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THE  
UPPER CANADA JOURNAL

OR

Medical, Surgical, and Physical Science.

JULY, 1851.

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ORIGINAL COMMUNICATIONS.

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ART. XVIII.—*Report of Cases of Ophthalmic Disease, continued from last number of the Journal.* By S. J. STRATFORD, M. R. C. S., England.

*Gonorrhœal Ophthalmia.*

In appearance and character the Gonorrhœal Ophthalmia bears a strict analogy with the preceding complaint. In some cases the rapid intensity of the symptoms, as compared with the former variety, would seem to offer some slight diagnostic peculiarity; but even in these, I fancied that the positive state and condition of the constitution was sufficient to account for the difference. Certain it was, that intense redness of the conjunctiva, great tumefaction of the lids, and profuse yellow discharge, shewed a condition of the highest inflammatory action, which in many cases rapidly spread to the cornea, and deeper tissues of the globe, often causing blindness or derangement of vision.

In all the cases, the application of infectious matter to the eye, was clearly traced. In one instance, a stage-driver in the western country, having gonorrhœa upon him, complaining of a slight affection of the eyes, was advised to wash them with his urine. Thirty-six hours after, he got a most severe attack of inflammation of the conjunctiva: this, however, at first he neglected, merely washing his eyes with cold water, and wiping them on the towel in the bar-room. In a few days, no less than ten individuals, boarders and servants in the same house, who it was proved had used the same towel, got an attack of acute inflammation of the conjunctiva. In these individuals, it was

curious to observe the difference in the intensity of the disease; in four it progressed with such rapidity that in a very few days, they either lost the use of one, or both eyes, while in others, although the disease was sufficiently active, it terminated with but slight opacity of the cornea; in the remainder, notwithstanding that the conjunctival inflammation lasted even for a longer time, it left none of these inconveniences behind it. Was this difference dependent upon the amount of infectious matter applied to the eye, or was it contingent upon peculiarity of constitution? Possibly of both. Another instance occurred in this city, at a lodging house, when a blacksmith, having gonorrhœa, inoculated his eyes with some matter on his finger. Soon afterwards, the disease of the eye evinced itself, and he wiped them on the towel used in the establishment. In a short time, six individuals were attacked with symptoms of acute inflammation of the conjunctiva. In these instances, however, although the inflammation was very intense (but being seen early) active treatment evidently arrested the disease; for notwithstanding some cases were of a protracted character, none fortunately had to deplore the loss of vision, or any great deformity, as the consequence.

The treatment of these cases of gonorrhœal ophthalmia, was identical in character with those indicated under the head of Purulent Ophthalmia; some of the cases, however, demanded even a more active antiphlogestic treatment. Blood-letting was repeated to a greater extent in those cases that were marked with the more rapid progress of the inflammatory action. In two cases, I incised the conjunctiva, as recommended by Mr. Tyrrell. In these, the chemosed structure bled freely, and the feeling of distension was considerably relieved; but that this operation upon the conjunctival membrane, had any other than a secondary influence upon the cornea, I could not conceive, being assured that the cornea proper derives its vessels from the schlerotic portion of the circulation, which would be beyond the reach of the knife, under present circumstances.

#### *Purulent Ophthalmia of Infants.*

The symptoms which the cases of this disease presented, showed a marked affinity with the preceding variety; in fact, they were cases of acute inflammation of the conjunctiva, occurring from a similar cause, in the eyes of a new-born infant. The disease commenced in each case on about the third or fourth day, and soon took on a severe character. The eyes, which were freely open, appeared clear and bright after birth, as soon as the disease began, were kept constantly closed; the lids swelled and looked red, and there was a great discharge of yellow purulent fluid. If an attempt was made to examine the eye-ball, the orbicularis muscle closed spasmodically, and sometimes caused

a complete eversion of the lids; then too we might see the conjunctiva highly vascular and inflamed, and perchance the cornea opaque, or even ulcerated.

In all these cases enquiry was made, if the mother had, at the time of her confinement, a vaginal discharge, and after a little hesitation, all confessed that they had. Two stated that their husbands had given them gonorrhœa during pregnancy, but the third stoutly declared that we meant to insult her. The husband, however, subsequently acknowledged that he had been infected, and feared that he might have inoculated his wife.

The treatment consisted in the application of a leech to the superior eye lid, and the injection of a solution of alum (two grains to the ounce of water) frequently introduced between the lids by means of a syringe. The strength of the solution was gradually increased, and after a time was changed for a solution of the nitrate of silver, while the bowels were kept open with castor oil and rhubarb powder, and an occasional dose of calomel.

Two of the cases were seen early in the disease, before much mischief had resulted to the cornea, and seemed speedily to be relieved by the treatment above mentioned. But the third was not presented until the 24th day after birth, when both the cornea were found perfectly opaque, and considerable ulceration was apparent in one of them. The nurse that brought the infant stated that the disease had been mistaken by the medical gentleman that attended the mother, he declaring that the child had simply taken cold, and advised the eyes to be washed with warm water. The consequence of this neglect was total blindness of both eyes, from destruction of the cornea.

#### *Pustular Ophthalmia.*

The subjects of this disease were all children, apparently of a strumous habit, with light hair, blue eyes, and tumid bellies.— Upon looking into the eye, a small elevation, situated on the cornea, or sclerotic coat, might be seen, having a more or less dense fasciculus of conjunctival vessels. In the first place, the little elevation appeared like a spot of effused lymph, and as it progressed seemed to take on a pustular character. Sometimes even ulceration took place, and when situated upon the surface of the cornea by degrees penetrated its different layers, then the membrane of the aqueous humour might be seen projecting like a little shining drop; and when this gave way, the anterior chamber was emptied, the iris fell forward and plugged up the opening; the aqueous humour was again secreted, and the disease was cured as the ulcer healed, but in most cases with a considerable derangement of the pupil, which not unfrequently destroyed the use of the organ. It is seldom, however, that the disease proceeded to this extent, being generally arrested by very simple treatment—such as the use of

free purgative and alterative medicines, and the application of the wine of opium to the eye. In one instance, however, the child had been neglected, and it was necessary to touch the ulcerated surface of the cornea, with a point of nitrate of silver. This stimulated the ulcer to a healthy action, and healing, saved the prolapsus of the iris and other evil consequences.

In many of these cases an herpetic eruption might be seen on the face and head, coexistent with the disease of the eye, indicating the identity of its constitutional origin.

#### *Scrofulous Ophthalmia.*

The nature of the diseases classed under this head were intimately allied to the preceding variety: the same cast of countenance, the same character of constitution predominated; indeed, when we take the constitutional characteristic as a type of the disease, an infinite variety of ophthalmic complaints must be included under this head, a circumstance that is apt to lead to great confusion, making it difficult to define our ideas as to the nature of the local complaint, as it influences a vast variety of them.

The generality of patients with this complaint were young children, ranging from two to twelve years of age. The most marked symptom of their disease was a great intolerance of light; so great, indeed, was the pain and inconvenience produced by the slightest application of the influence of light to the eye, that the child instinctively covered them, and often buried its head under its clothes: here you might see the brows knit and the eyelids spasmodically closed, by the violent contraction of the orbicular muscle. Was an attempt made to separate the lids, it was most strenuously resisted; and even when that was accomplished, the eyeball was seen involuntarily turned upwards, while the child screamed from pain and fear, and hot acid tears streamed down the cheeks. Often after the most patient trials to see the condition of the cornea, we had to give up the investigation without complete success.

In many cases in which we succeeded in our explorations, great was our surprise to find that the eye had scarcely any other visible symptom of disease,—perhaps a slight redness of the conjunctiva covering the lids or reflected over the globe might be seen. This redness was frequently but a few fasciculi of vessels, tending to form a minute pustule. Often even had this greatly subsided, leaving but a slight mark to indicate its presence, after the child had suffered from the intolerance of light for six or eight months. In other cases again, the organic disease of the eye was more grave, the cornea, iris, and other structures of the eye, were evidently affected; and did the disease of these parts progress, the complete destruction of the organ might be the

ultimate result. From this contrariety of circumstances, the essential nature of the disease is evidently clothed in great obscurity, and offers a fit subject for our investigation.

That the chief symptom, the great intolerance of light, is dependent upon disease of the retina, it is difficult to conceive. We have but to observe how very readily and powerfully the slightest causes act upon the retina, causing blindness: while the length of the continuance of this complaint, its speedy removal without any ill consequences to vision, must convince us that at least it is not dependent upon organic disease. I have seen this symptom exceedingly severe, while the admission of the rays of light into the eye were prevented to a very great extent by a thick capsular cataract. If it is dependent upon an affection of the retina, it must be a species of sympathetic neuralgia, in which the sensibility only of the expanded nerve is greatly exalted; but I confess I am inclined to look upon the disease more as a neuralgic affection of the iris, ciliary nerves, and sometimes all the branches of the fifth pair supplying the eye. The observations of Mr. Lawrence, regarding injuries of the fifth pair of nerves, go to bear out this suggestion, and shew a vast sympathy between the retina and the ophthalmic branches of this nerve, which has not yet been explained.

The treatment of this disease for the most part was by purgative and alterative medicines, often repeated for a considerable period, and these were combined or followed with bark or steel, when there was any marked debility in the patient. A point of the utmost importance was a necessary attention to the diet, which should be light, nutritious, and not easily running into the acetous fermentation. I may mention a marked case of the influence of diet upon this disease. A little boy, about ten years of age, had had this complaint for eight or ten months, had been shut up in a dark room, his eyes covered with bandages, and the most feeble rays of light prevented from reaching the eye. He had been leeches, purged, and blistered, but to no effect; for still the intolerance of light continued as severe as ever. On inspection of the eyeball but the slightest traces of disease were visible. A few purgations of rhubarb, calomel, and jalap were exhibited, followed by grey and rhubarb powder; the eyes directed to be freely exposed to the air and light, having a green shade to intercept the more direct rays; a diet consisting of coffee and crackers for breakfast and supper, a little underdone fresh beef, with rice or custard pudding for dinner, was recommended. The symptoms rapidly subsided under this treatment, and in a few days I met him out walking before the house, greatly delighted that he could go to play. After a few days I called again, and was concerned to find that the intolerance of light had greatly returned. On questioning him, I found that he

had been indulging in cucumber and other indigestible food, unknown to the family. This, I am convinced, was the cause of the relapse; for, on repetition of the remedies above specified, and more strict attention to his diet, all the symptoms of the complaint speedily subsided, and under a continuance of such a diet, failed to return; while the boy before thin, pale, and ex-sanguine, became of a good colour and robust health: the whiteness of his complexion, was doubtless owing to his being completely etiolated by the confinement in a dark room.

In some cases, when the conjunctival irritation was present, the local employment of wine of opium, or the solution of the nitrate of silver, added to the above constitutional treatment, was found to accomplish a cure. In the severer cases of this disease, in which the intolerance of light had been a predominating symptom from the commencement, I should be inclined to use the quinine, and that very freely, notwithstanding any apparent vascular disease in the several tissues of the eye. I remember one such case where I used quinine in two-grain doses with marked advantage.

#### *Granulated Conjunctiva.*

This condition of the eyelids represents by far the most numerous class of ophthalmic diseases which present themselves in this country; and during the autumn of last year would, from their number, appear almost to have been epidemic. In all cases it is the result of some previous disease of the conjunctiva, attended with inflammation, which has extended to the tarsal cartilages. I have observed the complaint to follow as a consequence all the varieties of ophthalmia which have been previously noticed: especially on purulent and gonorrhœal ophthalmia. If in any one of these complaints the circulatory apparatus of the cartilage shall have become implicated, the disease will show itself, and this most frequently happens in subjects of a scrofulous constitution.

The conjunctival membrane consists of three parts: epithelium cells covering the free surface; a basement membrane on which these rest, and areolar tissue, carrying the arteries, veins, and nerves, that supply the parts with nourishment and sensibility. Besides these, where this membrane is reflected over the tarsal cartilages, there is the peculiar circulatory apparatus belonging to that structure; the arterial circulation traversing the areolar tissue or perichondrium does not penetrate the cartilage, but forms large ampullæ or varicose-like dilatations on the surface, from these the cartilage derives its nourishment; after which the blood is returned by the veins into the general circulation. During health the amount of blood sent to these parts is not great, but no sooner does acute inflammation arise, than this circu-

latory apparatus is taxed to the utmost: first, that of the conjunctival membrane, then the peculiar circulation of the cartilage shares in the excitement, all the vessels are greatly distended with blood, and the ampullæ of the cartilage participates in the congestion, and may ultimately become thickened and diseased to a great extent, forming the appearance called granulations; these enlarged ampullæ are also covered with a thickened and hypertrophied mucous membrane, and are the cause which produces the irritation of the globe, so constantly evinced in the disease. A similar condition of disease has been observed in some varieties of laryngitis, where the cartilaginous structure is covered with mucous membrane, and takes on a very similar granulated appearance.

When examining these patients, if we evert the lids, we observe a morbid structure bearing the external appearance of a granulating ulcer, but these elevations are infinitely more firm: suffice it to show that the smooth, delicate, lining membrane of the lids, is thus morbidly changed in character, to enable us to comprehend the effect which such a state of things must produce upon the globe. The constant friction and irritation of these elevations cause the vessels of the conjunctiva to become enlarged and to carry red blood. The portion of the membrane thus acted upon, covering the globe, becomes evidently thickened, the conjunctival vessels first carry a more dense fluid than usual, when the cornea takes on a hazy look, not unlike ground glass. Should the irritation continue, red blood may be seen traversing these delicate vessels, which for the most part take their course in straight lines, like rays from the circumference almost to the centre of the cornea, occasionally the proper substance of the cornea participates in the disease, and we observe coagulable lymph deposited in its structure—then we see also the deep pink vessels, and hear the individuals complain of pain in the brow. That opacity may sometimes result from congestion of the conjunctival circulation is certain; but it is not very frequent or enduring in this disease, and always appears as a thin superficial scum on the surface of the cornea. As the complaint progresses, we may have superficial ulceration of the conjunctiva, as is known by its thin transparent character, appearing as though a piece had been cut out of its surface. This, when confined to the mucous membrane, often heals without leaving any opacity behind it. If the ulceration continues, it penetrates the layers of the cornea, opens up the anterior chamber, and permits the escape of more or less humours of the eye, causing derangement or destruction of the organ. Fortunately these extreme results of this disease are not very frequent; for I have seen persons who have laboured under this complaint for seven or eight years, in whom the corneal opacity was by no means extreme.

Another of the most marked characteristic symptoms of this complaint is its liability to exacerbations. After you have allayed the acute inflammatory action by proper antiphlogistic means, and the eye appears to be progressing favourably, all at once a relapse of conjunctival irritation is observed, attended with increased redness and lachrymation and great intolerance of light. The patient declares that he has taken fresh cold; but the increase of the disease may often be traced to some indiscretion of diet, with more or less derangement of the chylopoietic viscera. So marked in many cases is this intolerance of light, that one is led to believe that it must bear a strict analogy with the serofulous ophthalmia before adverted to; and one is greatly inclined to believe that the same constitutional influence exercises a great weight in the persistence of this complaint. Every surgeon knows how liable the cartilaginous structures of the body are to disease in this state of the constitution; and this will form a powerful argument to strengthen the belief that the granulated state of the lids is dependent upon a disease of the tarsal cartilages, occurring in a serofulous constitution.

The view which I here present of the character of this disease will in some degree explain the reason why it has so long been an opprobrium medicinæ; for, if we treat it only as a local disease, the constitutional influence continually operating, is acted upon by a great variety of causes, producing frequent aggravation of the local complaint. I have known persons in whom this disease had progressed with continual exacerbations for eight or ten years: and, curious to say, that in many these were marked by a periodical advent. In the treatment of the cases that have presented themselves to my notice, I have been guided by the above convictions. I have, no doubt, employed local means; but as I have looked upon the constitutional influence as the cause of the continuance of the complaint, I have not failed to address myself especially to its improvement.

In all cases in which any degree of acute inflammatory action was present, as known by the redness of the conjunctiva, intolerance of light and a feeling of *heat in the tears*, I have invariably used antiphlogistic means, in accordance with its intensity, such as cupping, leeching, and blisters; active purgatives, followed by the continued use of alterative medicines, a strict attention to the character of the ingesta, using only gruel, sago, or arrow-root. As soon as there was a marked change in the above mentioned indications, and the *tears felt cold*, stimulants were applied to the eye, such as a solution of the nitrate of silver, varying in strength according to the circumstances of the case, ever holding in view the object intended to be produced, viz., the causing of a contracted state of the conjunctival vessels, which, from the continual irritation, had become enlarged and varicose; at the same time

also hoping to exercise a similar salutary influence upon the diseased condition of the cartilages. I have seldom ventured to employ the heroic remedies of late so strenuously advocated by authors,—who appear to me in many instances to have let their zeal get the better of their judgment,—by using violent escharotics, such as pure nitrate of silver, bichloride of mercury, and even the mineral acids. These, in many cases that have come under my observation, have tended to bring on the more grave symptoms that shew themselves in this complaint, such as opacity and ulceration of the cornea. With the local stimulants a more nutritious diet was recommenced, precisely similar in character to that advocated in scrofulous ophthalmia; this should be persisted in for years, especially avoiding all crude indigestible matter, and particularly the employment of all salted provisions. At this stage, also, the continued employment of gentle alterative medicines, such as the carbonate of soda and powdered rhubarb, will be found beneficial, and in obstinate cases the employment of a seton.—Under strict attention to the foregoing plan, the disease will generally subside, the enlargement of the vessels diminish, and the cornea become clear. But, as during the continuance of the constitutional influence, a relapse is very liable to occur; the indications of activity in this state of the disease should be invariably attended to; often shall we have to begin *de novo* the active treatment of this complaint; but our patience must not be wearied, and while we combat the active symptoms, we must apply ourselves more strictly to remedying the constitutional influence. Here many of the remedies which have been so greatly lauded in strumous disease may exercise a beneficial influence, such as change of air, sea-bathing, &c.

In cases in which inflammatory action has recently extended to the cornea, and lymph has been deposited in its structure, alterative doses of calomel and opium were used to encourage its absorption; and when ulceration had occurred, bark sometimes was found useful.

#### *Acute Corneitis.*

This disease generally happened to young persons, from five to fifteen years of age. In all, there was more or less opacity of the cornea, according with the intensity of the inflammatory action. In some cases a thin cloud-like appearance was visible; in others the white tint was much more dense, completely obscuring any internal view of the organ. There was always a pink zone of vessels around the margin of the cornea, evidently the deep sclerotic vessels appertaining to the circulation of the proper substance of the cornea, these could be traced to its very margin, forming a marked contrast with the clouded appearance of that tunic. In one case the conjunctival circulation appeared to participate in

the complaint when the stricæ of enlarged vessels could be distinctly noticed as a complication of the disease. There was always some pain in the brow, of a dull aching character, but no fever or intolerance of light.

The treatment consisted in the employment of purgatives, followed by alterative doses of mercury, so as slightly to affect the mouth. Counter irritation, by means of blisters, was repeatedly applied to the neighbouring parts, and in some cases the abstraction of blood by cupping was employed. These means, if persevered in for a considerable time, generally removed the disease; but in one case of a very obstinate character, it seemed to have little effect, until the repeated application of leeches to the neighbouring part every second day, for upwards of a month, as advised by Doctor Beaumont, eventually relieved the complaint.

*To be continued.*

ART. XIX.—*Plurality of Children — Bi Trigemini.* By JAMES MEAGHER, JUNR., M. D., Kingston, C. W.

UPON reference to the recorded register of "la Maison d'Accouchements de Paris," and to Madame Boivin's return from "l'Hospice de la Maternité," it is unquestionably ascertained that births of triplets are of exceeding rare occurrence, averaging not more than one in eight thousand or more cases of accouchement.

Indeed justly famed accoucheurs, of extensive practice, embracing a long series of years, have averred that in the experience of a whole life, they have not met with a single instance.

This induces me to communicate the following example of remarkable fecundity, as not uninteresting, which lately came under my own observation.

Mrs. McB——m, a female of rather delicate constitution, and of leuco-phlegmatic diathesis, being enceinte, applied to me at various times to obtain relief from obstinate constipation of the bowels, accompanied with severe tenesmus, caused evidently by mechanical pressure of the impregnated uterus on the intestinal canal. The usual remedial agents, and *a pliances to boot*, were had recourse to, but, as anticipated, with mere *temporary* benefit.

On the 11th August, 1848, I was summoned to attend her in her first labour, now advanced into the seventh month. I found successive and severe uterine pains, which commenced a couple of hours previous to my arrival; and upon examination, *per vaginam*, I was convinced of the inutility of attempting to restrain the process, as the os uteri was widely dilated, and with every pain its contents were forcibly pushed downwards. Contractions continued brisk and regularly, and in a few hours one child with secundines

was expelled. Strong and rapid action now supervening (which is unexpected in primiparous women), and finding a scarcely perceptible diminution of the abdominal tension, I immediately fancied it a twin case. Upon researching the uterine cavity, I was now apprised of the presence of a second child, which also in due time came to hand. This latter had its placental connection common with the third foetus. Pains not yet abating, I once more explored the uterus, in view of some discovery, when to my surprise the third child presented itself; and thus, presently, the labour was concluded, the results being two living children, male and female, and one dead male.

July 8th, 1849, I was again requested to wait upon the same patient, who was now at the full time of utero gestation. As on the former occasion, she had many times consulted me to remove the obstruction of the bowels, previous to the approach of labour; and was apparently suffering much mental anxiety, lest she should again undergo the same ordeal, and become the parent of so numerous a progeny.

The several stages quickly developed themselves, and in a few short hours she was the prolific mother of two daughters and one son; the size and weight of which, however, were considerably less than the natural standard. Neither of the foregoing labours were of more than medium duration, each having terminated in less than twelve hours. None of these children lived longer than twenty-four hours, and only one was still-born. I may add, that the general health was better during the second pregnancy, although the patient had been comparatively reduced by an abortion, attended with profuse hæmorrhage, in the interval between the two accouchements.

May 18th, 1851, my assistance was again demanded, when (all having progressed satisfactorily) to her great delight she was delivered of only *one* daughter; and, though mindful of her former trials, she yet thinks herself well repaid for all her sufferings, in caressing much this *sole* object of her attention. It is curious that, after escaping such *heavy storms*, with no more than the ordinary sequelæ, she should after this latter event be subjected to an attack of phlegmasia alba dolens, which in a few days yielded to the simple applications of warm fomentations, bandaging, &c.

[It would have added much to the value of the above remarkable case, if Dr. Meagher had given some minute particulars in reference to his patient and her husband: the place of their birth—the fact of the direct or collateral branches of their respective families having evinced a tendency to this extraordinary fecundity, either by multiple births or large numbers of children; their age, the constitution of the father, their mode of life, &c.—*Ed. U. C. Journal.*]

ART. XX.—*On the importance and value of Arithmetic as applied to Medicine.* By HENRY MELVILLE, M. D., Edinburgh.

“ Il écrivait ses observations, et il les comptait. Les mots souvent, quelquefois, n'entraient jamais dans ses notes: il lui fallait des chiffres, et des chiffres exacts, recueillis un à un, et pouvant se servir mutuellement de contrôle. Rien n'égalait la sévérité de sa méthode. Rechercher la vérité, était pour lui une seconde religion.”—*Notice historique sur Parent-Duchâtelet.* Par Leuret.

Unfortunately for the stability and progress of medical science, there prevails among its disciples, even the best educated and most zealous, a *fashion*, a love of change in theory, and worse than that, in practice. This mutability, and the uncertainty arising from it, constitute the greatest opprobria to which the profession of medicine is liable; and probably their influence is no where so keenly felt as on this continent. Assuredly the practical and mischievous results arising from this source, obtain to a greater extent among us than in the older countries of Europe, where a more wholesome public opinion, and a higher standard of professional learning, control in a great measure the vagaries of the educated visionary and the imposture of the unprincipled charlatan. The evils attributable to this lamentable and chameleon-like spirit, assail not only the relative interests of the practitioner, but sap and undermine the integrity of the science. Hence the scepticism which begets distrust of the doctrines, and leads to disobedience of the laws established by the study and discoveries of highly gifted men through all ages,—which unhinges the mind for that close and strict observance of facts and details, that comprehensive generalization, and the inductive reasoning so essential to scientific enquiry. It would be premature to invest medicine with the character of an exact science; but the rapid strides which have been made in latter days, the vast revelations in every department which have taken place, more particularly through the aid of the microscope and organic chemistry, and the results of the system under consideration, justify the belief that it will one day assume as high a position in the scale of philosophy as that of any other branch of human knowledge.

It is unnecessary for my purpose that I should review the number, origin, and fate of the many theories which have from time to time occupied the attention of medical men, or recount the various remedial agents which have for a longer or shorter period enjoyed a reputation for specific qualities. It is sufficient to know that both have been numerous, almost beyond belief, and as opposite in their nature and application as the circumstances which gave rise to the construction of the one, or the diseases in which the others have been employed. Each in its turn has had a host of warm and in many instances conscientious advocates—its bitter and uncompromising opponents. Happily, however, for mankind, there have been

some glorious examples in the history of the science, who, keeping aloof from this warfare of zeal, and profiting by the labours of both parties, have been able to cull some germs of truth from the mass of error; to select some elements from the crude materials accumulated, on which to found general laws. It is to the manner and mode by which this good has in part been achieved, that I desire to direct the attention of my readers.

In the earliest dawn of medical literature, we trace the rudiments of a system of numerical notation. The effort thus made evidently arose from the observation that in a certain number of cases of similar character, a given number recovered, while in the remainder the disease proved fatal. It is improbable that the keen observers of that period in the art of medicine, should have witnessed such facts frequently, without making some attempt, however imperfectly, to reduce the result to figures; and inasmuch as the manual or operative part of medicine was the earliest and perhaps most perfectly cultivated, it became a matter of remark to the older surgeons, that one particular operation failed in the proportion of once or three times out of four, and in another not once in fifty or a hundred times. Such crude and approximative statements seemed to have been considered sufficient for centuries. It is true that a more complete calculation was observable as progressively occurring; still no very comprehensive statistics were collected, nor did the subject command any great amount of attention until a comparatively recent date. Among the earliest and most assiduous of modern prosecutors of this branch of investigation was Parent-Duchâtelet, whose principles of examination as given by his biographer, M. Leuret, I have quoted above. His labours in this department, and his writings on hygienic medicine, have established for him a world-wide reputation. But the great father of medical arithmetic, he who first elevated his "*méthode numérique*" to the rank of a science, was the illustrious LOUIS. He has been followed by many other writers, both British and Continental, whose labours have contributed to advance the system and enhance its value. Indeed, so general has the principle become, that in every well regulated hospital and other public institutions, where the issues of disease and the casualties of life are observed, a faithful record is kept of every specific item of information which can tend to throw light on the circumstances which govern those issues and produce those casualties.

Much opposition has been hitherto and still continues to be offered to the "*méthode numérique*;" and it requires great reflection to enable one to combat the arguments adduced against it; nor is it quite so easy as might be desired to decide the point at issue by a bare process of reasoning. Conviction must and will arise from the evidence in its favour derived from the accumulation of data, the *certainly* of these, and the care with which they have been collected. I have gleaned the following resumé of the arguments

on either side of the question from various sources,\* and consider it necessary to state them in order to connect these introductory remarks with the subsequent portion of my paper.

The opponents of this system, starting with the general axiom, that, "in the doctrine of chances, the events which are the subject of analysis are either similar to each other, or differ by a ratio which admits of calculation," maintain that therefore it is futile to apply the doctrine of chances to medicine, as no two cases are alike, but they are indefinitely and undefinably unlike. Reference is made in support of this assertion to the collections of medical facts of ancient and modern writers, e.g., the Epidemics of Hippocrates, the Epistles of Morgagni, Stoerck's Ratio Medendi, &c., in which it is asserted that few if any cases are found exactly similar. The evidence of Sydenham is adduced, who taught the dissimilarity of epidemics; a matter of daily observation with all practitioners, who cannot fail to recognize variations not only in successive epidemics, but in the same epidemic at different periods of its progress, and in different localities. Celsus is made to contribute the weight of his reputation by his assertion, "Hæc quisquam non aliquam partem corporis imbecillam habet;" for, say they, if a difficulty exists in reducing even those who are ordinarily considered healthy, to any given standard, how is it possible, amid the variety of diseases and their countless modifications, arising from numerous and different causes, to classify them, and to apply rules drawn from generalized disease to an individual case. "A disease is not a simple and uniform entity, but a series of ever-varying phenomena; and as every exclusive theory is deceptive in the study and analysis of symptoms, so every fixed method is absurd in the practice of physic. Numerical calculations, therefore, which, even in the pure mathematics, sometimes lead to error from the uncertainty of the facts on which they are founded, are open to so many sources of fallacy in medicine, that they are pernicious rather than useful." The limited extent of the number of facts observed or collected, and the time through which it is necessary to carry on these observations, are also urged as strong objections. "And it must be confessed," one writer very tritely remarks, "that there is a great difference between the elimination of medical truth by the balanced results of ages, and the hasty theorems which M. Louis deduces from the practice of a few years, in a single hospital. The experience of many hospitals and other countries will no doubt often show, eventually, that the practice of ages and unfigured persuasions of the older physicians were more correct than tables collected from a small number of cases." From evidence like this, and from such reasoning, it is attempted to prove that in the observation of disease, in the study's

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\* See Edinburgh Medical and Surgical Journal. The British and Foreign Review. Mr. Bisset Hawkins on Medical Statistics. Gavarret sur Principes généraux de Statistiques Médicales. Guy on the Numerical Method. Louis. Duchatelet, &c.

its symptoms, and in its treatment, it is essential always to keep in view the doctrine of individuality; in fact, to regard each case as a new and separate problem, it being contended that "the most eminent physicians are those who have been most celebrated for the exquisite tact with which they recognize the subtle differences of cases passed over by the common herd of practitioners."

The arguments in favour of the system are so important and so numerous that I think it better to delay their consideration until next month, in order to give them in complete connection, to do which, with what I have already written, would occupy more space in the present number than can well be allowed for one article.

I wish it, however, distinctly to be understood, that my motive is to bring a subject of the highest interest under the attention of the profession in *this* country, where nothing or comparatively very little has yet been done, towards amassing medical facts, but where a large field of enquiry now exists, and many causes obtain, which influence and affect the elements of calculation, and multiply the objects of observation, in a manner and to a degree in many respects new and extensive. I can offer nothing original to attract the attention of those of my readers who are already familiar with the subject, but I desire to stimulate them in the good work of careful investigation and faithful record. Those to whom the whole question is novel, may possibly find much to engage them in perusing the opinions and views of the scientific and successful cultivators of the numerical method carefully collated; and may thus have their attention directed to the respective authorities for further information.

ART. XXI.—*A case of Phlegmonous Inflammation.* By CHAS. WM. COVERNTON, M. D., M. R. C. S., London: Simcoe.

THE following case appears to me particularly interesting, as illustrating the influence of a feeble state of constitution on local inflammation; the diminished power of resisting it in cases of weak or unsound habits; and the dangers resulting from a combination of conditions of the system giving origin to adynamic or putrid fevers,—such as weakness or irritability of the nervous system, and a vitiated state of the blood, from disordered functions of nutrition or sanguification; it may also, I think, be considered a good illustration of one of the modifications treated of by Mr. Travers, in his work on constitutional irritation, viz., sinking without reaction. The case in some particulars resembled anthrax, or as it is more frequently known by the synonymes malignant pustule or charbon. Is it not possible that this disease could originate spontaneously? I am aware that by the generality of authors it is considered as resulting only from poisonous matter

from horned cattle, and communicated to persons handling the flesh or skin of such diseased animals. There are some writers, however, who assert that it occurs sporadically; and it appears to me that it is not improbable that in instances of irritable feeble constitution and vitiated secretions concurring, a puncture from ulcerated or carious teeth might occasion a somewhat similar train of phenomena. Cullurier mentions that gangrene sometimes attacks the penis of persons employed in cleaning out cess-pools when affected with gonorrhœa; and Dr. Carswell, in a paper on malignant pustule, says: "It is difficult to say how far wounds received in dissection, or in the inspection of dead bodies, and which are followed by erysipelatous or gangrenous inflammation, depend on the presence of a septic agent, developed *during* the progress of disease, or *after* death."

Called upon Monday, the 16th of June, to visit Miss G—, a young lady, of a small spare figure, and feeble cachectic habit, aged nineteen. Was informed by her mother that for the last month, although not complaining of any particular ailment, she had been in a weakly condition, with a loaded tongue every morning, offensive breath, and a spongy ulcerated condition of gums,—several of the cuspidati, and three of the incisor teeth, being quite loose. For two or three days before I was requested to visit her, she had been suffering severely from pain and swelling of the left cheek, and on the morning on which I was sent for, the tumefaction had extended to the partial closure of the eye, and to the lower lip, sublingual and submaxillary glands; the cheek was tense, hot, red, and exquisitely painful. Owing to the degree of swelling, and consequent rigidity of the jaw, I was not enabled to make any ocular exploration; but on examining with the finger, the lining mucous membrane of the cheek was slightly bedewed with matter, and after forcibly everting the lower lip, I perceived a large abscess underneath the last lower incisor and the cuspidati teeth, with extensive ulceration of the membrane of the lips and cheek. Upon making a free incision, a large quantity of most offensive purulent matter escaped. Not being able to detect any other swelling of the gums or mucous membrane, and the discharge from the abscess being most abundant, I concluded that, with the aid of alterative medicines and topical applications, the symptoms would soon yield. The tongue as far as I could see it was coated, the breath horribly offensive, and the bowels not open since the morning of the previous day. I prescribed for her the following medicine:

℞ Pil. Hydrargyri, scr. i;  
Pulv. rhœi. ʒ ss.;  
Ol. caryophilli m ij.;

Syrupi q. s. ut fiat massa in pilulas xij. dividenda; sumat̄ nocte maneque.

R Magn. sulphatis,  $\zeta$  iss.  
 Infus. sennæ  $\zeta$  v.  
 Tæ sennæ  $\zeta$  i.

Sp. ammon. aromat, 3 iss. M. fiat mistura. Sumantur coehlearea duo magna quarta quaque hora donec alvus probe responderit.

Ordered fomentations of hot water with a small quantity of laudanum ( $\zeta$  ii to the pint), and injection by means of a glass syringe of a solution of chloride of lime. In the interval of the fomentation, I directed a large bladder containing hot water to be applied to the swollen parts. The pulse was not much accelerated, ranging from 80 to 85, and soft; heat of body not increased. The following day, in consequence of being detained at a protracted labour, I was prevented from seeing her until 11 a. m. Another practitioner (Dr. Ford) had in the mean time been called in; and as the period of my return was uncertain, Dr. F., with the view of giving freer exit to the matter, was preparing to remove the two lower incisors (which were perfectly loose, and the gum so separated that the alveolar process was visible) at the time of my visit; in the propriety of this I acquiesced. We again, now that further space by the removal of the teeth was gained, made a minute examination with the finger, but could detect no further abscess. The cheek had become harder and more swollen, and was of a dark red, approaching to purple colour, but with no sense of fluctuation, occasioning her intense pain,—had passed a restless night, with occasional delirium; temperature of body slightly increased, with thirst and general febrile excitement, had been unable to swallow the rhubarb and blue pills. Three or four dark bilious stools had been occasioned by the cathartic mixture. Ordered the following febrifuge mixture:

R Potassæ bicarb.  $\zeta$  iij.  
 Tæ hyoseyami  $\zeta$  iv.  
 Aquæ cinnamomi  $\zeta$  iiiss. M. fiat mistura.

Capiat coehleare magnum 2da quaque hora cum succi limonis cochl. medioc. in impetu ipso effervescente; and placed by means of a spatula on the tongue.

Hydrarg. chloridi gr. iv.  
 Sodæ chloridi gr. x.

with directions for these to be repeated in the evening; cathartic mixture to be continued every eight hours; fomentations and chloride of lime injection to be persevered in.

Wednesday morning, 18th.—Swelling and redness of cheek, if anything, increased; pain slightly abated; discharge of a darker colour, and disgustingly offensive; has had a good deal of sleep. Bowels freely open; skin cooler and moist. Tongue (extreme

point of which is only to be seen where the incisors have been removed) loaded with thick creamy mucous. Her mother informed me that she had been very drowsy during the night; when spoken to, she would reply but abstractedly, and with occasional wandering. This, however, I was disposed to attribute in some measure to the intense and incessant pain and sleeplessness she had suffered for the last three nights, conjoined with the sedative effects of the tincture of henbane, rather than to any comatose condition, particularly as there was no dilatation of the pupil, and, upon questioning, she would immediately answer collectedly. As there was no decrease of the hardness and swelling, I made very free incisions in the mucous membrane of the cheek; and although the hæmorrhage was not commensurate, she expressed herself as greatly relieved. Cathartic mixt. to be discontinued; calomel powders to be given every four hours; warm applications and inhalation to be repeated. Thursday, 19th: Has been in a drowsy somnolent state all night; answers correctly, but almost immediately after wanders. No dilatation of pupil; when enquired of, states that the pain in the cheek is equally severe, but makes less complaint. swelling unabated; cheek of a dark purple colour: temperature of the body natural; pulse 95, small; bowels open once during night. Ordered Spirit. ammoniæ aromat. Spirit. etheris nitr. a.a. gtt. xxx. every one or two hours; large mustard poultice to the back of neck; sinapisms to extremities, and bladder of ice to the head. As there was some effusion of serum in the left lower eyelid, I apprehended the possibility of the inflammation becoming of an erysipelatous character; and with the view of preventing its spread into the adjoining tissues, I placed a long narrow strip of blister plaister along the margin of the inflamed parts; calomel powders to be continued. Friday, 20th—Found my patient in an alarmingly weak and depressed state; respiration laboured; pulse quick and fluttering 120; right half of countenance pallid, left cheek of a dark purple colour, excessively hard, but with no evidence of fluctuation; low muttering delirium, subsultus tendinum, teeth covered with sordes; answers questions correctly, but instantly after wanders to some other subject; pupil contracted. Finding her symptoms of so alarming a character, I suggested a consultation, when Dr. Ford was again sent for. After examining into her condition, and learning from me the progress of the case and treatment pursued since Tuesday, the day upon which he had last seen her, we determined upon making a deep incision from the ramus of jaw to commissure of lips. No pus followed the incision, nor was the hæmorrhage as much as might have been expected from its length and breadth. As the ammonia appeared to take away her breath, brandy was substituted as a stimulant: injections of chloride of lime and calomel powders continued. The discharge of pus from

the abscess in the gums continued profuse, of a dark colour and gangrenous odour; blister only occasioned partial vesication, but not the slightest appearance of the inflammation having extended; no redness, tenderness, or swelling of scalp. The disease continuing confined to the left cheek; mustard poultice at the back of the neck had occasioned very severe irritation; sinapisms to extremities again ordered. On visiting her with Dr. F. in the evening, we found her symptoms to have been rapidly growing worse. She had fallen into a comatose state, with breathing more oppressed; continued delirium, inability to swallow, picking of bed-clothes, &c. The cheek in colour and appearance resembles an injected placenta; sunk rapidly, and expired about seven, p.m.

Permission for a post mortem examination having been granted, assisted by Dr. Ford, Dr. Wood of Blenheim, and Mr. Henry Crouse, I made the autopsy twelve hours after death. Countenance composed; diseased cheek has lost most of the discoloration, but not the swelling; dark, almost black matter exuding from lips; no serum infiltrated into cellular substance.

On removing the calvarium, a small quantity of yellow serous matter escaped—the brain appearing full and distended—and after detaching the dura mater, the pia mater was shewn immensely injected, forming a complete network over the whole surface of the hemispheres. The brain was a little softer than natural, and tore readily in some places, and there was unusual aggregation of bloody points in the internal substance. The whole of the cortical and medullary substance in fact presenting numberless bloody points when cut into; a small quantity of serum was found in the lateral ventricles. The corpora striata and optic thalami had a few red vessels running on their surface. The choroid plexus, in addition to being loaded with blood, appeared to have lost its reticular appearance, resembling membrane. On removing the membranes carefully from the base of the brain, a number of red points were seen, particularly on the pons varolii and medulla oblongata. Cerebellum normal; spinal marrow not examined; thorax, adhesion between the pleura-pulmonalis and pleura costalis on both sides; lungs healthy; heart small, pale, and flabby, a long flake of coagulated lymph in the left ventricle; septum ventriculorum a little thicker than usual, no other evidence of disease; abdomen—liver had contracted preternatural adhesions to diaphragm, was immensely enlarged, and upon its convex surface broke down on the slightest pressure of the finger; spleen slightly enlarged, stomach healthy. As it was impossible to make any examination of the left half of the lower jaw, without producing considerable disfigurement of the countenance,—and such it was feared would have been painful to the feelings of the parents,—we were reluctantly prevented from ascertaining the condition of the bone and alveolar sockets.

ART. XXII.—*Case of Twins, in which, after the birth of the first Child, the second was retained by hour-glass contraction of the Uterus.* By CHARLES ROLLS, M.D., Wardsville, C.W.

DURING my residence in Louisville, C. W., I was called on to attend Mrs. F., of Zone, who was in labour, of her fifth or sixth child. The distance from my residence was about twenty-five miles, and I was requested to use all speed, as the patient was in great danger.

On my arrival, I found the house, as usual, filled with women, all eagerly on the *qui-vive*, to know whether the patient was to die or live; and the lady-midwife amongst them, an old dame of about eighty years of age; on enquiry from whom, I learned the patient had been in labour for two or three days (I forget which); that she had delivered one child, and another was behind—the patient having frequently felt its motion since the delivery of the first.

On examination of the abdomen externally, I found its dimensions, although not as great as usual before delivery, still considerable. The distention, however, was not equally spread over the whole abdomen, but chiefly confined to the left umbilical region, in which part the remaining contents of the uterus seemed to lie, forming a large hard tumour, at the same time that the other parts of the parietes felt comparatively soft and flaccid. On introducing my finger, per vaginam, I could reach neither the root of the placenta belonging to the extracted child, nor any part belonging to the one retained. I then introduced my whole hand, and following the course of the funis belonging to the first child, I discovered that hour-glass contraction of the uterus was present in a severe degree; that part of it to which the extremities of my fingers reached, being contracted to about the size of a half-dollar piece, and so rigid that I could not, with any moderate degree of force, insinuate my fingers beyond it, by effecting which I had hoped to ascertain the position of the remaining child.

Under these circumstances, I bled her until she nearly fainted; then introducing my hand, I found the contracted part softened and yielding; and passing immediately beyond it, felt one of the feet of the remaining child (which was lying in a transverse position across the abdomen) presenting itself. Pulling gently downwards by this foot, until the part had passed the os externum, then inserting a finger behind the knee of the remaining leg, and liberating that, I found no further difficulty in completing the delivery, in the usual manner. The two placentæ which had been retained, along with the child, beyond the contracted part of the uterus, were afterwards taken away without trouble. The child was dead. The delivery occupied altogether about ten minutes.

REMARKS.—This is the only case I have met with (during an

extensive practice) of twin-birth, in which hour-glass contraction took place previous to the delivery of the second child; and there is but little doubt in my mind that here it was produced by the officious, meddling mismanagement of the attending midwife. At all events, had a regular competent physician been present from the commencement of labour, the patient must have been spared a great amount of pain, the concomitant of all labours, and also the greatest risk of life. Fortunately she was an unusually healthy and rugged person; had it been otherwise, death would in all probability have terminated the scene long before I could have arrived at her residence; or had she survived this period, it is highly improbable she could have been supported under the steps necessary to complete her delivery.

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ART. XXIII.—*Case of Spinal Irritation, with remarkable concomitants.*  
By J. E. RANKIN, M.D., M.R.C.S.E., Vaughan, 1851.

HENRY McCLINCHY, aged eighteen years, a tall slender youth, the son of an Irish carpenter, of this township, while engaged with his father and several other workmen, one day in the month of November last, in raising some timber for the frame-work of a new church, was forced, by the weight he was supporting, suddenly from the erect into the bent posture forward, and laterally upon the crest of the left ilium, his left ribs (as he asserts) pressing forcibly upon that bone. He was quickly relieved by some of the bystanders, and after lying down upon the grass a short time to recover from the shock, he rose and walked to his father's house, distant about 200 yards. He experienced no other sensation at the time than that of exhaustion, but on the second day after the accident he complained of pain in the small of the back, and simultaneously with this pain, he noticed the development on his trunk and extremities of a number of subcutaneous swellings, soft but painful to the touch, together with slight febrile symptoms.

About the middle of March (the interval having been passed without advice of any kind) a Thompsonian quack, who had then recently pitched his tent in the immediate neighbourhood, was called in, and under the care of this person he remained until the 19th of April, having imbibed during that period the usual quantity of lobelia, bone-set tea, pepper, ginger, and alcohol. Thirty or forty days of active Thompsonian medication had reduced the unfortunate lad to a state of complete physical helplessness, when the parents, beginning at last to entertain some doubts of the skill and knowledge of their *medical!* attendant, requested me to assume the management of the case. I was not, I must confess, at all desirous of this honour: thirty or forty days of exposure to the dreadfully exhausting processes of steam and sweating, and

repeated vomiting by lobelia, would suffice seriously to injure the most robust constitution, and I would strongly advise my professional brethren, to decline (whenever they can do so conscientiously) the acceptance of any case offered to them under circumstances similar to this one; for in addition to the reason for doing so already assigned, little or no credit ever falls to the share of those who do accept such risks: the quack, if the patient gets well, tells his own friends that *he* was recovering when *he* left him; and if he dies, that had *he* been allowed to continue the treatment, the result would have been different, and his friends believe him, while others who are not his friends listen and *doubt*.

I accepted this invitation, because the patient and his relations were all very ignorant and very poor. I found him lying on the seat of a bunk, with a mattress of straw under him; his bed-clothes were clean, and the room, though crowded and a little dirty, was warm. He had been plentifully supplied with nice articles of food, by some benevolent ladies in the neighbourhood, and he wanted apparently nothing but a little more fresh air, and proper medical treatment; his skin was perfectly exsanguious, but there was nothing in his facial traits indicative of serious organic disease.

The parents now proceeded to favour me with the opinions, very confidently expressed from time to time by the *soi disant* doctor, on one occasion in the presence of a neighbour. Here they are, *verbatim et literatim*, in the form of a dialogue for shortness.

Father.—Now, Doctor, do you think you can cure that boy?

Doctor.—Wal, I guess I can, with God's blessin.

Father.—Well, Doctor, what kind of a disease has he got?

Doctor.—Wal, he's got the liver complaint, and his spleen is considerably enlarged; his kidneys aint right, and his hip jintes wrong—rather inflamed, I guess; but I reckon I can cure him for all that.

Out of doors, the learned doctor pronounced the case to be pulmonary consumption, and quite incurable.

The following is the patient's own account of his case:—"I feel pain and weakness in the small of my back. I have a painful swelling on the right side of my back-bone, a good deal of pain about my left hip, a large swelling on my left arm, another not quite so large on my right elbow, one on my stomach, two or three on my left thigh and leg, and a very large one on my right leg. I feel no pain any where else; my appetite is pretty good, but the doctor would not allow me to eat anything but bread and gruel, and thin stuff like that." Having caused him to be stripped, I proceeded to a personal examination, the result of which verified the foregoing statement. Pressure over the last lumbar vertebra caused sharp pain; the same degree of pressure causing no pain when applied to any other part of the spinal column. Pain

extending from this point all along the left dorsum ilii, to the trochanter major of the same side. On the left hypochondrium, nearly over the seat of the spleen, there was a swelling of an irregular shape, in superficies, about the size of a half-crown. This must have been the learned doctor's enlarged spleen; for not a trace of enlargement of that organ could be discovered by the most careful examination. It was evidently in a perfectly healthy condition. The liver, also, was found to be perfectly free from disease of any kind; its functions, as well as those of the stomach and intestinal tube, though weakened by constitutional disturbance, were tolerably well performed. The urine, though high coloured and acid in its reaction, exhibited no evidences of structural disease of the kidney. In a word, the opinion expressed by this amusing adventurer, as to the nature of McClinchy's disease, was simply the stereotyped reply of his fraternity to all similar questions. The swelling on the left arm was of the size and shape of a large kidney potatoe; that on the right leg, situated over the upper third of the gastrocnemius muscle, and extending upwards near the popliteal space, was the largest of all these extraordinary productions. The one on the right elbow was as large as a common hen's egg, though of a different shape; all the others were comparatively small. He had a troublesome cough; but the stethoscope afforded no indication of serious pulmonary disease. There was a pencil of brown on the left margin of the tongue, with a thin greyish coating towards the base of that organ. Can lie with ease on the back or right side; but the excessive neuralgia of the left glutei and pyriformis muscles already alluded to, rendered motion extremely painful, so much so that he had not been able, for several months past, to assume the erect posture without intense suffering, nor to preserve it tremblingly even for a moment without support. Such is the brief but minutely accurate history of this case, up to the day of my introduction to the patient.

The constitutional treatment appears to have been exactly what I have represented it, viz., a series of blind efforts to pull down and build up again. The local treatment of the swellings consisted in the application of a plaister of tar (spread upon leather) to all the large ones, while the others happily had escaped that infliction.

I ordered the immediate removal of all these plaisters, to the no small satisfaction of the patient, who had suffered severely from the irritative properties of the tar, which had never been removed from the day it was first applied (several weeks past) until now. This task, however, was not accomplished without a great deal of painful manipulation, assisted during three days by the softening influences of large quantities of hogs' lard. The large swelling on the left arm was found to be deeply ulcerated in two places; and

ulcerative inflammation had set in on the right leg. Pressure with the finger on every part of the surface of these large tumours communicated the idea of an elastic spongy substance. The skin was dark coloured in both cases; but I convinced myself after very careful examination that they contained no fluid.

The progress of this case was watched with varying interest by the people of the neighbourhood: by the educated and intelligent with the hope of a successful issue, and the triumph of humanity and of rational and legitimate practice; by the ignorant and credulous advocates of imposture with the hope of failure and the consequent triumph of quackery. The popular mind never troubles itself with minute scientific investigation in medical matters; it is as ignorant of nosology and the *science* of therapeutics as the child unborn. The quack who cures a case of simple constipation is a better physician for the time being than the educated practitioner who loses a case of phthisis pulmonalis. Even the grossest ignorance of his native language proves very often a source of advantage to him, by procuring for him the reputation of supernatural sagacity. Happily, however, for the patient, in this instance, "the race was (relatively) to the swift and the battle to the strong." My patient is now far advanced in his convalescence, is free from cough, and able to walk without a cane.

It is not necessary to trouble the reader with a detailed account of my practice in this case; suffice it to say, that the medicinal part of the treatment embraced iodine constitutionally and locally; compound infusion of gentian, with potass. carbonatis, and Sp. ether. nitrici; the cold douche to the whole length of the spine, but particularly to the seat of irritation; and on one occasion, to remove pulmonary symptoms, a blister to the chest and emetic of sulph. cupri and ipecac. The iodine with which the treatment commenced was abandoned after a trial of three weeks without any result worthy of note, the object in view having been chiefly the absorption of the tumours or swellings. Then followed the infus. gentian comp., with potassæ carbonatis and Sp. ether. nitrici, and the cold douche. The effect of the cold douche was marvellous. A stream of at first river water, afterwards of cold spring water, was directed up and down the spinal column from the spout of a gardener's watering-pot, without the perforated muzzle, for the space of twenty minutes.\* After the second trial the patient expressed himself much stronger in the back; and before the end of a week he could bend forward without pain and pick up a small object from the floor, a movement he had not been able to make for the last five months. The douche was employed only once a day. Under this treatment, which was suspended however on one

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\* It is proper to mention here, that the stream was suspended occasionally for a minute or two.

occasion for some length of time on account of the cough, he went on improving gradually. It is an interesting coincidence, that shortly after the removal of the spinal irritation, fluctuation was detected in the three largest swellings (I speak of this circumstance as a coincidence, because it was evident that the formation of a fluid had taken place before I detected it). An abscess lancet was plunged into the large swelling on the left arm, and a free opening made in its most prominent part, whence there issued about three ounces of coagulated blood, mixed with unhealthy-looking pus; the abscess on the right leg contained nothing but unhealthy purulent fluid; all the other swellings are disappearing gradually without an opening.

The morbid productions which formed so prominent a feature of this case, and to which, for the want of a better designation, I have applied the inelegant and unmeaning term of swellings, could not have been classed under the head of tumours,—they were not cases of phlegmon,—nor was the fluid they were found ultimately to contain healthy pus. May we regard these swellings as the result of modified nervous influence, brought about by the irritation of a small portion of the spinal cord? The history of the case certainly seems to warrant the belief of a dependant connexion of that nature, and it is with this view that I venture to offer it to the profession as a contribution to spinal pathology.

I beg to avail myself of this opportunity to express my earnest wishes for the success of your journal; and while I cherish in common I am sure with every member of the profession in this part of Canada, the liveliest feelings of gratitude for the eminent services rendered to us by your accomplished contemporary the Editor of the *British American Journal of Medical and Physical Science*,—I trust that in the long run the *Upper Canada Journal* may fairly claim the thanks of its supporters on similar grounds.

## Correspondence.

### NOTICE TO CORRESPONDENTS.

Dr. GIBB, of Quebec, will accept our thanks for a copy of his interesting paper on the Maple Tree and its products. Next month, when we have a little more space, we shall probably venture on a few observations respecting the views therein promulgated by him.

Mr. JONES' communication has been received, in which he states his inability to continue his series of letters on Dentition until next month. It would be in vain for us to attempt to reply to the numerous letters we have received from various parts of the Province, on the all engrossing topic of the Bill. It will be evident to many of their

authors that we have taken advantage of the valuable hints they contain. The best acknowledgement we can offer, is to request a continuance of their favours. If we do not reply to any one letter in particular, it is because we can scarcely give a preference to one over the other; all contain something of interest—some of them things, alas! too true.

DR. COVERNTON is thanked for the names he has suggested. His recommendation has been attended to.

TORONTO, JULY 15, 1851.

### MEDICAL POLITICS.

WE can conceive a man being so <sup>\*</sup>completely blinded to his own interests, by a variety of causes combining to influence and overshadow his reason and judgment, as to consent to sacrifice social position, personal comfort, nay even life itself, in exchange for the accomplishment of one desire, the gratification of one passion.

Such a man, it will be said, would be a fit inmate of the Provincial Asylum, where, under the admirable management of our friend Dr. Scott, and the wholesome restraint and discipline of the institution, he would be restored to the enjoyment of a rational exercise of his faculties.

In such a condition we regret to find, not only one, but several members of the Provincial Legislature. This epidemic mania, for we can regard it in no other light, reveals itself most conspicuously on the subject of the Medical Profession. It would appear that this body is considered by those unfortunates as a superfluous and noxious part of the community, whose extermination is to be accomplished at any hazard. What other explanation can be given of the desire evinced by those who seek to throw the practice of medicine open to every uneducated impostor? Who would de facto legalize murder, by rendering its detection impracticable. If we examine the bearing of the arguments put forth by these champions of charlatanism, we shall find them resolvable into the following general axioms:

1st—That the practice of medicine is as much a *trade* as any of the other mechanical pursuits of life or speculative occupations of commerce, and therefore ought to be as free and unfettered in its exercise as these are.

2nd—That the criminal law of the land is a sufficient protection against the evil consequences of ignorance and malice, and therefore it is unnecessary to restrict by statutory regulations either the education or the conduct of those who profess to treat disease.

3rd—That every person ought to be as much at liberty to employ their own *doctor!* (save the mark), as they are to select their own parson or lawyer; and that no one will give the preference to an ignorant quack, when he can obtain the services of an educated practitioner.

We propose to review these preposterously absurd conclusions for the especial benefit of Messrs. Richards, Flint & Co.

What, let us ask, is it that brings the study and practice of medicine to the level of a trade? Is it the necessity of acquiring an intimate knowledge by long-continued and intense study, of one of the most intricate pieces of mechanism which has ever, at least in human belief, been framed by Almighty wisdom? Mechanism endowed with a spiritual vitality—which raises it far beyond the other works of His creative hand—the mysterious connection of which is apparently so intimate, yet really so frail, that the slightest violence will sever the tie for ever! Is it because, successfully to acquire even a limited knowledge of this comprehensive subject, an intellect of no ordinary capacity, tutored by preparatory education for the task, must be kept serene by abstinence from all other pursuits, and be directed towards that object, and that object alone; aye, even through a long life of toil, anxiety, and disappointment. Is it because, in the prosecution of our calling, we are brought to view the weakness of our common nature, to watch its changeful character under the trials of physical suffering, to have our humanity wrought upon by the agonies of pain, the contemplation of mental anguish, the appeals of helpless poverty, and the heartless forgetfulness of ingratitude? Is it the consciousness of the fearful responsibility which attaches to our vocation, when we see the life of a fellow-being depending upon our still finite knowledge—however assiduously it may have been sought after, however successfully acquired—a being in whose existence is wrapped up the hopes and affections of a dependent family, the love and devotion of a parent, or the interests and welfare of a community? Is it because the peculiar nature of our intercourse with our patients makes us frequently the depository of their fullest confidence, reveals to us their most private concerns, which nought but the highest sense of honour, and a just appreciation of moral obligation, can enable us to preserve inviolable and protect with discretion? Is it because, at all hours, in all places—under the meridian sun or through the midnight storm, from the warmth and comfort of a home to the dark and dismal cell of houseless outcasts, from the happy communion of the domestic circle to the wailing abode of sin and sorrow, from the social enjoyment of the festive board to the bed of death, from the dwelling-place of grief,—we must pass and repass at the bidding voice of need, regardless of personal comfort, of mental anxiety, the rack of feeling, or the wants of a languishing frame?

Yet these are the materials we have to barter, these the glorious instruments of our trade; it is with these chattels we enter the great mart of the world, the workshop of life.

The mason, the carpenter, the cobbler, are all obliged to serve a probationary period of time, in order to obtain a practical knowledge of their handicraft; and no one will employ a tradesman who has not been regularly initiated in his occupation; but it would appear that any one can practice medicine, that such preparation is unnecessary for him who is to deal with human existence! The greater the ignorance, the grosser the imposture, the bolder the quack, the more successful he is in obtaining the encouragement and favour of those with whose lives he tampers, whose credulity and whose pockets are his stock in trade. We defy our enemies to say that this picture is overdrawn. Let every one, in the full enjoyment of his reflective powers, ponder over the duties which a medical man is called upon to fulfil in the instance of his own household, and he will soon discover, that the relationship existing between them is one of a most peculiar character; the requirements for a faithful and conscientious discharge of its obligations such, as he can hope to find only in one who has been educated with a full sense of their magnitude and importance, with every precaution as to his acquisition of knowledge; and who has obtained by examination the approval and sanction of properly constituted authorities among—those who only are competent to decide upon his qualifications—the seniors of his profession. And yet it is required by these legislative quidnuncs to permit any man, no matter what his principles, his education, or his other qualifications may be, or whether he be deficient in all, to undertake the treatment of the diseases of a body of which, unless so educated, he can know nothing.

We say it is wise, it is right, it is necessary, that the Legislature *should interfere* to protect the lives, the interests, and the physical happiness of the people, by placing such restrictions upon the study and practice of medicine, that those who enter upon the one, and commence the other, shall be duly and sufficiently qualified; and that no one unless so legally recognized, should be permitted to attempt the cure of the sick or the administration of drugs, as a profession or calling.

That the criminal law is equally applicable to the educated and licensed practitioner and to the ignorant and presumptuous quack, in the cases of injury to person or of loss of life, is true. True it is, that both must answer at the same tribunal, and before a jury of their country, for their delinquences and misdeeds. But the means of proof in both cases is not the same; the evidence for conviction or exculpation not equally ascertainable. The educated and licensed practitioner, when danger threatens his

patient, is required by a sense of moral obligation, by custom and the rules of his profession, to call in the aid and seek for the advice of one or several equally or more experienced than himself, to counsel him in the difficulty which exists, to corroborate his opinion, correct his errors of judgment, and sustain him in his treatment; thus dividing the responsibility of his position, and providing at once a means of proof, either that his proceedings have been founded on the principles of science universally established and inculcated; that his attention to the sufferings of his patient and the exigencies of the case, have been sufficient; or, that he has displayed a want of knowledge and been guilty of neglect. It may sometimes occur that the precaution of consultation has not been resorted to, either from some circumstances, such as pressing emergency and want of sufficient time, the great distance from which additional assistance could alone be obtained, the repugnance of the patient, and physical obstructions of various kinds, or from a wilful disregard of common usage and obstinate opposition to such a course when suggested to him by those interested in the welfare of the sick; the practitioner, thus assuming to himself the entire responsibility of his acts, is bound to state in self-defence, the views he entertained of the nature of the illness under which his patient laboured, the plan of treatment he pursued, and the medicines he administered. This information obtained by his own declaration, and by cross-examination, is then submitted to the ordeal of comparison with the opinions of other medical men, celebrated for their skill and learning, who are required by the administrators of justice to sanction or condemn the course pursued, and by their judgment and opinion so expressed, to enable the jury and the Court to acquit or convict the accused party.

But in the case of the ignorant pretender, how is this evidence to be obtained, how is the conclusion to be arrived at? If he calls to his assistance, in the time of need, a properly qualified person, his ignorance and presumption must necessarily be exposed;\* and should injury follow his charlatanism, he ought to be punished. And simply because such result does not ensue, is he to be permitted to go at large unrestrained, and place again the life of another human being in jeopardy? If he is brought into court, and submitted to the same investigation and the same ordeal as the educated and licensed practitioner, which justice would demand, how can his ignorance there escape the scrutiny of knowledge and experience? To whom can he appeal? Surely not to one as ignorant as himself; certainly not to the court or the jury, who in all that appertains to the body and its ailments are not presumed to be one whit better informed.

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\* E. g. Dr. Rankin's case, in this number.

On whose judgment then, can and must the people rely for the detection of the violence which has been perpetrated—the evil which has been consummated, in order that the ends of justice may be met? On that of those who are the duly recognized emissaries of the educational establishments of the country. Those who, from a life devoted to the zealous and careful discharge of their professional duties, have earned for themselves a reputation for skill and knowledge. Those who, from the promptings of a good conscience, and the dictates of sound reason, have first ought to learn how fearfully and wonderfully we are made, before they have *dared* to deal with the handiwork of God. Here, then, a similar result must ensue. Imposture will be laid bare, and held up to the contumely of the good, and ignorance will be punished for its presumption.

By permitting therefore, all who feel so disposed, to engage in a pursuit for which they possess none of the requirements, would be to multiply the objects of criminal jurisdiction, to load the calendars of crime with victims scarcely less unfortunate than the poor sufferers on whose account they are punished. By such a law you would encourage the idle and dissolute to plunge into the vortex of danger which would momentarily surround them: for it is not to be supposed that they would voluntarily undergo the discipline, labour, and expense of a proper education, when they might at once dub themselves doctors, and commence the work of carnage and pillage. By holding out a premium to “untutored genius,” this law would entice from other avocations more fitted to their capacity and wants men, who ready to cast character and even life on the hazard of a die, would seek by what they erroneously conceive to be a ready access to wealth, for the means of livelihood they find it irksome to gain by the plough, the anvil, or the hatchet.

Again, we say, it is wise, it is right, it is necessary that the Legislature should interfere to prevent such a calamitous state of things, by placing restrictions on the study and practice of medicine. We require a preventive, not a remedial law: a law which would guard and protect the community, not entrap and punish the individual.

We may as well answer at once, a very frequent but fallacious argument employed against a statutory provision of the nature for which we contend. It is asserted that such a restriction would prevent a man from giving a dose of medicine to his household, and might debar him from acting the part of the good Samaritan. Now the law always looks to the motive or intent as that which constitutes the offence; and it must, we think, be admitted, that it is not against the occasional exercise of individual judgment in cases of emergency that the spirit of such an enactment would apply, but against the wholesale imposture, the wicked assumption of a character to which

they have no just claim, by those who openly undertake *as a means of livelihood, as a profession*, to practice medicine, of which they are entirely ignorant. No sophistry whatever can make it appear that—however unfortunate—the consequences of an act done under the influence of parental anxiety or charitable feelings, could reasonably be brought under the operation of a law framed expressly to prevent deliberate and wilful malfaisance. No jury of rational and conscientious men could fail to recognize the difference which exists between such cases, and to give their verdict accordingly, supposing a vexatious prosecution to be brought before them, founded on the provisions of this Act.

We pass now to the consideration of those arguments, by which it is maintained that such a law would interfere with the exercise of private personal rights, as far as liberty of choice is concerned, in the selection of those who shall minister to the spiritual wants of an unquiet conscience; who shall counsel in the mysteries of litigation; or who shall prescribe for the pain and threatened decay of the frail body. We distinctly assert, that there could be no interference with the right of selection among the *individuals of a properly qualified and cultivated body* of medical men; the superiority of the acquirements of some, the peculiar manner of others, would be certain to attract the good opinion and confidence of different sets of people, and to limit the exercise of private opinion and judgment in such a matter and to such a degree, would indeed be to trample on the liberties of the subject. But are the cases parallel? Is there any analogy between the duties of these respective professions or the consequences of an ignorant assumption of their functions? We trow not. Our convictions lead us to believe that the evil consequences of misdirected faith manifest themselves in every relation of life; and that we are bound to be most careful in the formation of our religious principles and the selection of our pastoral counsellors. Still the office of the clergyman consists principally in promoting the spiritual welfare of mankind,—they have to deal with the mysterious agencies of thought and conscience, to direct the efforts of repentance, and point the way to salvation. Any abuse of their functions involves the eternal welfare of individuals, but brings no temporal or, apparently at least, no physical evils on those connected with them. They are responsible alone to the God whose majesty they offend.—who, looking into their hearts, knows the hypocrisy and counterfeit hidden from the finite sense and imperfect knowledge of mortal and erring man. With such an awful accountability, from which there is no escape, no human contrivance could possibly interfere.

In the regulation of commercial pursuits, of monetary transactions of every description, and in the maintenance and protection of the social rights, either of communities or individuals, where the exercise of legal knowledge is called forth, men have a safeguard

in the general information which is acquired by the daily intercourse of differing interests. If in the higher and more abstruse departments of legal science, where professional knowledge of principles and familiarity with technical detail is essential, an ignorant pretender should intrude, the consequences of his act are confined to the loss of money or of property,—a loss by no means comparable to that of life, or of that which makes life desirable—health, corporeal integrity, and functional vigour! Moreover, the errors of the ignorant, the civil deeds of the designing, may still be remedied. The means which brought about the casualty, if properly employed by competent persons, will restore to the unjustly suffering victim, his precious and accustomed liberty, his jeopardized property. But who shall replace the amputated limb—who soothe and quiet the troubled brain, unhinged by ignorant error or wilful malice—who can bring again, from the cold and silent grave, the body animated by the life prematurely cut short, to tell its tale of suffering, unrelieved or disorder aggravated, to reveal the cause of its destruction? No! the tomb swallows up the best evidence of ignorance and crime,—in the smouldering clay lie buried alike the records of deluded hope, of blind and helpless credulity; the secrets of unprincipled and murderous fraud.

Nor will it avail any thing to say that quackery is an evil which will cure itself,—that no one will countenance or employ the impostor, when they can obtain the assistance of an educated man. Daily experience teaches the reverse. We see even among intelligent and enlightened communities some instances of weak and perverted judgment, who are easily caught with the glitter of pretentious ostentation, which invariably characterizes the professional quack. With many, the very novelty of a new man has its peculiar attractions:

*Some praise at morning what they blam'd at night,  
But always think the last opinion right;  
While then weak heads, like towns untortified,  
Twixt sense and nonsense daily change their sides.*

But by far the largest proportion who give employment and support to the quack are those who are really entirely ignorant of the risk they run, the danger they incur, in so doing,—they are unable, from a want of it themselves, to appreciate the advantages of education; and influenced and guided by the example of the really better informed though unthinking class, who set them so pernicious an example, they readily fall a prey to the cunning and avarice of the unscrupulous pretender. It is for the protection of these, the very largest portion of the population of a new country like this, that the Legislature ought to evince a jealous desire to pass such laws, as will not only secure the careful and efficient education of every one who wishes to embrace medicine as a profession, but laws also which will prevent any but men educated

under such legally established regulations from presuming to engage in its practice.

It may appear to be almost superfluous to adduce any instances of the evils of empirical imposture, to substantiate the assertion that such evils really do exist, of a nature and to an extent of which probably few dream. But as these remarks are intended for the benefit of our senatorial readers we will favour them with one of the most recent, kindly sent to us by our esteemed contributor, Dr. Rolls of Wardsville. He states that the case was related to him by Dr. S. of London. The practitioner was a homœopathist, one who has lately taken up his quarters in that part of the country. The patient, a poor woman, was delivered of a child, by a midwife residing in the neighbourhood, but she could not succeed in bringing away the afterbirth, which it would appear was retained by hour-glass contraction of the womb. She sent for the globulist, who it may readily be conceived was somewhat staggered by the urgency of the symptoms. He had heard or read that the ergot of rye was a good thing to promote action of the womb; and therefore he presumed that as there was something to be brought away *by some means* from the womb, the best course to pursue would be to give some of the ergot, which was accordingly done, and in *very large doses*. The result of this drugging was such as to endanger the poor woman's life, and to whose assistance Dr. S. was most fortunately though tardily called in.\* The issue of this case will be made equally public with this account of its progress.

We shall in a subsequent number enter into the consideration of another most important division of the abuses which exist in one department of medicine, namely,—the universal and unrestricted custom of retailing drugs, now so prevalent, by persons entirely unacquainted with their nature and properties. In this it will perhaps be somewhat more readily admitted that much danger to the community exists, and that it is an evil which ought to be checked by legislative interference.

We would now address ourselves to our professional readers more particularly. We must all in common deplore the anomalous condition in which we are now placed; the indignities to which, as a profession, we have been exposed by public authorities; the cheap estimation in which we are held, and the open and successful competition which impudence and avarice are, from these and other causes, able to maintain against us;—but we would ask you all, in a spirit of kind and fraternal regard, to consider whether much of this may not be attributed to the want of a more honourable and

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\* For the information of our medical brethren, we give Dr. R's. statement of the condition of the patient at this time:—"That part of the uterus below the contraction was inverted, and protruded beyond the os externum—the part above the contraction was retroverted. Whether or not the placenta was expelled, or whether the woman survives, I have not heard."

independent spirit among ourselves; to the not attaching sufficient weight and importance to the office we hold, to the frequent absence of unity and sincere co-operation in our ranks, and to the too eager pursuit by many of individual benefit, at the expense of the body to which we belong. Until we are true to ourselves, we may in vain expect the full harvest of public confidence and esteem; and this precept remains still unfulfilled, so long as we silently submit to the gross encroachments of quackery, and while we have no means of expelling from our ranks all those who sacrifice the best interests of the profession at the shrine of a selfish and ignominious cupidity.

On this point the following remarks of Sir Benjamin Brodie appear peculiarly applicable:—

“To obtain such a competency as will place yourselves and your families above the reach of want, and enable you to enjoy such of the comforts and advantages of life as usually fall to the lot of persons in the same station of life with yourselves, is undoubtedly one of your first duties, and one of the principal objects to which your attention should be directed; but, nevertheless, let it never be forgotten, that this forms but a part, and a small part, of professional success. If indeed money were the only object of life, if to enjoy the respect of others and the approbation of our own conscience, to feel that you are doing some good in the world, if these things were to form no part of your ambition, then indeed you might possibly have your ambition gratified by pursuing a different course from that which I have pointed out. You might be unscrupulous in your promises, undertaking to heal the incurable, making much of trifling complaints for your own profit, and claiming credit where none is due to you. Never pretend to know what cannot be known; you will not satisfy every one at the moment, for many require of our art that which our art cannot bestow; but you may look forward with confidence to the good opinion of the public, which time will bring as your reward, and to act otherwise is to put yourselves on a level with charlatans and quacks. It must be a great satisfaction at the close of life, to be able to look back on the years which are passed, and to feel that you have lived, not for yourselves alone, but that you have been useful to others. You may be assured also, that the same feeling is a source of comfort at any period of life. *There is nothing in this world so good as usefulness*. It binds your fellow creature to you, and you to them; it leads to the improvement of your own character, and it gives you a real importance in society much beyond what any artificial station can bestow. It is a great advantage to you, that the profession, of which you are members, if properly pursued, is pre-eminently useful.”\*

Such are the words, it has been well remarked, of one who, by his own energy and labour, has attained those sunny heights of practice—those “*templa serena*”—whence he is able, in perfect tranquility and without bias—

*“Despicere ..... alios, passimque videre  
Errare, atque viam palantes quaerere vitæ,  
Certare ingenio, contendere nobilitate,  
Noctes atque dies niti præstante labore  
Ad summæ emergere opes rerumque potiri.”*

\* Sir B. Brodie on the Duties of Students and Practitioners. London, 1813.

That medical men are, and we here use the language of the watchmen of our profession in the fatherland, alone competent to expose the evils of empiricism; and that, as legalized guardians of the public health, they are, *ex officio*, as well as morally, bound to do their utmost for its suppression, are axioms so palpably correct, that they need no arguments for their support. It is of little importance to determine whether, as a profession, we should gain or lose, in a pecuniary sense, by the suppression of quackery, since the public are naturally and justly but little interested in the amount of our private emoluments; but knowing, as we do, the injurious effects of empiricism upon the national health, it is important and unquestionably our duty that we should, irrespective of all personal interests, stand boldly forward and denounce it, while we exert our influence, both in public and private, to check and resist its encroachments. Our best claims upon public confidence should rest, not upon a timid and cringing servility to popular prejudices, or upon a morbid, selfish sensibility, which dreads collision with existing interests, hostile as we believe these to be to the general welfare, but upon a firm and disinterested insisting upon what we know to be essential to the public good—upon a temperate but decided assertion of our medical authority, and upon a *uniform refusal to sacrifice our professional character to public ignorance and caprice*. Medical reform can only be securely effected by the exertions of medical men; and it is idle to expect assistance from without, unless we show a willingness to purify, and a power to defend ourselves, from within. Instead of vaguely descanting upon our grievances, let us actively unite for their removal, and rest assured there is no reasonable limit to the good which might then be accomplished. To accomplish so desirable a result, it is only necessary for the Medical Profession zealously and cordially to unite, and *by doing so we cannot fail to secure the attention and support of Government*, as well as to enlist in our favour the common sense and correct feeling of every conscientious and enlightened individual." We have before us many examples of combination and association for given objects, and we not only hear every day of such associated bodies being able, but actually exerting themselves to influence the elections. Should we fail in obtaining from the present Legislature, now rapidly approaching its conclusion, such a measure as we deem sufficient to accomplish the ends in view, let us too carry to the hustings the weight of our individual and collective influence, and we need not despair of framing a Parliament more careful of the true interests of society—more considerate to the claims of the Profession. And this is no idle boast. There cannot be a reasonable shadow of doubt that by using the influence we do possess in many other matters, over the opinions of the intelligent part of the mass of those who exercise the elective franchise, we shall accomplish all we desire.

“ Reiterated experience too plainly proves, that all other means of a less direct or more prospective character, must ever prove comparatively inert and unavailing; *but if aided by efficient legislative protection*, the union of our body and our corporate purification must necessarily tend to disabuse the public mind of those prejudices and misconceptions on which the quack so successfully trades. And this purification must be accomplished by constituting a permanent *court of honour*, excluding from amongst us all whose conduct is at variance with the higher moral interest of a profession, whose dignity and usefulness we are pledged by every obligation and honourable feeling to uphold. By a firm, uniform and unflinching attachment to truth—by unwearied efforts for the acquisition of knowledge, and its enlightened application for the removal and alleviation of human suffering—by a constant willingness to acknowledge and eradicate abuses, wherever they may exist—let our conduct and bearing be such as at all times to entitle us to the sympathies and support of every upright and intelligent mind.\*

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#### NEWS OF THE MONTH.

SINCE our last issue, nothing has really been done in advancing the Medical Bill. To what this must be attributed, we are not at present in a position to tell. After, however, the most mature deliberation, it has been deemed expedient to adopt a transcript of the Act of Incorporation of the College of Physicians and Surgeons of Lower Canada, with such modifications as the nature of the local divisions of this portion of the province render necessary, as well as in the number and mode of election of the members of the governing body. This bill has been entrusted to Mr. McDonald of Kingston, who, in the absence of Mr. Cameron, of Cornwall has kindly consented to take charge of it through the several remaining stages of its progress. This course has been adopted for the following conclusive reasons—reasons which at least we hope will appear to be so to our readers, and ultimately prove so in the success of the measure.

1st. It was conceived that the present Parliament would hardly refuse to give to Upper Canada a measure *passed by themselves* for the Lower Province, and now in successful operation.

2ndly. We have been assured of the very general impression in favour of assimilating the two provinces in this respect, among the Lower Canadian members, a circumstance calculated to insure the passing of the Bill.

3rdly. We are anxious to obtain an Act of Incorporation as speedily as possible, for we doubt not that once incorporated and associated, a strong and good feeling of mutual dependence and reliance, of co-operation and fraternity, will spring up among the members of the profession, at present very much estranged and kept apart, by an absolute want of knowledge of each other; and

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\* See Report of the Committee of the Provincial Medical Association.

we shall moreover sooner obtain the controul of our own affairs. Such are the grounds upon which we have ventured to suggest the course now pointed out, and we trust we shall carry the voice of the profession with us, and that the measure will meet their views.

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#### THE MEDICAL BOARD.

SINCE our last number, this body has been increased by the addition of four members, viz.—Drs. Rolph, Workman, Bovell, and Hodder. We have no doubt that, under the present constitution, the Board would be very efficient for the purposes intended by the law under which it is established. And we have heard that several changes are contemplated by the Board, such as insisting upon the candidates for license giving some proof of having been at least three years engaged in the study of their profession; upon examinations *viva voce* and by written question and answer, &c. &c. These are certainly steps in the right direction for that reform which was so much required. But ere another moon sheds her lustre over the walls of the Board room, we sincerely trust all these arrangements and regulations will be in the hands of the Profession, untrammelled by any control but that of the By-laws of the College of Physicians and Surgeons of Upper Canada.

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As the last edition of the London Pharmacopœia is as yet in the hands of but few practitioners in this section of Canada, the notice of some of the principal alterations, which appears at page 178 of this Journal, and which has been taken from the London Medical Gazette, may be acceptable to many of our readers.

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#### POSTSCRIPT.

THE extent of our editorial remarks, which, under the emergency of our interests we are unwilling to curtail, have induced us to add eight additional pages to our matter this month, which will account for the omission of one or two articles we had prepared for press, but which shall appear next month. Among these are an interesting article from the "Ottawa Citizen," and a notice of the Plantagenet Water.

DR. EVANS' valuable paper was received too late for insertion in its proper place this month, but shall appear in our next issue. It is necessary that original communications, intended for immediate publication, should be in the printer's hands by the 1st of the month, *at the very latest*. Correspondence can be received until the 12th. Attention to this point will oblige the Editors, and prevent disappointment to contributors.

DR. J. G. BLRHUNE'S paper is in the same predicament.

MR. GILBERT'S request will be attended to next month. Perhaps in the mean time he will be kind enough to state, whether he means elementary works, or those for more advanced study and practice.

# SELECTED MATTER.

## MEDICINE.

[According to promise, we give extracts from Mr. Simon's Lectures on the effects of Excretion in the Treatment of Disease.]

### EFFECTS OF EXCRETION IN THE TREATMENT OF DISEASE.

By John Simon, Esq., F. R. S., &c.

Evacuative drugs have held the most important rank in the *Materia-medica*; and there have been times, even in the modern history of practice, when the balance of medical opinion has inclined itself towards the imagination, that by appropriate evacuants any conceivable disease might be expelled from the body, in form of urine, sweat, stool, or vomit. All scientific generalizations, especially such as fall within scope of the popular eye, become liable to these preposterous excesses of application; but it would be a fatal mistake for the interests of medicine, if, on account of such extravagances, we refused to recognise those invaluable indications which may be derived from a careful study, and a rational application of the humoral pathology.

Taking for granted, then, that we ought to follow the suggestions of nature as to the curative tendency of certain excretions, and that we ought in a large variety of cases, to adapt our treatment to this evacuative purpose, you will perhaps think that the object is an easy one. You will remember the emmenagogues, the diuretics, the sudorifics, the cathartics, the sialagogues, the emrhines, the expectorants, of the dispensary; and you will feel assured that, with these resources, you must be omnipotent against humoral diseases,—that with a pharmacopœia so plentiful, and so nicely arranged, your only difficulty can be that of selection—the merest *embarrass de richesses*.

It will surprise you perhaps to be told, unless you have ascertained it in practice before coming to learn it from pathology, how very much delusion lies under cover of those fine names, and how singularly little real or useful power we possess over the organs of excretion.

If we inquire into the physiology of these organs, we find with them as with all others, that their natural stimulus is the blood; and we are able to say of them generally, that *cæteris paribus*, their activity of function varies proportionately to the abundance of blood traversing their capillary vessels. To increase the circulation of blood through an excretory organ would appear, then, an easy method of augmenting its characteristic excretions. In the abstract this may be true, but practically it has a very important qualification. The blood is capable of exciting in the several organs of excretion their appropriate acts, only because, by means of its own decomposition, it furnishes to the growing elements of each several organ that specific material which it is their function to appropriate and excrete. If, for instance, the blood were divested of the ingredients of urine, its circulation through the kidney would be fruitless. It is the law of those nucleated cells which form the bulk of all excreting organs, to grow and expand by the appropriation of certain specific

materials, and of these only: a cell in the liver fills itself with one stuff; a cell in the kidney with another; and so long as the blood can give them this special pabulum, they grow more quickly and more abundantly, in proportion as their circulation is increased. But, on the other hand, the increased afflux of blood to an excreting organ can serve to stimulate that organ's excretory acts, only so long as the blood is ready to yield to the organ its characteristic materials for excretion. Hence it would appear probable that an excretion can be permanently augmented only by an increased formation of hyperæmia in an organ, apart from the condition just specified, could only give a moment's expedition to the process of discharge.

In this argument, I assume as an unquestioned fact, that eliminative organs *do not form* the materials which they excrete; that they merely appropriate from the blood certain elements which existed there previously to an act of excretion. The best illustration of this truth is given in the fact, that after absolute removal of both kidneys in the lower animals, urea, rapidly accumulates in the blood, so as to become detectible by analysis, and soon in quantities sufficient to destroy life by narcotism; and we are constantly able to observe the same effect in the human subject, where the kidneys are so disorganized as to be incapable of purifying the blood.

It would appear, then that while the blood, either mediately or immediately, undergoes those important chemical changes which result in its decomposition and decay, the products of this process have their preordained outlets from the body, and so fast as they arise, become evolved; each, as it were, at its own pole of a galvanic battery. I know nothing better to compare it with than the phenomena of galvanic decomposition: you see the blood distributed with uniform qualities throughout the whole area of the circulation, and you see the products of its decomposition appearing with their characteristic signs at the liver, the kidney, the skin; just as, when you plunge the wires of your battery into a trough of water, you get oxygen evolved at one pole, and hydrogen at the other, while the intermediate material remains apparently unchanged. And to apply that analogy somewhat further (though by the way, I must beg you to understand that it is merely chosen for illustration sake, and that I have no intention of suggesting to you that the vital process in question is of an electrical nature) I would point out this for your notice: as you are quite sure of decomposing water, that for every volume of hydrogen at one pole, there must be a corresponding half volume of oxygen at the other—as you are quite sure that, if the gas be not evolved, it must have spent itself oxidizing the metal of that opposite wire, so with the manifestations of secretion. You cannot deal with them singly; if the essential ingredients of urine, bile, or sweat, be formed in excess, you are quite sure that certain other ingredients *complementary* to them must have been formed in excess likewise. Supposing for a moment, that the liver and the kidney were the only organs to be considered, it would be a chemical impossibility for the blood to furnish material for one of these glances without evolving, as a necessary residue of that process, the characteristic elements of the other secretion. As an obvious illustration of this, I may cite an interesting observation by Dr. Bence Jones, in respect of the digestive process: when much acid was secreted by the stomach, the urine was found to be alkaline: the excess of acid in the stomach was hydrochloric, and the free alkali in the urine was fixed alkali and not ammonia: in extreme cases the alkalinity lasted for four hours: as the free acid was absorbed from the stomach, the urine became acid: and this reaction increased, until it affected litmus paper intensely.

It would appear, then, that the only natural means, for giving increased development to any particular excretory function of the body, would consist in providing for the increased formation of certain specific materials within the blood; and that this increased formation cannot possibly arise as a single local process, but must involve an affection of the entire chemical economy. And it would appear further, that an augmented determination of blood to the excreting organ can only serve to facilitate the process, in proportion as that fluid has previously been charged with the materials to be eliminated.

Now, all the power that we possess of increasing, or appearing to increase, individual excretions, by means of medicine acting through the blood, admits of explanation on the principles which I have stated. We add to the blood the ingredient of some one secretion, or more; and in the increased secretions we find the pharmaceutical material which we have given. Here, however I ought to state to you that the appropriating power of the various excretive organs is not limited to the exact materials of their normal stimulants. A certain latitude of operation is allowed, and very few chemical agents (if any) can enter the blood without finding, as it were, some road prepared for their escape from the system—some organ or other ready for their excretion. Thus for instance, iodide of potassium is quite foreign to the animal economy; it has no counterpart in any natural excretion: but so soon as a sufficient quantity has been taken to impregnate the blood, it immediately begins to excite the kidney and to be largely eliminated by it. Accordingly iodide of potassium (as well as various other salts) though perhaps inferior in diuretic force to the natural constituents of the urine, may certainly be considered as acting in the same manner and under the same law.

But how far may this fairly be called increasing the excretion of urine? Suppose for instance, that half a drachm of nitrate of potass be taken daily by a person in good health; suppose this continued for a fortnight; what will be the total result? More blood will have traversed the kidney; more water will have been secreted; and that waste of water will have been repaired by an increased thirst, calling for drink in proportion; and the increased flow of water will have carried off with it the nitrate of potass; and for the first twenty-four hours will have appeared to increase the urea and the lithates; that is to say, it will have given facilities for their elimination; it will have washed out the tubules of the kidney, and have cleared away all that there was to be cleared; but, except in that almost mechanical process, it will have done nothing for the characteristic exertions of the gland. The urine of the fortnight would be, so far as we know, only the ordinary urine in all respects but one; in addition to its ordinary constituents, it would contain seven drachms of nitrate of potass and a certain additional quantity of water—if, at least, water had been taken in proportion to the thirst. Most of our milder diuretics let their action be resolved into this: that the excretion excited by them consists of the drug itself, *plus* water.

Under the influence of more violent diuretics (such as cantharides or cubebs) given in large doses, so as to cause great irritation of the gland, something different occurs: the excretion is evidently hurried: it contains albumen and tubular epithelium—often blood; it presents at first an increase of lithic acid, apparently at the expense of the urea, and subsequently a decrease of both these ingredients. Finally, so soon as the kidney is relieved from the continuance of these irritating drugs, the specific gravity of the urine (which has already begun to decline in spite of the largest doses) suddenly falls to 1007  $\alpha$

1008, is quite destitute of lithic acid, and contains exceedingly little urea. These facts (given by Heller as the result of observations carefully made by himself at Vienna) show that the extreme action of the so-called diuretics consists in bringing away the products of urinary excretion in an immature state, mixed with the evidences of inflammation; but they render it little probable, that any purificative action can thus be exerted on the blood; and Krahmer, after performing on himself a hundred and three experiments, of which forty-one were with the so-called diuretic, found that on the whole he passed more urea, more lithic acid, and more of the other solid constituents of urine, without the exhibition of those drugs than with their assistance.

But are there no means, you will ask, of increasing the flow of *real* urine? Can we do no more than add water? Can we invent no real and genuine diuretic, which shall make the urine stronger in its specific ingredients, as well as more plentiful in its flow? Undoubtedly we can, though perhaps in a very different sense to that supposed in asking the question:—*e. g.*, Lehmann, a German analytical chemist, found that by exercise he could increase the proportion of urea in his urine from about 30 in the 1000 to upwards of 45.

I say this is not quite the sort of result wanted, because I presume the giver of diuretics expects that his drugs shall be *especially* and exclusively diuretic; whereas, in the case just quoted, the effects from exercise, no doubt, were to be traced in very many other secretions; in sweat, bile, and so forth. It was, in fact, an illustration of what I have already stated to you, that such secretions are secondary results of a previous chemical change in the blood; the strong exercise and attendant waste of muscle, the increased oxidation of blood, the profuse perspiration, all these were elements in the production of that increased renal secretion. The kidney secretes all urea that is brought to it, and on this occasion, more than usual was brought, because of other chemical changes passing simultaneously in the system. But I can give you another case from the same chemist. He took a scruple of *Thein* (the alkaloid principle of tea) at bed-time; the next morning he found his urine contained about twenty per cent more than its normal quantity of urea. This would, at first sight, appear a case of true diuresis; and as nothing is said of other secretions, I will assume that they were not increased; but if you will call to mind the chemical constitution of the principle referred to, you will see that in the course of oxidation, it might easily reduce itself to the very formula of urea; and I cannot but suspect that something of this sort must have occurred with it, while within the blood; and that thus, reaching the kidney, not as *thein*, but as urea, it merely appeared in the urine just as if in the latter form it had been artificially injected into the veins. The same effect is produced, in the same manner, by the injection of lithate of ammonia into the veins, or by its reception in the stomach; for as it enters the circulation, and becomes oxidized, part of it is transformed into urea, part into oxalic acid; both which materials make their appearance in the urine.

I have chosen the kidney for these illustrations, because we have good opportunities of watching its excretory acts; and likewise, because in practice you will hear a great deal about diuretics, and it is as well that you should know how much, or rather, how little can be done with them. And while I am on this subject, I may show you, as a practical inference, from what I have been stating—a distinction as to the cases in which diuretics can usefully be employed. Suppose that you have a case of ascites dependent on disease of the heart or

liver, and you give nitrate of potass, or acetate of potass, or turpentine, as a diuretic, you will have your drug carried off by the kidneys, and with an increased quantity of water; and if you press your remedy, you will by degrees drain off a considerable quantity of the peritoneal effusion. And in such a case, your diuretic may possibly be a well chosen remedy. But suppose the case to be one of effusion (more generally anasarca) from disease of the kidneys, such anasarca, for instance, as often accompanies Bright's disease; and if it were proposed to give a saline diuretic, you would, I hope, repudiate the proposal. If the blood were examined in such a case, you would find it already containing more than its proportion of the natural diuretic salts; competent knowledge of morbid anatomy would tell you that these are detained in the blood only because of the diminished secreting structure of the kidney; and the addition of a diuretic drug to the blood could do nothing but increase its unnatural state, and perhaps aggravate the kidney-disease by the determination of a larger flow of unavailable blood. It is in such cases as this, that diuretics add materially to the sufferings of the patient, causing albuminuria or hemorrhage.

I believe that what I have stated with regard to the kidney applies equally to all excreting organs; that their best stimulants are their own characteristic excretions; that if these exist in the blood, no extraneous stimulation can be so effective as they, for exciting the organ to which they belong; that if they do not exist in the blood, no special stimulant of the organ which ought to evolve them can do more—even in its highest doses, than bring away from that organ the results of an immature excretory process, admixed with those of inflammatory excitement.

From the ground we have already gone over, you will have gathered misgivings, that with some show of power against humoral diseases we really possess extremely little true and available influence. For while unquestionably we are enabled to determine blood to this organ, or to that; while we can confidently ensure that our senna shall pass out by one channel, our cantharides by another and in either case carry serum with them; we find this ability of little service in respect of humoral disease, by reason of what I have already explained to you. If rheumatic fever forms with explosive rapidity certain materials congenial to the excretion of skin and kidney, the use of diaphoretics and diuretics is obviously superfluous; and in the latter more complex organ, any such treatment would of necessity do more harm than good. We see the solid materials of the urine largely increased in rheumatic fever: we have the clearest evidence that the material already in the blood is a most efficient diuretic: so efficient, that not infrequently, like cantharides, it produces hyperæmia enough to cause the excretion of albumen or of blood; and we are acquainted with no medicine (unless water be considered) which can at all facilitate the process thus energetically commenced by nature. Derivatively we may act no doubt on the mucous membrane of the intestines, and may establish there a counter-irritation in relief of the inflamed organs; but against that which is specific in the malady, our purgatives are utterly powerless, and apparently contribute no more to vent its distinguishing "peccant humors," than, in a case of suppression of urine, they would suffice to eliminate urea from the system. Whether a material, seeking to pass off by the skin and kidneys, be normal or abnormal, whether it be urea or that animal matter which loads the excretions of our rheumatic patients, we have no sufficient reason for believing that we can convert that diuretic material into one voidable by the intestines. By any excretory

organ we can only evolve those elements which have a specific and elective affinity for its action; and where this affinity prevails, I repeat that the elements themselves work their own discharge with at least sufficient rapidity. Obviously then, if the science of medicine is to find the means of affecting the course of humoral disorders, we must look further into the operation of drugs than the superficial evidence of their various local affinities. Our only known power of qualifying the specific materials of any excretion lies much deeper in the subject. It lies in such means as we possess for accelerating and retarding the waste of tissues and blood, or that metamorphosis of their material which sooner or later furnishes the elements of discharge. At the head of these means stands bodily exercise, with its attendant increase of oxygenisation, as the natural and by far the most efficient stimulus of the organs of excretion. As to the question, whether there are any drugs which control this process, either to increase or diminish it: here exactly it is that our ignorance displays itself, and that we find our inability to cope with the difficult problems of humoral pathology.

It seems probable that *water* promotes these changes in their normal direction: Becquerel found that, by increasing its use, he could likewise increase the true urinary excretion—that of urea.

There are reasons for believing that mercury occasions in the blood that dissolution of certain materials which is preliminary to their excretion; for first of all (just as with a true humoral disease) there is a period of general uneasiness and febrility; this presently gives way to a second stage of its influence, in which a variety of excretory acts occur with unusual activity; while any effused inflammatory products tend to re-enter the blood, and their fibrin undergoes disintegration. It is not easy to say, whether these phenomena are in the normal direction of chemical change, and whether they effect all the retrogressive elements of the blood: but in one respect the excretions thus evolved obviously differ from the more leisurely productions at the same surfaces—they are more fatid, and therefore probably less oxidized. Likewise, as with all excited excretions, they are apt to become inflammatory; in mercurial ptyalism the saliva is abundantly albuminous.

Antimony seems likewise, and in the same manner, to accelerate the destructive metamorphoses of the blood: and in indeed (since the recent researches of Dr. Mayerhofer) we know more about it than about other drugs of the same class. Without materially altering the proportion of coloured corpuscles in the blood it produces a marked diminution in its other solid ingredients, and reduces the fibrin to about a third of its usual quantity. Coincidentally with this change occur the various known acts of increased excretion; and in the urine (which has been especially examined) the waste products of the economy are found in excess—especially the urea, of which there is discharged half as much again as in normal.

What other drugs may act in this manner I am unable with certainty to inform you; but when you find any which, like these, tend to affect several excretions simultaneously, you may have reason to suspect that such is their *modus operandi*.

Such drugs, then, as mercury and antimony, when introduced into the circulation, represent exactly the phenomena of true humoral diseases; they effect or hasten a definite metamorphosis in the blood, under the influence of which the materials for excretion become sensibly increased; they do not stimulate the organs on which they act by means of any specific affinity between

those organs and themselves (as cubebæ stimulated the kidney) but excite their actions indirectly, evolving for their use, from the elements of the blood, a larger proportion of that which it is their normal function to eliminate, and (unlike those evacuative drugs which effect their purpose solely by reason of their local affinities) these *catalytic* medicines, if I may venture to call them so, do not merely add themselves to the excretion which they provoke, as nitrate of potass adds itself to the urine; for no quantity of mercury mixed with saliva would render that fluid foetid.

#### QUESTIONS FOR A CONCOURS IN BELGIUM.

THE Belgic Academy of Medicine have proposed the four following questions for a *Concours* :—

1st—To expound the causes, symptoms, character, and treatment of the diseases peculiar to workmen in potteries. Prize, a gold medal, valued at six hundred francs.

2nd—To expound, according to scientific facts, and by new experiments, the theory of poisoning by contact of surfaces. Pyæmia is included in this question. Prize, a gold medal, of the value of six hundred francs.

3rd—To give the history of epizootic pleuro-pneumonia, its causes, and the best means of prevention. Prize, a gold medal, valued at eight hundred francs.

4th—To trace the medical history of carbuncular diseases, in the different forms under which they attack domestic animals; also, the part which may be performed in their production by peculiarities of the soil, and the peculiar cryptogamous plants which attack their provender.

### SURGERY.

#### ON EXCISION OF THE OS CALCIS.

A PAPER READ TO THE MEDICAL SOCIETY OF THE UNIVERSITY COLLEGE, LONDON.

*By H. M. Greenhow, Esq.*

Operation on the ankle-joint is a subject which at the present time bears much interest in the minds of surgeons. The cases narrated by Mr. Greenhow afford proofs of the advancement of surgery. All terminated successfully, though difficulties arose, to be contended with in the after treatment, which rendered their happy conclusion proofs of the operator's skill.

"CASE I.—Henry H.—, aged 20, pitman, admitted into the Newcastle Infirmary, June 15, 1848. Eight weeks previous he had received a wound from a nail running into the left heel. Abscesses had formed and been opened, one of which continues to discharge. The integuments are much swollen and indurated, and fluctuation is felt below the outer ankle. The joint admits of easy motion without pain. Abscess opened and poultice applied. As the constitution was deranged, and the nights sleepless, opiates and other suitable remedies were prescribed.

On August 15th the operation was performed.

22nd.—Erysipelatous inflammation extending to the knee; wound sloughy; the ligatures have come away; feverish, with slight delirium at night.

28th.—Deep-seated abscess in calf detected, and opened, wound improving, though there were much fever and other disturbance.

Dec. 1.—The wounds were all healed, and he could bear some weight on the heel. A piece of cork was fitted to fill up the space in the shoe, and on the 29th he left the hospital quite well, and able to walk with only a slight halt.

The treatment throughout, in this case, was that which is ordinarily employed in cases of erysipelas after operations in hospitals.

CASE 2.—Thos. B.—, aged twenty-nine, pitman, admitted into the Newcastle Infirmary, August 10, 1848, with disease of the left foot, principally affecting the os calcis, which can be felt through two fistulous ulcers. The disease commenced two years and a half ago, with inflammation and abscess. He was a patient in the hospital some months ago, and underwent an operation for the partial removal of the bone, which proved of little use. The general health is not materially affected.

On the 15th the bone was exposed by suitable incisions, and diseased portions were removed in the ordinary manner.

In about a fortnight the wound was nearly healed, when inflammation took place, and an abscess formed on the outer ankle. He became feverish and disordered, and erysipelas (which prevailed in the hospital) extended to the knee.

Sept. 8th.—A large abscess on the top of the foot was opened.

12th.—Symptoms had much subsided; the wound was nearly closed, but the os calcis could be distinctly felt with the probe.

Oct. 17th.—The health being greatly improved, the complete excision of the diseased bone was determined on. The operation was performed in the same manner as in the first case, except that no integument was removed. After the operation, slight sloughing of the integuments took place; but during October and November the wound nearly closed, leaving a small opening at the heel, from which there was a slight discharge. In a few weeks this entirely healed.

Feb. 10th.—He left the hospital, the heel being quite sound. A piece of cork filled up the vacancy in the shoe, and he walked freely about on crutches.

CASE 3.—John R.—, aged sixteen, a country lad, of delicate and scrofulous appearance, admitted into the Newcastle Infirmary, Nov. 30, 1848, with disease of the foot, principally affecting the os calcis, which is greatly enlarged and carious. One or two sinuses at the apex of the heel penetrate deep into the bone; ankle-joint moveable without much pain. The disease began eighteen weeks ago from excoriation of the heel, occasioned by the friction of his shoe.

On December 5th, excision of the os calcis was performed, and diseased portions of the cuneiform bones were sawn off. The posterior tibial artery bled freely, but was secured.

He went on well till Jan. 7th, when he was seized with excessive pain in the hip, &c.; the wound became less healthy.

June 15th.—He left the hospital, the wound being nearly healed, and the hips greatly easier, but so stiff from long-continued disease that they would scarcely admit of any motion whatever. The constitutional treatment was varied and adapted to the symptoms and constitution of the patient. He passed some months in the workhouse at Hexham, his health improving; but although he got about on crutches, the hips remained extremely stiff. The final result of the operation was successful."

With respect to the history of the substitution of excision for amputation at the ankle, the author remarks:—

“The Moreaus were the first surgeons who introduced the operation of removal of the bones of the ankle as a substitute for amputation. They removed the astragalus and ends of the tibia and fibula in two cases, and the patients did well. But none appear to have followed their example till a little more than two years ago. The great surgeons who have published their experience within the last few years do not encourage the practice of excision of the ankle-bones. Thus we find that Mr. Liston never excised any of these bones, and his opinion of excisions generally is, that ‘when the soft parts are much diseased, when the disease is not limited to the articulating surfaces, or when the patient is reduced to a low state of hectic,’ they are not admissible. Again it appears that though Mr. Fergusson has performed partial operations on the os calcis with success, yet he has never removed the entire bone. He relates a case, in which he scooped out the whole of its cancellated structure; ‘the cavity healed slowly, and ultimately filled up.’ Mr. Fergusson’s opinion of excisions is, that ‘such operations are, under any circumstances, extremely difficult, and in most instances more dangerous to the patient than amputation at the ankle or in the leg.’

“This being the state of opinion with regard to these operations, Mr. Thomas H. Wakley, in 1847, performed his operation of excision of the astragalus and os calcis, and with success. His case was published in *The Lancet*; and soon after in August, 1848, Mr. Greenhow performed excision of the os calcis, as he believed for the first time. When, however, the report of his first cases appeared, Mr. Hancock made known his case, which had been operated on a short time before, but had turned out unsuccessfully. Mr. Page operated in October, 1848.”

In the cases detailed above, the strength of the patients had been much reduced by the constant discharge of matter from the diseased structures, and from their being constitutionally scrofulous. In healthier subjects recovery would have been quicker, and the chances of success more certain.

The mode of operating, as described by Mr. Greenhow, was as follows:—

1. Incisions were made from the inner and outer ankles, meeting at the apex of the heel; and then,

2. Others extending along the sides of the foot, the flaps being dissected back, so as to expose the bone and its connexions. These being divided, the bone was removed, and the astragalus and cuneiform bones carefully examined. Where necessary, the saw was used, and then the flaps were brought together and secured by sutures, plaster, and a bandage. It was found better not to remove any integument, as was done in the first case.”

## MATERIA MEDICA.

### THE NEW LONDON PHARMACOPŒIA.

Bismuthi Trisnitras is now Bismuthi Nitras.

Ceratum Saponis is now Cer. Sapon. Co.

Confectio Piperis Nigri is now Conf. Piperis.

Linimentum Hydrargyri Comp. is now Linimentum Hydrargyri.

Pilula Ipecacuanhæ Comp. is now Pilula Ipecac. c. Scilla.

The pill masses throughout were *Pilulæ*, but are now called *Pilula*.

*Sodæ Sesquicarbonas* is now *Sodæ Bicarbonas*.

*Tinctura Catechu* is now *Tinctura Catechu Comp.*

*Unguentum Picis Nigræ* is now *Ung. Picis*.

Many of the changes, however, are not thus unimportant, and are liable to occasion confusion, because there is something for which it may be mistaken: for instance—

*Amygdala Dulcis* is now *Amygdala*; but there is also an *Amygdala Amara*, which may be mistaken.

*Confectio Rosæ Gallicæ* is now *Confectio Rosæ*; but there is also another confection of roses—viz. *Conf. Rosæ Caninæ*.

*Decoetum Cinchonæ Cordifoliæ* is now *Decoet. Cinchonæ*; but, as there are two other decoctions of cinchona, there are several sources of error.

*Extractum Cinchonæ Cordifoliæ* is now *Ext. Cinch.*, to which the same remark applies.

*Extractum Colocynthis Comp.* is now *Pilula Colocynth Comp.*, and the old title of Compound Extract is expunged.

*Guaiacum Resina* is now *Guaiacum*; but there is also *Guaiacum* wood as well as resin in the *Pharmacopœia*, to either of which, therefore, "*Guaiacum*" alone would apply.

*Infusum Cinchonæ* of the old Ph. is now *Infus. Cinch. Pallida*; whilst the present *Inf. Cinch.* is made from *yellow*, not *pale* bark; and therefore the prescriber does not know whether yellow or pale bark will be dispensed, nor can the dispenser know which is intended unless the edition of the Ph. is specified; and even then there is great danger of mistake on one side or other.

*Unguentum Hydrargyri fortius* is now *Unguent. Hydrargyri*; but there were two mercurial ointments of different strength; and there is therefore, a liability to confusion as to whether it is the strong or the weak which has had its name changed. The *Ung. Hydrarg. Mitius* is now expunged from the Ph.

**ACTUS.**—*Acetum Colchici*: the dried colchicum is now ordered instead of the fresh, which will enable the druggist to make a uniform preparation at any period of the year. The quantity ordered is diminished, so as to compensate for the moisture in the fresh cornus.

*Acidum Nitricum*. The commercial acid (sp. gr. 1.42) is now ordered instead of the pure (sp. gr. 1.5) the strength now being about three quarters of what it formerly was, in consequence of which, every formula containing this acid is altered to correspond with the diminished strength, so that the result may still remain the same as before.

*Acid. Nitric. Dilut.* is the same real strength as formerly; but the proportions of acid and water ordered are altered.

*Acid. Tannicum* and *Gallicum* are introduced into the *Materia Medica*.

**ÆTERS.**—*Chloroform* is introduced.

*Spirit of Nitric Ether* is now made by measure instead of by weight the proportions employed remaining as before.

**ALKALIES.**—*Atropicæ Sulphas* is introduced.

*Morphiæ Acetas* and *Morphiæ Hydrochloras* now have officinal solutions which are unfortunately very nearly twice as strong as the Dublin and Edinburgh solutions.

*Aquæ* are made, as before, by distillation from the herbs, fruits, &c., or by *he oil*; but finely powdered flint or sand is now ordered, instead of *magnesia*,

for effecting the trituration, by which the objections to the latter substance are obviated.

Confectio Amygdalæ. The almonds are now ordered to be blanched, dried, and powdered, before being mixed with the sugar, &c, when the materials are to be kept dry, by which process they keep better than formerly.

Decoctum Granati Radicis is now introduced, the old Ph. containing only decoction of the fruit rind, which does not possess anthelmintic properties.

Emplastrum Belladonnæ. The proportion of belladonna is doubled, and soap plaster is substituted for resin plaster.

Emplastrum Opii. The proportion of opium is about three times as great as formerly.

Emplastrum Potassii Iodidi is introduced.

Emplastrum Saponis now contains a little resin, which makes it more adhesive than formerly, which is an advantage.

Enema Colocynthidis is now made from the simple instead of the compound extract of colocynth, and the proportion of the cathartic is diminished by one-fourth.

Enema Tabaci. The tobacco is diminished by one-third.

Extractum Colchici is now introduced in addition to the Acetic Extract, which is still retained. The simple extract is made by crushing the fresh cornus, and evaporating the expressed juice.

Extractum Colocynthidis Co. is expunged, being now called Pil. Coloc. Co., the pill being, however, identical with the old compound extract.

Extractum Nucis Vomice (Alcoholic) is now introduced.

Extractum Sarzæ is now kept fluid (lb.iss. to Oj.), instead of being evaporated to dryness.

Infusions are all made with boiling water, as before.

Concentrated infusions of pale and yellow bark are now introduced, one ounce of which will make an eight-ounce mixture of common infusion.

#### CHLOROFORM AS A TEST FOR THE DETECTION OF IODINE.

M. Rabourdin has made numerous experiments, which prove that chloroform will detect very small quantities of iodide in those liquids which naturally contain that substance. If we take ten parts of a fluid containing one hundred thousandth part of iodide of potassium, and add to it two drops of nitric acid, fifteen or twenty drops of sulphuric acid, and one part of the chloroform, the latter will, by shaking, assume a distinct purple colour. These facts may be of use, but starch is doubtless the most delicate test we possess for the detection of iodine.—*Lancet*.

#### MIDWIFERY.

##### COMPLETE ABSENCE OF THE UTERUS.

The *Gazette Médicale* mentions the following case, which shows very forcibly, that we should always, in our attempts at enlarging the vagina, recollect that the uterus may be entirely absent. The patient married at thirty-two, but never menstruated, though she had now and then a discharge from the vagina; the mammae and the rest of the body were well formed, but she had always been indifferent to coition. The woman died at fifty-seven, of phthisis, the lungs being saturated with tubercles. The labia majora and the clitoris were of scd

size, but the vagina so narrow that it hardly admitted the index finger: the vaginal canal was only one inch long, and ended in a cul-de-sac, behind which there was not the slightest trace of the uterus. The Fallopian tubes were situated in the broad ligaments, the latter being placed behind the bladder. The ovaries were found under the Fallopian tubes, the former being somewhat hardened, and containing in their interior compact little masses. The uterus was completely wanting, not the least rudiment of the organ being distinguishable.—*Lancet*.

PRACTICAL REMARKS ON RETENTION OF THE PLACENTA WITH  
ESPECIAL REFERENCE TO THE CONDITION TERMED HOUR-  
GLASS CONTRACTION OF THE UTERUS.

By Richard Hodges, Esq., F. R. C. S. E., Rochford, Essex.

In upwards of a thousand cases of labour attended by him, Mr. Hodges observed the following occurrences.—

"In rather more than one-third of the cases, the placenta was either expelled at one and the same time with the child, or passed away of itself in from five to twenty minutes after the birth of the infant. In three or four cases it was retained through uterine inaction or fatigue—the consequence of difficult or tedious labours, and in one of these cases there was partial adhesion of the placenta to the uterus. In two instances the placenta was kept back through what is termed hour-glass contraction of the womb. In the remaining cases, constituting by far the greater number, the placenta was not excluded within the period specified—twenty minutes; the uterus, however, was in all of them firmly contracted, and the after-birth consequently separated from the organ, the mass remaining partly in the vagina, and partly in the uterus, in a position from which it might at any time be safely removed, provided that the womb be felt 'hard as a ball' through the walls of the abdomen."

Mr. Hodges infers that in many cases practitioners have supposed they were extracting the placenta from the uterus when they have, in reality, been merely removing it from the vagina after its detachment; and he lays down the following as a rule, which he has found to admit of no exceptions:—

"That if the uterus, upon examination, be felt firmly contracted, and the insertion of the cord into the placenta easily distinguishable, and the finger capable of being carried round the mass when in the vagina, it can be removed with safety and advantage."

As a practical direction for the removal of the placenta in the event of its adhesion to the uterus, Mr. Hodges recommends the practitioner, after the introduction of his hand and arm,

"To expand the fingers over the fetal surface of the mass, and draw its edges towards the centre, by which manœuvre frequently it is separated, and safely taken away."

Mr. Hodges professes himself unable to give a satisfactory reason for the occurrence of hour-glass contraction of the uterus—a condition which he states he has met with on only two occasions. We shall here detail the second of these cases in the words of our author.

"Mrs. B, of Rochford, sent for me when in labour with her tenth child. Soon after my entering the room the child was born. In about a quarter of an hour afterwards, flooding to a great extent took place, syncope at once occurred; the pulse could not be perceived; the surface was cold and blanched, and she appeared at the point of death. I immediately introduced my right hand and

arm into the womb, and met with no difficulty until I had passed some way beyond the os uteri, when I soon discovered the womb firmly contracted at about its centre, leaving only a small aperture through which the cord escaped from the upper into the lower part of the organ. One finger after another, as in the preceding case, was slowly introduced through this opening, when the hand and arm after a time passed into the upper division of the 'hour-glass,' and the placenta having been detached—for it was slightly adherent—was easily taken away. She soon recovered, remaining only weak from the loss of blood prior to the operation described."

## PHYSIOLOGY.

### ON THE HEPATIC CIRCULATION.

M. Magendie, so long and universally known as one of the most zealous physiological experimentalists of the age, and also a very eloquent professor at the College of France, has for the last few years been relieved from his duties, at the latter institution, by M. Bernard, whose daring spirit of investigation bears much resemblance to that of his master. Our readers are aware that it is M. Bernard who discovered sugar in the healthy liver, and so beautifully showed the true functions of the pancreas. The same physiologist has lately lectured on the circulation of the blood in the liver, on which, like Mr. Jackson in this country, he is inclined to look as existing distinct from the cardiac circulation.

The circulation of the liver, which takes place without either heart or valves could not proceed, if it were not assisted by two powerful aids—the first being the pressure of the abdominal viscera, the second the venous suction; for the aspiration of the heart acts not only on the *venæ cavæ*, but likewise on the *venæ hepaticæ*. When the abdominal pressure ceases, as by the ripping open of the cavity, for instance, a stop is put to the hepatic circulation; in fact, as soon as that pressure ceases the blood retrogrades towards the abdomen; thus persons affected with ascites, and who are being tapped, faint like animals whose abdomen has been cut open.

These two aids would, however, not suffice, owing to the irregularities to which the hepatic circulation is liable. During abstinence, the blood returned by the mesenteric veins passes very easily through the liver; but during digestion the circulation of the veins is more active, from the large amount of matter they take up, and the liver, receiving more blood, would be liable to congestion. M. Bernard has shown that there is a peculiar provision for preventing this engorgement; he has demonstrated that the blood is carried direct from the portal vein into the *cavæ* by appropriate vessels, without passing through the capillary system of the liver. These vessels are situated much below the *venæ hepaticæ*, and where the texture of the liver adheres to the inferior cava. The existence of these veins has been clearly shown in the horse. These vessels by which the venous blood of the abdomen communicates with the general system, and which may be looked upon as a kind of diverticula, are intended to facilitate the action of the liver, and prevent the engorgement of that organ, which engorgement would interfere with the work of secretion.

But the heart is likewise preserved from congestion by the following phenomena:—The blood, under certain circumstances, having traversed the liver, does not pass wholly through the heart; it descends again into the inferior cava, after it has left the *venæ hepaticæ*, and flows into the renal veins. It is, indeed, difficult to conceive, that when a horse which has been kept long

without drinking takes from fifteen to eighteen pails of water, the whole of the liquid passes through the heart. Hardly a fifth of it takes that direction, and the other four-fifths take the course just described. This mechanism is to be noticed principally with those animals which take a large amount of food of slight nutritive qualities. Parts are disposed in the following manner in this extra circulation: the portal vein has the same coats as the other veins, but its hepatic subdivisions are surrounded by a loose tissue called the "capsule of Glisson," and such a disposition must of course facilitate the passage of the blood; whereas the hepatic veins are closely connected to the substance of the liver, and have an evident muscular texture. The fibres are longitudinal; they thus retract upon themselves, and carry the structure of the liver in the same direction. These veins do not contract, but they become shorter, the object of this action being, to render the circulation more active as the liver gets congested. The muscular structure is especially noticeable in the inferior cava, the muscular parietes of which are almost as strong as that forming the auricles. The contractile fibres begin below the hepatic veins, and terminate immediately above the renal veins.

M. Bernard showed the inferior cava of a horse where the above-named structure seems to constitute another heart, and to be the starting point of another circulation. The vein, in fact, presents pulsations when in the act of driving the blood backwards. In order that the latter, when forced downwards by the contractions of the inferior cava, may enter the renal veins, there are, below the latter, little valves which prevent the blood from entering the iliac veins, the blood being forced to pass through the renal veins, which vessels then assume the characters of arteries. The *hepatico-renal* circulation is not constantly going on. When a man is fasting, for instance, the amount of blood reaching the liver is inconsiderable, and it passes altogether through the hepatic veins and the heart. The arterial blood of the kidneys experiences the ordinary pressure, and the renal secretion is limpid, acid, and contains much urica. But things go on differently during a plentiful digestion; for the blood, taking a shorter course, is carried in great quantities to the kidneys, which organs quickly free it from its more fluid parts; the urine then increases, becomes dull, alkaline, gives saline precipitates, and very little urica.

The lumbar and azygos veins prevent obstruction in the inferior cava, and are intended for the conveyance of the blood from the lower extremity and the pelvis to the auricles. Birds, fishes, and reptiles, have a renal portal vein, by which a certain quantity of blood passes directly through the kidneys, whilst another quantity passes through the lungs. Prussiate of potash is eliminated by the urine five minutes after ingestion; but Doering, having introduced this salt in the lower portion of the jugular vein, observed traces of it in the upper part of the same vessel only thirty minutes afterwards. This difference led physiologists to suspect that there must be unknown means of transit for the rapid passage of fluids to the urinary organs, and M. Bernard has the merit of having shown by which vessels this circulation is carried on. We recommend these views of a young and eminent physiologist to the attention of our readers, and sincerely hope that the subject will be thoroughly investigated in this country. The matter is of sufficient importance to deserve attentive consideration. We regret that want of room precludes our giving a sketch of the experiments by which M. Bernard strengthens his theory. It should, however, be noticed, that he concludes his investigations concerning the functions of the liver by endeavouring to prove that the hepatic circulation is one of the causes of the evolution of animal heat.—*Lancet*.

