these cases was not so intense as in those which were recorded in the author's previous paper referred to, yet they confirm the statement that in inflammation of the brain the phosphates in the urine are increased; they also lead to the conclusion that the sulphates are at the same time increased in the same degree.

In conclusion, the author states, the phenomenon common to acute chorea and to intense delirium tremens is increased and unceasing muscular action.—The muscles are highly complex organic compounds, in which sulphur exists in an oxidized state, and the muscular action is accompanied, if not caused, by an action of oxygen, which, among other results, gives rise to the formation of sulphuric acid and urea, the amount of oxidation being proportioned to the intensity of the muscular action. The result produced is an increase of the sulphates and of the urea in the urine, just as in health they would be increased if continued strong exercise were taken. The increased amount of urea does not constitute a disease resembling diabetes, but it is only an evidence of the changes which are taking place within. The increase of sulphates and phosphates in inflammation of the brain is also an evidence of increased oxidation of the nervous structures. These simultaneous variations depend on the fact that the amount of sulphur in the brain is nearly the same as the amount of phosphorus. Thus at one time we have evidence of increased oxidation of the elements of the nervous structures, and at another time increased oxidation of the elements of the muscular structures; and we may thus arrive at the conclusion, that at one time the function of the nerves and at another that of the muscles, is inordinately increased.

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#### YEAST IN THE TREATMENT OF MALIGNANT SCARLET FEVER.

[Mr. Bennett, of Gateshead, states that he has found the administration of fresh yeast of the most invaluable advantage when the symptoms are of a malignant character. He says:]

After ammonia, the mineral acids, chlorate of potash, &c., have failed, and the application of nitrate of silver besides, one or two table-spoonful of fresh yeast frequently given (according to the age and malignancy of the case) has, in my practice at least, been quickly efficacious as an antiseptic and stimulant.—*Medical Gazette*, January 10, 1851.

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#### ENCEPHALOID DISEASE.

By Dr. Charles Kidd.

It has been said encephaloid does not arise from disease of the blood; if not, it is difficult to say whence it arises. Sir Robert Carswell long since stated, that encephaloid was a molecular deposit from deranged nutrition, and our later experience has tended very fully to corroborate his views. Laennec thought it vascular; but this can scarcely be the case, as, under the microscope, we detect little else but some of the series of nucleated cells only, without the peculiar fibre of some other forms of malignant growths. The microscope has not yet succeeded in pointing out any diagnostic appearances of malignant and non-malignant growths; it has done much, however, in showing the origin of the cancer and these allied diseases.

The highly interesting fact, described by Ascherson, that a drop of oil cannot come in contact with albumen without being enclosed in a vesicular membrane—that rubbing oil and albumen together resolves them into granules idem;

tical with those found in animal fluids—that every kind of blastema deposits those elementary granules, these united, constituting nuclei, which merely require to take place in the animal body to have the characters of vitality attached to them; the practical fact, that the molecular element is the basis of all living tissues, a view not contrary but in advance of that of Schwann, who considered, I need hardly remark, the cell as the primary form of life; the very great probability that cancer or encyphaloid is not a new growth; everything, in fact, tends towards a solution of the difficult problem, what cancer really is. There is no doubt that the nuclei in cancer and cancer-like growths are produced precisely similar to those in the normal textures of the body. That there is a diminished or altered vitality of the blood plasma, is all that we can assert with any amount of certainty. The nuclei of cancer, like those of other cells, may be produced by the aggregation and melting together of molecules and granules, producing new nuclei and cells, which all microscopic observers have seen in their thousand forms, or the original nucleus may expand and we have an outer cell wall,—a new nucleus produced within it by the deposition or melting together of granules. Free nuclei, again, in a fibrous stroma, to the young microscopist, may be still quite different, namely, the result of disintegration—of breaking down not building up of tissues, nay, both processes may even be going on together. One of the chief sources in hospital research, perhaps of the multiplicity of cancer growths and cancer cells, is this arrest of development from constitutional causes and treatment; there are no granules distinctive of cancer nucleoli and nothing distinctive infallible of cancer cells; nothing but constant histological researches and study of the history of each case, to mark out cancer cells from epithelium or pus cells. Treatment may arrest the disease, and a change in the constitution of the blood from different hygienic conditions, or from cutting out a cancer growth and thus preventing the seeds of the disease spreading, may alter the microscopic appearances; but the microscope alone will tell very little.—*Medical Times, December 7, 1850.*

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#### CANCER CELLS IN THE URINE.

*By Mr. Bulman.*

[At a meeting of the Liverpool Medical and Pathological Society.]

The urine of a patient suffering from cancer of the uterus was exhibited under the microscope, and was proposed by the author as a means of diagnosing the presence of cancer without the necessity for making an examination per vaginam. The urine washing off the cancerous discharge from the vulva, the nucleated cancer-cells were shown to the society in proof of the value of the test.—*Medical Gazette, January, 24, 1851.*

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#### SURGERY.

##### CICATRIZATION OF AN ULCER PROMOTED BY THE ELECTRIC MOXA.

*Under the care of Mr. Bransby Cooper.*

[The attention of Mr. Cooper was formerly directed to this process for the promotion of the cicatrization of obstinate ulcers, by Dr. Hull, of the United States of America. Instead, however, of employing the galvanic battery which



is cumbersome, he used one introduced by Dr. Golding Bird, merely using two plates, one of silver and the other of zinc, connected by a copper wire. The case in which the apparatus was used, was an ulcer originally produced from a gun-shot wound situated on the inner side of the right foot and below the ankle. The charge of shot passed obliquely through the soft part of the right instep, and injured the navicular bone. During the treatment several small pieces of bone came away, as often as two or three times a week. The wound never however, completely healed, and previous to the application of the electric moxa, it was the size of the hand.]

Carrot poultices were first used, and leeches were from time to time applied round the sore. Warm water dressing was subsequently employed, and the patient took sarsaparilla, but this treatment, continued for about six weeks, proved unavailing as regarded the cicatrization of the ulcer.

At this period Mr. Cooper ordered the electric moxa to be applied; this was done in the following manner:—a small oval piece of blistering plaster, about the size of a crown piece, was placed six inches above the sore. On the following day, a blister having formed, the cuticle was removed, and a plate of zinc, previously cut so as accurately to fit the vesicated surface, was applied on the same. A silver plate was then placed on the original sore, and the two metallic agents connected with a copper wire. This simple apparatus was secured on the limb by means of a few narrow strips of adhesive plaster, the whole being covered with wet lint, and a loose bandage, which latter was kept constantly moist.

On the next day the silver plate was raised for the purpose of examining the sore, and a most decided improvement was observed, the granulations looking more healthy and active. On the second day, however, (the moxa having remained in contact with the limb for forty-eight hours,) there was pain and considerable redness over the whole leg, with enlargement of the inguinal glands. The moxa was therefore removed, the stimulating effects having evidently caused inflammation of the absorbents; yet the original sore had a more healthy appearance, and was evidently decreasing in size. On the fifth day the inflammatory symptoms had considerably subsided and the sore was improving fast. On the ninth all pain and redness in the leg had disappeared, and a slough separated from the blistered surface to which the zinc plate had been applied. The original ulcer was found much decreased in size, being now no larger than a crown piece; the granulations assumed a healthy appearance; they rose to the level of the margins, and were covered and protected towards the centre of the sore by a whitish layer of healthy pus. The borders were becoming flattened and regular, and the gradual extension of the cuticle could be distinguished within them.

The cicatrizing process went on uninterruptedly for several weeks, until the 7th of January, 1851, about four months after admission, when the ulcer was quite healed up, and the patient left the hospital in good health. He was, however, recommended not to bear the whole weight of the body upon the leg for some time to come, and allow the soft parts about the ankle to gain tone before he used them freely.

In reviewing the various facts connected with this case, one is involuntarily led to ask whether the galvanic excitement acted directly on the sore or indirectly through the vascular disturbance which was brought on by the continuous presence of the moxa for forty-eight hours. That erysipelas has repeatedly been

conductive to the disappearance of congestion in internal organs or external parts is well known; nor are there examples wanting of artificial ulcers aiding in the cicatrization of long-standing sores, so that the influence of the electric moxa seems at first sight more likely to have been exerted indirectly than directly. Still it must be conceded that this indirect effect may be of a peculiar nature; further trials will probably settle the point.

Whilst on the subject of therapeutic uses of galvanism, we should not omit to mention the galvanic poultice lately proposed by *M. Récamier*, of Paris. It has been successfully used for neuralgic and rheumatic pains, &c., and consists of a piece of cotton-wool, containing a layer of minute fragments of zinc, and another of particles of copper; the wool being properly sewn up, is placed in a bag, one surface of which is of cotton, the other of an air-tight tissue. The permeable surface of the bag is then applied to the skin, and fixed by a roller or a towel; heat is soon developed; the perspiration, retained by the air-tight texture, accumulates; it moistens the bag, and this moisture, which is acid, acts on the zinc and copper placed in the cotton-wool.

Thus the two metals are acted upon by a dilute acid solution, just as they are in the trough or the pile, and a certain amount of electricity is disengaged. When the skin is very dry and unperspirable, a piece of flannel, dipped in a solution of common salt, and then wrung out, is placed between the galvanic bag and the skin. Electricity is given off to such an extent, that it acts like a mustard poultice, though there is no pain, but merely a pricking feeling of warmth. Time will show whether *M. Récamier's* galvanic poultice acts otherwise than common counter-irritants.—*Lancet*, Jan. 25, 1851.

## PRACTICAL RULES ON THE SUPPRESSION OF ARTERIAL HEMORRHAGE.

*By Professor Syme.*

In the first place, you should hold it established, that it is always desirable if possible, to arrest bleeding from arteries by means applied at the seat of injury. Secondly, you may be assured that bleeding at and below the wrist, and at and below the ankle, is always under the control of pressure, provided it be properly employed,—that is, not superficially, but from lint, or some other suitable substance being introduced into the wound, and made to press directly upon the orifice of the vessel. Thirdly, in wounds of all arteries, accessible between the limits just mentioned and the heart, the vessel should be exposed at the seat of injury, and tied on both sides of the wound it has sustained. The principal has been so loudly maintained by *Mr. Guthrie*, that I believe some people have given him the credit of its origin; but it has been long established as a sound principle of practice by surgeons of the highest eminence both at home and abroad, and more especially by *Mr. John Bell*, of Edinburgh, in whose '*Principles of Surgery*' you will find many graphic and impressive lessons of the effects resulting from attention to it, and also from its regard.

One evening I received a message from the Northern Railway, that there was a steamboat waiting at Granton to carry me across the Firth to Burntisland, where a special train would be ready to proceed onwards, but whither, or for what purpose, there was no information. Having travelled a considerable distance, I met several practitioners, of great experience and intelligence, who were

suffering much anxiety in regard to a youth, in whose forearm an incision for an abscess had bled profusely. As it was quite away from the radical artery, the ulnar was concluded to be the source of hemorrhage, and had been sought for by dissection upwards towards the elbow, along the course of the muscles, between which it is wont to run, but without success; and, as the patient seemed little able to bear any further loss of blood, it was deemed desirable to have a consultation as to the most efficient measure of relief, even though it might involve ligature of the humeral artery, or removal of the limb. Acting upon the principle above-mentioned, I scratched away the clot at the bleeding point, from which a copious stream instantly issued, but arresting this with my thumb, pressure being at the same time made upon the humeral, I dissected a little through the adjacent texture, and brought into view a large artery, under which a double ligature was passed, and tied on both sides of an aperture distinctly visible in its coats. In less time than I have taken to describe the process, the patient was thus transferred from a state of extreme danger to one of perfect safety.—The artery was obviously the ulnar, which had come off higher than usual from the humeral, and pursued an irregular course externally to the fascia of the forearm, thus explaining how it had been wounded by the superficial incision, and how it had escaped the deep dissection.

The fourth rule I have to offer is, that when an aneurism forms after the wound of an artery, the same means should be employed as in the first instance, unless the vessel concerned be of a large size, and admits of having a ligature applied to it, without the intervention of any large branch between the seat of obstruction and the wound. The formerly not uncommon case of aneurism at the bend of the arm, as a consequence of the humeral artery being wounded in venesection, affords a good illustration of the advantage resulting from attention to this rule, since relief was thus afforded much more easily, safely, and securely, than by ligature of the humeral further up the arm.

To illustrate the exception mentioned, I may relate the case of a young man who, in one of the most remote of the Orkney Islands, accidentally thrust the blade of a knife into the middle of his thigh, so as to wound the femoral artery. The blood gushed forth with great violence, but was restrained by a compress, formed of eight half-crowns, wrapped in a piece of cloth. The wound healed, and an aneurism soon afterwards appearing, he was sent here to my care. Respect for the general principle, and suspicion from the purring sound, that there was a communication between the artery and vein, suggested considerations which were opposed to ligature of the femoral, but I nevertheless preferred this operation, as the ligature could be applied without the intervention of any considerable branch; and I accordingly performed it, with the happiest result.

The following case will show the danger of not strictly limiting exceptions to the rule within the limits which have been mentioned. A middle aged woman, in a country town, while walking up a steep and slippery ascent, and carrying a knife, with which she had just killed a pig, fell, and thrust the sharp point of the blade completely through her leg, a little below the knee, entering between the tibia and fibula, and issuing at the lower part of the popliteal space. Blood gushed from both openings, but when she was laid in bed ceased, and did not return. At the end of a fortnight, the wounds having healed, she attempted to walk and found that a swelling had taken place at the seat of injury, on account of which, by the advice of her medical attendant, she came here to be under my care. On examination, I found a large pulsating tumour in the forepart of the leg, immediately below the knee, and another of equal size, in the popliteal cavity.

Feeling unable to determine whether the anterior or posterior tibial, or the popliteal artery itself, was the vessel wounded, and, on the whole, being inclined to think that the one last mentioned was most probably concerned, in which case ligature of the femoral would be the proper course, I adopted this measure. No bad consequences followed the operation, the tumours ceased to pulsate, and favourable expectations were entertained of the result for two or three weeks, when the anterior wound below the knee opened and bled profusely. I dilated it freely, evacuated the cavity of its fluid and coagulated contents, and applied firm pressure between the tibia and fibula, whence the blood was found to issue.—Mortification followed, and I performed amputation, without saving the patient's life. There can be no doubt that, in this case, if the true state of matters could have been ascertained, and a ligature applied to the anterior tibial, which was divided just before it passed through the interosseous ligament, both the limb and life of the patient would have been preserved.—*Monthly Journal of Medical Science, April, 1851.*

#### ON THE TREATMENT OF REMITTENT MENSTRUATION BY SULPHATE OF QUINA.

By Dr. Edward John Tilt.

[Dr. Tilt says he uses the term remittent here in the same sense as in the pathology of fever. This variety of menstrual derangement being characterized by a change from the habitual type to some other, so that the menstrual periods are brought nearer, and tend to run into each other. The first case occurred in a tall slender woman, aged twenty-nine. In this case menstruation commenced between fourteen and fifteen, and continued regular until six months since, when she left her native country, Lincolnshire, for town. For two months, although she menstruated as usual, she was troubled with leucorrhœa between each menstruation. The menstrual periods then came on every fortnight and lasted eight instead of five days. Although she had tried several practitioners, the disorder remained the same, and, continues Dr. Tilt.]

On the 25th of October she applied to me at the Paddington Free Dispensary. The patient was weak and exhausted, but not chlorotic; she had just passed a menstrual period; there was an absence of pain and of other symptoms of uterine disease; therefore, notwithstanding a discharge of which she complained, I omitted all local treatment, and ordered the following pills and mixture:—sulphate of iron, two scruples; sulphate of quina, ten grains; extract of hyoseyamus, a scruple: mix for twenty pills, one to be taken night and morning. Camphor mixture, six ounces; liquor potassæ, four drachms; tincture of hyoseyamus, six drachms; tincture of cardamoms, two drachms. Half an ounce to be taken thrice daily. An opium plaster to be applied to the pit of the stomach.

The patient's general health improved, menstruation returned to its wonted type, and from that time she only took one pill every night, until the approach of the ensuing epoch, which passed on as it ought to do; and the patient was discharged on the 26th of December.

Miss M. A. L——, aged 16, with dark hair, grey eyes, slender, and of middling height; has lived in town all her life. She first menstruated between fourteen and fifteen; and regularly, for four months after its first appearance, did menstruation adopt the monthly type. Since seven or eight years of age she had been subject to leucorrhœa, which for the last three months has preceded and followed the menstrual flow; the latter has made its appearance every fort-

night. Still there was no intermediate leucorrhœa; there were no pains in the back, none in front, and none were determined by pressure on the abdomen; but the thighs were so painful that she could scarcely walk, and her legs were at times much swollen. For this symptom my opinion was requested by her mother. The girl had very much fallen off, was much debilitated by loss of blood, and the undue influence of the generative organs on her system had caused catamenial headache, heaviness for sleep, momentary loss of her senses, and often fits of lowness and shedding of tears.

I thought I could promise a speedy return to health, and I ordered the following pills:—Sulphate of quina, ten grains; extract of gentain, a scruple; extract of aloes, ten grains; extract of lyoscyamus, a scruple. Mix for ten pills, one to be taken night and morning. I prescribed the compound camphorated mixture, and belladonna plasters to each of the ovarian regions.

The symptoms rapidly abated, and menstruation was forthwith brought back to its original type.

The preceding cases are, in my opinion, samples of an idiopathic aberration from the normal type of menstruation, and perfectly independent of any *inflammatory* lesion of the ovaries or uterus. They are illustrations of similar cases which have come under my care—cases in which various preparations of steel had been fruitlessly tried, and which soon yielded to the use of sulphate of quina alone, or in combination with other remedies; and I therefore strongly recommend this practice to the profession, premising that the treatment will not be so rapidly effectual, and may even be attended by mischief, if the remittance of the menstrual flow depends, as it sometimes does, on ovarian or uterine subacute inflammation, as in the following case:—

Eliza H., aged twenty-one, of florid complexion, full habit, and of middling stature, applied to me at the Paddington Free Dispensary for relief. For the last two years she had been living in London, menstruation first appeared between thirteen and fourteen, became regular from the first, was very abundant, and lasted five days at each period.

A few months ago, the patient was attacked by a severe cold with fever, which stopped menstruation for two months. When the latter returned it was scanty, and accompanied by more than usual pain in the back, the stomach, and head; and, attended by these symptoms, it made its appearance every three weeks instead of every month, giving rise also to sensations of weakness, trembling, and lowness of spirits, with which she had previously been wholly unacquainted.

The patient localized her pains in the ovarian regions; pressure increased them, so did walking or any unusual exertion; she was slightly feverish; the tongue was furred, and the bowels were costive.

I considered this case was one wherein the remittance of menstruation was dependent on subacute inflammation of the ovaries, and I ordered six leeches over each ovarian region; poultices to be kept to the same regions at night; and a flannel sprinkled with camphorated liniment to be applied over the abdomen during the day. Aloetic purgatives and a sedative mixture were also prescribed—the pain subsided; the patient felt well; but menstruation returned at the morbid period of three weeks and was still painful, and left behind it a certain amount of abdominal pain. After giving a brisk purgative, I applied belladonna plasters to the ovarian regions, and gave pills similar to those taken by Miss A. L. The patient now says she feels well, and as menstruation has resumed its physiological type, I believe her to be cured.—*Lancet*, Feb. 8, 1851.

## A CASE OF OBSTRUCTION OF THE COLON RELIEVED BY AN OPERATION PERFORMED AT THE GROIN.

By James Luke, Senior Surgeon to the London and St. Luke's Hospitals, &c.

The subject of this report was a man aged sixty, who on Dec. 16, 1850, first complained to the author of feeling generally unwell. He had no pain, but his countenance was depressed, his eyes sallow, and his tongue coated. The bowels were confined, and lately medicines had acted with difficulty on them.—An aperient was ordered, and on the following day he passed a small lumpy motion, but without relief to the symptoms; castor-oil was ordered, but after a time was rejected by vomiting. On the 18th there was no relief from the bowels and he vomited everything he took. From this time he progressively got worse in spite of all the means resorted to for his relief. He complained of pain chiefly about the region of the cæcum. The transverse arch of the colon could be felt distended and tympanic. A careful observation of the case had led the author to believe that there was obstruction in the bowel about the sigmoid flexure of the colon, and it was resolved as a last resource to operate upon the patient. The operation was performed on the 23rd. Not thinking it prudent to assume that the conclusion respecting the seat of the obstruction was certainly correct, the author determined to adopt that operation which would give him some opportunity of extending his search, provided he did not find the obstruction at the point where it was supposed to be. He therefore opened the abdominal parietes near the groin, by an incision four inches in length, a little to the outside of the course of the epigastric artery, the lower extremity of which incision terminated a little above Poupart's ligament. The peritonæum was opened to the extent of about two inches. On passing the finger down the surface of the intestine, which now protruded, a diseased mass could be felt, which appeared to encircle the intestine. The bowel was then opened above this part; a large quantity of feculent matter came away and the patient expressed himself as relieved. On now passing the finger into the bowel it was found to be imperious about two inches below the aperture. After the operation the recovery of the patient was rapid. On the 2nd day, fæces passed per anum, and continued to do so for more than a month, when their passage through the natural opening ceased; it was again partially restored, but from this time the greater part of the fæces passed by the wound. This is closed by a well-fitted pad, and he has been enabled since to pursue his ordinary occupation almost without interruption. The author then proceeds to remark on the danger of protracted delay in attempting to relieve such cases, a delay which is, however, to a great extent rendered necessary by the difficulties of diagnosis. The distension of the colon, and the evidence afforded by the proper introduction of the long tube, are pointed out as the two means of diagnosis on which reliance may be generally placed for the purpose of determining the seat of obstruction, when it is situated at the lower part of the colon. The advantages of the operations of Amussat and Littre are then compared, and the author, while admitting the advantage gained by operating in the loins, as proposed by the former—of not opening the peritonæal cavity—yet thinks that the operation in the groin offers certain advantages which render it in many cases preferable. By the operation in the loins nothing more could be done than opening the intestine; but this might in some cases be improper—as where obstructions were produced by fibrous bands overlaying the intestine, or by strangulations, the result of causes acting exteriorly to its tunics. In these cases, the proper treatment is to divide the bands, or relieve the cause

of strangulation. In the event, too, of an error of diagnosis, the opening in the loins does not provide any facilities for correcting the error. The danger of total failure of affording relief consequent upon this state of things, must therefore be attributable as a demerit to the operation in the loins. There are, besides, the minor evils in operation, that the opening cannot be conveniently attended to by the patient himself, and that there exists frequently a great disposition to contraction, arising from the great depth of the wound, which requires renewed surgical interference. In all these particulars, with the exception of the necessary attendant of peritoneal section, the operation of opening the abdominal parietes at the groin, in all cases of obstruction, or suspected obstruction, in the lower part of the colon, appears to the author to be the operation which should be preferred. It affords facilities for modifying the treatment, either by opening the intestine, when incapable of relief by other means, or by dividing or removing any existing cause of strangulation. It enables the surgeon to extend his search within a limited range, in the event of the diagnosis proving incorrect; it allows him to open the bowel as close as possible to the seat of obstruction; and it secures to the patient the facilities for attending to his own comfort which appear almost a necessary condition to make life endurable under such circumstances.

#### TREATMENT OF TETANUS.

*By Professor Miller.*

[Speaking of the value of *Cannabis Indica* in this disease, Professor Miller says,]

I can now record three fortunate cases under its use; all traumatic. A girl, eleven years of age, sustained comminuted fracture of the finger. Tetanus occurred, the finger was amputated; and the treatment consisted of purgatives, cold to the spine, Indian hemp—pushed to narcotism—nourishment and seclusion. The amendment was gradual and complete. A boy, about the same age, had simple fracture of the thigh, with compound and comminuted fracture of the great toe. The treatment and result were the same. Another boy, rather older, had compound fracture of the bones of the arm. The treatment again resulted in cure. And in these cases I was and am inclined to award to the cannabis the greater part of the therapeutic agency. In other examples of the disease, I have seen it fail to cure, but never to relieve. It is given in doses of three grains of the extract, or thirty drops of the tincture; repeated every half hour, hour, or two hours; the object being to produce and maintain narcotism. There is a very marked tolerance of the remedy.—*Brit. and For. Medico-Chirurg. Review*, Jan. 1851.

#### PROTECTION OF GRANULATING SURFACES.

*By the same.*

[Professor Miller protects raw granulating surfaces “from the influence of the atmosphere, by imitating the incrustation of nature.” This he does by using “a thick semifluid aqueous solution of gum tragacanth.” This is]

Laid gently and uniformly on the raw surface, so as completely to protect it; and if at any portion the envelope threaten to become imperfect, the attendant is directed to effect an immediate repair. The application is productive of

no irritation; and, being translucent, permits a complete surveillance of the part. Atmospheric influence is completely excluded; and the raw surface would seem to be placed in circumstances somewhat analogous to its normal state, as if still invested by the integument. Should inflammation ensue, no harm has been done; on the contrary, action is likely to prove less intense than it otherwise would have been; the gum is loosened and washed away by the perulent secretion; and water-dressing may then be used, as in ordinary circumstances.—*British and Foreign Medico-Chirurg. Review, Jan, 1851.*

## MIDWIFERY.

### CASE OF DIFFICULT LABOUR IN CONSEQUENCE OF TWINS JOINED BY THE BREAST.

*By Dr. Charles Stuart, Chironside, Berwickshire.*

[This was a case in which Dr. Stuart found the head presenting in the first cranial position and every other feature of the labour apparently very favourable, though he found that the strength of the pains was remarkably decreased on the patient laying down, although the pains on her moving about in the erect position were very violent.]

The cranium advanced with extreme slowness, considering the strong nature of the pains; and it was only after the most severe training that the head began to press on the perinæum, and after a very tedious passage was born about seven o'clock, p.m. The pains previous to this were of the most frightful description, and they were now, if it were possible, increased. Some apparently insurmountable obstacle seeming at this stage to oppose the further exit of the infant, I tried by every means in my power to discover the cause of delay, but from the extreme tightness of the parts it was impossible to ascertain its nature. I dreaded, from the enormous straining, that the uterus would speedily rupture, unless delivery was immediately effected, so accordingly I applied at the first gentle traction; but, when I found that unavailing, I was forced to increase it to what previously I would have considered a most unwarrantable degree, and succeeded in delivering the shoulders, when for the first time I discovered something unusual. I continued, however, my traction as my only hope of getting the woman delivered; and after using the greatest force, I was in no small degree astonished when another head came down with the face considerably flattened. This second head lay twisted round upon the back of the first delivered infant. After further perseverance, I succeeded in extracting two males, still-born, and intimately joined from the sternum to the umbilicus, into which an umbilical cord, common to both, was inserted. The placenta speedily followed, and was not larger than is usually seen in cases of twins. The umbilical cord was rather thicker than usual. About an hour elapsed from the time the head was born till the delivery was completed. The pains during that period were of the most agonizing and alarming character, and made me regret exceedingly having no chloroform. After a careful examination of the external parts, I was very glad to find no perineal laceration, which I feared very much from the passage of such a mass. The twins were at the full time, and fifteen inches long. The band of connexion extended from the upper part of the sternum to the umbilicus, and was seven inches broad and three long; and the diameter of the twins, when laid



together, was six and a half inches. They were perfectly and fully formed in other respects, but the head that presented first was the larger of the two. I failed in obtaining permission to make any more particular examination.

When we consider the breadth of the connecting band between the two children in the above case, we see more clearly how the head of the second child could assume the position that it did, and to what an extent the connecting band must have been stretched to have allowed of its being placed at the back of the shoulders of the other child when delivered.

My patient is a woman of slender figure, but well formed and of a good constitution. During her pregnancy she enjoyed excellent health, which in some measure strengthened her for the extreme trial she had to undergo, and which she endured with the greatest fortitude.

She has made a most excellent recovery, and is now quite strong.

No doubt the long delay before the head was born, in a great degree saved her from the danger of perineal laceration, as there was ample time for complete dilatation, which was so essential for the safe passage of such a mass as had to follow.—*Monthly Journal of Medical Science, January 1851.*

#### ERGOT OF RYE.

*By Dr. Meigs, of Philadelphia.*

Dr. Meigs, of Philadelphia, in his valuable work on Midwifery, in speaking of ergot, says:—"A labour is effected by the contractions of the muscular fibres of the womb, aided by that of the abdominal muscles. If all the powers employed in a labour could be accumulated in a single pain, lasting as long as all the natural pains do, no woman probably could escape with life from so great an agony, except that small number who are met with, and whose organs, happily for them, make no resistance, but open spontaneously like a door, to let the fœtus pass out. By a beneficent law of the economy, the pains of labour are short, not lasting more than thirty or forty seconds in general, and returning once in three or six minutes. Under such pains or contractions, however powerful, the fœtus is safe; for as soon as the contraction is over it lies in the womb free from pressure, and the placenta, which during the contraction had been violently compressed betwixt the womb on which it lies and the child within the cavity,—that placenta, I say, recovers its circulation, and continues during the absence of the pain to perform all the bronchial offices which belong to it. But, he continues, "if an ergotic pain is produced to last thirty minutes, in a case where the placenta is on the fundus uteri, and to be jammed for thirty minutes against against the child's breech without an instant of relaxation, who can doubt that its circulation is either wholly or nearly abolished; and that when the child emerges at last from the mother's womb it will emerge quite dead or in a profound asphyxia from the long suppression of its placental circulation? Multitudes of children are born dead from this very cause, by the imprudent exhibition of a medicine which as certainly excites a spasm of the womb as nuxvomica does that of the other muscles of the body. For my own part, he adds, "I could say that I scarcely give ergot as an expulsive agent; I chiefly employ it at the moment or just before the birth of the child, in order to secure, if possible, a permanent and good contraction of the womb after labour in women who are known in their preceding labours to have been subject to alarming hemorrhage.—*Dub. Quarterly Journal of Med. Science, Feb., 1851.*

## MEDICAL JURISPRUDENCE.

ABSTRACT of Mr. A. Taylor's paper, in *Guy's Hospital Reports*. Vol. 7, part 1.—Continued from No. 5, page 227.

[The cases we considered in the last number of this Journal were all of poisoning by arsenic—the remaining cases are very varied, chiefly of poisoning also, and possessing considerable interest.]

Case 10.—Aphyxia produced by the application of the deutonitrate (or acid pernitrate) of mercury to the throat.

Was admitted into a provincial hospital with syphilitic sore throat. Her general appearance was that of a healthy person; she was not emaciated. This solution (made according to Beasley's formula,) was applied to her throat by means of lint wrapped round a stick—almost immediately symptoms of aphyxia came on. These appeared so urgent that tracheotomy was considered indispensable. The patient died under the operation, after respiring faintly two or three times through the opening in the trachea, three-quarters of an hour after the application of the deutonitrate.

Post Mortem appearances.—“The mouth was in a healthy state, but the posterior part of the fauces presented a yellowish white appearance, the surface being uneven and indurated, having a leathery feel; there was no slough nor excavated ulcer; there was no disease of the larynx, but the epiglottis was corrugated, and presented the same appearance as the back part of the throat; the upper part of the trachea appeared healthy, but there was increased vascularity in the lower part below the incision. The lungs were of a dark colour and much congested, &c.”

These parts were transmitted to Mr. Taylor, and his opinion was requested concerning them.

“Answers, 1. Death was caused by asphyxia, probably from a spasmodic closure of the glottis.

“2. The asphyxia was caused by the application of the acid pernitrate (deutonitrate) of mercury to the throat, whereby the parts situated at the upper part of the larynx became implicated, leading to the spasmodic closure of the rima glottidis. There is no evidence that it was caused by disease.

“REMARKS.—I have never heard of syphilitic sore throat leading to an attack of asphyxia from spasm of the glottis; while strong escharotics or corrosives, like the deutonitrate of mercury, applied to the fauces, may easily cause a fatal attack of this kind. In asphyxia, depending on long standing disease, there are always warning symptoms; in asphyxia from accident, death is always sudden, without any preliminary attacks indicative of threatened suffocation.

“The fact that symptoms of asphyxia immediately followed the application of so powerful an escharotic, applied in a loose manner to the throat, fully justifies the inference that the asphyxia was caused by the deutonitrate, and not by the disease. I should refer the corrugation of the epiglottis to the local action of this corrosive liquid.”

Beasley's solution is pronounced to be highly dangerous and unsafe to apply to the throat or fauces in a concentrated form. The formula for making this—the *Liquor hydrargyri deutonitratis*, is—Quick silver one ounce; nitric acid (132) two ounces—dissolve and evaporate to eighteen drachms: (all by weight.)

11.— This is a remarkable case of poisoning from taking a table spoonful of *red oxide of lead*; about two and a-half ounces. Mr. Taylor states it is the only case of the kind he has met with. In nine hours after taking it, the patient, a woman, woke with intense pain in the epigastric and umbilical regions, which resulted in vomiting with relief to the pain—and followed by one large dejection attended with acute and continued pain about the umbilicus. She was treated with sulphate of zinc, diluted sulphuric acid, and sulphate of magnesia. On the second day, a faint blue line formed round the margin of the gums. The urine, which was very copious, did not give the ordinary re-action usually evident in fluids containing lead. She was discharged well on the 9th day.

Although this large dose did not produce *more* serious consequences, red lead, taken in continued small quantities would doubtless cause all the alarming effects of chronic poisoning by lead.

13.—Nineteen grains of corrosive of sublimate were taken in warm tea.—Diluents were given freely with albumen *at an early period*—exactly how soon is not stated—but it must have been within fifteen or twenty minutes, at which time there *had been* free vomiting. In a few days the girl perfectly recovered without a bad symptom. “Recovery may be fairly ascribed to *early and judicious* treatment.”

14. Poisoning by the Common Mussel—*Mytilus Edulis*.

The boy ate the thick part of two mussels. In forty-five minutes he was seized with severe pain in the Scrobiculus Cordis, heat, giddiness and nausea. There were swelling and distortion of the face, suffusion of the conjunctiva, swelling of the upper eyelids and violent itching of the scalp. The body was covered with an eruption simulating scarlatina and urticaria. A powerful emetic was given, with copious draughts of warm water. When these had acted freely, an ounce of castor oil was given, and next day he was quite recovered. The interest of this case is derived from the small quantity of the mussels eaten, the violence and rapidity of the symptoms, and the good effects from the early exhibition of the emetic.

15.—Poisoning by Bi-chromate of Potass.

About two ounces of this salt were taken. In half an hour the symptoms were those of extreme prostration, dilated and fixed pupils, and almost total insensibility, cramps in the legs, and occasional vomiting, attended with intense epigastric pain. He was treated with sulphate of zinc, followed by olive oil and white of egg, with copious draughts of warm water: magnesia seems to have been administered also. The stomach pump was employed until the washings came up colourless. Reaction took place soon after, followed by very severe gastro-intestinal inflammation with severe cramps in various parts of the body and limbs. He was bled, and calomel and opium administered. On the fourth day alarming prostration set in, with severe and incessant purging, the abdomen swollen and tender, the evacuations consisting of mucus and blood. Bottles of hot water were applied to the hands, feet and thighs; hot brandy and water given, and an anodyne enema exhibited. This treatment was steadily pursued, and the patient recovered after a slow convalescence, ulceration of the bowels having supervened, which was with difficulty subdued by the use of nitrate of silver and repeated blisters to the abdomen. He was discharged from the hospital in about four months.

“The cases of poisoning by this substance are rare; no antidote is pointed out in toxicological works. The first object is to get rid of the poison; the se-

cond to decompose what cannot thus be got rid of. The first may be effected by emetics and the stomach pump: I should be inclined to rely most on the latter. The second will *perhaps* be best effected by the alkaline earths, although I should rather suspect the activity of chromate of lime."

Immediately before taking the poison, he had taken a large mess of pottage, with which the poison had become mixed; otherwise such a dose would probably have been speedily fatal, from the shock to the nervous system.

Mr. Taylor mentions two other cases of poisoning from bichromate of potass; one fatal in twelve, the other in *five* hours. In the first there had been neither vomiting nor purging; in the second, vomiting only.

"With respect to the treatment of the acute stage of poisoning, the removal of the salt from the alimentary canal by emetics, or the free use of the stomach-pump, is the principal object. A mixture of carbonate of magnesia, or of lime in linseed-tea, might be exhibited with benefit. Brown sugar, dissolved in water at 102°, tends to decompose the chromic acid, and to reduce it to the less irritating state of oxide of chromium. Chemical antidotes can, however, be of little benefit, unless administered within a few minutes after the poison has been swallowed."

16.—Poisoning of a child seven years old from eating *green* ornamental confectionary. The green colouring matter was *Scheele's green*, or arsenite of copper.

"The symptoms were similar to those which have been observed in numerous other cases of poisoning by confectionary among children. Notwithstanding the perfect insolubility of this poison in water, it is clear that this does not prevent its rapid absorption, when it has entered the stomach; and this fact should teach caution in drawing an inference respecting the *inertness* of a metallic salt, merely because water does not dissolve it. The symptoms of poisoning with arsenic appeared in a few minutes. The thirst, burning sensation in the throat and the redness of the conjunctivæ were special symptoms, indicative of the action of the poison."

"\* \* \* \* \* The sale of this powerful poison for use in confectionary should be immediately prohibited by law. There is scarcely a year passes without numerous accidents being reported to have occurred from this pernicious practice."

17.—A case of poisoning from eating some flowers, the petals of the *Laburnum* (*cytisis*) . . . . The symptoms came on in fifteen minutes, and vomiting supervened; an emetic was given which effectually cleared the stomach of the flowers. The symptoms gradually abated, and the child soon recovered. The stomach seems to have been the only part affected.

Another case of poisoning from laburnum flowers is referred to in which the nervous system was principally affected, the symptoms being those of great prostration, laborious breathing, twitchings of the muscles of the face with efforts to vomit. These were all relieved by the flowers being expelled by an emetic. Other similar cases are on record. "Cytisine, the supposed active principle of the laburnum, has been detected in the seeds—whether this exists in the flowers has not been ascertained." Every part of the tree seems highly poisonous.

[N.B.—The *cytisis* appears to be a genus almost unknown on the continent of North America. Pursh describes the *cytisis rhombifolius* as found in Louisiana, but it does not seem to be noticed by later botanists. The *Laburnum* will not stand the cold of our winters without great care.]

18.—This is a case of recovery after taking, as was supposed,  $\frac{5}{8}$  oz. of laudanum. The patient said he had taken it about eleven o'clock at night, and he was not seen till 10 a.m., next day. At that hour he stabbed himself in the side with a penknife, in the left side of the thorax; he appeared heavy, and said he had had no sleep after taking the laudanum, but except the drowsiness and a contracted pupil, had no symptom of narcotism. The stomach pump brought away fluid having the smell of laudanum. Coffee was administered, &c.; he recovered perfectly from the effects of the narcotic in the course of a few days.

"This case is chiefly remarkable from the large dose of tinct. of opium alleged to have been swallowed. The largest quantity, from the effect of which an individual has been known to recover was *four ounces*."

The fact, that in this case, *five ounces* were swallowed "rests upon the man's own statement \* \* \* The almost entire absence of narcotic symptoms, can only be explained by supposing, as in other cases of recovery from very large doses, that the man must have vomited freely after having taken the tincture.

"It is difficult to account for the slight symptoms and ultimate recovery except by supposing either that the whole of the poison was swallowed and the great part speedily ejected, or that only a small quantity had been taken, by the patient shortly before he was seen by Mr. Alkwork."

[I confess I entertain great doubts as to this case—it seems almost incredible that such a quantity of laudanum should remain in the stomach for *eleven* hours without producing some decided symptoms of narcotism; and nothing is said of vomiting having occurred in that interval. At the same time a case which occurred to me many years ago might lead to the idea that this was not absolutely impossible.

I was called about seven or eight o'clock, a.m., to a negro lad, who had taken about ten drachms of laudanum, at ten or eleven o'clock the night before. He was then somnolent but could be roused, and acknowledged what he had taken. Some sulphate of zinc, and other usual modes of treatment restored him to health. He said he had felt *no effect* from the laudanum all night, nor until he began to move about six o'clock in the morning, when—as far as I recollect, he took some coffee, and immediately afterwards, he felt drowsy.—His own explanation was that *he had not begun to digest it* until he began to move about. I regret that I cannot at present find the notes of this case so as to give it more in detail—but it substantiates the fact that *laudanum may lie in the stomach many hours before producing any effect whatever*.

Another case bearing on the subject has been related to me by a highly esteemed and intelligent friend, Doctor McNaught, formerly of Jamaica. A gentleman whom I knew many years ago, took one morning early, half a drachm of sulphate of morphia, and lay quiet for two hours; he then got up, feeling no effect from it, shaved himself and took some coffee; shortly afterwards he seems to have repented or become frightened at what he had done, and sent for a medical friend, but it was too late; he expired in four hours after taking the dose. Here we have an interval of two hours without any effect whatever from an enormous dose of morphia; apparently, in short, until the absorbents were set in action, in consequence of the bodily exertion and drinking the coffee—the poisonous effects were speedily developed.]

We are compelled to defer the remainder of this important abstract till our next number.